CITY OF THOMPSON FALLS
Wastewater System Improvements
Preliminary Engineering Report

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Revised April 2018
January 2018

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1.0 EXECUTIVE SUMMARY

1.1 Introduction and Background

The existing sewer system for the City predominantly serves the commercial district of the community and some residential users south of US HWY 200. The Montana Department of Commerce population estimate in 2015 for the City of Thompson Falls was 1,332 people; of these only 194 residents are currently served by the sewer system.

The wastewater system for the City of Thompson Falls was originally installed in 1948. A major improvement project in 1968 installed a collector pipe along the banks of the Clark Fork River. Wastewater is now collected to a wastewater lift station where it could be pumped to a single-cell facultative treatment lagoon located northwest of the City.

The City performed treatment system upgrades in 1987 and 1997. In 1987, the single-cell facultative lagoon was separated into 3 cells lined with PVC, surface aerators. In 1997, the City removed sludge from the 3 treatment cells and Cells 1 and 2 were deepened and lined them with HDPE. The surface aerators within the cells were replaced with static tube aerators. A new blower building was also constructed to provide full aeration through the static tube aerators in Cells 1 and 2 and partial aeration in Cell 3.

1.2 Problem Definition

A large portion of the community of Thompson Falls is currently served by private septic systems, including approximately 560 residential homes and three schools. These systems are often not in compliance with today's regulations and are beginning to fail. Lot size limitations prevent replacement with compliant on-site systems, and the Sanders County Sanitarian has reported substandard installations. Substandard systems are incapable of reducing nutrients and pathogens to safe levels. This creates a significant human health and safety issue and threatens Montana’s high-quality waters.

The City’s existing sewer system also has deficiencies that need to be addressed. Some of the collection system mains date back to 1948 and are suffering from root intrusion and settling, which can result in increased infiltration and inflow and sewer backups. Approximately 1,300 feet of 12-inch asbestos cement (AC) pipe along the banks of the Clark Fork River needs replacement along with approximately 600 feet of orangeburg pipe that frequently plugs and has been a maintenance issue for the City. Additionally, the Main Lift Station also does not have permanent back up power and poses a potential for system backups and overflows.

This PER evaluates alternatives to connect the unsewered area of the City to the central sewer system, as well as address deficiencies in the current wastewater system. If nothing is done to address the deficiencies in the wastewater system, there will continue to be adverse impacts on the environment and human health.

1.3 Alternatives Considered

Section 6.0 of this report presents a summary of all considered alternatives for the improvements to the existing collection system and expansion to serve the unsewered area of the City. That section also screens out alternatives that were determined to not be viable or cost-effective solutions to adequately address the City's needs.

After alternatives screening, Section 7.0 presents the alternatives evaluated for the City of Thompson Falls. The collection system and treatment system alternatives evaluated in detail in this PER are summarized below.

- Collection System
    - Alternative C1: Separate Forcemain to Treatment Site
    - Alternative C2: Gravity Collection System to Main Lift Station
- Treatment System
    - Alternative T1: Storage and Irrigation with Partial Surface Water Discharge
    - Alternative T2: Complete Mix/Partial Mix Aerated Lagoons and Polishing Reactor
    - Alternative T3: Existing Partial Mix Lagoons with Submerged Attached Growth Reactors (SAGR)

Collection System

The collection system alternatives considered focused on evaluation of configurations of a potential expansion of the existing collection system to serve the unsewered area of the City.

All collection system alternatives considered will also address the deficiencies within the existing system: 1) Rehabilitate existing collection system to reduce inflow and infiltration (I & I) within Solid Rock Estates, 2) Replace failing orangeburg pipe, 3) Replace failing 12-inch asbestos cement (AC) pipe gravity collection main east of Main Lift Station, 4) Rehabilitate approximately 240 feet of aging 8-inch clay pipe in alley between Hill Street and Ferry Street with cured-in-place-pipe (CIPP).

Alternative C1: Separate Forcemain to Treatment Site
Opinion of Probable Cost - $18,968,000

This alternative will construct a new conventional gravity collection system to serve the unsewered area of the City. Connections to the new collection system will be predominantly conventional gravity services. Given the uncertainty of the configuration of the existing on-site septic systems; it is assumed that a portion of the service connections will be served with individual grinder pumps.

This alternative will include 3 new wastewater pump stations. Two of the lift stations (East Preston & Golf Street) will serve to convey wastewater to the third pump station (West Preston). From the West Preston Lift Station, wastewater will be conveyed through a new 6-inch force main to the treatment site access road where the force main will connect to the force main from the Main Lift Station and upsize to an 8-inch pipe. Approximately 1,300 feet of the existing 6-inch ACP force main from the Main Lift Station will also be replaced with this alternative. The force main work will include replacement of a pipeline crossing of US Highway 200 and the railway. This existing crossing is included in a casing. Given the unknown condition of the casing, it is assumed that the crossing will be installed with a new trenchless installation; either horizontal directional drilling or boring and jacking.

Alternative C2: Gravity Collection System to Main Lift Station

Opinion of Probable Cost - $19,369,000

Similar to the separate force main alternative presented previously, this alternative would install gravity collection mains within existing City right-of-way to serve the un-sewered area. This alternative, however, will convey wastewater to the existing Main Lift Station near the intersection of Maiden Lane and Mill Street. From there wastewater will be pumped to the existing treatment site through a new forcemain to replace the existing aging asbestos cement force main. This alternative will require upgrades to the Main Lift Station pumps to convey the additional flow. As above, the connections to the new collection system will be predominantly conventional gravity services. Given the uncertainty of the configuration of the existing on-site septic systems; it is assumed that a portion of the service connections will be served with individual grinder pumps.

This alternative will require two new trenchless crossings to connect to the existing collection system, as well as replacement of the existing US Highway 200 and the railway crossing for the force main replacement from the Main Lift Station.

Treatment System

The City of Thompson Falls currently discharges to the Clark Fork River with coverage under the Montana Domestic Sewage Treatment Lagoons General Permit MTG580000. More specifically, permit number MTG580035. The existing treatment system for the City of Thompson Falls can generally meet the requirements of their surface water discharge permit. The treatment system alternatives considered focused on upgrades needed to the existing system to accept additional hydraulic and organic loading from the proposed expansion to the collection system included in the collection system alternatives.

Alternative T1: Storage and Irrigation with Partial Surface Water Discharge

Opinion of Probable Cost - $6,798,000

This alternative would keep the existing treatment system for the City in place and construct an additional storage lagoon adjacent to the existing lagoons. The storage lagoon would be sized to store and irrigate treated wastewater that cannot be discharged under the current permit. The treatment system will continue to discharge treated wastewater to the Clark Fork River up to the Montana Pollution Discharge Elimination System (MPDES) permitted non-degredation load for BOD and TSS. Headworks equipment, UV disinfection capabilities and backup power would also be included with this alternative.

Alternative T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor
Opinion of Probable Cost - $4,462,000

This alternative would reutilize Cell 1 and Cell 2 by installing lagoon covers cover system and baffles to create complete mix and partial mix zones within the treatment cells. A quiescent zone will allow for settlement of solids prior to a fixed film polishing reactor to further reduce BOD and TSS concentrations. The lagoon cover system blocks sunlight reducing algae growth and controlling wastewater temperature for improved treatment. This alternative will also include headworks screening, UV disinfection equipment and backup power.

Alternative T3: Existing Lagoons with Submerged Attached Growth Reactor (SAGR)
Opinion of Probable Cost - $5,919,000

This alternative would reuse the existing lagoons and add a Submerged Attached Growth Reactor (SAGR) to remove ammonia and further reduce BOD and TSS concentrations. The SAGR system consists of a gravel bed that is approximately 7.5 feet deep and is aerated with a grid of aeration pipe on the bottom of the gravel bed. Wastewater is introduced to the gravel bed through a distribution header and moves horizontally through the bed. A bio-film grows on the bed to remove BOD/TSS. This system can also greatly reduce ammonia. An insulating mulch approximately 1-foot-deep is added to the top of SAGR to retain heat. This alternative will also include headworks screening, UV disinfection and backup power.

1.4 Preferred Alternative

Section 8.0 of this PER used several ranking criteria to compare the collection system and treatment system alternatives considered. Consideration was given to the following:

- Technical Feasibility
- Environmental Impacts

- Life Cycle Costs
- Public Health and Safety
- Operational and Maintenance Considerations
- Public Comments

Through this alternatives analysis, it was determined that Collection System Alternative C1: Separate Force Main to Treatment Site and Treatment Alternative T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor were the City's choice to address their needs.

Given the estimated project cost to construct the preferred alternative, it is the desire of the City to separate the proposed improvements into phases. The proposed phases, shown in Figure 9-1, for improvements to the City of Thompson Falls Wastewater System are as follows:

1. Phase 1: Collection System Alternative C1-1 & Existing collection system improvements
2. Phase 2: Collection System Alternative C1-2 & Treatment System Alternative T2
3. Phase 3: Collection System Alternative C1-3
4. Phase 4: Collection System Alternative C1-4

1.5 Project Costs and Budget

The total estimated capital cost for Phase 1 of the preferred alternative is $6,680,000. Various funding sources for the improvements are considered in Chapter 10 and outlined in Table 10-1. The recommended funding strategy utilizes the following:

- $ 125,000 DNRC Grant
- $ 750,000 TSEP Grant
- $ 450,000 CDBG Grant
- $ 1,338,750 - $ 4,016,250 RD Grant (30% - 75% of project costs)
- $ 1,338,750 - $ 4,016,250 RD Loan (25% - 75% of project costs)

Conversations with Rural Development (RD) staff have indicated that a 30%/70% grant/loan combination should be assumed in the funding analysis. Given the great financial need and low income of the City as well as the significant improvements the project would have to health and safety, the City may qualify for a 75% grant amount through RD, however, 30% grant should be assumed at this time. For this reason and the variability of RD funding, a range has been provided for the RD grant and loan funds potentially available to the City of Thompson Falls.

With the funding scenario indicated above, the potential monthly sewer rate per equivalent dwelling unit (EDU) following completion of Phase 1 of the sewer improvements proposed is estimated to be between $42.81 to $65.37. The resulting rate increase will put the City between 152% to 191% of the combined system target rate as determined by the Montana Department of Commerce.

All funding should be in place prior to proceeding with the proposed project. It is expected that funding can be finalized and available for use by July 2019, at which point the design phase of the project will begin with all necessary permits and approval in place by December 2019. The project will go out for bid in January 2020, followed by a construction start in April 2020. Construction completion of Phase 1 will be in December 2020.

2.0 INTRODUCTION AND PROBLEM DEFINITION

The City authorized an engineering analysis of its wastewater collection and treatment system, retaining the firm of Great West Engineering to conduct the analysis and prepare a Preliminary Engineering Report (PER). The Preliminary Engineering report meets the requirements of the WASACT Uniform PER Outline. The analysis evaluates the condition and adequacy of the existing system, identifies deficiencies, evaluates alternatives and ultimately recommends improvements to the system.

A portion of the City of Thompson Falls is served by a municipal wastewater collection and treatment system. The City plans on expanding the system to include the entire urbanized area, including the portion of the City north of US Highway 200 currently not connected to the municipal sewer system.

Included in the following parts of this report is a summary of the investigations and recommendations compiled during the analysis. In addition to describing components of the existing wastewater treatment system, present and future population trends and wastewater collection requirements are analyzed to ensure that any recommended improvements are compatible with long-term needs. Alternatives are examined within the report for improvements to the wastewater system improvements. Cost estimates for recommended improvements are given to provide for short and long term financial planning. Implementation recommendations are provided including a proposed funding strategy and budget.

2.1 Planning Area and Existing/Potential Service Area

The planning area for this PER generally encompasses the Thompson Falls City Limits as shown in Figure 2-1. The current wastewater system boundary, also shown in Figure 2-1, provides collection and treatment of municipal wastewater for that portion of the City located south of US HWY 200 and the BNSF railway paralleling the highway.

2.2 Location

The City of Thompson Falls lie in Sanders County, Montana. The Clark Fork River bisects the County with most of the County's population located in close proximity to the river. The study area boundary is shown on Figure 2-1.

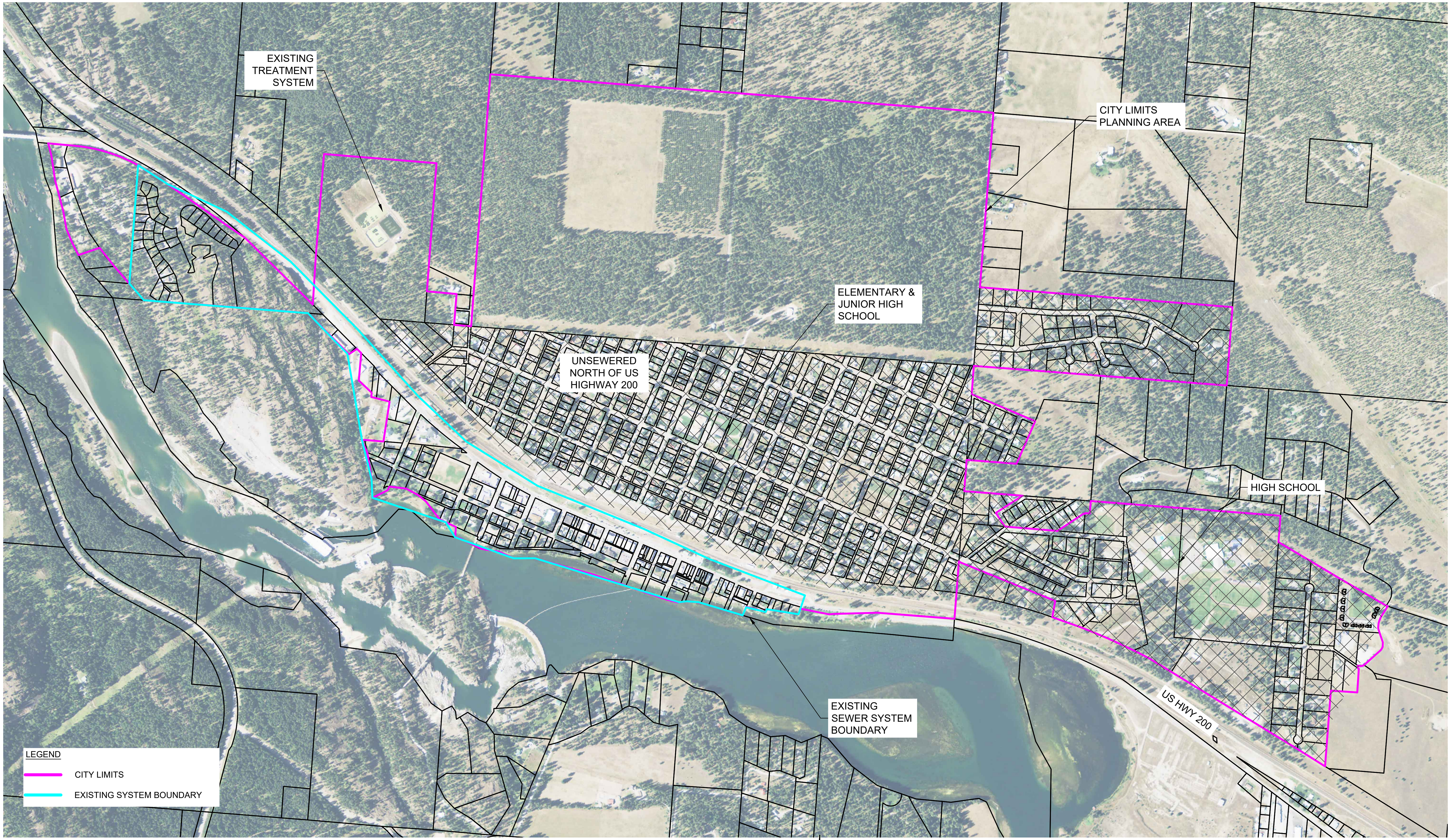

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Figure 2-1
PLANNING AREA

CITY OF THOMPSON FALLS
WASTEWATER TREATMENT SYSTEM PER

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The City is located at:

Township/Section Range: Township 21 North, Range 29 West in, Section 8

Latitude/Longitude: 47°36’10” North Latitude, 115°21’31” West Longitude

Elevation: 2,550 ft

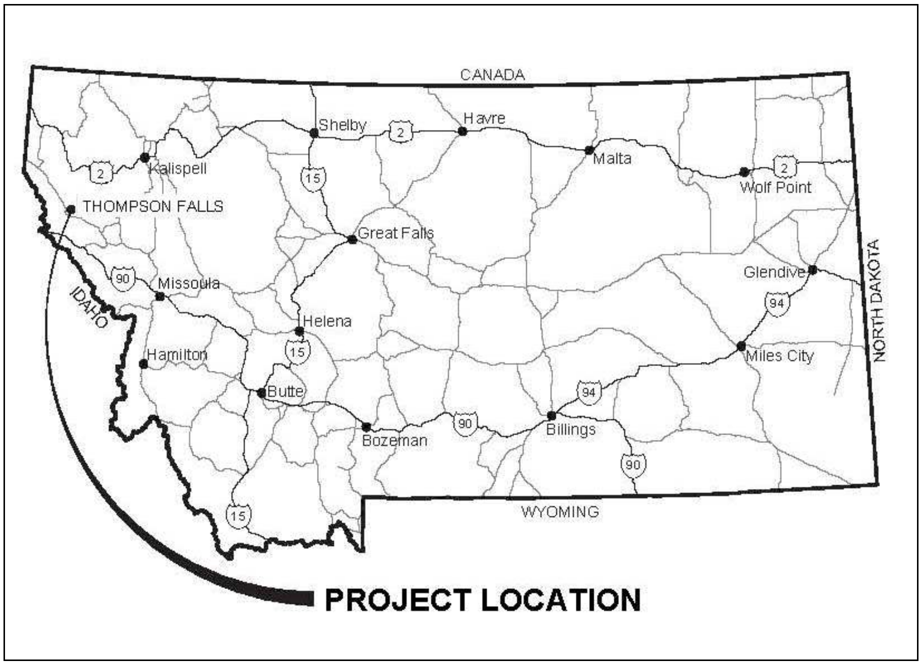

Figure 2-2 - Project Location Map

The U.S. Department of Commerce Census Bureau reports that the primary employment sectors in 2000 were services (38 percent), agriculture/natural resources (12.75 percent), and manufacturing (10.3 percent).

According to the Resource Team Assessment Report for Sanders County, included in Appendix A, the primary economic drivers in the County are the wood products industry, mining, agriculture, and tourism. The Federal, State and local governments are also significant contributors to the economy.

Land use within the City consists of private residential, City and County facilities, and commercial enterprises.

2.3 Physical Characteristics of the Area

2.3.1 Topography

The project area is located in the lower Clark Fork River Basin area. The Basin covers an area of about 22,000 square miles, draining the western slope of the Northern Rockies. The area is primarily mountainous and forested, with structurally-controlled valleys. The elevation within the basin ranges from 2,180 feet above mean sea level near Heron to over 8,700 feet on peaks in the Cabinet Mountains on the northeastern side of the drainage.

The City of Thompson Falls is situated on the banks of the Clark Fork River proximal to the Thompson Falls Dam.

2.3.2 Area Soils and Geology

Soils underlying the project areas reflect the near-surface alluvial geology, comprising primarily silty loam. The soil descriptions and soil map compiled from the Natural Resource Conservation Service's Web Soil Survey are included in Appendix B. The soil underlying most of the City belongs to the Elkrock-Selon complex with very small areas of Whitepine ashy silt loam (1.1 percent) and Selon fine sandy loam (less than one percent). The Elkrock-Selon complex soils derive from river terraces, comprising primarily silt and gravelly silt. In this case, the river terraces contain a significant fraction of Lake Missoula silt beds.

The NRCS report also notes that the soils underlying Thompson Falls have ratings of "very limited" for the purpose of septic tank absorption fields. The reasons given for that rating include the presence of large rock, slope and excessive seepage through the lowermost soil layers. The soils do not exhibit any restrictive layers for drain fields.

The geology of the lower Clark Fork River basin and most of Sanders County consists of Proterozoic-eon (one billion to 750 million years) meta-sedimentary rock belonging to the Belt Supergroup. Various, generally small, plutonic intrusions within siltite and quarzite strata occur throughout the area. The Clark Fork River valley hosts fluvial and alluvial sediments of Pleistocene through Holocene age (2.8 million to 12,000 years). Among those deposits are sediments left by the formation and repeated draining of Glacial Lake Missoula. The City is underlain predominately by the younger alluvial deposits, although some small areas may have near-surface bedrock.

For construction, the majority of the soils have only somewhat limited capacity, that being the gravelly nature of the soil in some areas. Some areas within City Limits have rock outcrops that may impact sewer main and service line installation.

2.3.3 Groundwater

Groundwater in the lower Clark Fork River basin is generally found in either bedrock aquifers associated with older metasedimentary rock or within alluvial/fluvial deposits proximal to surface water. Production rates vary widely, from a few gallons per minute (gpm) to 1,500 gpm (Appendix C).

Alluvial groundwater can be found reasonably shallow within the existing sewer system service area. However, depth to groundwater in the unsewered area of the community north of the highway increases as the ground surfaces slopes away from the river.

Groundwater is not required for the project and will not be adversely impacted. Water quality will likely be improved with the removal of a significant number of individual drainfields. As presented above, the soils underlying the City are noted in NRCS soil mapping as "very limited" for the purposes of septic tank absorption fields. Given this and the quantity of substandard septic systems in the area, a strong potential exists for degredation of groundwater, and given the proximity to the Clark Fork River, surface water quality.

2.3.4 Surface Water

The project area lies within the lower Clark Fork River drainage (US Geological Survey Hydrologic Unit Code 17010213). The river has an element of controlled flow owing to the presence of dams on the Flathead River upstream of its confluence with the Clark Fork. Numerous tributaries feed the river below the Clark Fork-Flathead River confluence, with the headwaters being the Cabinet Mountains and the Coeur d'Alene Mountains. Peak annual instantaneous discharges measured at Plains range from 21,100 cubic feet per second (cfs) in 1977 to 134,000 cfs in 1948. The mean annual discharge is about 19,400 cfs.

The Thompson Falls dam on the Clark Fork is used for hydroelectric production. Some irrigation water may be diverted from the river, but irrigation demands are considerably lower in the region than other areas in the State.

Sparse geochemical information is available from the US Geological survey, but what is available indicates that the Clark Fork maintains reasonably high water quality. Some tributaries are listed as impaired in the Montana Department of Environmental Quality TMDL program, primarily for sediment and temperature. The Clark Fork River near Thompson Falls is classified as B-1. Waters classified as B-1 are to be maintained as suitable for drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply. Surface water information and references are included in Appendix D.

The City of Thompson Falls wastewater treatment facility operates with a surface water discharge permit authorized under the State of Montana Domestic Sewage Treatment Lagoons General Permit. Evaluation of the City's existing permit and treatment system are presented later in this report.

2.3.5 Vegetation

Native vegetation surrounding Thompson Falls consists primarily of grasslands and riparian flora in the lower elevations and along some waterways. Most of the uplands comprise conifer forests of various types, depending upon elevation and aspect. Several species of concern are listed in the Montana Natural Heritage Program database in the area surrounding Thompson Falls; Appendix G. However, the project is proposed within previously-disturbed, urbanized ground, so habitat for the listed species is absent.

Construction is expected to occur within the urbanized area of Thompson Falls. Minimal long-term impact to local vegetation is anticipated.

2.4 Environmental Resources Present

As part of any major construction project, the impacts of the project on the surrounding environment must be considered and provisions made to mitigate any negative impacts.

As part of quantifying the impacts to various environmental and historic resources, letters were sent to pertinent local, state, and federal agencies requesting comments on any potential environmental impacts as a result of proposed improvements. The letters and responses to these letters are included in Appendix F.

2.4.1 Land Resources

Land use within the project planning area is predominantly urban developed. Lands adjacent to the City area generally forestland with areas of cleared rangeland and hay pastures north of the planning area.

2.4.2 Biological Resources

A search of the Montana Natural Heritage database revealed the presence of species of concern within a ten-mile radius of Thompson Falls; Appendix G. However, the project area is urbanized, comprising mostly single private residences and some commercial buildings, so impact to species of concern will be minimal.

Based upon a review of the Montana Sage Grouse Habitat Conservation Program Mapper (https://sagegrouse.mt.gov/projects), Sanders County does not host any sage grouse habitat. As such, sage grouse are not anticipated to be adversely affected by this work.

2.4.3 Floodplains

The City of Thompson Falls is not located within floodplains mapped for FEMA insurance purposes; Appendix H.

2.4.4 Wetlands.

National Wetland Inventory (NWI) mapping data do not reveal the presence of any wetlands within the boundaries of the City of Thompson Falls. Some wetlands and riparian habitat occur immediately proximal to the Clark Fork River, but the project will not disturb any of the wetland areas; Appendix H.

2.4.5 Cultural Resources

The Montana State Historic Preservation Office (SHPO) has conducted a search of the City of Thompson Falls found that site-specific inventories are not warranted at this time. However, if evidence of culturally-valuable sites is discovered prior to or during construction the agency will be contacted to determine the appropriate course of action. The SHPO correspondence is included in Appendix F.

2.4.6 Socio-economic and Environmental Justice Issues

The proposed improvements will benefit the entire community equally. The improvements will be beneficial to human health and will not adversely affect the environment. In addition, there will be no disproportionate benefit to any demographic within the community as a result of the proposed improvements.

2.5 Growth Areas and Population Trends

Population analyses provide the basis for all planning efforts and play a large role in planning decisions. Projections of future population are used in planning and engineering design to properly size facilities. Historic populations for Sanders County and the City of Thompson Falls, as determined by the US Census Bureau and the Montana Department of Commerce 2015 population estimates, are shown in Table 2-1. Also presented in Table 2-1 is the estimated population for the 20-year planning period. Supporting census data is included in Appendix I.

The primary intent of this report is to determine the feasibility of wastewater system expansion to serve the large unsewered area of the City. Based upon 2010 Census blocks analyzed in GIS, the current wastewater system serves 194 residents. Furthermore, the 2010 Census GIS blocks indicate 1,119 residents live in the proposed collection system expansion area. An annual growth rate of 0.1% was used to estimate the population of Thompson Falls for the 20-year planning period (2037). This correlates to a design year population of 1,349, or an additional 36 residents over the 2010 census population. This growth is anticipated to predominantly occur within the unsewered portion of the City.

Table 2-1 - Census Data and Planning Period Population

Year	City of Thompson Falls	% Annual Increase	Sanders County	% Annual Increase
1990(1)	1319		8,669	
2000(1)	1321	0.02%	10,238	1.68%
2010(1)	1313	-0.06%	11,413	1.09%
2015(2)	1332	0.29%	11,336	-0.14%
Average		0.08%		0.88%
2037(3)	1349	0.10%		

(1) US Census Bureau
(2) Montana Department of Commerce Estimate
(3) Population of City of Thompson Falls at Design Year (2037) estimated from 2010 Census at 0.1% Annual Growth

3.0 EVALUATION OF EXISTING SYSTEM

3.1 Schematic Layout

The existing wastewater system consists of a gravity collection system servicing the portion of the City of Thompson Falls between US Highway 200 and the Clark Fork River, as seen in Figure 3-1. The collection system is comprised of two primary sewersheds: 1) the west sewershed located west of Mill Street, and 2) the east sewershed located east of Mill Street.

Wastewater from the collection system is conveyed through a lift station located just to the south of the intersection of Mill Street and Maiden Lane through approximately 5,050 feet of 6-inch asbestos cement pipe to the treatment facility, located northwest of the City.

The three-cell aerated lagoon system continuously discharges to the Clark Fork River through a 6-inch asbestos cement pipe out of the third cell of the system.

3.2 History

The wastewater system for the City of Thompson Falls was originally installed in 1948 consisting primarily of clay tile pipe. A major improvement project in 1968 installed a collector pipe along the banks of the Clark Fork River. Wastewater was now collected to a wastewater lift station where it could be pumped a single-cell facultative treatment lagoon located northwest of the City.

The City performed treatment system upgrades in 1987 and 1997. In 1987, the single-cell facultative lagoon was separated into 3 cells lined with PVC, surface aerators. In 1997, the City removed sludge from the 3 treatment cells and Cells 1 and 2 were deepened and lined with HDPE. The surface aerators within the cells were replaced with static tube aerators. A new blower building was also constructed to provide full aeration through static tube aerators in Cells 1 and 2 and partial aeration in Cell 3. The 1997 project increased the capacity of the treatment system to approximately 0.141 MGD.

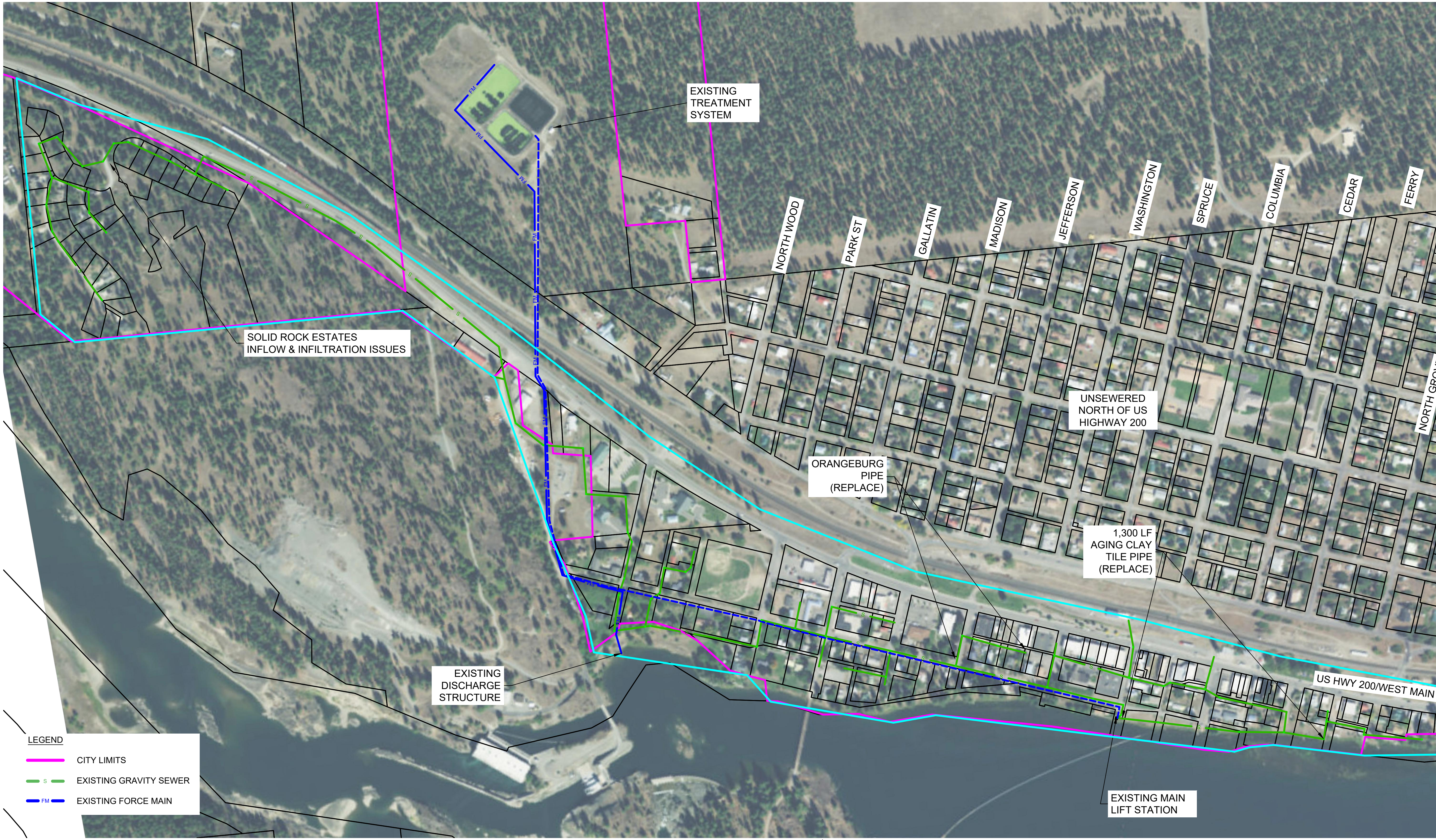

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Figure 3-1
EXISTING SYSTEM

CITY OF THOMPSON FALLS
WASTEWATER TREATMENT SYSTEM PER

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3.2.1 Collection system

The collection system for the City of Thompson Falls was originally installed in 1948. In 1969, improvements were made to the collection system to convey wastewater to a new facultative lagoon located northwest of the City.

In 1996 the City replaced much of the aging collection system with new PVC pipes. Many of the improvements were focused on removal of a large diameter collection pipe from the west sewershed along the banks of the Clark Fork River. In addition, the City removed several storm sewer connections within the system to reduce inflow during storm events.

The system expanded in 2003 to serve the Solid Rock Estates Subdivision located west of core area of the collection system. Other than this development, little expansion of the collection system has occurred since its original construction.

In 2016, the City applied for a small grant through the Montana Department of Natural Resources & Conservation (DNRC) Renewable Resources and Grant and Loan Program (RRGL) to address some on-going issues within the collection system. The work included replacement of the Main Lift Station pump controls and rehabilitation through cured in place pipe (CIPP) of approximately 240 feet of 8-inch clay gravity sewer pipe between Hill and Ferry Street. The grant proposal abstract is included in Appendix J. With changing budget availability through the RRGL program, funding has not been provided for this work at the time of this report. The work will be included in collection system improvement alternatives included with this PER.

3.2.2 Lift Stations

The City operates a single lift station, referred here after as the Main Lift Station, located next to the Clark Fork River, near the intersection of Mill and Maiden Street. The Main Lift Station site was first developed in 1969 to convey wastewater from the collection system to the newly constructed facultative lagoon. The lift station received upgrades and pumps were replaced with the 1996 wastewater project.

The pump station is a wet well-dry well configuration. The wet well is a 6-foot diameter circular concrete manhole with two 6-inch suction lines that connect to the pumps in the dry well pit.

The dry well contains two identical close-coupled vertical mounted, non-clog sewage pumps. The pumps operate in a lead-lag configuration, and each pump has a capacity of 200 gpm at 180 feet of total dynamic head (TDH).

3.2.3 Treatment System

The existing treatment system is a flow through mechanically aerated lagoon system with discharge to the Clark Fork River. The lagoon system consists of three cells. Cells 1 and 2 serve as the primary treatment lagoons and are fully aerated. Piping at the treatment site allows for operation of Cells 1 and 2 in parallel or in series. The City typically operates the Cells in series. Cell 3 has decreasing aeration with a large quiescent settling zone. Cell 3 has a multi-level discharge structure in the northwest corner of the lagoon that can pull from 2, 4 or 6 feet. A site plan of the existing treatment site can be seen in Figure 3-2. A summary of the existing treatment lagoons can be seen in Table 3-1.

A summary of the existing treatment system can be seen in Table 3-1.

Table 3-1 - Existing Treatment Lagoon Summary

	Cell 1	Cell 2	Cell 3
Surface Area (acre)	0.56	0.56	1
Depth (ft)	12	12	7
Active Volume (MG)	1.39	1.39	1.44
Lining	HDPE	HDPE	PVC
Aeration	Full	Full	Partial w/quiescent zone

Aeration to the treatment cells is provided by 2 – 25 horsepower blowers located in a blower building adjacent to the treatment lagoons. The blower building has space for an additional blower. The treatment site does not have onsite backup power available for operation during power outages.

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Figure 3-2
EXISTING TREATMENT SYSTEM

CITY OF THOMPSON FALLS
WASTEWATER TREATMENT SYSTEM PER

3.2.4 Analysis of Existing System

3.2.5 Existing Flows

The existing system wastewater flows were analyzing three ways; seasonal water meter records, flow monitoring, and lift station pump hour records. This section will summarize the results of these analyses.

Water Meter Records

Monthly meter records for each service on the City's treated water system were obtained from the City for four years: 2013 to 2016. The address for each water meter was georeferenced and a shapefile showing the spatial distribution of the meters was created. This allowed for separation of water usage for connections currently connected to the City's collection system and those on individual septic systems.

Water usage for each connection was average for the 4 years of data obtained for winter months and summer months. Winter water usage is typically considered a good approximation of wastewater flow contribution, since the majority of water used during the winter enters the sewer system; whereas in summer months, a large portion of metered water is typically used for irrigation. Table 3-2 below presents a summary of meter usage for the users connected to the collection system and those outside the existing sewer system boundary.

Table 3-2 - Water Meter Records 2013-2016

Location	Meters with Recorded Flow	Winter (GPD) (1)	Summer (GPD) (2)
Sewer	150	18,068	33,098
No-Sewer	655	77,119	186,843

(1) Winter months include November through March
(2) Summer months include April through October

Table 3-3 - Residential Winter Water Meter Records

Location	Meters with Recorded Flow	Winter (GPD) (1)	Use/Connection(GPD)
Sewer	82	7,265	89
No Sewer	621	68,130	110

(1) Winter months include November through March

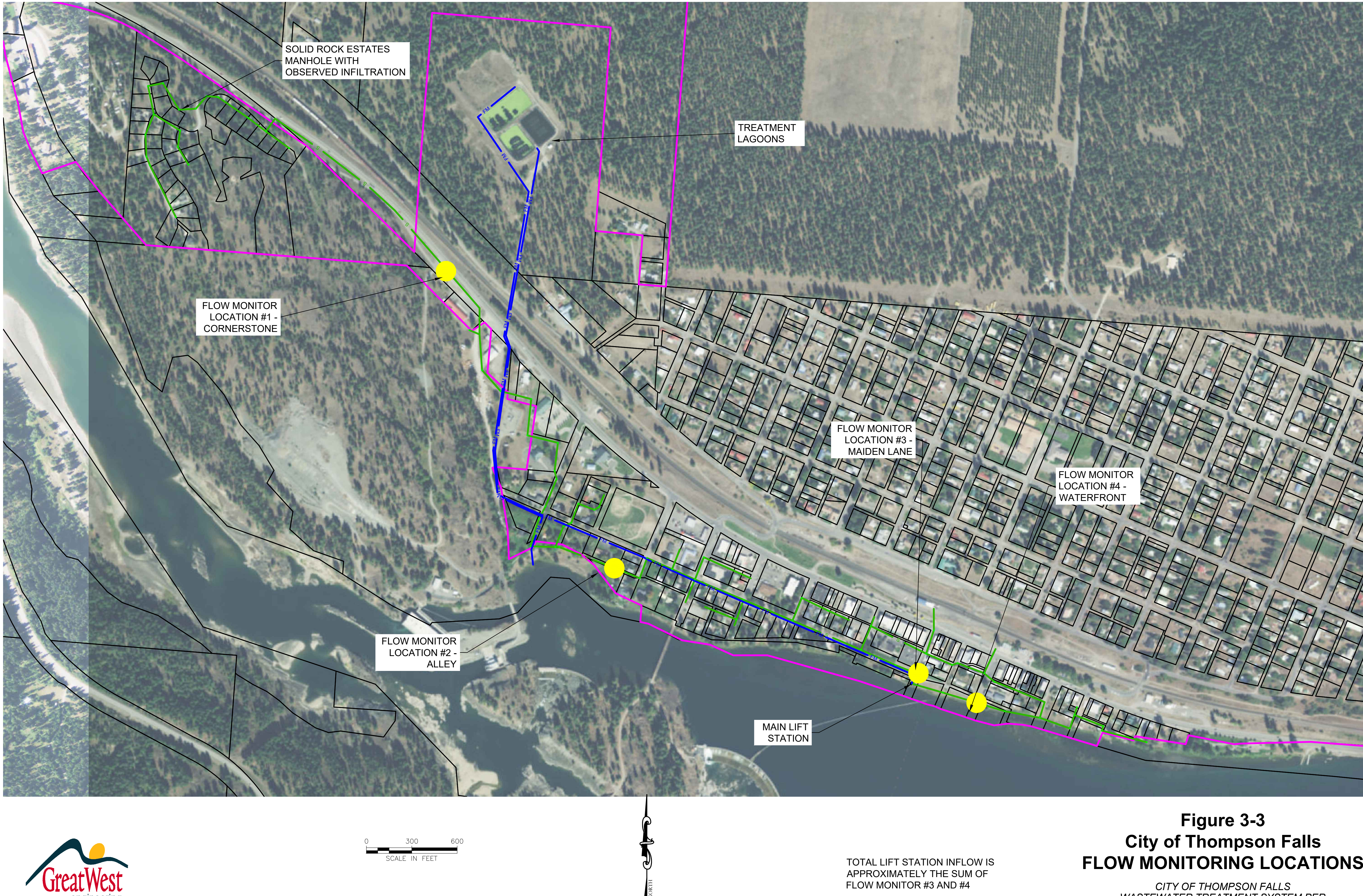
By only looking at water meter records, the effects of inflow and infiltration to the system are ignored. This results in under-estimating wastewater flows from the system.

Flow Monitoring

Four flow monitors were installed in Spring 2017, within the collection system, to record existing system flows and provide a basis for quantifying inflow and infiltration (I & I) into the system. The monitors were placed throughout the system to isolate areas identified by the operator as sources of I & I. The timing of the flow monitoring was chosen specifically to collect flow data during peak seasonal inflow and infiltration. The location of the four monitors can be seen in Figure 3-3. Raw data and plots from the four flow monitors can be found in Appendix K.

The average winter water meter usage for the contributing area of each flow monitor was used as the expected average sewer flow at the monitoring locations. Table 3-4 presents the recorded average day flow rate from the monitoring period as well as the expected average day sewer flow. The difference between the recorded flow and the expected average day flow for each meter location is an estimate of the amount of I & I for the area. Cornerstone, Alley and Maiden Hill meters are all located within the west sewershed of the existing collection system. These meter locations are listed in Table 3-4 in order of increasing contributing area.

The last column in Table 3-4 is a calculated estimate of I & I for the contributing area between each of the meter locations. For example, the Alley meter location includes the area contributing flow to the Cornerstone meter location. The total estimated I & I for the contributing area to the Alley meter location is 15,470 gpd. However, the Cornerstone meter location contributes 14,831 gpd of I & I. The difference between these two numbers, 639 gpd, is an estimate of the I & I for the area of the collection system between the Cornerstone and the Alley meter locations.



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TOTAL LIFT STATION INFLOW IS APPROXIMATELY THE SUM OF FLOW MONITOR #3 AND #4

Figure 3-3
City of Thompson Falls
FLOW MONITORING LOCATIONS

CITY OF THOMPSON FALLS
WASTEWATER TREATMENT SYSTEM PER

F:\1-16137-Thompson Falls Wastewater PER\CADD 1-16137\Exhibits\PER Exhibits\1-16137-Fig3-3 lowMonitorLocations.dwg

Table 3-4 - Flow Monitoring Summary and Inflow & Infiltration Estimates

Meter Location	Flow Monitoring			Winter Water Usage	Inflow Infiltration Estimate (2)	Inflow Infiltration Between Monitors
	Average Day (gpd)	Peak Day (gpd)	Peak Hour (gpd)	Average Day (gpd)	Average Day (gpd)	Average Day (gpd)
Cornerstone	15,466	30,384	32,256	635	14,831	14,831
Alley	17,824	26,616	52,416	2,354	15,470	639
Maiden hill	45,129	57,983	103,968	15,255	29,874	14,404
Waterfront	6,107	10,023	85,248	2,814	3,293	3,293
Main Lift Station Inflow (1)	51,236	68,006	189,216	18,069	33,167	33,167

(1) Calculated inflow to the Main Lift Station = Maiden Hill + Waterfront
(2) Inflow and infiltration equal to difference of flow monitoring and winter water meter usage

The average daily flow to the pump station measured by the flow monitors was the sum of Maiden Hill and Waterfront monitors = 51,236 gpd.

Impact of Infiltration or Inflow on System Performance

Groundwater infiltration is the flow of groundwater into the sewer pipe through leaking sewer pipe joints, broken and cracked pipe sections and manholes, and leaking service taps and service lines. Inflow is the entrance of surface water during precipitation events into the sewer pipe through leaking manhole lids, leaking manhole sections and roof drains connected directly to the collection system. Storm drain inlets and sump pumps for basement and crawl spaces which are connected to the sanitary sewer system can also add significant inflow. Extraneous flows other than infiltration and inflow (I & I) include cooling water for commercial refrigeration in bars, restaurants and supermarkets, leaking domestic plumbing, and continuous running water services.

As mentioned above, the City removed many of the historic roof drains and storm inlets from the collection system with the 1997 project. However, several building roof drains are still connected to the collection system, which provide inflow during rainfall events. In August 2016, the City repaired a section of pipe near the river that had been contributing a significant amount of inflow to the system.

Despite much of the collection system's proximity to the Clark Fork River, the majority of these collection mains experience minimal infiltration. However, discussions with the City operator indicate that system flows increase in the spring due to inflow. Of note was one manhole within the Solid Rock Estates Development on the west end of the City. During flow monitor installation, significant infiltration was noted between barrel sections of a manhole within the development adjacent to a small pond off Cornerstone Road; see pictures in Appendix K. The additional flow from this area was captured at the Cornerstone flow monitor presented in Table 3-4 above. It is estimated that this area contributes nearly 15,000 gallons per day to the system; approximately 30% of the total flow measured during flow monitoring.

Table 3-4 also indicates that flow between the Alley and Maiden Hill flow monitors was higher than anticipated when compared to winter water meter usage. This was discussed with the system operator during work sessions as a potential source area for infiltration. Per his recollection, there have not been noted I & I issues in this area, however there may be some remaining roof drains in the area that have not been removed.

Inflow and infiltration into the City system is seasonal and typically occurs between March and June. Table 3-4 estimates the inflow and infiltration into the collection system during flow monitoring to be 33,167 gallons per day. This equates to 64.7% of the total measured flow for the system. By repairing known sources of I & I into the system and setting up a program to search out, and identify unknown sources of I & I from roof drains, service lines, sump pumps etc, the City could greatly decrease energy consumption at the lift station and increase available capacity throughout the system.

Pump Records

Each pump within the system's single lift station has a run time meter that shows the cumulative time, down to the tenth of an hour, that each pump has run. As part of the system operator's maintenance routine, these run time readings are recorded periodically. By using a flow rate for each pump, determined by a draw down test, and multiplying by the pump run time, an average flow for the system can be determined. Pump run time readings for 2013 to spring 2017 were analyzed for this report. Pump readings and calculation summary can be found in Appendix L. Table 3-5 presents the results of the pump records analysis. It is noted that the average day pumped flow decreased after August 2016 when the City repaired a section of collection pipe with significant inflow.

Table 3-5 - Main Lift Station Pump Records Summary

Year	Population Estimate (1)	Average Day Flow	Average Day Flow	Per Capita Usage
2014-2016	194	50,540 gpd	35.1 gpm	261 gpcd
8/2016-4/2017		33,240 gpd	23.1 gpm	171 gpcd

(1) 2010 Census Block GIS data

Existing Flow Study Summary

Table 3-6 below presents the results of the existing wastewater flow analysis performed for this report.

Table 3-6 - Existing Flow Study Summary

Method	Average Day Flow
Water Records – Winter Usage	18,068 gpd
Flow Monitoring April 2017	51,236 gpd
Pump Records 2014-2016	50,540 gpd
Pump Records 8/2016-4/2017	33,240 gpd

It can be seen in Table 3-6, that the existing system average day flow values calculated vary from 18,068 gpd to 51,236 gpd depending on the analysis method used. The estimated wastewater flow from the winter water meter records did not accurately represent the system flow because the analysis did not take into account the inflow and infiltration into the system. The flow monitoring was performed during peak I & I in Spring 2017, so would be greater than the average annual wastewater flow for the system.

For the purposes of this PER, the average daily wastewater flow of 33,240 gallons per day, as estimated by the most recent pump records, will be used for the existing system.

In July 2017, the system operator noted that the inflow to the plant was significantly less, approximately 16,000 gpd, than the average day flow presented. It is recommended that the flow rate to the treatment lagoons and effluent quality should continue to be monitored to make final determinations for recommended treatment improvements following collection system expansion.

3.2.6 Collection System

The existing collection system is generally in good condition. As discussed in greater detail later, some inflow and infiltration (I & I) is experienced in a few concentrated areas within the system. Minimizing the I&I in these locations will reduce pumping operating costs as well as improve the existing treatment system operation.

The primary issue of concern with the City of Thompson Falls is the fact that the majority of the community utilizes on-site septic systems and drainfields and are not connected to the centralized wastewater collection system. As shown in Figure 3-1, the collection system only serves residents and businesses within the community south of the highway. Approximately 1,150 residents and the three schools within the City are not connected to the sewer. Many of the residential lots are small and unable to install conventional septic systems capable of meeting current Montana DEQ standards.

3.2.7 Lift Station and Force Main

The lift station pumps were installed in 1998 and are nearing 20 years old. The City experiences frequent pump maintenance issues, resulting in down time for the lift station. As recently as March 2016, the pumps failed and the lift station filled with raw wastewater that flooded and damaged the pumps. The City had to have the wet well pumped by a septic pumping truck, then continue to operate the pump manually until the pump controls and second pump were repaired. It should be noted that the lift station is located approximately 15 feet from the bank of the Clark Fork River. When the lift station is inoperable, raw wastewater is still flowing into the lift station and there is a potential risk of wastewater overflowing and discharging into the river. The City has struggled to find replacement parts for the pumps and controls due the condition and age. Finding spare parts has become costly for the City as the pumps age. Not having spare parts readily available during an emergency increases the risk of the wet well overflowing and potentially discharging in the Clark Fork River.

The Main Lift Station pumps wastewater to the treatment facility through a 6-inch asbestos cement force main (AC). This pipe was installed with the 1969 wastewater project. A short section of the force main, from the Main Lift Station to approximately South Lincoln Street, was replaced with PVC with the 1996 wastewater improvements project. The remainder of the force main has been an on-going maintenance concern for the City. As recently as July 2017, a significant break on the force main near the treatment lagoons required the City to temporarily shut down the lift station to make an emergency repair.

3.2.8 Treatment System

As described above, the existing treatment system is a three-cell aerated lagoon system. Generally, the City has had only minor operational issues with the treatment system and typically can meet the existing permit limits.

DEQ Compliance Evaluation Inspections (CEI), included in Appendix M, generally indicate that the City's facility is well operated to meet permit limits. One item noted in recent CEI visit is the likelihood that the facility will require sludge removal in the near future to ensure effective lagoon operation. In addition, the treatment system frequently experiences algae blooms and has had issues in the past with duckweed growth on the treatment lagoons. Though the duckweed can help reduce TSS in the system effluent, if not managed properly, can lead to increased sludge depth and increased nutrients within the system that during lagoon turnover can cause BOD and TSS exceedances.

The depth of sludge in the lagoon cells, as measured by Montana Rural Water in 2014, is approximately 18 inches. Sludge has not been removed from the lagoons since 1996 system upgrades. Sludge will need to be removed with treatment system upgrades to ensure property treatment effectiveness.

The system operator has expressed operational issues with rags at the lagoons plugging aeration equipment and valves. Since all wastewater entering the facility is pumped from the Main Lift Station, large objects are not of concerns. However, rags and smaller debris can accumulate in the first two cells leading to increase maintenance requirements. The facility does not have any screening capabilities on the lagoon influent. Installation of a headworks screening facility to remove rags and debris prior to entering the lagoons is recommended.

Additionally, the treatment site does not currently have backup power for operation during power outages. Given available detention time in the lagoon system, short-term power outages would have a minimal impact on the treatment efficacy. However, lengthy power outages would eliminate the aeration system to deliver adequate oxygen to the lagoons and effluent quality would be degraded. Backup power to operate the aeration system is recommended with treatment system upgrades.

With the consideration of expansion of the collection system to the unsewered area of the City, and the additional hydraulic and organic loading associated with it, evaluation of the effects to the treatment system is necessary. The following section will present the existing and anticipated treatment standards and permit limits for the facility.

3.2.9 Treatment Standards

Existing Treatment Standards

The purpose of this section is to provide an outline of the general requirements of the existing surface water discharge permit (MPDES) for the City of Thompson Falls sewer system.

The City of Thompson Falls currently discharges to the Clark Fork River with coverage under the Montana Domestic Sewage Treatment Lagoons General Permit MTG580000. More specifically, permit number MTG580035. Per the Montana DEQ:

> *The purpose of the Domestic Sewage Treatment Lagoons General Permit is to permit the discharge of treated wastewater from sewage treatment lagoons to state surface waters in accordance with effluent limitations, monitoring requirements and other conditions set forth in the General Permit. Most lagoons that have an average daily design flow of less than one (1) million gallons per day and do not accept significant industrial contribution are eligible for coverage under this General Permit. A written authorization letter from DEQ is required before an applicant is authorized to discharge under the General Permit.*

The Domestic Sewage Treatment Lagoons General Permit is in compliance with the Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA), and the Federal Water Pollution Control Act (the "Clean Water Act"), 33 U.S.C. 1251 et. Seq.

A copy of the current discharge permit and letter of conditions, is included in Appendix N. The existing discharge permit will expire on December 31, 2017. A copy of the City's Notice of Intent, Permit Fact Sheet, and Draft Discharge Permit for the next 5-year cycle is also included in Appendix O.

The City's existing permit limits per the 2012 Permit No. MTG580035 can be seen in Tables 3-7, 3-8 and 3-9.

Table 3-7 - Technology Based Effluent Limits

TBEL Group A – NSS Technology Based Effluent Limits			
Parameter	Units	Average Monthly	Average Weekly
BOD5	mg/L	30	45
	% removal	85	NA
TSS	mg/L	30	45
	% removal	85	NA
pH	SU	6.0-9.0	

The specific mass based limits included in the City's most recent permit are shown below. These limits also serve as the non-degredation allocated load limits for the City.

Table 3-8 - Existing Permit – Mass-Based Limits

Facility – Specific Mass-based Limits			
Parameter	Units	Average Monthly	Average Weekly
BOD5	lbs/day	22	53
TSS	lbs/day	35	53

The water quality based effluent limits (WQBEL) for the City beginning January 1, 2017 as included in the most recent permit are shown in Table 3-9.

Table 3-9 - Existing Permit – Water Quality Based Effluent Limits

Final Water Quality Based Effluent Limits (WQBEL)				
Parameter	Units	Average Monthly	Average Weekly	Maximum Daily
Ecoli summer (April 1 – Oct 31)	cfu/100 mL	126	242	-
Ecoli winter (Nov 1 – March 31)	cfu/100 mL	630	1,260	-
Total Residual Chlorine	mg/L	0.011	-	0.019
Ammonia, as N	mg/L	(1)	-	(1)
Total Nitrogen, as N	mg/L	(1)	-	(1)
Total Phosphorus, as P	mg/L	(1)	-	

(1) No existing Waste Load Allocation (WLA) or existing permit limit. No additional requirements specified in the facility permit confirmation letter

The City performs effluent and upstream water quality grab samples in accordance with the requirements of their permit. Sampling results are reported on a Discharge Monitoring Report and submitted to MDEQ.

Table 3-10 presents a summary of the Discharge Monitoring Report (DMR) data for the current treatment facility for BOD and TSS. DMR data for the facility from 2013 to 2016 can be found in Appendix P.

Table 3-10 - Effluent DMR Data for BOD and TSS 2013-2016

Facility Effluent BOD and TSS from DMR 2013-2016				
	Parameter	Units	Average Monthly	Average Weekly
Total	BOD5	mg/L	13.0	16.9
		lbs/day	4.5	5.7
		% removal (1)	93.2 %	-
	TSS	mg/L	10.2	12.5
		lbs/day	3.5	4.3
		% removal (1)	93.3 %	-
	pH (min – max)	SU	7.1 – 8.9	
Summer	BOD5	mg/L	12.4	16.4
		lbs/day	4.2	5.6
		% removal	92.5 %	-
	TSS	mg/L	10.2	12.7
		lbs/day	3.6	4.4
		% removal (1)	91.5 %	-
Winter	BOD5	mg/L	13.7	17.5
		lbs/day	4.8	5.9
		% removal (1)	94.0 %	-
	TSS	mg/L	10.2	12.3
		lbs/day	3.3	4.1
		% removal (1)	95.5 %	-

(1) % removal calculated from sampling logs

It can be seen in the DMR data that the facility typically meets the TBEL and mass-based limits for BOD and TSS. Between 2013 and 2016, the facility did not meet the TBEL for Monthly Average and Weekly Average BOD on two occasions (April 2013 and October 2016). The instances of exceedance of the permit limits have occurred during spring and fall pond turnover periods. It is not uncommon for lagoon systems to have issues with discharge limits during these times of year. The facility operator has attempted to store treated wastewater in the lagoon during the fall when turnover occurs instead of discharging as additional capacity is currently available in the lagoons.

DMR data and sampling log data for the existing facility effluent and upstream monitoring records are presented in Table 3-11.

Table 3-11 - Effluent DMR Data for Ecoli, Nutrients and Instream Monitoring

DMR Data (2013-2016)				
Effluent				
Parameter	Units	Average Monthly	Average Weekly	Maximum Daily
Ecoli summer (April 1 – Oct 31)	cfu/100 mL	43	71	-
Ecoli winter (Nov 1 – March 31)	cfu/100 mL	174	314	-
Total Residual Chlorine	mg/L			
Ammonia, as N	mg/L	3.1	-	3.1
Total Nitrogen, as N	mg/L	4.7	-	-
Total Phosphorus, as P	mg/L	2.9	-	-
Instream Monitoring				
Parameter	Units	Average Monthly	95^{th} Percentile	75^{th} Percentile
Temperature (Celsius)	Degrees	10.2	18.5	12.64
pH	SU	8.1	8.35	8.22
Ammonia, as N	mg/L	0.032	0.051	0.040
Total Nitrogen, as N	mg/L	0.050	0.12	0.068
Total Phosphorus, as P	mg/L	0.024	0.051	0.025

As indicated above, the existing permit, put into effect ecoli limits. The values in Table 3-11 are consistent with the requirements of the receiving water classification outlined in 17.30.623 and anticipated to apply with future permits. The limits are applied at the point of discharge. The facility currently does not employ effluent disinfection, however has consistently met ecoli limits.

Future Treatment Standards

Table 3-10 and 3-11 in the previous section summarize the effluent characteristics for the existing Thompson Falls treatment system. Each of the major permit limits, as well as the treatment implications of the effluent permit limits for Thompson Falls are discussed in this section. This section also considers the effects of the potential collection system expansion on the City's future permitting.

Per the Fact Sheet for the 2017 General Permit (GP), the City of Thompson Falls is considered a Continuous Discharger. Additionally, the fact sheet states that any continuous discharger under the 2017-issued GP that have Reasonable Potential (RP) to cause or contribute to an excursion of a water quality standard will be required to apply for individual permit coverage. Attachment B to the 2017 Fact Sheet indicates that Thompson Falls does not have an RP for exceedances for TN or TP. Attachment C to the 2017 Fact Sheet indicates that Thompson Falls does not have an RP for exceedances of ammonia or nitrate + nitrite. The conclusion of the evaluation presented in the Fact Sheet is that Thompson Falls has no RP, so no water quality based effluent limits are needed.

The RP analysis performed by DEQ for the 2017 GP used the treatment facility's existing design flow of 0.14 MGD. As presented in greater detail in Section 5.2 the 20-year Planning Period average day flow for the system is 0.161 MGD. Reasonable Potential (RP) calculations were performed for the purposes of this PER to determine if an RP exists at the greater design flow. Calculations, included in Appendix Q, and discussed in greater detail below, indicate that no RP exists for exceedances for TN, TP, Ammonia, or Nitrate + Nitrite at the average day design flow of 0.161 MGD for the 20-year Planning Period.

It is anticipated that the facility will still fall into Group A for BOD and TSS limits at National Secondary Standards, which is unchanged from City's the current general permit.

Permit Discharge Location

The existing treatment system for Thompson Falls discharges to the Clark Fork River. The Clark Fork River at the point of discharge is classified as B-1, requiring the water bodies be maintained suitable for drinking, culinary, and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply [ARM 17.30.623(1)]. Degradation impacting the established beneficial uses will not be allowed.

Mixing Zone

A mixing zone is defined by DEQ as "a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where certain water quality standards may be exceeded." The Administrative Rules of Montana describe how mixing zones may be used for dilution for each parameter of concern. Dilution is granted per parameter as the appropriate portion of the low flow: 7-day, 10-year low flow for ammonia and 14-day, 5-year low flow for nutrients. Table 3-12 presents the 7Q10 and 14Q5 for the Clark Fork River used for mixing zone and dilution calculations. The flows were obtained from the USGS StreamStats Program for Clark Fork near Plains USGS Station Number 12389000 approximately 30 miles upstream of the point of discharge.

Table 3-12 - Critical Receiving Water Flows

Flow Condition	Q (cfs)
7Q10	5,201
14Q5	6,069

Per the 2017 GP Fact Sheet, the following dilutions were granted to Thompson Falls and used in RP analysis for the draft 2017 GP and for this PER:

- *Alternate Mixing Zone Dilution* – DEQ will grant up to 10% of the 7Q10 as dilution for meeting chronic ammonia and 1% for the 7Q10 as dilution for meeting acute ammonia standards without further evaluation.
- *Nutrient Mixing Zone (Total Nitrogen and Total Phosphorus)* – dilution is based on 100% of the seasonal 14Q5 (typically the summer season of July 1st – September 30th.

Biochemical Oxygen Demand (BOD)

BOD_5 is defined as the five-day measure of pollutant parameter biochemical oxygen demand. The current permit limit is set at the national secondary standard of 30 mg/L and 85% removal of BOD_5 from the treated wastewater (influent to effluent) is required. In addition, DEQ has provided Thompson Falls with an average monthly mass-based load limit of 22 lb/day. The current permit limits are expected to remain the same in the next permit.

Per the most recent permit fact sheet, "the monthly average mass-based limits for BOD5 and TSS will be compared against the non-degredation allocated load and the most stringent for each will be included as the monthly permit limit." Non-degredation allocated loads for BOD5 and TSS are calculated by using permit limitations and design flows in place on April 29, 1993. Discussions with DEQ indicated this to be the non-degredation allocated load for Thompson Falls.

The existing lagoons can regularly meet the permit limits, but have had exceedances in the past during spring and fall lagoon turn-over periods as described in DEQ Inspection Reports included in Appendix M. Many mechanical aerated lagoon systems in Montana have had difficulty meeting the secondary standard for BOD during spring and fall months. In addition, the Thompson Falls facility experience seasonal duck-weed blooms that deplete available oxygen from aerators. Controlled duckweed growth has been shown to improve nutrient and TSS removal within a lagoon treatment system, but the growth of the aquatic plant depletes oxygen available to bacteria needed to break down BOD. In addition, if the duckweed is not harvested and appropriately disposed, the decaying plant matter will add to sludge and absorbed nutrients will reenter the wastewater.

With the proposed expansion of the collection system and subsequent increase in hydraulic and organic loading, the City will need to evaluate the effects to the treatment facility. Per the most recent Fact Sheet for the City's coverage under the General Permit, Appendix O, if the City is in compliance with the conditions of the permit and do not exceed the permit limits, they will not be considered a new or increased source and will still qualify for coverage under the general permit.

To meet the current mass based treatment limits/non-degredation allocated load for BOD5, the maximum average monthly discharge at 30 mg/L is 87,930 gallons per day.

MDEQ uses the following equation to set the mass based limits for 30-day average load:

30-day average load (lb/day) [22 lb/day] = avg daily design flow (mgd) x 30-day avg concentration limit (mg/L) x 8.34 conversion

Per the equation above, at the 20-year Planning Period average design flow of 160,780 gpd, the treatment system would need to treat to an average monthly BOD of 15.6 mg/L to discharge 100% of the system flows to the Clark Fork River without exceeding the non-degredation allocated load for BOD.

In order for the facility to treat the proposed collection system expansion area (average day design = 160,780 gallons per day) and not exceed the mass based limit for BOD, the effluent concentration of BOD will need to be less than that NSS limit of 30 mg/L. Because of the technology limits inherent with mechanically aerated lagoons, to avoid permit violations, upgrades to the existing system would be needed.

Alternatively, the City could discharge treated effluent up to the BOD mass based load limit, 87,930 gallons per day, and dispose of the remaining treated wastewater in another manner; such as storage and irrigation. At the 20-year Planning Period Average Day Design Flow of 160,780 gpd; approximately 72,850 gpd could not be discharged to the Clark Fork River.

Total Suspended Solids

TSS is a measure of the suspended solids in wastewater. It is an indicator of the level of treatment achieved. The current permit limit is based on the National Secondary Standards (30 mg/L and 85% removal). As with BOD, the current treatment system can typically achieve the discharge limit and percent removal required by secondary standards. However, occasional exceedances of the discharge limits are experienced during seasonal lagoon turn-over. Periodic exceedances of TSS limits are not uncommon with mechanically aerated lagoons.

Per the 2017 Draft General Permit, Appendix O, the City's TSS limit will not change. As with BOD, the City also has a mass based load for TSS.

To meet the current mass based treatment limits/non-degredation allocated load for TSS, 35 lb/day, the maximum average monthly discharge at 30 mg/L is 139,888 gallons per day.

MDEQ uses the following equation to set the mass based limits for 30-day average load:

30-day average load (lb/day) [35 lb/day] = avg daily design flow (mgd) x 30-day avg concentration limit (mg/L) x 8.34 conversion

Per the equation above, at the 20-year Planning Period average design flow of 160,780 gpd, the treatment system would need to treat to an average monthly TSS of 24.8 mg/L to discharge 100% of the system flows to the Clark Fork River without exceeding the non-degredation allocated load for TSS.

In order for the facility to treat the proposed collection system expansion area (average day design = 160,780 gallons per day) and not exceed the mass based limit for TSS, the effluent concentration of TSS will need to be less than that NSS limit of 30 mg/L.

Total Ammonia

The facility does not currently have a permit limit for ammonia. However, the 2013-issued General Permit did require monitoring of effluent and upstream water quality. Ammonia limits are determined based on a facilities reasonable potential to exceed aquatic life acute and chronic toxicity for the discharge location. Ammonia toxicity is dependent on temperature and pH of the receiving water body and the presence or absence of salmonid fish species.

Calculations performed for ammonia to determine if a reasonable potential (RP) exists for the facility to exceed acute toxicity for aquatic life limits. Calculations completed for analysis at the 20-year Planning Period, included in Appendix Q, indicate that no reasonable potential exists for an ammonia limit for the facility. The calculation uses 1% of the 7Q10 low flow for acute ammonia toxicity and 10% for chronic toxicity. These results are consistent with RP calculations conducted for the 2017 General Permit Fact Sheet, Appendix O. Attachment C to the Fact Sheet concluded that no WQBELs were needed for ammonia.

Numeric Nutrient Standards (TN and TP)

The treatment facility does not currently have permit limits for Total Nitrogen (TN) or Total Phosphorous (TP). TN and TP permit limits are evaluated by two separate and very different methods by DEQ and EPA. The two methods include Total Maximum Daily Loads (TMDLs) and the Numeric Nutrient Standards rules, discussed in greater detail in Section 5.4. No TMDL water quality standards for TN and TP exist for the Clark Fork River at the point of discharge. Reasonable potential calculations for the 20-year Planning Period, included in Appendix Q, performed for TN and TP using 100% dilution of the seasonal 14Q5 indicate no likelihood for exceedances to the Montana Base Nutrient Standards, as presented in DEQ Circular 12A.

Per the 2017 General Permit Fact Sheet, the facility discharges into a waterbody that has no applicable nutrient criteria and is not listed as impaired for nutrients. The conclusion of the 2017 GP analysis, included in Attachment B of that document, was that Thompson Falls did not need a permit limit for TN or TP.

Nitrate + Nitrite

The treatment facility does not currently have a permit limit for nitrate + nitrite. The human health standard for nitrate + nitrite is 10 mg/L. Reasonable potential analysis performed for the 20-year Planning Period, included in Appendix Q, used a standard mixing zone of 100% dilution for chronic and 10% dilution for acute human health standards using the 7Q10 low flow. The analysis indicated no RP for the facility to exceed either chronic or acute human health standards. This is consistent with the RP analysis performed for the 2017 General Permit, included in Appendix O. Attachment C to the General Permit Fact sheet concluded that no WQBELs were needed for nitrate + nitrite.

E. coli

As indicated above, the existing permit, put into effect ecoli limits. The limits are applied at the point of discharge. These values are consistent with the requirements of the receiving water classification outlined in 17.30.623 and anticipated to apply with future permits. The 2017 Draft General Permit, Appendix O, indicates the previous ecoli limits will not change.

The facility currently does not employ effluent disinfection, however has consistently met ecoli limits. If the facility decides to expand the collection system to the unsewered area of the City, the facility will have difficulty meeting the ecoli limits. For the purposes of evaluating treatment system improvement alternatives, later in this report, it is assumed that ultra violet (UV) disinfection facilities will be necessary with the increased system flow to meet ecoli limits.

Metals

The facility does not currently have a permit limit for metals. Neither the previous GP or the Draft 2017 GP give any indication that future limits for metals are likely.

Sludge

One of the primary mechanisms for treatment of wastewater within a lagoon system is settling. Heavier solids such as sands, dirt and debris are settled out close to the inlet within the primary lagoon. Lighter suspended particles continue to settle out within the primary and storage lagoons. Settling also removes biological floc, inorganic contaminants, heavy metals and nutrients such as phosphorous and nitrogen. Through continuous operation, the level of settled material begins to collect on the floor of the lagoons forming wastewater sludge.

The primary lagoon cells have a design sludge depth of 2 feet. The sludge accumulated must periodically be removed to maintain hydraulic capacity within the lagoons, reduce odor production and maintain biological health of the system. Sludge from the treatment system was last removed during the 1997 treatment system improvement project.

Sludge depth within the treatment lagoons should be periodically measured and tested to determine compliance with design criteria and regulatory requirements. Typical monitoring should be performed every 5 years. As mentioned above, the most recent sludge measurements for the City's lagoon system were performed by Montana Rural Water in 2014. At that time, the average sludge depth in the lagoons was 18 inches. Sludge removal will be necessary in the near future and could be part of any new treatment upgrades.

Prior to disposal, a composite sample of the sludge will need to be collected to determine the allowable disposal technique depending upon metal concentrations compared to EPA 503 limits. These limits cannot be exceeded by any metal to land apply the sludge.

The EPA Region 8 Biosolids Permit governs sludge handling and processing. The required sludge handling and/or disposal would also need to comply with Circular DEQ-2 requirements for the new system. Plans would be reviewed by MDEQ for compliance and any proposed deviations would require a written request to be submitted to MDEQ with justification for the deviation. The most pertinent standards section for sludge handling and disposal is Chapter 80: Sludge Processing, Storage, and Disposal.

3.2.10 Operational and Management Practices and Capabilities

The Director of Public Works, Jerry Lacy, oversees the operation and management of the sewer system and is responsible for supervising staff and insuring the overall operation and maintenance of the wastewater facilities. Under Mr. Lacy's direction, the staff is responsible for the daily operation and maintenance of the collection system, including the Main Lift Station and forcemain and the daily operation and maintenance of the treatment facility.

Operation and maintenance for the treatment facility generally consist of collecting and testing samples from the discharge as required by the permit, monitoring lagoon levels, ensuring lagoons are operating properly, keeping records of operation and maintenance activities at the treatment facility, and filing reports with DEQ. Other duties on site include: maintenance of all equipment, exercising valves, mowing grass, painting, etc.

The collection system operation and maintenance consists of cleaning/jetting the sewer mains annually and responding to and removing plugs in the mains. "Trouble lines" are cleaned more frequently.

The Main Lift Station is regularly checked by City staff so that the pump hours can be recorded and a general visual inspection of the lift station operation can be made. General maintenance of the lift station includes lubricating and greasing the equipment, changing fuses, checking valves, repairing pumps and motors as needed, and checking impellers.

City Public Works staff has done a great job maintaining and operating the existing wastewater collection and treatment system. All components of the system are on a regular maintenance schedule and the operator keeps good records of system operation and maintenance efforts.

3.3 Financial Status of Existing System

Income and expenditures for the water system, including operations and maintenance, are included in the Sewer account under the City's accounting system. A summary of the operating expenses and revenue for 2015, 2016, and 2017 is included in Table 3-13. Supporting data is included in Appendix R. The Town currently pays on one Rural Development loan. The outstanding balance as of August 2017 was $173,772.85. The final payment on the loan will be made in August 2033.

Table 3-13 - Thompson Falls Sewer Financial Summary

Description	07/14-06/15	07/15-06/16	07/16-06/17
Expenses			
Operating Expenses	$ 79,328.00	$ 91,877.00	$ 176,550.00 (1)
Debt Service	$ 13,748.00	$ 13,748.00	$ 20,622.00
Reserves	-	-	-
Total Expenses	$ 93,076.00	$ 105,625.00	$ 197,172.00
Income			
Sewer Revenues	$ 116,750.00	$ 102,346.00	$ 109,641.00
Investment and Royalty Earnings	$ 230.00	$ 280.00	$ 270.00
Other (proceeds from Grant and Loans)	$ -	$ -	$ 69,500.00
Total Income	$ 116,980.00	$ 102,626.00	$ 179,411.00
Net Profit	$ 23,904.00	$ (2,999.00)	$ (17,761.00)

(1) Includes $69,500 grant reimbursed work

The current base sewer rate is $38.00 per month per EDU for residential accounts and $45.00 per month per EDU for commercial accounts for the first 4,000 gallons of discharged wastewater. An additional $4.00 per 1,000 gallons over 4,000 gallons per month is assessed for commercial and residential accounts. The discharge volume is an annual calculation, based upon the average monthly water consumption, from water meter records, for January through May and November through December from the previous year. The number of equivalent dwelling units (EDU) for the current sewer system users is 187. Average sewer bill calculations and supporting data is included in Appendix R.

3.4 Deficiencies Identified

As presented above, the existing collection system and treatment system generally operates as designed to serve the needs of the City, with some exceptions. This section will summarize the deficiencies identified within the existing system as well as present the City's desire to expand the collection system to serve the unsewered area of the City.

The existing collection system for the City of Thompson Falls was installed approximately 70 years ago. Much of the gravity collect pipes within the system were replaced approximately 20 years ago. The new pipe is in good functioning condition; however, three sections of older collection main have been identified as needing immediate attention. These mains, listed below, have caused the City additional maintenance as they require extra cleaning to prevent and clear blockages.

Collection System Deficiencies

- 600 feet of 6-inch Orangeburg Pipe
- 1,300 feet of 12-inch ACP east of the Main Lift Station
- 240 feet of 8-inch clay pipe in alley between Hill and Ferry Street

Additionally, the collection system experiences high inflow and infiltration during spring months. Flow monitoring indicates that I & I may exceed 60% of the system flows at times. One manhole within the Solid Rock Estates Development has been identified as the primary source of I & I into the system and require repair.

The following deficiencies have been identified with the lift station and force main for the system.

Lift Station/Force Main Deficiencies

- Pump station controls are outdated and frequently fail
- No backup power at Main Lift Station for operation during power outages
- 6-inch ACP Force Main from Lincoln Street to the treatment facility is 50 years old and experiences regular breaks

The existing treatment system can typically meet the existing and anticipated permit limits at the current system flows. The following deficiencies have been identified with the existing treatment system.

Treatment System Deficiencies

- Sludge depth in the treatment cells is approaching the design depth and will need removal in the near future
- Rags and debris periodically plug aeration system components and valves; influent screening is recommended

- No effluent disinfection. The system typically meets ecoli limits without disinfection. However, as system flows increase with collection system expansion, it will become difficult to meet ecoli limits. UV disinfection is recommended with collection system expansion.
- No backup power is available at the treatment site to operate aeration equipment during power outages.

Of primary concern for the City of Thompson Falls is the large area of the community that is not connected to the public wastewater system. Approximately 560 homes and 3 schools north of US Highway 200 are served by individual onsite wastewater treatment systems (septic). Per the Sanders County Sanitarian, many of these septic systems are aging and a number have failed in recent past. Given the lot size and soil characteristics of this area of the City, replacement systems are often times "substandard" meaning that they do not meet DEQ design requirements or the permitting requirements of the County. The primary purpose of this PER is to determine the feasibility of connecting the unsewered area of the City and evaluating the impact to the existing sewer system. Based upon analysis included in Section 3.2.9 above, the existing treatment system would not be able to meet non-degredation allocated load limits for BOD and TSS with the increased organic loading from proposed expansion with upgrades to the treatment system.

4.0 NEED FOR THE PROJECT

As mentioned, there is a large portion of the community of Thompson Falls which are currently served by private septic systems, including approximately 560 residential homes and three schools. These systems are often not in compliance with today's regulations and are beginning to fail. Lot size limitations prevent replacement with compliant on-site systems and the Sanders County Sanitarian has reported substandard installations, Appendix T. Substandard systems are incapable of reducing nutrients and pathogens to safe levels prior entry to Montana's high-quality waters.

As indicated in the previous section, the City's existing sewer system also has deficiencies that need to be addressed. Some of the collection system mains date back to 1948, and are suffering from root intrusion and settling, which can result in increased infiltration and inflow and sewer backups and overflows. The Main Lift Station also does not have permanent back up power and poses a potential for system backups and overflows.

Based on the City's situation outlined above, it is necessary for the City to explore options to connect the unsewered area of the City to the central sewer system, as well as address deficiencies in the current wastewater system. If nothing is done to address the deficiencies in the wastewater system, there will continue to be adverse impacts on the environment and human health.

4.1 Health and Safety

The U.S. EPA acknowledges that overflows of untreated sewage can contaminate waters and cause serious water quality problems. The EPA's National Enforcement Initiative (FY 2017-2019), lists public health and environmental implications associated with pollutants in raw sewage. The agency acknowledges that overflows of untreated sewage as well as back-ups into basements on the surface cause property damage and threaten public health. Raw sewage carries *"disease-causing microorganisms [that] can cause fever, abdominal cramps, diarrhea, vomiting or infections of open cuts or rashes," and* human exposure to raw sewage can lead to *"infections of the internal organs, such as hepatitis."*

Frequent blockages from roots and other debris within the sewer main have required emergency cleaning to prevent backups of sewage into peoples' homes and surfacing of raw sewage onto streets and in yards in residential areas which could ultimately make its way to the Clark Fork River. When the main backs up, the manholes upstream surcharge creating a potential for raw sewage to back up into homes and ultimately overflow, creating a significant water quality issues and threat to public health and safety.

In addition, the quantity and density of septic systems within the unsewered area of the City poses an immediate threat to human health and safety as well as natural resources of the area. A 2015 letter from the Sanders County Sanitarian, Appendix T, indicates that the lot sizes and site conditions of the "hill area", or unsewered area, make design of on-site subsurface systems challenging. The letter expresses concern that the aggregate of the 500 plus discharge sources on the hill present a potential for contamination. Data from the sanitarian indicate that more than 57% of systems on the hill permitted since 1995, when the County implemented a permitting system, are substandard or "last resort" systems. The remaining systems are of unknown origin, type or condition. It is the estimate of the sanitarian that in the coming years, approximately 195 additional substandard systems will be installed in the coming years.

Potential health threats from consuming water containing untreated or inadequately treated sewage include bacterial pathogens such as:

- E. coli O157: H7,
- Salmonella,
- Salmonella typhi,
- Shigella,
- Campylobacter,
- Vibro cholera,
- Pseudomonas, and others

Diseases that can be caused by drinking sewage-contaminated groundwater include waterborne viruses and protozoa such as:

- Severe Acute Respiratory Syndrome (SARS),

- Hepatitis,
- Polio,
- Giardiasis,
- Cryptosporidiosis, and
- Parasites

In addition to microbially-mediated disease, untreated wastewater can also result in exposure to heavy metals, carcinogenic organic compounds, and endocrine-disrupting compounds and pharmaceutical products. Per the EPA, sensitive populations such as children, the elderly and those with weakened immune systems can be at a higher risk or illness from exposure to sewage.

4.2 System O&M

The City of Thompson Falls public works director has indicated concerns with the ongoing maintenance issues from the aging system. As the system, has aged, it does not operate as efficiently as it once did. As described above, portions of the existing system are in need of attention. In addition, inflow and infiltration identified within the existing system decreases the efficiency and capacity of the system, utilizing an unnecessary amount of energy.

The improvements to the existing system proposed in this report will resolve the deficiencies identified in the system. As part of developing a proposed solution for the community's sewer system, this report will evaluate existing and future discharge permit requirements and the existing system's ability to meet those requirements, as well as the condition and capacity of the collection and treatment system to accept the proposed system expansion. The alternatives analysis will ensure the recommended improvement alternatives provide the most efficient and economical solution to the identified system deficiencies.

4.3 Growth

Thompson Falls offers significant outdoor recreation opportunities. The existing recreational opportunities enhance the community’s economy while at the same time serving Thompson Falls residents. Traditionally a resource based economy, Thompson Falls has seen a significant decline in timber sales and other resource production, leaving the community economically distressed. The City has worked hard in recent years to rebrand and seek out different economic opportunities, including tourism and recreation. The City's location to the mountains and river draw people from across the Country to fish and hunt. The River is the main attraction for residence and visitors, and the City's location allows for easy access for fishing, boating and site seeing.

The potential for discharge of raw wastewater to the Clark Fork River, and continued degradation of groundwater from substandard onsite wastewater system could have a severe impact on the recreational and tourist economy Thompson Falls.

In addition to the outdoor recreation industry, the US Forest Service approved Hecla Mining Co. first phase in the Rock Creek Mine. The approval allows the company to go forward with the first phase of its proposed underground silver and copper mine just north of Thompson Falls. Phase one includes exploration and evaluation including construction of a 6,300 ft decline tunnel which will provide access to the ore body. If fully approved and operational, the Rock Creek Mine may provide a significant influx of jobs in the area, and with it will come the need for reliable infrastructure, housing, and resources.

Current wastewater issues are a barrier to residential and commercial growth. Interested parties are cautioned that wastewater treatment for new development and replacement of existing infrastructure is determined on a case-by-case basis. They are told space for proper wastewater treatment and disposal is limited and Sanders County therefore cannot guarantee a system can be permitted and installed. This not only presents a challenge for current residents, but stymie additional growth and could become a significant issue if the Rock Creek mine proceeds, as addressed above.

Constructing an affordable central wastewater system is a long-term solution that would resolve acute wastewater issues, promote community growth, prevent contamination of public and private drinking water supplies, and protect public health. Sanders County Sanitarian Mr. Sorenson has emphasized that if a central wastewater system wasn't installed, then there may come a time when the County would be unable to issue permits.

Additionally, with a median household income (MHI) of $30,595 (2015 American Community Survey), the City of Thompson Falls is one of the Montana's poorest communities. Only 47 of

Montana's 353 cities and towns have a lower MHI than Thompson Falls. Reliant, affordable public infrastructure is the foundation to vitality of any community. The proposed project will help the City develop a plan for addressing deficiencies in its wastewater system and services with a focus on keeping user rates and taxes as low as possible. Additionally, with the wastewater system functioning properly, the City will be able to focus its limited resources on other important capital improvements.

4.4 Unresolved Problems

This report investigates the existing system deficiencies as well as presenting alternatives for expansion of the existing collection system to serve the unsewered area of the community north of US HWY 200. Due to the size, scope and cost of the proposed improvements; Section 9.0 of this report will discuss project phasing. Described in greater detail later, project phasing will be setup to address the most pressing deficiencies identified in the existing system first. Collection system expansion will be set up to provide service to the elementary and junior high schools first as well as higher density lots within the western and central areas of the hill area.

Upon completion of the proposed collection system and treatment system improvements, recommended in the PER, no unresolved problems will remain for the City of Thompson Falls sewer system.

5.0 GENERAL DESIGN REQUIREMENTS

5.1 Circular DEQ 2: Design Standards for Wastewater Facilities

Circular DEQ-2 provides the minimum state requirements for wastewater system facilities. The standards specify the basis of design such as wastewater flow peaking factors, loading criteria, capacity requirement and specific equipment requirements. They cover all system components including sewer pipe, pumps, disinfection and wastewater treatment. Many specific sections of Circular DEQ-2 are referenced in the alternative analysis, as appropriate. All improvements will require review by the state for compliance with Circular DEQ-2. Any deviations from the standards in DEQ-2 would require a written request and justification for the deviation to be submitted along with the plans. Circular DEQ-7 specifies acute and chronic aquatic and human health standards for a broad array of contaminants. The types of contaminants include metals, biological, organic chemicals, inorganic chemicals and other miscellaneous contaminants.

5.2 Existing and Design Flows

The existing wastewater system flows for the City of Thompson Falls were discussed at length in Section 3.3. The current average day flow for the City is also shown in Table 5-1 below.

Table 5-1 - Existing System Flows

Population Estimate (1)	Average Day Flow	Average Day Flow	Per Capita Usage
194	33,240 gpd	23.1 gpm	171 gpcd

(1) 2010 Census Block GIS data

The projected flow rate for the proposed expansion to the City's collection system was determined by looking at residential and commercial connections for the unsewered area. Circular DEQ-2 requires wastewater facility sizing based on an average day flow of 100 gallons per capita plus wastewater flow from nonresidential uses such as industrial, institutional or commercial.

It is assumed that all growth within the unsewered area of the City for planning period occurs as residential development. Table 5-2 below presents the residential average day wastewater flows from the unsewered area of the City. Total system design flows are presented in Table 5-4 on the following page.

Table 5-2 - Projected Expansion Area Residential Flows

Users	Population Estimate (1)	Per Capita Usage	Average Day Flow	Average Day Flow
20-Year Planning Period	1,155	100 gpcd	115,500 gpd	80.2 gpm

(1) Population represents 2010 Census Block GIS data with 0.1% annual growth

A GIS shapefile of structures was obtained from the Montana State Library Geographic Information Clearinghouse. This shapefile shows location and distribution of various structures throughout the state. The shapefile was used to determine how many potential non-residential connections were within the proposed collection system expansion. A summary of the potential connections within the area is included in Appendix S. The list below summarizes nonresidential use anticipated for the area.

Non-Residential Wastewater Connections – from Montana Structures Shapefile

- 10 Churches
- Thompson Falls Community Senior Center
- Thompson Falls Volunteer Fire Department
- Cherry Hill Assisted Living
- Schools – Elementary, Junior High, High School
- 10 Commercial Buildings

The commercial structures appear to be in-home businesses, so no additional consideration for wastewater usage was given beyond typical residential usage. Table 5-3 summarizes the non-residential usage for the proposed collection system expansion.

Table 5-3 - Projected Expansion Non-Residential Flows

Type	Usage/Unit (1)	Sub-Unit Estimate	Average Day Flow (gpd)
Church (x 10)	4 gpd/guest	50 guest/church	2,000
TF Senior Center	4 gpd/guest	25	100
TF Volunteer Fire	15 gpd/employee	8	120
Cherry Hill Assisted Living	100 gpd/bed	8	800
Elementary School	15 gpd/student	203	3,045
Junior High School	25 gpd/student	68	1,700
High School	25 gpd/student	171	4,275
	Total		12,040 gpd

Students from Thompson Falls Public School Flyer 2016
(1) Usage from Metcalf & Eddy

Peaking Factors per Metcalf and Eddy and Circular DEQ 2 were applied to the average day wastewater flow to determine the peak day and peak hour wastewater flows for the system. Table 5-4 below summarizes the wastewater design flows for the existing system and proposed collection system expansion.

Table 5-4 - Design Flows

<table>
<tr><th colspan="2">Year</th><th>Average Day (gpd)</th><th>Peak Day (1) (gpd)</th><th>Peak Hour (2) (gpd)</th><th>Peak Hour (gpm)</th></tr>
<tr><td>Current System</td><td>Residential & Non-Residential</td><td>33,240</td><td>66,480</td><td>137,946</td><td>96</td></tr>
<tr><td rowspan="3">20-Year Planning Period (Current System & Expansion Area)</td><td>Residential</td><td>148,740</td><td rowspan="3">321,560</td><td rowspan="3">598,102</td><td rowspan="3">415</td></tr>
<tr><td>Non-Residential</td><td>12,040</td></tr>
<tr><td>Total</td><td>160,780</td></tr>
</table>

(1) Average Day/Peak Day = 2.0 per Metcalf and Eddy
(2) Average Day/Peak Hour = 4.15 (Current) 3.72 (Planning Period) per DEQ 2

5.3 Hydraulic and Organic Loading

Table 5-5 below presents the organic loading for the existing wastewater treatment facility. Loading for BOD5 and TSS were determined by multiplying the average influent flow rate by average influent concentration obtained from 2014 to 2016 monthly sampling logs; see Appendix P.

Table 5-5 -Existing BOD5 and TSS Loading

	Period	Influent Average Day (gpd)	Concentration (mg/L)	Load (lb/day)	Per Capita Load (1) (ppcd)
BOD5	Average	53,540	258.8	115.6	0.60
	Winter	54,290	270.1	122.4	0.63
	Summer	52,790	249.8	110.1	0.57
TSS	Average	53,540	298.0	133.2	0.69
	Winter	54,290	303.7	137.6	0.71
	Summer	52,790	293.4	129.3	0.67

The proposed expansion of the collection system will serve an additional 1,155 residents, three schools and some non-residential users. The estimated additional average day flow from the expanded collection system is 127,540 gpd. The proposed average day design flow with the expanded system is 160,780 gpd.

Table 5-6 below presents the organic loading for the treatment facility for the 20-year planning period. BOD and TSS loading rates presented in DEQ 2 were used for the proposed collection system expansion. BOD and TSS loading rates for the existing system are as shown in Table 5-5 above. Total nitrogen (TN) and total phosphorus (TP) for the system were calculated using loading rates presented in DEQ 2.

Table 5-6 -Planning Period Organic Loading

	Existing Population (194)	Unsewered Expansion (1155)	20-Year Planning Period (1349)
BOD5	115.6 lb/day (5)	231 lb/day (1)	346.6 lb/day
TSS	133.2 lb/day (5)	254.1 lb/day (2)	387.3 lb/day
Total Nitrogen	6.4 lb/day (3)	38.1 lb/day (3)	46.0 lb/day
Total Phosphorous	1.7 lb/day (4)	10.4 lb/day (4)	12.1 lb/day

(1) BOD loading per DEQ2 = 0.2 ppcd
(2) TSS loading per DEQ2 = 0.22 ppcd
(3) TN loading per DEQ2 = 0.033 ppcd
(4) TP Loading per DEQ2 = 0.009 ppcd
(5) Existing BOD & TSS loads from sampling data

5.4 Regulatory Requirements and Permits

The following paragraphs summarize the State and Federal regulations governing wastewater systems. Any improvements to the system must comply with all applicable local, state, and federal regulations as well as accepted industry design standards.

U.S. Clean Water Act

This law was originally passed by the U.S. Congress in 1972 as the Water Pollution Control Act. The law has been amended numerous times since inception and is now referred to as the Clean Water Act. The law is quite comprehensive. It regulates point and non-point sources of pollution such as industrial and mine discharges, municipal sewage, construction and agricultural runoff, sludge storage and disposal, storm water runoff, and many other potential sources of water pollution. The law also establishes in-stream, water quality based standards and requires that streams and rivers be classified according to existing water quality and potential uses.

This law is applicable to central wastewater systems that serve 15 or more connections, which under the law are defined as public wastewater systems. The law established the National Pollution Discharge Elimination System (NPDES) permitting process. The NPDES process requires each public wastewater system to obtain a discharge permit if that system discharges municipal wastewater to a surface water source. The NPDES discharge permit defines specific concentration limits for contaminants that must not be exceeded prior to discharge to the surface water or reaching the end of the mixing zone. These permit discharge requirements largely establish the design requirements for wastewater treatment facilities.

The Clean Water Act is administered by the Environmental Protection Agency (EPA). However, in many states, including Montana, the enforcement authority for the U.S. Clean Water Act is delegated to state agencies. The Montana Department of Environmental Quality (MDEQ) has enforcement authority and issues discharge permits to public wastewater systems.

Montana Water Quality Act

The Montana Legislature passed the Montana Water Quality Act to qualify for primacy of the U.S. Clean Water Act. This state legislation is tailored after the U.S. Clean Water Act and its basic requirements are very similar. The Act applies to public systems. The definition of a public system under Montana law is a wastewater system that has 15 or more service connections and serves 25 or more persons 60-days of the year.

The State, under the authority of this law and associated rules, establishes surface water quality standards (letter code for each river and stream) based on beneficial uses and existing water quality; implements the nondegradation policy; issues surface water discharge permits; implements a groundwater protection program; conducts inspections of wastewater facilities; and generally, prohibits pollution of state waters. The language of the law is very general and therefore fairly broad in scope with regard to preventing the pollution of state waters. The law applies to both surface water and groundwater.

Montana passed new rules in 1994 under the authority of this law that address nondegradation of water resources. It is the policy of the State's nondegradation rules to prohibit further degradation of state waters. To accomplish this the State has established nondegradation load limits (lbs/day) for wastewater effluent pollutants such as BOD, TSS, nitrogen, and phosphorous. Once the load limits are established in the permit the load limits will not be changed with time even though the community may grow and the pollution load increases. Accordingly, the treatment efficiency must be improved with time in order to continue to meet the load limits as a community grows. This trend makes nondegradation load limits a very important consideration in the selection and design of wastewater treatment facilities.

For new facilities requesting wastewater discharge permits, the discharge concentration limits for various pollutants will be based on the new trigger limits specified in the rules. For communities attempting to discharge into low-flowing creeks, permit limits based on nondegradation trigger limits will likely be more stringent than the permit limits required for most communities that already have a discharge permit.

<u>Montana Department of Environmental Quality</u>

The Montana Public Water Supply Act establishes design standards for public water and wastewater equipment and processes. The law requires the Department of Environmental Quality (DEQ) to review and approve all plans and specifications for wastewater facilities prior to construction of water and wastewater systems and the owner must certify to DEQ that the facilities were constructed in conformance with public health, sanitary, and design standards. The law applies to public systems (15 or more service connections) as defined by this act.

Hundreds of design standards and policy requirements are promulgated under this law. These requirements are considered in characterizing the condition of existing facilities, developing and evaluating alternatives for wastewater improvements, and in the final design of the selected plan of improvements. The State design standards enforced under this law are described in DEQ Circulars DEQ-2 and DEQ-7.

Circular DEQ-2: Design Standards for Wastewater Facilities

Circular DEQ-2 provides the minimum State requirements for wastewater system facilities. The standards specify the basis of design such as wastewater flow peaking factors, loading criteria, capacity requirements and specific equipment requirements. DEQ-2 standards cover all system components including sewer pipe, pumps, disinfection and wastewater treatment. Specific sections of Circular DEQ-2 are referenced in the alternative analysis, as appropriate. All improvements will require review by the State for compliance with Circular DEQ-2. Any deviations from the standards listed in DEQ-2 would require a written deviation request with justification for the deviation to be submitted to MDEQ along with the plans.

Circular DEQ-7: Montana Numeric Water Quality Standards

Circular DEQ7 specifies acute and chronic aquatic and human health standards for a broad array of contaminants that may be contained in discharges. The types of contaminants include metals, biological, organic chemicals, inorganic chemicals and other miscellaneous contaminants.

Hydraulic and Organic Loading

Hydraulic and organic loading was presented previously in this section. All improvements considered in the development of alternatives will take into account both existing and anticipated hydraulic and organic loading.

Regulatory Requirements and Permits

All improvements must result in a system that is in compliance with the Montana Public Water Supply Act and local, State, and federal regulations. Public systems are defined by the State of

Montana as having 15 or more service connections and serving 25 or more persons for 60 days or more during the year. The federal regulations for public systems are often enforced through State agencies which have been delegated primary enforcement authority. The laws of primary importance with respect to wastewater management for the City of Thompson Falls are:

- U.S. Clean Water Act; PL 92-500, PL 95-217, PL 97-117, PL 100-4 (Federal Authority)
- Montana Water Quality Act; 75-5-101 through 641, MCA (State Authority)
- Montana Wastewater Treatment Revolving Fund Act; 75-5-1101 through 1106, MCA (State Authority)
- Public Water Supply Act; 75-6-101 through 121, MCA (State Water and Wastewater Design Standards)
- Public Health Law; 50-2-116, MCA (County Authority)

Montana Wastewater Treatment Revolving Fund

This law allows the State of Montana to create a revolving loan fund to provide financial assistance to municipalities, Districts and private concerns for the construction and rehabilitation of wastewater improvement projects. The initial capital for the loan fund is provided by the federal government through appropriations authorized under the previously discussed U.S. Clean Water Act. The goal of the act is to develop a self-sustaining revolving loan fund administered by the State of Montana. Currently, the loans are offered at 2.5% interest and the term is 20 to 30 years. To qualify the applicant must complete a PER for review and approval by the DEQ and must meet certain other financial, administrative, and operational obligations.

Montana Public Water Supply Act

The Montana Public Water Supply Act was discussed in detail above.

Construction Permits

A storm water discharge permit will also be necessary if more than one acre of land is disturbed during the construction of improvements.

Circular DEQ 12: Numeric Nutrient Water Quality Standards

The Montana Department of Environmental Quality (MDEQ) has developed numeric nutrient water quality criteria. These criteria are intended to control excessive nutrient (nitrogen and phosphorus) pollution in Montana's streams, rivers, and lakes. The intent of numeric nutrient criteria is to assure a level of water quality that will protect the beneficial uses of these water-bodies. These beneficial uses include recreation, fishing and drinking water.

The MDEQ has developed a section within the Department specifically charged with the task of developing numeric nutrient standards. The development of the numeric nutrient standards is a process that is separate, but coordinated with the development of Total Maximum Daily Loads (TMDLs) within the MDEQ. MDEQ initiated the process by first performing a review of existing available science on the subject. MDEQ has strived to base the numeric nutrient criteria on the best available science and data. The development of the numeric nutrient standards has been closely coordinated with the EPA and MDEQ used EPA guidance in the development of the standards.

To date the MDEQ has proposed numeric nutrient criteria for wadeable streams for each ecoregion and those are presented in the table below and in Circular DEQ-12. Thompson Falls is located within the Northern Rockies Ecoregion.

Table 5-7 - Base Numeric Nutrient Standards for Wadeable Streams

Base Numeric Nutrient Standards for Wadeable Streams			
LEVEL III ECOREGION	PERIOD WHEN CRITERIA APPLY	NUTRIENT CRITERIA	
		Total P (mg/L)	Total N (mg/L)
Northern Rockies	July 1 – Sept 30	0.025	0.275
Canadian Rockies	July 1 – Sept 30	0.025	0.325
Idaho Batholith	July 1 – Sept 30	0.025	0.275
Middle Rockies	July 1 – Sept 30	0.030	0.300
Northwestern Glaciated Plains	June 16 – Sept 30	0.110	1.300
Northwestern Great Plains, Wyoming Basin	July 1 – Sept 30	0.150	1.300

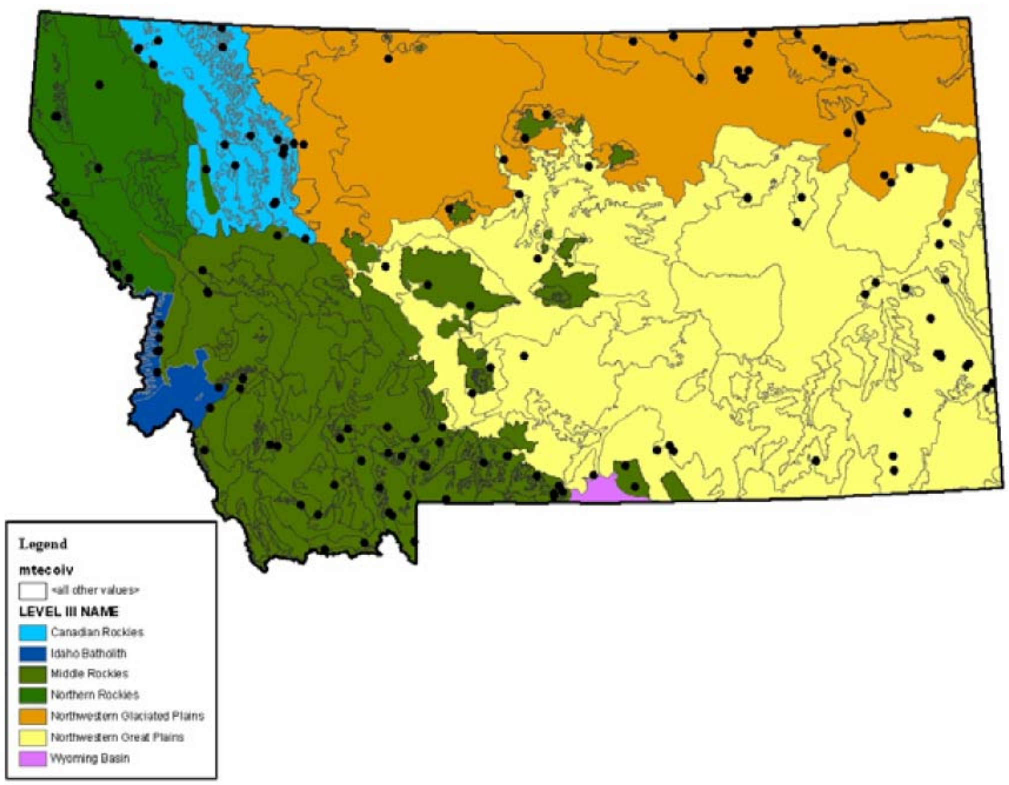

Figure 5-1 - Omerick Level III Ecoregions in Montana

Because the treatment of wastewater to base numeric nutrient standards in 2011 would have resulted in substantial and widespread economic impacts on a statewide basis (§75-5 -313 [5][a], MCA), a permittee may obtain variances as outlined in DEQ-12. Because Thompson Falls operates a lagoon system not designed to actively remove nutrients, and so long as the proposed improvements do not change that, the system will qualify for a general variance and be required to maintain current performance in accordance with DEQ-12. Consideration for potential permit limits for nutrients for numeric nutrient standards was presented previously. It was the determination of that analysis that no reasonable potential exists for permit limits for numeric nutrient standards.

Nutrient Trading Policy

The State of Montana has also developed a draft nutrient trading policy. In some situations, dischargers may be able to satisfy nutrient regulations by developing trading plans consistent with this policy.

Surface Water Discharge

The current discharge for the City of Thompson Falls is classified as a discharge to surface water. The City of Thompson Falls currently discharges to the Clark Fork River with coverage under the Montana Domestic Sewage Treatment Lagoons General Permit MTG580000.

The MDEQ has also developed numeric nutrient water quality criteria as described above, intended to control excessive nutrient (nitrogen and phosphorus) pollution in Montana's streams, rivers, and lakes. The intent of numeric nutrient criteria is to assure a level of water quality that will protect the beneficial uses of these water-bodies. Variances from this standard may be an option.

The MDEQ also administers a Total Maximum Daily Load (TMDL) Program. As described in greater detail below, the TMDL regulation is intended to control the overall pollutant load to a surface water body.

Groundwater Discharge

Groundwater discharging systems that exceed 5,000 gallons per day (gpd) require a groundwater discharge permit. Under state law the permittee must demonstrate that the treatment and disposal system proposed can satisfy the nondegradation trigger limit of 5 mg/L at the end of mixing zone. The 50-year phosphorus breakthrough analysis must also be satisfied. For treatment systems that satisfy Level II treatment requirements (60% removal of nitrogen), the nondegradation limit at the end of the mixing zone is 7.5 mg/L.

MDEQ has also placed increased emphasis on disinfection for groundwater discharges. The intent is to ensure the water quality standard of <1 col/100 ml is satisfied. In some cases, the permits have only required the installation of disinfection equipment. In other cases, the permit has included an end-of-the-pipe effluent permit limit for E. coli.

The City of Thompson Falls does not discharge to groundwater and evaluation of groundwater discharging systems are not included in this report.

Land Application

Another type of wastewater disposal is through land application. With this method of disposal, irrigation equipment, such as center pivots, wheel lines, and drip irrigation systems are utilized to irrigate crops with treated wastewater. The wastewater must be applied to the crop at 100% nitrogen uptake rates in order for this process to meet nondegradation rules and avoid groundwater permit requirements. This ensures that all of the nitrogen in the wastewater will be consumed by the crop and will not impact the groundwater. Hydraulic overloading and minimum irrigation needs to support a healthy crop are also considerations when designing land application systems. The design requirements associated with land application are primarily climate and agricultural based, and requires a detailed water balance.

5.5 TMDL Considerations

A Total Maximum Daily Load (TMDL) is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Section 303(d) of the US Clean Water Act establishes the water quality standards and TMDL program. Sections 75-5-101 MCA and 75-5-701 MCA of the Montana Clean Water Act describe the TMDL process in Montana.

TMDLs are a water quality based approach that emphasizes the overall quality of water within a water body and provides a mechanism through which the amount of pollution entering a water body is controlled based on the inherent conditions of that body of water and the standards set to protect it. This approach begins with the determination of waters not meeting, or expecting to meet, water quality standards after the implementation of technology based controls. Waters identified through this process are considered water quality limited and must be prioritized and listed. This list is called the 303(d) list and is updated every two years by the state. An overall plan to manage the excess pollutants in each water body is then developed. The necessary limitations on the introduction of pollutants to the water body are identified through the development of a TMDL. To date, the development of TMDL's has been based on the numeric nutrient standards presented in MCA 75-5-313. The recently developed numeric nutrient standards to be established in the rule will serve as a target for the development of TMDL's in the future, at least in most cases. This is how the previously described numeric nutrient standards are related to TMDLs.

Montana has been documenting water quality conditions since the 1970's. This information has been submitted to the EPA on a regular basis as part of the federally required 305(b) reporting. In 1992 this information became officially termed a 303(d) list.

In 1997 the legislature required DEQ to use "sufficient, credible data" in making beneficial use determinations on the 303(d) list. As a result of the new definition of sufficient, credible data, 486 water bodies were removed from the 2000 303(d) list pending reassessment.

A TMDL consists of the sum of individual wasteload allocations for point sources and load allocations for both non-point sources and natural background levels for a given water body. The TMDL must also include a margin of safety that accounts for the uncertainty in the relationship between pollutant loads and the quality of the receiving water body.

To establish a TMDL, an acceptable combination of allocations that adequately protects water quality standards must be established. Issues that affect allocations include: Economics, political considerations, feasibility, equitability, types of sources and management options, public involvement, implementation, limits of technology and variability in loads.

The MPDES permit is the mechanism for translating TMDL waste load allocations into enforceable requirements for point sources. The MPDES permit authorizes a point source facility to discharge. The permit also subjects the permitee to legally enforceable requirements set forth in the permit. 40 CFR 122.44(d)(1)(vii)(B) requires effluent limits to be consistent with waste load allocations in an approved TMDL. One-way wasteload allocations are translated into permits is through effluent limitations. Effluent limitations impose restrictions on the quantities of discharge, rates of discharges, and concentrations of specified pollutants in the point source discharges. Effluent limitations reflect either minimum federal or state technology-based guidelines or levels needed to protect water quality, whichever is more stringent. By definition, TMDLs involve waste load allocations more stringent than technology-based limits to protect water quality standards, and are therefore used to establish appropriate effluent limitations.

The objective of a TMDL is to allocate allowable loads among different pollutant sources so that the appropriate control actions can be taken and water quality standards achieved. The TMDL provides an estimate of pollutant loadings from all sources and predicts the resulting pollutant concentrations. The TMDL determines the allowable loads and provides the basis for establishing or modifying controls on pollutant sources.

Three common methods for allocating loads are recommended by the EPA. The first method is "equal percent removal" and exists in two forms. In one, the overall removal efficiencies of the sources are set so they are all equal. This method is appropriate when the incremental removal efficiencies are relatively small, so that the necessary improvement in water quality can be obtained by minor improvement in treatment at each point source, at little cost. The second common allocation method specifies equal effluent concentrations. This is similar to equal percent removal if influent concentrations at all sources are approximately the same. However, if one source has substantially higher influent concentration levels for a parameter in question, the equal effluent concentrations method will require higher overall treatment levels for the discharges with the higher concentration.

The third commonly used method of allocating loads can be termed a hybrid method. With this method, the criteria for waste reduction may not be the same from one source to the next. One source may be allowed to operate unchanged while another may be required to provide the entire load reduction. More generally, a proportionality rule may be assigned that requires the percent removal to be proportional to the input source loading or flow rate.

The Clark Fork River at the point of discharge for the City of Thompson Falls is listed on the Montana DEQ's 2016 Integrated Report as impaired. The Integrated Report list of impaired waterbodies included both those waterbodies where beneficial uses are impaired by a pollutant (sediment, nutrients, metals, temperature, etc.) and waterbodies impaired by a non-pollutant (alteration in stream-side or littoral vegetative covers, low flow alterations). DEQ develops TMDLs for water bodies with pollutant impairments for the partial purpose of developing permit limits as outlined above. The Clark Fork at the point of discharge is listed as impaired for dissolved gas supersaturation and fish-passage barrier. There is no TMDL or planned TMDL for this section of the Lower Clark Fork River indicated in the 2016 Integrated Report.

5.6 Treatment

Table 5-8 below presents the current conditions of the treatment lagoon compared to the requirements for partially mixed aerated pond design criteria from DEQ Circular 2.

Table 5-8 - Aerated Lagoon Design Requirements

	Continuous Discharge (DEQ2)	Land App. (DEQ2)	TFalls Existing	TFalls 20-Year Planning Period
Average Day Influent			33,240 gpd	160,780 gpd
Minimum # Aerated Cells	3	2	3	3
Rec. Mode of Aeration	Tapered	Equal	Tapered	Tapered
O2 Requirements (lb O2/lb BOD5 Removed)	2.5	2.5	2.5 (263 lb/day)	2.5 (761 lb/day)
Min Dissolved O2	2	2	2	2
Depth (feet)	10-15	10-15	12	12
Min. Detention Time Under Aeration (days)	20	12	70	20
Max Seepage (in/year)	6	6	6	6
Emergency Storage (days)	-	30-90	-	0 (1)
Winter Storage for Irrigation	-	Water Balance	-	0 (1)
Mixing in Aerated Cells (HP/MG)	5-10	5-10	14	14
Quiescent Detention Time (days)	1-2	1-2	13	3.7

(1) Existing system would need a storage lagoon to meet Land Application design requirements. Water balance calculations included in Appendix X

It can be seen in Table 5-8 that the existing treatment system can adequately meet the requirements of DEQ-2. It is also shown that the existing treatment system has additional capacity. As presented in Section 3.2.9. the existing treatment system cannot meet the non degredation allocated loads for BOD and TSS with discharge at secondary standards. Based upon calculations presented there, the maximum average design day discharge from the system to meet non-degredation limits is 87,930 gallons per day. Given the current system flow of 33,240 gpd, presented in Section 3.2.5 the existing treatment system can accept an additional 54,690 gpd average day flow before treatment system upgrades will be necessary.

As discussed in Section 5.4 the City may look at land application of a portion of their treated effluent in order to meet the non-degredation limits. It can be seen in Table 5-8 that the treatment system would need a storage lagoon to meet the design requirements for land application.

5.7 Collection

The proposed expansion to the collection system would need to comply with Circular DEQ-2 requirements. Plans would be reviewed by DEQ for compliance and any deviations would require a written request to be submitted with justification for the deviation along with the plans. The most pertinent section to the City's collection system for the alternatives considered is Chapter 30: Design of Sewers.

5.8 Lift Stations

Any new lift stations within the proposed expansion of the collection system or revisions to the existing Main Lift Station would need to comply with Circular DEQ-2 requirements. Plans would be reviewed by DEQ for compliance and any deviations would require a written request to be submitted with justification for the deviation along with the plans. The most pertinent section to the City's pump stations is Chapter 40: Wastewater Pumping Stations.

5.9 Sludge

The EPA Region 8 Biosolids Permit governs sludge handling and processing. The required sludge handling and/or disposal would also need to comply with Circular DEQ-2 requirements for the new system. Plans would be reviewed by DEQ for compliance and any deviations would require a written request to be submitted with justification for the deviation along with the plans. The most pertinent section of the DEQ to the proposed City's sludge handling and disposal system is Chapter 80: Sludge Processing, Storage, and Disposal.

6.0 ALTERNATIVE SCREENING PROCESS

6.1 Collection System

The proposed wastewater system expansion for the City of Thompson Falls is an entirely new system, so the collection system layout alternatives are relatively straightforward. The alternatives in this section are evaluated based on general knowledge of the site and are subject to modification during the design stages of the project when more accurate topographical information is available and a thorough assessment of other existing buried utilities is complete. In general, the collection system expansion alternatives evaluated for this project utilize a conventional gravity collection system where possible. Various alignment alternatives were considered to minimize wastewater pumping stations and highway crossings.

All collection system alternatives considered will also address the deficiencies within the existing system presented in the previous section: 1) Rehabilitate existing collection system to reduce inflow and infiltration (I & I) within Solid Rock Estates, 2) Replace failing orangeburg pipe, 3) Replace failing 12-inch asbestos cement (AC) pipe gravity collection main east of Main Lift Station, 4) rehabilitate approximately 240 feet of aging 8-inch clay pipe in alley between Hill Street and Ferry Street with cured-in-place-pipe (CIPP). Evaluation of restoration methods for the 240 feet of 8-inch clay between Hill Street and Ferry Street was included in an RRGL application in 2016; see Appendix J.

6.1.1 No Action

This alterative would not address the primary concern of the City in that it would not connect the residents of the unsewered area of the City north of US Highway 200. This would not address the health and sanitary issues discussed in Chapter 4. In addition, by not addressing the deficiencies identified within the existing system, operation and maintenance efforts will continue to increase from elevated system I & I and on-going issues with “trouble” pipe. The “No Action” alternative for the collection system is not considered further for this report.

6.1.2 Separate Forcemain to Treatment Site

This alternative would construct gravity collection main lines within the existing street rights-of-way, and typically located directly underneath the street itself. This is probably the most common system layout in municipalities. The un-sewered area of the City is generally a typical grid street system with alleys running north south between many of the streets. The predominant slope of the area is from north to south. New gravity sewer mains will generally not be installed within alleys in the unsewered area of the City. Though construction in alleys can reduce restoration costs, it also can be difficult to operate necessary equipment in narrow right-of-way which can lead to higher construction costs. Additionally, many of the existing alleys within the unsewered area are unimproved, have private encroachments and have rock outcrops.

Wastewater from the un-sewered area of the City will be collected at a new pump station located on the west end of Preston Avenue. From there, wastewater will be conveyed to the treatment site through a new force main. This alternative will be considered further for this report.

6.1.3 Gravity Collection System to Main Lift Station

Similar to the separate force main alternative presented previously, this alternative would install gravity collection mains within existing City right-of-way to serve the un-sewered area. This alternative, however, will convey wastewater to the existing Main Lift Station near the intersection of Maiden Lane and Mill Street. In order for wastewater to be conveyed to the existing collection system, the configuration of the collection system expansion will require two new crossings of US Highway 200 and the BNSF railway. From the Main Lift Station wastewater will be pumped to the existing treatment site through a new forcemain to replace the existing aging AC force main. This alternative will require upgrades to the Main Lift Station pumps to convey the additional flow. This alternative will be considered further for this report.

6.1.4 Low Pressure Mains with Individual Grinder Pumps

This alternative is a network of smaller diameter piping that utilizes individual grinder pumps at each residence to convey wastewater. This type of system is typically installed in subdivisions or communities with little to no slope. It can be easier to install pressurized pipe in already developed areas because the construction parameters are more flexible. The downside of these systems in a community application is that the individual owners are typically responsible for the operation and maintenance of each septic tank and pumping station.

Given the available slope to install a conventional gravity collection system within the un-sewered area of the City, this alternative will not be considered further. However, it is anticipated that several individual grinder pumps will be necessary in the area to connect some residences to the gravity collection mains. The location and quantity of these will be determined during design.

6.2 Lift Station Alternatives

Other than improvements to the existing lift station as described in the collection system alternatives above, improvements to the lift station will include new backup power at the lift station and replacement of lift station controls.

An alternative analysis for the lift station controls with accompanying cost estimates were prepared for the 2016 DNRC Project Grant, included in Appendix J.

All lift station improvements are included with the collection system alternatives for the remainder of this report.

6.3 Treatment System

There are two basic wastewater treatment and disposal system configurations available for consideration for municipal wastewater systems. These include discharging systems that discharge treated effluent to surface water or groundwater and non-discharging systems that utilize irrigation and/or evaporation as a means of effluent disposal.

For discharging systems, the system owner must obtain a discharge permit to legally discharge to either surface water or groundwater. For non-discharging systems, a discharge permit is not required; however, there are numerous design standards and treatment requirements depending upon how and where the treated effluent is applied or evaporated.

There are many existing wastewater treatment technologies available for consideration for municipal systems. The level of treatment required depends on the effluent disposal method, i.e. discharging or non-discharging. For discharging alternatives, the level of treatment is strongly governed by the requirements of either the surface water discharge permit (MPDES) or the groundwater discharge permit (MGWPC).

Below is a summary of the treatment alternatives considered in this screening process. Each alternative is discussed briefly and either dismissed or recommended for further evaluation. Multiple variations or system configurations exist with many of these alternatives, which are typically governed by regulatory considerations and variances.

6.3.1 No Action

The No Action alternative means that no improvements would be made to the Thompson Falls treatment system. If it is determined that expansion to the City's collection system to serve the unsewered area of the community, minimal treatment system improvements would be necessary since the existing treatment system can adequately meet the permit limits. If treatment system improvements are not undertaken, removal of accumulated sludge will still be necessary in the near future. Consideration of future permit limits may be necessary, but are not needed at this time; as shown in the permit analysis in previous sections.

As the primary intent of this report is to evaluate the feasibility of sewer service to the unsewered area of the community, and it has been shown that improvements would be necessary to meet current limits, the No Action alternative is not considered further in this report.

6.3.2 Partial Mix Mechanically Aerated Lagoons (Existing Technology)

This lagoon technology uses mechanical means for diffusing air into the wastewater. The upper zone of the pond is aerated and therefore in an aerobic environment while the lower portion is in an anaerobic environment. This process is known as a partial mix mechanically aerated lagoon. Mechanical aeration may be accomplished by blowers and subsurface diffusers or by mechanical agitation at the surface using surface aerators. Pond depths typically vary between 10 and 15 feet. The operator must maintain the blower and aerators, monitor dissolved oxygen in the ponds, periodically mow embankment vegetation, and monitor effluent quality and exercise valves. Sludge removal is required every 10 to 20 years. This is the type of technology currently being used by the City.

Aerated lagoon systems often dispose of treated effluent by discharging to a nearby stream or lake. An MPDES discharge permit is required for surface water discharges. The permit establishes contaminant concentration and load limits that cannot be exceeded. Monthly wastewater effluent sampling is required. The operator must be licensed by the State of Montana and the samples must be analyzed by a certified lab. This technology is typically used when secondary treatment standards are required. This technology does not remove nitrogen, phosphorous or significant amounts of ammonia and would not be used alone when the permit requires the removal of these parameters. However, partial mix mechanically aerated lagoons can be combined with other treatment technologies to meet a broad array of permit limits. These combinations of treatment technologies are discussed later in this report as enhanced lagoon technologies. Aerated lagoons are also suitable pre-treatment for storage and irrigation systems, which is also discussed later in this report.

Aerated lagoon systems require much less detention time than facultative lagoons to treat wastewater and capital cost savings are realized with the smaller lagoon. The primary disadvantage of aerated lagoons is the need for mechanical aeration equipment and the associated increase in operation and maintenance as well as high energy costs.

As presented previously, the City's existing system can adequately meet permit requirements for the existing collection system. However, the existing system would not be able to meet permit limits with the proposed expansion of the collection system; specifically, the BOD and TSS mass based load limits. As such, maintaining the treatment facility as a stand-alone partial mix mechanically aerated lagoon system is not considered further for this report. The City's existing partial mix mechanically aerated lagoons will be considered further for their ability to meet secondary standards prior to a polishing reactor or storage and irrigation system.

6.3.3 Total Retention Ponds

Total retention treatment systems consist of large shallow ponds (4 - 6 feet deep) that rely on evaporation to eliminate the wastewater effluent. Solids are periodically removed and properly disposed of via land farming or licensed solid waste facilities. These systems require considerably more land area than non-aerated discharging facultative or aerated lagoon systems due to their reliance on evaporation for effluent disposal. An arid climate and high evaporation rate is needed to successfully apply this technology.

The ponds must be lined to prevent wastewater seepage into the groundwater. The ponds should provide sufficient control structures and piping to allow some redirection of flows to prevent odors. Treated effluent is disposed of by evaporation so no discharge permit is required. The ponds are extremely simple to operate and maintain, they are reliable, and are not heavily regulated because they do not require a discharge permit. For these reasons, they are very good for small communities but less practical for larger communities due to the extensive size and associated capital costs.

Total retention pond sizing is performed using a water balance with wastewater inflow and precipitation as system inflow and evaporation as outlflow. The 10-year precipitation for each month and average monthly evaporation is typically used in water balance. For Thompson Falls, the annual 10-year precipitation and evaporation are 28.4 inches and 29.2 inch respectively. Meteorological data for Thompson Falls is included in Appendix W. Preliminary sizing calculations indicate an approximately 550-acre total retention pond would be necessary for Thompson Falls.

Construction of a large total retention pond can be expensive because of the earthwork required. Given the lack of available land within close proximity to the treatment system, climate of the area, and topography, total retention lagoons are not considered further.

6.3.4 High Rate Land Application - Discharge to Groundwater

The stabilization of wastewater by means of passage through the soil has historically been an attractive technology that can be appropriate on small scales. High-rate systems (rapid infiltration ponds) operate similarly to large filter beds with the natural ground being used as a medium. The systems use the cation exchange capacity of the soil to treat the wastewater as well as physical straining and anaerobic treatment. The soil must be sufficiently permeable and have high cation exchange capacity to be suitable. These properties are determined in a geotechnical investigation.

The rapid infiltration pond process does not require mechanical equipment if sufficient groundwater dilution exists to justify a groundwater permit and is relatively simple to operate. The operator must watch the water levels in each pond and the time of operation. Flows must be periodically directed to various rapid infiltration ponds to allow each pond to dry and be reconditioned. Reconditioning consists of an adequate rest period and harrowing of the pond bottom to prevent sealing. The infiltration ponds may not be located in the floodplain or in areas of poorly drained soils.

Storage and pretreatment is typically required before discharge to the infiltration ponds. In the past, secondary treatment technologies such as naturally aerated facultative ponds and mechanically aerated facultative ponds were utilized as pretreatment and no discharge permit was issued. However, this is no longer true. Current DEQ policy is to issue a groundwater discharge permit whenever one of these systems is upgraded or a new one constructed.

Groundwater discharge permits require on-going monitoring of the discharge from the end of the pipe to the pretreatment process or from a groundwater monitoring well at the end of the mixing zone. The non-degradation nitrogen limit is 5 mg/l. Unless the groundwater conditions provide very high hydraulic conductivity for dilution of nitrates, using the existing lagoon technologies or conventional activated sludge is not feasible for groundwater disposal. Lagoon systems do not reliably remove sufficient nitrogen in these situations and biological nutrient removal treatment is required.

Disposal to groundwater is not considered further because it will require a high degree of treatment and very large infiltration ponds and/or multi-zoned drainfields and therefore offers no apparent advantage over continued surface water discharge. Additionally, given the facility has an existing surface water discharge permit, which it can meet with the existing technology in place, acquiring a ground water discharge permit for the remainder of the system effluent beyond the non degredation load would be impractical.

6.3.5 Custom 3 Stage Biological Nutrient Removal (BNR-MLE/A2O)

The activated sludge process can be modified to accomplish biological nutrient removal (BNR). The simplest adaptation is to add an anoxic reactor in front of the traditional activated sludge process and a nitrate recycle stream back to the anoxic basin from the Oxic basin. The amount of air and the size of the reactors may be adjusted to accomplish the conversion from conventional activated sludge to biological nutrient removal. This BNR process is referred to as the Modified Ludzack-Ettinger (MLE) process and is designed for nitrogen removal. The total nitrogen in raw wastewater is converted to nitrates in oxic conditions and the nitrates must then be converted to nitrogen gas in anoxic conditions. The MLE process can be expected to achieve effluent limits of approximately 7 to 10 mg/l total nitrogen on a max day basis and remove a high percent of ammonia.

The MLE process has been enhanced to accomplish a higher degree of treatment by adding subsequent stages and an outside source of carbon. Such adaptation may achieve 5mg/l total nitrogen on a max day basis, in some cases a post denitrification filter of some type has been added. These numerous process modifications can improve performance of biological nutrient removal plants to meet the limits of technology of between 3 and 4 mg/L.

Biological phosphorous removal can be accomplished by adding an anaerobic basin in front of the MLE process. This process is referred to as the A2O process. Like nitrogen removal, several process adaptations have been made to improve phosphorous removal.

An MLE/A2O or 3 Stage BNR is not considered practical for such a small community. This system would provide the necessary reduction in BOD and TSS necessary to meet the non-degradation allocated loads specified in the City’s permit. The system would also provide ammonia and nutrient reduction that would not be necessary for future discharge limits of the facility. Due to the complexity of this type of treatment plant and higher capital and operation and maintenance costs, this alternative is not considered further in this report.

6.3.6 Membrane Bioreactors (MBR)

MBRs typically utilize the MLE process prior to solids removal by a membrane filter. The membrane filter simply replaces the need for a clarifier to separate solids and will result in better nitrogen removal than the traditional MLE process because the TSS removal is very good. Both nitrogen and phosphorous are part of the cell mass removed with TSS removal. The bulk of the nitrogen and phosphorous removal however is still dependent on the biological process preceding the membrane unit.

The advantage of the MBR is that it will result in slightly higher level of nitrogen removal than the traditional MLE process. MBR requires permeate to be managed which means more pumps and more power. This will result in higher O&M costs and complexity.

There is a space savings with the MBR, depending on how it is configured, because the clarifier is eliminated and the reactor may be smaller. However, it is important to remember that the rest of the plant facilities are still needed such as headworks, sludge storage/digesters, labs, disinfection, solids handling, etc. In this sense, the overall plant space savings may be more modest than that often perceived when only a direct comparison of reactor size is made to other processes.

This system would provide the necessary reduction in BOD and TSS necessary to meet the non-degradation allocated loads specified in the City's permit. The system would also provide ammonia and nutrient reduction that would not be necessary for future discharge limits of the facility. MBR technologies will not be considered further because of the higher cost and the more complex operation and maintenance. These disadvantages are not offset by a need for the higher degree of treatment provided and the space savings associated with a MBR.

6.3.7 Sequencing Batch Reactor (SBR)

A Sequencing Batch Reactor (SBR) is a batch process that has been used extensively in wastewater treatment and is available from several manufacturers in a package configuration. The package configuration allows small communities to benefit from the cost efficiency associated with manufacturers providing this equipment to many communities.

The SBR system uses a single reactor for all treatment processes including aeration, biologic treatment, and clarification. Since the SBR treats wastewater in batches, a minimum of two tanks are required. The tanks operate 180 degrees out of phase, so while one tank is filling, the second tank is going through the aeration, clarification, and decanting cycles. The operational cycles of each tank are switched after each batch. When treatment is complete, the treated effluent is decanted via floating decanters to an equalization basin for follow up treatment. An equalization basin allows any downstream process units, like disinfection, to be sized for system design flows rather than the higher flow rate of the decanter. Also, after each batch, some of the sludge must be wasted from the SBR tank and sent to a sludge storage tank or a digester. Stored or digested sludge is dewatered and temporarily stored in a container until it can be disposed of through land application or in a landfill. In the final step, the treated wastewater is disinfected and discharged to surface water.

The SBR system has the advantage of no recycle, which makes it simple for small communities to operate. The SBR also lends itself well to automation and remote control, another feature making it ideal for small communities. The treatment efficiency is also very high. Some systems have been able to consistently produce 6-7 mg/l total nitrogen in northern climates. Because of the level of treatment provided, SBR technologies have also been used for groundwater disposal where the non-degradation limits at the end of the groundwater mixing zone must be 5 to 7.5 mg/l. Often times groundwater disposal locations do not have adequate dilution and a high degree of treatment is necessary to meet the nondegradation limits.

This system would provide the necessary reduction in BOD and TSS necessary to meet the non-degradation allocated loads specified in the City's permit. The system would also provide ammonia and nutrient reduction that would not be necessary for future discharge limits of the facility. SBR technologies will not be considered further because of the higher cost and the more complex operation and maintenance. These disadvantages are not offset by a need for the higher degree of treatment provided and the space savings associated with a SBR.

6.3.8 Extended Aeration Activated Sludge (Oxidation Ditch)

The oxidation ditch reactor is an extended aeration activated sludge process. These systems have high hydraulic retention and long sludge age. These features make the extended aeration process very forgiving and operator friendly and a good choice for small communities. Oxidation ditches also produce a stable sludge, making sludge management simpler. The reactor can be modified to create oxic and anoxic conditions and accomplish biologic nutrient removal (BNR). In one scenario, the reactor can be used as an oxic reactor proceeded by the addition of an anoxic reactor to create an MLE process. Or the oxidation ditch reactor can be designed to create internal oxic and anoxic conditions. Oxidation ditches are also offered by several manufacturers as package plants. The oxidation ditch treatment system is often more expensive than the SBR mentioned above and has a larger foot print.

This system would provide the necessary reduction in BOD and TSS necessary to meet the non-degradation allocated loads specified in the City's permit. The system would also provide ammonia and nutrient reduction that would not be necessary for future discharge limits of the facility. An oxidation ditch will not be considered further because of the higher cost and the more complex operation and maintenance.

6.3.9 Extended Aeration Activated Sludge (Biolac)

This is an extended aeration activated sludge process with a single aeration basin. This process can accomplish BNR by creating oxic and anoxic zones internal to the single aeration basin. The internal oxic and anoxic zones are created by turning the air off and on to individual aeration laterals. The laterals are typically HDPE pipes floating on the water surface with individual aerator assemblies suspended from the air lateral. The aeration laterals are allowed to swing back and forth to improve mixing. A PLC controlled automated system manages the flow of air to each lateral.

This process is typically configured in an earthen, lagoon type reactor and is referred to as Biolac. The term Biolac is the trademark name of this system as supplied by Parkson Corp. Other suppliers can provide similar systems. The system provides good secondary treatment and ammonia removal and can remove TN and TP. The extended aeration process has long hydraulic retention time and long sludge age. Like the oxidation ditch, these process features make Biolac more operator friendly than other mechanical treatment plant concepts and provides good quality sludge.

This alternative requires a relatively small footprint and represents a simpler and more cost-effective means of mechanical treatment. It has been the experience of Great West Engineering that this technology is more expensive and O&M intensive than other enhanced lagoon technologies like SAGR and Complete/Partial Mix with Polishing Reactors discussed below. Additionally, given no effluent limits for ammonia, TN and TP are anticipated for Thompson

Falls; this technology would be more than the City needs. Accordingly, this alternative was not considered further for this report.

6.3.10 Constructed Wetlands

Constructed wetlands are emerging as an easily operated, efficient alternative to conventional treatment systems. This technology is relatively new (mid-1980s), but has been applied to several municipal facilities throughout North America and Europe. Europe tends to use the technology more for primary treatment. In North America wetlands are often used after some form of primary treatment such as lagoons and septic tanks.

Constructed wetlands are artificially created wetlands using either subsurface or surface flow. Surface flow constructed wetlands consist of a basin or channels with some type of lining to prevent seepage. Soil is added to the bottom of these basins or channels to support emergent vegetation. The wastewater in these systems is exposed to the surface and therefore called free water surface wetlands.

Subsurface wetlands are basins or channels that are lined to prevent seepage and are filled with coarse grained material such as sand and gravels. These coarse grained materials allow wastewater to flow through the system, but below the free surface. The coarse grained material also supports the aquatic vegetation planted throughout the basin or channels. Typical vegetation planted in constructed wetlands include cattails, bulrushes, and reeds.

These systems rely on both aerobic and anaerobic biological processes to remove nutrients. The flow path through these systems is horizontal and the final effluent is generally collected at the end by an effluent manifold. These systems may discharge to groundwater or surface water. There is less data available to support this type of treatment in a Montana

Based on the current discharge permit, this technology is not feasible as a stand-alone process for discharge to surface waters. The constructed wetland alternative is not evaluated further in this report.

6.3.11 Packed Bed Treatment

This treatment alternative utilizes fixed film packed bed treatment systems to improve BOD/TSS concentrations and remove ammonia. A large primary sedimentation tank is used to manage primary sludge into the fixed film packed bed. Sludge management includes sludge storage and bio-bags. Based on Great West's experience in analyzing this type of system for similar communities, both the capital cost and O&M cost are very expensive in comparison to other types of systems. As such, this alternative is not considered further.

6.3.12 Complete Mix/Partial Mix Aerated Lagoons & Polishing Reactor

This alternative is a lagoon process that includes prescreening, a complete mix zone/partial mix lagoon, polishing reactors and clarifier or effluent filters. A treatment cell cover is also needed to control temperature and algae growth. This alternative would be constructed within the existing ponds. Following the treatment lagoons, a Polishing Reactor will provide additional BOD removal and ammonia treatment.

Influent would initially flow through a mechanical screen to remove material greater than 6 mm in size. No grit removal would be required for this technology. The influent would then flow into the first lagoon in the series. The lagoon is divided into two cells using a baffle. The first cell in the first lagoon will be a complete mix zone which is an aggressively mixed aerated cell that establishes an environment suitable for the rapid removal of BOD. Aeration and mixing are provided by a combination of fine bubble diffusers and floating mechanical mixers. The complete mix zone is designed with enough mixing energy to ensure suspension of solids.

Influent then proceeds to the second zone of the first lagoon which will serve as the partial mix treatment process. The difference between the partial-mix and the complete-mix zones is a lower level of aeration and mixing is utilized to effectively achieve BOD removal. The second lagoon will also be divided in two zones by a baffle. The first zone of the second lagoon will also serve as a partial-mix zone. The equipment in both basins is similar. Air and mixing energy are introduced into the partial mix cell to maintain optimal degradation of BOD. Mixing energy is supplied to maintain the minimum power intensity required to economically achieve effective biological reaction rates and to maintain partial suspension of solids.

The second zone of the second lagoon will provide quiescent settling pond for TSS removal and storage of biosolids. It is also important to control algae growth at this stage, so the settling pond is covered to eliminate sunlight. This improves clarification in two ways: 1) it prevents wind action on the water surface thereby establishing a quiescent zone for solids to settle, and 2) the insulation minimizes seasonal and diurnal temperature fluctuations, thereby reducing stirring by thermal currents.

Sludge handling efforts are confined to the settling pond. The process generates fewer biosolids than comparable systems due to the relatively long detention times. The anaerobic environment in the settling pond promotes digestion of the biosolids and reduces sludge volumes significantly. Sludge must be removed periodically, dried and disposed. Sludge removal is anticipated every - 10 years.

The final step in the treatment process is the polishing reactor. This is a fixed film reactor consisting of aerated, submerged, attached growth media modules that maintain a population of bacteria used for final polishing of the lagoon effluent by removing a high percent of ammonia and further reduce BOD and TSS concentration. Effluent disinfection follows the polishing reactor before discharging.

This technology would greatly improve BOD and TSS removal and would remove ammonia such that non degredation allocated load limits could be satisfied. This technology is straight forward to operate with minimal increased O&M costs over what is already being done at treatment facility. This alternative will be considered further.

6.3.13 Existing Partial Mix Lagoons with Submerged Attached Growth Reactor (SAGR)

In developing this treatment alternative, consideration focused on concepts that would allow continued use of the existing mechanical aerated lagoons with a polishing reactor to satisfy BOD/TSS non degredation limits.

This alternative would reuse the existing lagoons and add a Submerged Attached Growth Reactor (SAGR) to remove ammonia and further reduce BOD and TSS concentrations. The SAGR system consists of a gravel bed that is approximately 7.5 feet deep and is aerated with a grid of aeration pipe on the bottom of the gravel bed. Wastewater is introduced to the gravel bed through a distribution header and moves horizontally through the bed. A bio-film grows on the bed to remove BOD/TSS. Though not necessary at this time, as presented previously, this system can also greatly reduce ammonia. An insulating mulch approximately 1-foot-deep is added to the top of SAGR to retain heat. The system is relatively easy to operate as it relates to improved BOD/TSS and ammonia removal.

This alternative continues to use lagoon technology and maintains simplicity with regards to operation and maintenance. This alternative would reutilize the existing treatment lagoons and require minimal additional work at the facility. As such, this alternative will be considered further in the following sections of this report.

6.3.14 Storage and Irrigation (Low Rate Land Application)

Low-rate systems (irrigation) apply wastewater to the soil much less intensively than high rate systems (rapid infiltration ponds) and require much more land area. The wastewater is typically treated in primary cells, stored in 8-9 feet deep storage cells during the winter months, and then applied to cropland or pasture during the summer months using sprinkler irrigation equipment. Secondary treatment must be achieved prior to irrigation so lagoon technologies prior to irrigation are adequate. The wastewater must also be disinfected and filtered prior to irrigation if the public will utilize the irrigated site (golf course or park). If public access is unrestricted, the level of disinfection is such that effluent clarification or filtration may be required. Wastewater is not required to be disinfected when the irrigation site is not public (cropland or pasture) and a 200-foot buffer area is provided around the irrigated acreage to control public access. If the public access buffer zone is reduced to 50 feet, effluent disinfection must be provided. Remote locations are preferred because of the large size of the storage lagoons and concerns with the mist of the irrigation system.

This treatment technology has been excluded from the DEQ’s non-degradation rules if the system is designed for 100 percent nitrogen uptake by the irrigated crops. This requirement means that the discharge of wastewater to the irrigation site is closely regulated and may only be applied as specific rates at specific times of the year.

Multiple parameters are explored to determine if a site is suitable for irrigation including but not limited to: soil conditions, floodplains, parcel sizes, irrigation pivot configurations related to parcel geometry, number of parcel owners and possible interest, and onsite existing facilities such as wells and buildings. During the PER review, the analysis of soil conditions for irrigation was completed using published soil data from NRCS "web soil surveys" (Appendix B). The web soil surveys summarize soil properties that affect irrigation design including sodium absorption ratios, depth to water tables, ponding, available water capacity, saturated hydraulic conductivity (Ksat), slope and flooding. If this is the preferred treatment system upgrade alternative, a more detailed site specific agronomic, geotechnical and hydrologic investigation would be completed during preliminary design to determine the feasibility of irrigation at specific disposal sites.

Since the City's existing treatment facility can meet the current and future permit limits, the amount of wastewater that would require storage for irrigation would only be that amount above the permit's non degredation allocated load for BOD and TSS. Since the City has an existing discharge permit and in-place infrastructure for the discharging lagoon system, evaluation of system upgrades to store and irrigate 100% of the influent wastewater to the facility was not performed for this PER.

This alternative would keep the existing treatment system for the City in place and construct an additional storage lagoon adjacent to the existing lagoons. The storage lagoon would be sized to store and irrigate wastewater above the facilities non-degredation load for BOD and TSS. The treatment system will continue to discharge to the Clark Fork River up to the non-degredation load for BOD and TSS. Headworks equipment and UV disinfection capabilities would also be included with this alternative.

As mentioned before, if this irrigation alternative is selected for development, then the design phase should investigate alternate locations with suitable soils that might result in a cost savings to the community. This alternative is feasible and will be considered further as Alternative T1.

7.0 ALTERNATIVE ANALYSIS

7.1 Collection System Alternatives

Collection system alternatives considered for this PER primarily address how wastewater system expansion will be done to the un-sewered area of the City north of US HWY 200. Of the alternatives considered during the screening process, described in the previous section, two conventional gravity collection system alternatives will be compared within this report. The two alternatives differ little in overall layout of collection mains, with the primary difference being how collected wastewater is conveyed to the treatment system.

Both collection system alternatives presented in this section will also address the deficiencies within the existing system presented in the previous section:

1. Repair one manhole within Solid Rock Estates that contributes significant inflow and infiltration
2. Replace approximately 600 feet of 6-inch orangeburg pipe with new 8-inch SDR 35 PVC sewer main and manholes
3. Replace approximately 1,300 feet of 12-inch AC gravity collection main east of Main Lift Station with new 12-inch SDR 35 PVC sewer main and manholes
4. Rehabilitate approximately 240 feet of 8-inch clay pipe between Hill Street and Ferry Street with cured-in-place-pipe.
5. Replace controls at Main Lift Station
6. Install backup power generator at Main Lift Station

7.1.1 Alternative C1: Separate Force Main to Treatment Site

This alternative would construct gravity collection main lines within the existing street rights-of-way, and typically located directly underneath the street itself. The un-sewered area of the City is generally a typical grid street system with alleys running north south between many of the streets. The predominant topography of the area is from north to south. Installation of gravity collection mains within some of these alleys may be a possibility, but full evaluation was not included in this report. Though construction in alleys can reduce restoration costs, it also can be difficult to operate necessary equipment in narrow right-of-way which can lead to higher construction costs. Additionally, many of the existing alleys within the unsewered area are unimproved, have private encroachments and have rock outcrops.

Connections to the new collection system will be predominantly conventional gravity services. Given the uncertainty of the configuration of the existing on-site septic systems; it is assumed that a portion of the service connections will be served with individual grinder pumps. For the cost estimate included in this section, it was estimated that 10% of all service connections within the unsewered area will require individual grinder pumps. The existing on-site septic systems at each residence will be abandoned in-place.

This alternative will include 3 new wastewater pump stations. Two of the lift stations (East Preston & Golf Street) will serve to convey wastewater to the third pump station (West Preston). From the West Preston Lift Station, wastewater will be conveyed through a new 6-inch force main to the treatment site access road where the force main will connect to the force main from the Main Lift Station and upsize to an 8-inch pipe. Each of the new lift stations will include backup power generators and transfer switches so the lift stations can fully operate during a power outage.

Approximately 1,300 feet of the existing 6-inch ACP force main will be replaced with new 6-inch PVC force main from the intersection of Harlow Rd and the facility access south to Lincoln St. As discussed above, the existing 6-inch AC crossing of the railway and US Highway 200 is through a casing. It may be possible to reutilize these casings for the purposes of installing the new PVC force main. However, given the age and unknown condition of the casing, a new trenchless crossing of the highway and railroad is assumed.

Schematic Layout

Figure 7-1 presents a layout of collection system Alternative C1.

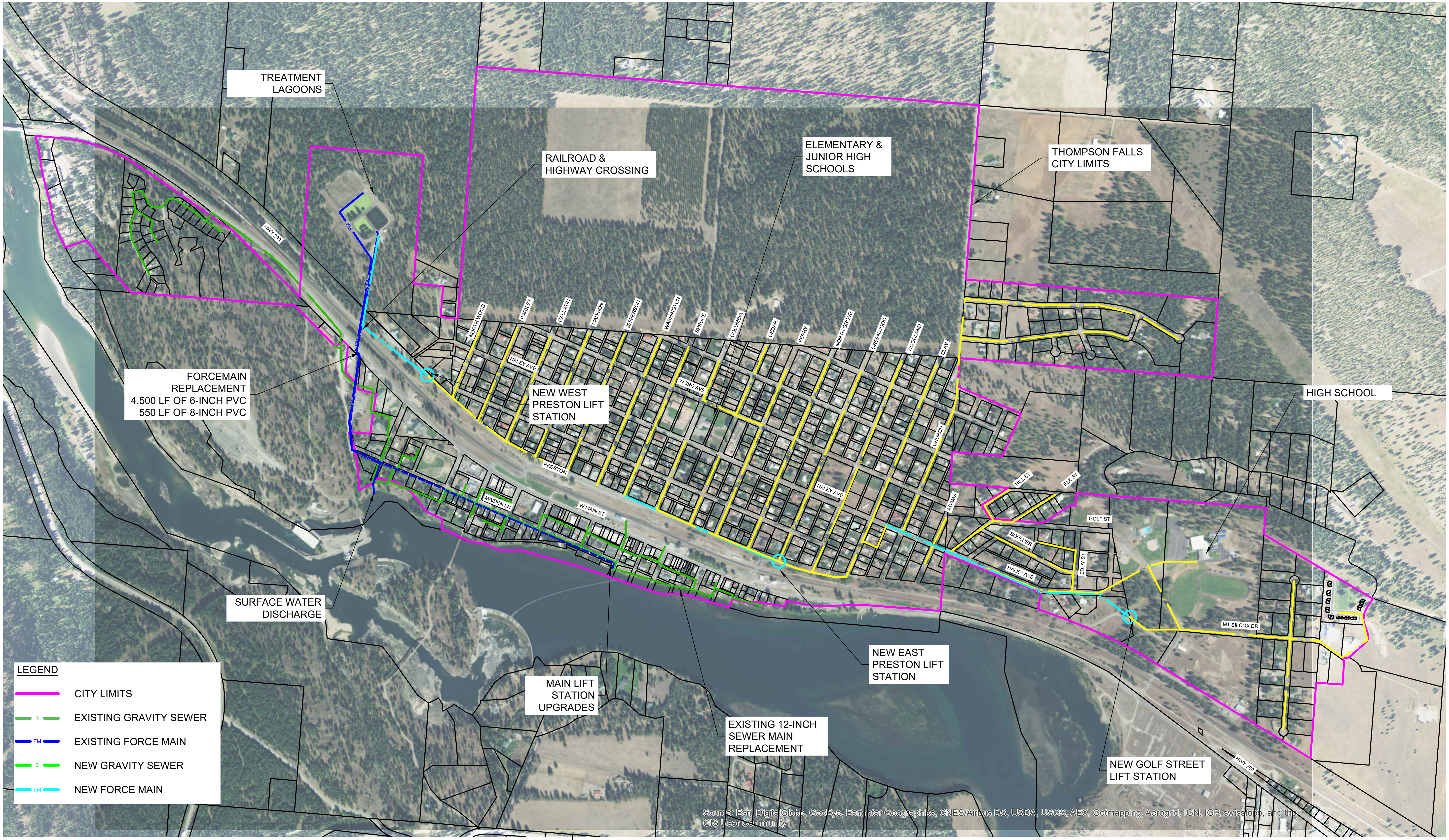

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Figure 7-1
COLLECTION SYSTEM
ALTERNATIVE C1 - LAYOUT

CITY OF THOMPSON FALLS
WASTEWATER TREATMENT SYSTEM PER

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Operational Requirements

The primary advantage of the standard gravity collection system is its simple and inexpensive operation and maintenance. This is because it does not rely on numerous small pumping and control facilities that not only require ongoing maintenance but can also fail. The standard gravity collection system is a tried and true technology that has generally proven to be reliable if properly operated and maintained. The systems should be set up on a periodic flushing and cleaning schedule that results in the cleaning of each pipe segment in the system every five years. The system may experience periodic plugging that must be corrected by the system operator. These duties are important to manage though the operator skill level and manpower required with this technology is minimal, especially when compared with pressurized systems. These systems generally have a very long service life and can be expected to last 50 years or more.

This alternative would include construction of three new lift stations to serve the expanded collection system. The new lift stations will require additional operational and maintenance duties for the system operator. Since the existing system contains a lift station, the operator is familiar with the required maintenance. Routine monthly inspections should be established. The maintenance checklist for this alternative should, at a minimum, includes the following items:

- Controls: check proper operation, inspect control wiring, check operation of light and horn.
- Pumps: clean and inspect pump floats or verify acceptable transducer operation
- General: cleaning and site maintenance as necessary

Packaged lift stations usually have a specific start-up and operational training associated with them. Equipment suppliers can offer more assistance with these systems simply because they typically have more experience and familiarity with the specifics of the equipment they sell and service. The project specifications will require training from the suppliers and/or manufacturers.

Energy Requirements

This collection system itself will have minimal energy requirements. The three new lift stations will each require electricity to operate, with the West Preston Lift Station requiring the greatest usage. The estimated monthly power requirements for the three lift stations will be approximately 3,000 kilowatt-hours.

Regulatory Compliance and Permits

The proposed alternative would be designed and constructed in compliance with Circular DEQ-2 regulations. Plans would need to be reviewed and approved by the Montana Department of Environmental Quality before bidding and construction could begin. Because of the total length of the pipeline placement, more than one acre of land would likely be disturbed; thus, a storm water discharge permit would be needed during construction. The selected contractor would be responsible for obtaining a storm water permit, as would be indicated in the project specifications. Additionally, there will be Montana Department of Transportation (MDT) utility occupancy permit and encroachment permit required. Sanders County and BNSF will also likely require permits for work within their respective rights-of-way.

Land Requirements

This alternative would be almost entirely constructed in existing right-of-ways, so no land acquisition and/or easements would be necessary. There are no anticipated conflicts with respect to land requirements with this alternative.

Environmental Considerations

Although large areas may be disturbed as a result of open-trench digging, virtually all areas will be within existing rights-of-way and easements that have been previously disturbed by development. There will be no changes in land use after completion of the project. Some air quality problems with dust may arise during the actual construction period because the majority of the streets are unpaved; however, it would be temporary and the contract documents would require that the Contractor provide dust control. Similarly, there will be some temporary noise during construction. Once construction is complete, there will be minimal noise or dust problems arising as a result of the improvements. The contract documents shall also require that Best Management Practices (BMP) be employed before, during, and after construction until all areas of disturbance have been fully reclaimed and/or re-vegetated. For these reasons, environmental impacts are considered minimal and no permanent, negative environmental impacts are anticipated.

Construction Problems

Pipe construction would include placing pipelines using a typical open-trench method involving excavation, shoring, bedding materials, dewatering as necessary and installation of new pipe. Trench width is somewhat dependent on the size of pipe being replaced and the size of the equipment used to excavate. Trench width will vary depending on the depth of the pipe and will be wider at new manholes and at existing utility crossings. The depth of the trench will vary dependent upon the design depth of the sewer line. Most depths are expected to be approximately 6-10 feet deep but may be deeper through short sections.

Much of the unsewered area of the City lies over shallow bedrock; primarily the area around the elementary and middle schools. It is likely that bedrock will be encountered during open trench installation of new gravity sewer mains throughout the area. Detailed analysis of the extent of rock and potential impacts to pipe installation will be required during the design phase.

Additionally, this alternative would replace the existing force main crossing of the BNSF Railway and US HWY 200 between the Main Lift Station and the treatment facility. This existing crossing is included in a casing. Given the unknown condition of the casing, it is assumed that the crossing will be installed with a new trenchless installation; either horizontal directional drilling or boring and jacking. These installation methods are costly and require special design considerations such as additional set-backs, geotechnical investigation and cathodic protection.

Some disadvantages of pipe placement in the streets are the disturbance of existing road surfacing, and the traffic control nuisance to area residents. Construction can sometimes be difficult especially when working at peak hours, sections of deep pipelines, or in areas with high groundwater. The majority of the pipe that would be installed under this alternative would be installed within residential streets with minimal traffic. Access to residences may be temporarily blocked and on-street parking may be lost for short periods. Traffic control and access will be of primary concern especially around the schools. Construction sequencing and access will be addressed in the project specifications.

Cost Estimates

The direct construction cost estimate for collection system Alternative C1 is shown below on Table 7-1. Operation and maintenance costs for this alternative are shown on Table 7-2.

Table 7-1 - Alternative C1 Opinion of Probable Cost

OPINION OF PROBABLE COST ALTERNATIVE C1 – SEPARATE FORCEMAIN TO TREATMENT SITE					
#	BID ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	Exploratory Excavation	200	HR	$300.00	$60,000
2	12" PVC SDR 35 Sewer Main	1,300	LF	$100.00	$130,000
3	8" PVC SDR 35 Sewer Main	48,695	LF	$60.00	$2,921,700
4	Standard Manholes	138	EA	$4,300.00	$593,400
5	Railroad/Highway Crossing	1	EA	$150,000.00	$150,000
6	Service Connection at Main	556	EA	$265.00	$147,340
7	Gravity 4" Sewer Service Line	44,480	LF	$38.00	$1,690,240
8	4" Sewer Service Connection @ Home	556	EA	$500.00	$278,000
9	Grinder Pump Service Unit	30	EA	$7,000.00	$210,000
10	Pressure 1.5" HDPE Service	2,400	LF	$25.00	$60,000
11	Abandon Existing Septic Tanks	586	EA	$1,500.00	$879,000
12	Service Line Surface Restoration	46,880	LF	$15.00	$703,200
13	Main Generator	1	LS	$50,000.00	$50,000
14	Main Lift Station Improvements	1	LS	$50,000.00	$50,000
15	West Preston Lift Station	1	LS	$200,000.00	$200,000
16	West Preston Generator	1	LS	$75,000.00	$75,000
17	East Preston Lift Station	1	LS	$100,000.00	$100,000
18	East Preston Generator	1	LS	$50,000.00	$50,000
19	Golf Street Lift Station	1	LS	$75,000.00	$75,000
20	Golf Street Generator	1	LS	$25,000.00	$25,000
21	6-inch Forcemain	7,550	LF	$50.00	$377,500
22	8-inch Forcemain	1,850	LF	$60.00	$111,000
23	Type A Surface Restoration (AC)	49,250	LF	$50.00	$2,462,500
24	Type B Surface Restoration (Agg)	3,350	LF	$25.00	$83,750
25	Type C Surface Restoration (Open)	1,100	LF	$10.00	$11,000
26	Electrical	1	LS	$250,000.00	$250,000
	Direct Construction Subtotal				$11,694,000
	Mobilization		10%		$1,169,000
	Traffic Control		3%		$351,000
	2019 Construction			3%	$804,732.60
	Contingency		10%		$1,402,000
	Construction Subtotal				$15,420,733
	Construction Engineering		20%		$3,084,000
	Legal & Administrative		3%		$463,000
	TOTAL (Nearest Thousand $)				$18,968,000

Table 7-2 - Alternative C1 Opinion of Probable O&M Increase

OPINION OF PROBABLE INCREASE TO ANNUAL OPERATION & MAINTENANCE COSTS ALTERNATIVE C1: SEPARATE FORCEMAIN TO TREATMENT SITE					
#	ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	Salaries/Benefits	400	MH	$ 25.00	$ 10,000.00
2	Administration	200	HR	$ 20.00	$ 4,000.00
3	Lift Station Power	35000	KWH	$ 0.12	$ 4,200.00
4	Spare Parts/Repair/Maintenance	1	LS	$ 10,000.00	$ 10,000.00
5	Clean 20% of Collection System	9739	LF	$ 2.00	$ 19,478.00
6	Reserve	1	LS	$ 10,000.00	$ 10,000.00
	TOTAL				$ 57,700.00

Capital costs for this alternative are $18,968,000. The annual O&M cost increase is $57,700 with a present worth value of $858,500. The salvage value at the end of 20 years is $2,672,000 with a present worth value of $1,479,500. The overall present worth cost for this alternative is $18,347,000.

7.1.2 Alternative C2: Gravity Collection System to Main Lift Station

Similar to Alternative C1, this alternative would construct gravity collection main lines within the existing street rights-of-way, and typically located directly underneath the street itself. The general configuration of the collection laterals and mains within the un-sewered area of the City is very similar to that presented in Alternative C1. However, instead of pumping all of the wastewater from the unsewered area to the treatment site separate from the existing collection system; Alternative C2 will install two connections to the existing City collection system through two crossings of US HWY 200 and BNSF railway. These crossings will convey all of the wastewater from the expanded collection system to the existing Main Lift Station.

Upgrades will be necessary at the Main Lift Station to be able to pump the additional inflow. Additionally, the entire length of the 6-inch ACP force main from the Main Lift Station to the treatment facility will be replaced with new 8-inch force main. As presented in Alternative C1, the replacement of the existing force main will require a crossing of the highway and railroad. As in that alternative, Alternative C2 will include trenchless installation for the replacement of the existing 6-inch AC force main.

Connections to the new collection system will be predominantly conventional gravity services. Given the uncertainty of the configuration of the existing on-site septic systems; it is assumed that a portion of the service connections will be served with individual grinder pumps. For the cost estimate included in this section, it was estimated that 10% of all service connections within the unsewered area will require individual grinder pumps. The existing on-site septic systems at each residence will be abandoned in-place.

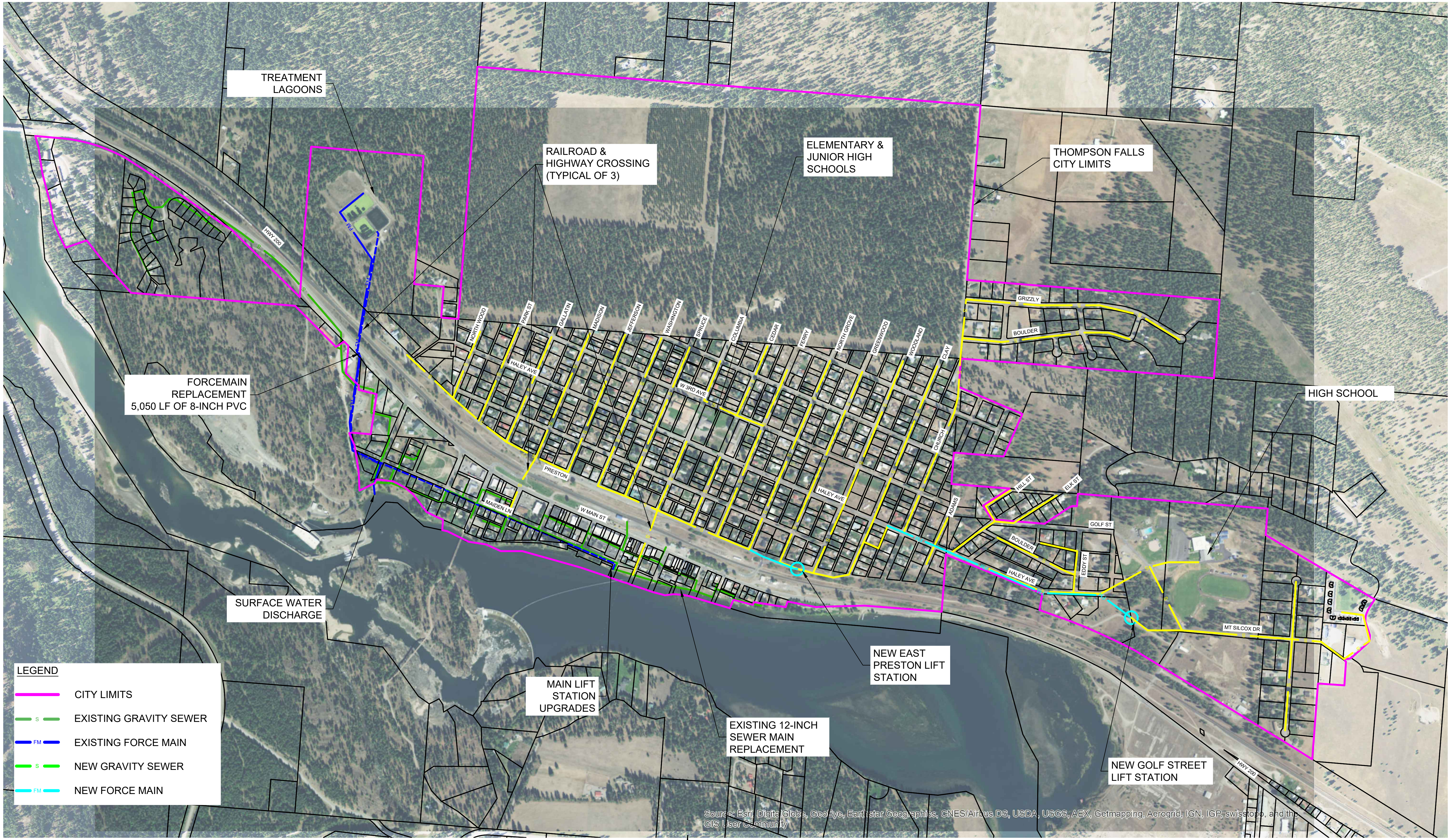
In addition to the upgrades at the Main Lift Station, this alternative will include 2 new wastewater pump stations. The lift stations (East Preston & Golf Street) will serve to convey wastewater to sewer sheds within the expanded system that have north-south connections to the existing collection system. Each of the new lift stations will include backup power generators and transfer switches so the lift stations can fully operate during a power outage.

Schematic Layout

Figure 7-2 presents a layout of collection system Alternative C2.

Operational Requirements

The primary advantage of the standard gravity collection system is its simple and inexpensive operation and maintenance. This is because it does not rely on numerous small pumping and control facilities that not only require ongoing maintenance but can also fail. The standard gravity collection system is a tried and true technology that has generally proven to be reliable if properly operated and maintained. The systems should be set up on a periodic flushing and cleaning schedule that results in the cleaning of each pipe segment in the system every five years. The system may experience periodic plugging that must be corrected by the system operator. These duties are important to manage though the operator skill level and manpower required with this technology is minimal, especially when compared with pressurized systems. These systems generally have a very long service life and can be expected to last 50 years or more.



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GreatWest engineering®

Figure 7-2
COLLECTION SYSTEM
ALTERNATIVE C2 - LAYOUT

CITY OF THOMPSON FALLS
WASTEWATER TREATMENT SYSTEM PER

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This alternative would include construction of two new lift stations to serve the expanded collection system. The new lift stations will require additional operational and maintenance duties for the system operator. Since the existing system contains a lift station, the operator is familiar with the required maintenance, however the new lift stations will require additional considerations. Routine monthly inspections should be established. The maintenance checklist for this alternative should, at a minimum, includes the following items:

- Controls: check proper operation, inspect control wiring, check operation of light and horn.
- Pumps: clean and inspect pump floats or verify acceptable transducer operation
- General: cleaning and site maintenance as necessary

Packaged lift stations usually have a specific start-up and operational training associated with them. Equipment suppliers can offer more assistance with these systems simply because they typically have more experience and familiarity with the specifics of the equipment they sell and service. The project specifications will require training from the suppliers and/or manufacturers.

Energy Requirements

This collection system itself will have minimal energy requirements. The two new lift stations will each require electricity to operate. For this alternative, the Main Lift Station will require substantial upgrades to be able to convey all of the wastewater from the City. Though new pumps at the Main Lift Station will likely be more efficient than the existing pumps, they will be higher horsepower and need to pump more wastewater. This will increase the energy requirements at the Main Lift Station. The estimated monthly power requirements for the two new lift stations will be approximately 850 kilowatt-hours. The Main Lift Station would see an increase in energy requirements of approximately 4,900 kilowatt-hours per month.

Regulatory Compliance and Permits

The proposed alternative would be designed and constructed in compliance with Circular DEQ-2 regulations. Plans would need to be reviewed and approved by the Montana Department of Environmental Quality before bidding and construction could begin. Because of the total length of the pipeline placement, more than one acre of land would likely be disturbed; thus, a storm water discharge permit would be needed during construction. The selected contractor would be responsible for obtaining a storm water permit, as would be indicated in the project specifications. Additionally, there will be Montana Department of Transportation (MDT) utility occupancy permit and encroachment permit required. Sanders County will also likely require permits for work within their respective rights-of-way.

In addition to replacement of the existing 6-inch AC forcemain highway and railway crossing included in Alternative C1, this alternative would also include two new crossings and replacement of another crossing of the BNSF rail line that parallels US Highway 200. These crossings would require design review and approval by BNSF. Railway utility crossings often require trenchless installation of the pipe through boring and jacking or horizontal directional drilling. The permitting process and construction methods required for these crossing can cause delays and lead to increased project costs.

Land Requirements

This alternative would be almost entirely constructed in existing right-of-ways, so no land acquisition and/or easements would be necessary. There are no anticipated conflicts with respect to land requirements with this alternative.

Environmental Considerations

Although large areas may be disturbed as a result of open-trench digging, virtually all areas will be within existing rights-of-way and easements that have been previously disturbed by development. There will be no changes in land use after completion of the project. Some air quality problems with dust may arise during the actual construction period because the majority of the streets are unpaved; however, it would be temporary and the contract documents would require that the Contractor provide dust control. Similarly, there will be some temporary noise during construction. Once construction is complete, there will be minimal noise or dust problems arising as a result of the improvements. The contract documents shall also require that Best Management Practices (BMP) be employed before, during, and after construction until all areas of disturbance have been fully reclaimed and/or re-vegetated. For these reasons, environmental impacts are considered minimal and no permanent, negative environmental impacts are anticipated.

Construction Problems

Pipe construction would include placing pipelines using a typical open-trench method involving excavation, shoring, bedding materials, dewatering as necessary and installation of new pipe. Trench width is somewhat dependent on the size of pipe being replaced and the size of the equipment used to excavate. Trench width will vary depending on the depth of the pipe and will be wider at new manholes and at existing utility crossings. The depth of the trench will vary dependent upon the design depth of the sewer line. Most depths are expected to be approximately 6-10 feet deep but may be deeper through short sections.

Much of the unsewered area of the City lies over shallow bedrock; primarily the area around the elementary and middle schools. It is likely that bedrock will be encountered during open trench installation of new gravity sewer mains throughout the area. Detailed analysis of the extent of rock and potential impacts to pipe installation will be required during the design phase.

This alternative will include three crossings of the BNSF Railway north of US Highway 200. The crossings will also involve crossing of US Highway 200 itself. It is anticipated that these crossings will require installation with trenchless technologies such as horizontal directional drilling or boring and jacking. It is also likely that these crossing may require a casing pipe. Trenchless installation of the pipeline at these crossings will allow for installation without disruption to highway or rail traffic. These installation methods are costly and require special design considerations such as additional set-backs, geotechnical investigation and cathodic protection.

Some disadvantages of pipe placement in the streets are the disturbance of existing road surfacing, and the traffic control nuisance to area residents. Construction can sometimes be difficult especially when working at peak hours, sections of deep pipelines, or in areas with high groundwater. The majority of the pipe that would be installed under this alternative would be installed within residential streets with minimal traffic. Access to residences may be temporarily blocked and on-street parking may be lost for short periods. Traffic control and access will be of primary concern especially around the schools. Construction sequencing and access will be addressed in the project specifications.

Cost Estimates

The direct construction cost estimate for collection system Alternative C2 is shown below on Table 7-3.

Table 7-3 - Alternative C2 Opinion of Probable Cost

OPINION OF PROBABLE COST ALTERNATIVE C2 – GRAVITY COLLECTION TO MAIN LIFT STATION					
#	BID ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	Exploratory Excavation	200	HR	$300.00	$60,000
2	12" PVC SDR 35 Sewer Main	1,300	LF	$100.00	$130,000
3	8" PVC SDR 35 Sewer Main	48,675	LF	$60.00	$2,920,500
4	Standard Manholes	141	EA	$4,300.00	$606,300
5	Railroad/Highway Crossing	3	EA	$150,000.00	$450,000
6	Service Connection at Main	556	EA	$265.00	$147,340
7	Gravity 4" Sewer Service Line	44,480	LF	$38.00	$1,690,240
8	4" Sewer Service Connection @ Home	556	EA	$500.00	$278,000
9	Pressure 1.5" HDPE Service	2,400	LF	$25.00	$60,000
10	Grinder Pump Sewer Service Connection	30	EA	$7,000.00	$210,000
11	Abandon Existing Septic Tanks	586	EA	$1,500.00	$879,000
12	Service Line Surface Restoration	46,880	LF	$15.00	$703,200
13	Main Lift Station Upgrades	1	LS	$200,000.00	$200,000
14	Main Generator	1	LS	$75,000.00	$75,000
15	East Preston Lift Station	1	LS	$100,000.00	$100,000
16	East Preston Generator	1	LS	$50,000.00	$50,000
17	Golf Street Lift Station	1	LS	$75,000.00	$75,000
18	Golf Street Generator	1	LS	$25,000.00	$25,000
19	6-inch Forcemain	2,600	LF	$50.00	$130,000
20	8-inch Forcemain	5,055	LF	$60.00	$303,300
21	Type A Surface Restoration (AC)	50,715	LF	$50.00	$2,535,750
22	Type B Surface Restoration (Agg)	3,835	LF	$25.00	$95,875
23	Type C Surface Restoration (Open)	1,680	LF	$10.00	$16.800
24	Electrical	1	LS	$200,000.00	$200,000
	Direct Construction Subtotal				$11,941,000
	Mobilization		10%		$1,194,000
	Traffic Control		3%		$358,000
	2019 Construction			3%	$821,723.70
	Contingency		10%		$1,431,000
	Construction Subtotal				$15,745,724
	Right-of-Way & Permits	1		$2,500.00	$2,500
	Construction Engineering		20%		$3,149,000
	Legal & Administrative		3%		$472,000
	TOTAL (Nearest Thousand $)				$19,369,000

Operation and maintenance cost increases for this alternative are shown on Table 7-4. The lift station costs have been included as part of the collection system.

Table 7-4 - Alternative C2 Opinion of Probable O&M Increase

OPINION OF PROBABLE INCREASE TO ANNUAL OPERATION & MAINTENANCE COSTS ALTERNATIVE C2: GRAVITY COLLECTION TO MAIN LIFT STATION					
#	ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	Salaries/Benefits	400	MH	$ 25.00	$ 10,000.00
2	Administration	200	HR	$ 20.00	$ 4,000.00
3	Lift Station Power	68,030	KWH	$ 0.12	$ 8,163.60
4	Spare Parts/Repair/Maintenance	1	LS	$ 10,000.00	$ 10,000.00
5	Clean 20% of Collection System	9735	LF	$ 2.00	$ 19,470.00
6	Reserve	1	LS	$ 10,000.00	$ 10,000.00
	TOTAL				$ 61,600.00

Capital costs for this alternative are $19,369,000. The annual O&M cost increase is $61,600 with a present worth value of $916,500. The salvage value at the end of 20 years is $2,629,000 with a present worth value of $1,455,700. The overall present worth cost for this alternative is $18,829,800.

7.2 Treatment Alternatives

This section will further analyze treatment system alternatives discussed in Section 6.3. The improvements are considered primarily to address increasing the system's capacity to accept additional wastewater flows from the un-sewered area of the City while still meeting the existing and anticipated effluent permit limits discussed in Section 3.3.

Each of the alternatives presented below include UV disinfection and considerations for removal and disposal of accumulated sludge in the existing treatment lagoons. If the collection system is not expanded to serve the un-sewered residences and treatment system improvements presented below are not undertaken by the City; further evaluation of sludge disposal and for headworks screening will be necessary.

7.2.1 Alternative T1: Storage and Irrigation

Alternative T1 consists of utilizing the storage and irrigation system as described in Section 6.3 of this report. This alternative would utilize the existing lagoon system at the treatment site and construct a new lagoon with capacity to store system effluent beyond the non-degredation allocated load per the discharge permit as discussed above. Given the design average day influent for the collection system expansion to the unsewered area of the City of 160,780 gpd; approximately 72,880 gpd must be stored and irrigated.

The system would store flows and apply to forestland during the summer months using irrigation equipment. Based upon local meteorological information, Appendix W, and the application rates for various croplands, the storage lagoon will need to be sized to hold approximately 24 million-gallons. At a design depth of 8-feet, the pond will have a surface area of approximately 9.2 acres. Based upon nitrogen uptake and consumptive use of forest land, the required irrigation area is 21 acres. The depth and size of this pond is regulated by DEQ-2 design standards. Calculations and supporting information can be found in Appendix X.

Most soils in the immediate vicinity of Thompson Falls are not suitable for irrigation as demonstrated in Appendix B. A few locations of suitable soils are located in the immediate vicinity of the existing treatment facility. If this alternative is selected, final determination of an appropriate irrigation site would be necessary during preliminary design.

Construction of a sludge drying beds and sludge removal is also included with this alternative. Several alternatives for sludge drying are available for passive dewatering of the removed sludge. For the purposes of the opinion of probable cost estimate included below, it was assumed that geofabric filter bags would be used within the sludge drying beds. These bags can be left in place to dry until an adequate solids content of the sludge for the required disposal method chosen is reached, and have been shown to be a cost-effective technique to dewater municipal wastewater sludge removed from lagoon systems.

Schematic Layout

Figure 7-3 presents a layout of treatment system Alternative T1.

Operational Requirements

Daily operations include equipment inspection and maintenance, general housekeeping and yard maintenance. Less frequent periodic operation and maintenance included equipment maintenance, irrigation monitoring and possible soil amendments. It is important that the operator proactively monitor effluent disposal by irrigation to make sure the process is occurring in a manner consistent with state approved application rates. The proposed system includes the following devices and mechanical equipment that may require operation and maintenance: lagoon blowers and aerators, effluent pump station, irrigation pumps, irrigation equipment, emergency generators, control structures, and valves.

Periodic equipment maintenance work includes blower lubrication and repair, aerator maintenance and repair, effluent lift station pump lubrication and repair, irrigation pump lubrication and repair, maintenance and repair. Annual O&M costs are presented in Table 7-6

Energy Requirements

The energy requirements for this alternative will include continued operation of the existing facility blowers and aerators. New equipment included with this alternative that will require energy include headworks equipment, UV disinfection equipment and irrigation pumps. A summary of the associated annual operation cost for these items is included in Table 7-6. A summary of the major energy requirements at the facility is included below. The energy requirements for the irrigation system are dependent upon the siting of the irrigation, as mentioned above, this will be determined during final design. The additional energy requirements for pumping indicated below are conceptual estimates.

- Aeration Equipment Increased Usage = 220,000 kWhr/yr
- Headworks: (3 hp)(0.75 kW/hp)(365 day)(24 hr/day) = 19,700 kWhr/yr
- UV Disinfection: (2 kW)(365 day)(24 hr/day)] = 17,500 kWhr/yr
- Irrigation Pumps: 2[(25 hp)(0.75 kW/hp)(160 day)(8 hr/day)] = 47,000 kWhr/yr

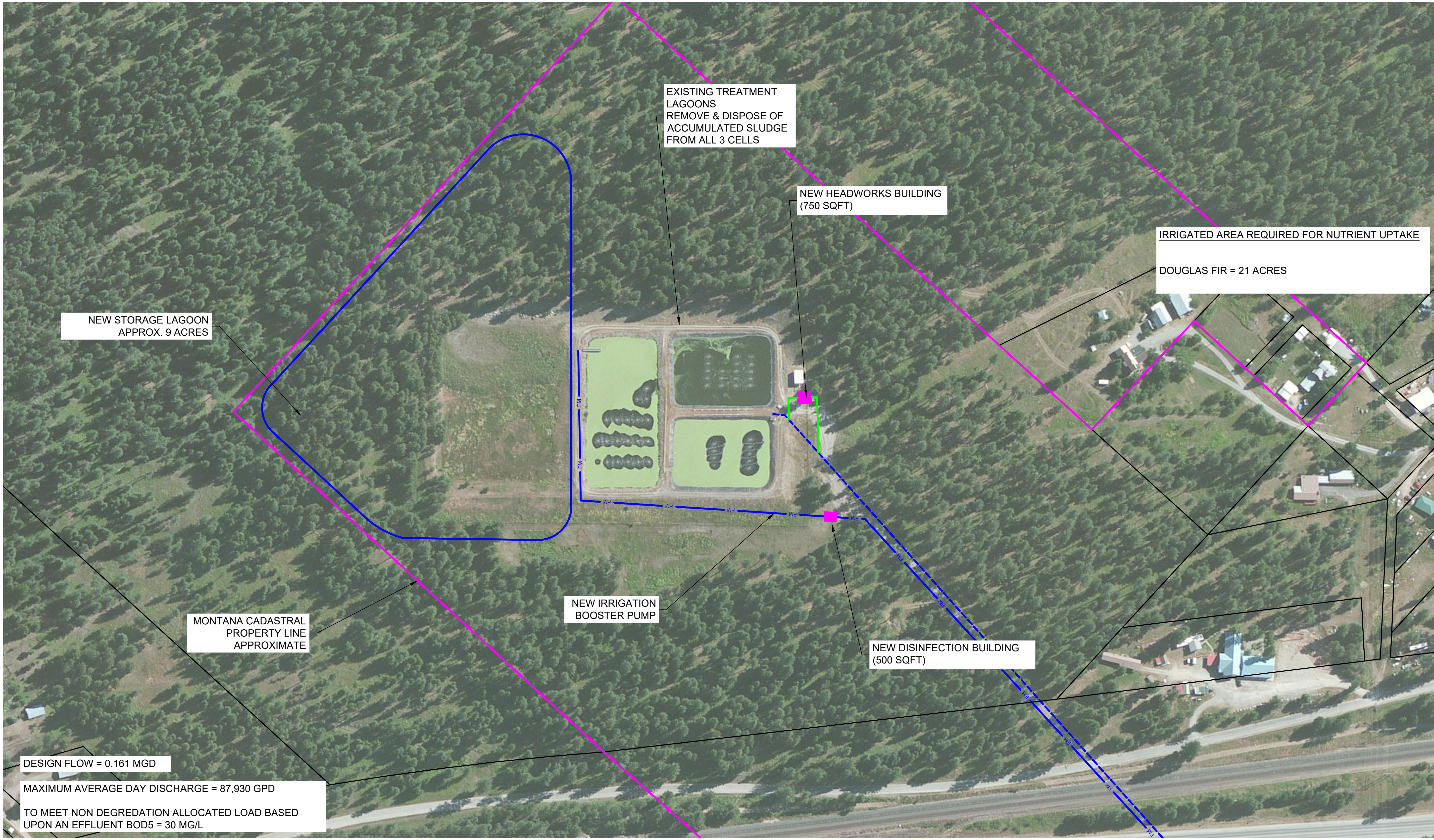

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Figure 7-3
Treatment Alternative T-1
STORAGE & IRRIGATION LAYOUT

CITY OF THOMPSON FALLS
WASTEWATER TREATMENT SYSTEM PER

F:\1-16137-Thompson Falls Wastewater PER\CADD 1-16137\Exhibits\PER Exhibits\1-16137-Fig7-3 Storage_Irrigation.dwg

Regulatory Compliance and Permits

Design standards applying to the improvements under this alternative are included in Circular DEQ-2. Since this alternative will include both irrigation and surface discharge and would reuse the existing treatment lagoons, the requirements of both outlined in DEQ 2 must be met.

This alternative assumes application of the effluent at 100% nitrogen uptake rates for the portion of the treated effluent applied to the irrigation site and therefore no discharge permit will be required for the irrigation site. The City's existing surface water discharge coverage under the State of Montana General Permit will still be required for the portion of the treated wastewater discharged to the Clark Fork River.

Disposal of sludge is regulated according to 40 CFR Part 503.

Land Requirements

A schematic layout for this alternative is presented in Figure 7-3. As described above, this alternative would reuse the existing treatment lagoons and construct a storage lagoon adjacent to the existing treatment site. The storage lagoon would be located on land already owned by the City. Preliminary sizing of the irrigation site indicate that insufficient land is available within the City's treatment property boundary. Land purchase or easement would be necessary for the irrigation site. Additional pipeline easement will be needed for installation of the force main to the irrigation site.

Environmental Considerations

Upwards of approximately 40 acres could be disturbed as a result of construction of the storage pond and irrigation site development, in addition to pipeline construction to the irrigation site. Land use at the irrigation site would be permanently changed to wastewater treatment and disposal. Temporary construction related adverse effects may include construction noise, traffic, and dust. The contract documents would require the Contractor to operate within specified work hours to minimize the impacts due to construction noise and to provide traffic control and dust abatement. Contract documents would also require that Best Management Practices (BMP) be employed before, during, and after construction until all disturbed areas have been fully reclaimed.

Construction Problems

This alternative will include construction of a new storage lagoon adjacent to the existing treatment lagoons. As seen in the schematic layout in Figure 7-3, the area is heavily treed. Construction of the new storage lagoon will require significant tree clearing. Construction of the storage and irrigation facilities would be off-site, making it relatively easy to keep the existing treatment system in operation during construction.

Removal of sludge from the existing treatment lagoons will require construction of a temporary sludge drying bed. Geofabric filter bags will be used in the drying beds. Removal of sludge from treatment lagoons for maintenance is typically performed with dredge pumps mounted on a barge. This technique can have some efficiency limitations in removal of sludge from the lagoon, as the depth of sludge varies across the lagoon floor. The dredge pump suction line must also be located a small distance off the bottom of the lagoon to avoid pumping of lagoon liner cover material. Excavation of the sludge utilizing heavy equipment is not practical since it would likely damage the lagoon liner. The method of sludge removal and disposal included with this alternative has been proven to be a cost-effective technique to perform this work.

Cost Estimates

Table 7-5 presents the Opinion of Probable Cost for treatment system Alternative T1 Storage and Irrigation with Surface Water Discharge. For the purposes of this cost estimate it was assumed that the irrigation site would be within 1.25 miles of the treatment site. If it is determined that an appropriate site was unavailable within that distance of the site, the cost for irrigation force main and pump station may increase. Accordingly, a contingency of 25% was included within this alternative.

Table 7-5 - Alternative T1 Opinion of Probable Cost

ALTERNATIVE T1 - STORAGE AND IRRIGATION OPINION OF PROBABLE COST					
#	BID ITEM	QTY	UNITS	UNIT PRICE [1]	TOTAL
1	Exploratory Excavation	10	HR	$300.00	$3,000
2	Erosion Control	1	LS	$25,000.00	$25,000
3	Headworks Building	750	SF	$300.00	$225,000
4	Headworks Screen	1	LS	$150,000.00	$150,000
5	Disinfection Building	500	SF	$300.00	$150,000
6	Disinfection System Equipment	1	LS	$150,000.00	$150,000
7	Sludge Drying Beds	1	LS	$130,000.00	$130,000
8	Sludge Drying Geotubes	1	LS	$210,000.00	$210,000
9	Lagoon Earthwork	55,000	CY	$15.00	$825,000
10	Fine Grained Liner Subgrade	8,700	CY	$12.00	$104,400
11	PVC Liner	467,020	SF	$0.70	$326,914
12	Protective Soil Cover for PVC Liners	15,100	CY	$12.00	$181,200
13	Lagoon Rip Rap	4,100	CY	$50.00	$205,000
14	Lagoon Staff Gauge	1	EA	$3,000.00	$3,000
15	8" PVC Inter-lagoon Piping	1	LS	$25,000.00	$25,000
16	Storage Lagoon Influent Manhole	1	EA	$13,000.00	$13,000
17	6" Irrigation Force Main	6,600	LF	$50.00	$330,000
18	Irrigation Pumping System	1	EA	$50,000.00	$50,000
19	Irrigation System	1	LS	$150,000.00	$150,000
20	Site Fencing and Signs Around Pivot	5,600	LF	$8.00	$44,800
21	Backup Power	1	LS	$120,000.00	$120,000
22	Clearing and Grubbing	1	LS	$70,000.00	$70,000
23	Site Restoration	1	LS	$30,000.00	$30,000
24	Electrical/Instrumentation and Control	20%		$995,000.00	$199,000
	Direct Construction Subtotal				$3,720,000
	Mobilization		10%		$372,000
	Contingency		25%		$930,000
	Construction Subtotal				$5,022,000
	2021 Construction Cost [2]		3.1%		$5,504,000
	Irrigation Land	31	AC	$3,500.00	$108,500
	MPDES Permit Modifications				$15,000
	Geotechnical Investigation				$15,000
	Engineering		20%		$1,004,000
	Legal & Administrative		3%		$151,000
	TOTAL (Nearest Thousand $)				$6,798,000

Table 7-6 -Alternative T1 Opinion of Probable O&M Increase

OPINION OF PROBABLE INCREASE TO ANNUAL OPERATION & MAINTENANCE COSTS ALTERNATIVE T1 - STORAGE AND IRRIGATION					
#	ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	Salaries/Benefits	0.75	EA	$ 60,000.00	$ 45,000
2	Aeration Power	220,000	KWH	$ 0.12	$ 26,400
3	Headworks & UV	35,000	KWH	$ 0.12	$ 4,200
4	Irrigation Pump	50,000	KWH	$ 0.12	$ 6,000
5	Primary Screening and Handling	1	LS	$ 2,000.00	$ 2,000
6	Sludge Removal and Disposal Reserve	1	LS	$ 10,000.00	$ 10,000
7	Monitoring & Lab Testing Fees	12	MO	$ 750.00	$ 9,000
8	Office Expenses/Training	1	LS	$ 5,000.00	$ 5,000
9	Spare Parts/Repair/Maintenance	1	LS	$ 15,000.00	$ 15,000
10	Contract Services/Trades	1	LS	$ 5,000.00	$ 5,000
	TOTAL				$ 127,600

The operation and maintenance costs to operate the system are presented in Table 7-6. The annual O&M cost increase is $127,600 with a present worth value of $1,898,400. The salvage value at the end of 20 years is $1,298,000 with a present worth value of $718,700. The overall present worth cost for this alternative is $7,977,200.

7.2.2 Alternative T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor

As described in the previous section, this alternative is an "advanced" lagoon system. LEMNA Technologies, Inc. was contacted for a proposal to provide their LemTec Biological Treatment Process (LBTP), which includes a complete mix cell followed by partial mix cells. A copy of the proposal from LEMNA is included in Appendix U.

The proposal from LEMNA was used to develop this alternative, but other manufacturers of similar equipment would be considered in the preliminary design phase of the project and would be allowed to bid the project during either a pre-selection phase or a construction bidding phase.

As presented previously, this alternative would reutilize Cell 1 and Cell 2 at the facility. Cell 3 will be used to hold removed sludge from the first two cells and future sludge removal from the quiescent zone of the LEMNA system. A headworks building and mechanical screen will be used to prescreen material larger than 6 mm from the influent.

Ultraviolet (UV) disinfection would be installed on the effluent from the settling pond as part of this alternative to meet future *E. coli* effluent limits.

Schematic Layout

Figure 7-4 presents a layout of treatment system Alternative T2.

Operational Requirements

This alternative utilizes a lagoon cover system. The covers help to maintain a more uniform temperature within the lagoons for increased treatment. The covers also reduce algae and duckweed growth, further improving treatment and reducing maintenance requirements. The LEMNA system does utilize mixers and well as aeration equipment. The addition of mixers will require additional maintenance considerations.

Energy Requirements

This alternative would require additional energy to operate the COMPLETE MIX/PARTIAL MIX AERATED LAGOONS WITH POLISHING REACTOR system mechanical mixers. Additionally, the new headworks and disinfection equipment will require additional energy above what is currently required by the facility. A summary of the estimated increase in operational costs is included in Table 7-8. A summary of the major energy requirements at the facility is included below.

- Aeration Equipment Increased Usage = 220,000 kWhr/yr
- Headworks: (3 hp) (0.75 kW/hp) (365 day) (24 hr/day) = 19,700 kWhr/yr
- UV Disinfection: (2 kW) (365 day) (24 hr/day)] = 17,500 kWhr/yr

Regulatory Compliance and Permits

Design standards applying to the improvements under this alternative are included in Circular DEQ-2. The LEMNA system is not specifically addressed in DEQ-2 and would require approval. A LEMNA system has recently been approved for design in Three Forks. The population growth and flow design criteria are based on community input, historical population data for the City. This alternative would continue utilization of the MPDES surface water discharge permit and is capable of satisfying current and future limits as described earlier in this report. The design effluent BOD and TSS will allow the system to discharge 100% of the

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Figure 7-4
Treatment Alternative T-2
COMPETE/PARTIAL MIX LAGOONS
W/POLISHING REACTOR

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WASTEWATER TREATMENT SYSTEM PER

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F:\1-16137-Thompson Falls Wastewater PER\CADD 1-16137\Exhibits\PER Exhibits\1-16137-Fig7-4 LEMNA_Conceptual.dwg treatment system effluent to the existing discharge location. Disposal of sludge is regulated according to 40 CFR Part 503.

Land Requirements

This alternative would reuse the existing treatment lagoons at the facility. Though not necessary for treatment, Cell 3 will be used for sludge storage and drying. No additional land will be required for this alternative.

Environmental Considerations

As presented above, the proposed layout for the LEMNA system would fit inside the footprint of the existing Cells 1 & 2. Reusing the existing Cell 3 for sludge storage will eliminate the need for construction of additional sludge drying beds.

The effluent quality from the LEMNA system would be much greater than the existing system. Though it was shown earlier in this report that an ammonia limit is not necessary at this time, this alternative would provide an effluent with far lower ammonia concentration than the existing system.

Construction Problems

No unusual construction problems are anticipated with this alternative. Sequencing of lagoon improvements will be required to maintain treatment system operation during construction.

Cost Estimates

Table 7-7 presents the Opinion of Probable Cost for treatment system Alternative T2 Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor

Table 7-7 - Alternative T2 Opinion of Probable Cost

ALTERNATIVE T2 – COMPLETE MIX/PARTIAL MIX AERATED LAGOONS WITH POLISHING REACTOR OPINION OF PROBABLE COST					
#	BID ITEM	QTY	UNITS	UNIT PRICE [1]	TOTAL
1	Exploratory Excavation	10	HR	$300.00	$3,000
2	Erosion Control	1	LS	$7,500.00	$7,500
3	Headworks Building	750	SF	$300.00	$225,000
4	Headworks Screen	1	LS	$150,000.00	$150,000
5	Disinfection Building	500	SF	$300.00	$150,000
6	Disinfection System Equipment	1	LS	$150,000.00	$150,000
7	Inlet Structure and Piping Modifications	1	LS	$30,000.00	$30,000
8	Lagoon Interpond Piping & Structures	1	LS	$100,000.00	$100,000
9	Lagoon Discharge Structure & Piping Modifications	1	EA	$30,000.00	$30,000
10	Polishing Reactor Earthwork	1	LS	$30,000.00	$30,000
11	Polishing Reactor Concrete	200	CY	$980.00	$196,000
12	Aeration, Baffles, Mixers, Cover Polishing	1	LS	$700,000.00	$700,000
13	Aeration Main Modifications	1	LS	$20,000.00	$20,000
14	Aeration Building Modifications	1	LS	$20,000.00	$20,000
15	Sludge Removal Cells #1 & #2	1	LS	$100,000.00	$100,000
16	Influent flow measurement	1	EA	$10,000.00	$10,000
17	Effluent flow measurement	1	EA	$10,000.00	$10,000
18	Backup Power	1	LS	$120,000.00	$120,000
19	Connect to Existing Outfall	1	LS	$15,000.00	$15,000
20	Composite Sampler	1	LS	$10,000.00	$10,000
21	Landscaping and site earthwork	1	LS	$40,000.00	$40,000
22	Electrical/Instrumentation and Control	20%		$1,525,000.00	$305,000
	Direct Construction Subtotal				$2,422,000
	Mobilization			10%	$242,000
	Contingency			25%	$606,000
	Construction Subtotal				$3,270,000
	2021 Construction Cost [2]			3.1%	$3,680,000
	MPDES Permit Modifications				$15,000
	Geotechnical Investigation				$15,000
	Engineering			20%	$ 654,000
	Legal & Administrative			3%	$ 98,000
	TOTAL (Nearest Thousand $)				$4,462,000

Table 7-8 - Alternative T2 Opinion of Probable O&M Cost Increase

OPINION OF PROBABLE INCREASE TO ANNUAL OPERATION & MAINTENANCE COSTS ALTERNATIVE T2 –COMPLETE MIX/PARTIAL MIX AERATED LAGOONS WITH POLISHING REACTOR					
#	ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	Salaries/Benefits	0.75	EA	$ 60,000.00	$ 45,000
2	Aeration Power	220,000	KWH	$ 0.12	$ 26,400
3	Headworks & UV	35,000	KWH	$ 0.12	$ 4,200
4	Primary Screening and Handling	1	LS	$ 2,000.00	$ 2,000
5	Sludge Removal and Disposal Reserve	1	LS	$ 10,000.00	$ 10,000
6	Monitoring & Lab Testing Fees	12	MO	$ 750.00	$ 9,000
7	Office Expenses/Training	1	LS	$ 5,000.00	$ 5,000
8	Spare Parts/Repair/Maintenance	1	LS	$ 15,000.00	$ 15,000
9	Contract Services/Trades	1	LS	$ 5,000.00	$ 5,000
TOTAL					$ 106,600

The operation and maintenance costs to operate the system are presented in Table 7-8. The annual O&M cost increase is $106,600 with a present worth value of $1,586,000. The salvage value at the end of 20 years is $514,000 with a present worth value of $284,600. The overall present worth cost for this alternative is $5,763,400.

7.2.3 Alternative T3: Existing Partial Mix Lagoons with Submerged Attached Growth Reactor (SAGR)

Alternative T3 consists of constructing a submerged attached growth reactor bed (SAGR) and new aeration piping and equipment for the SAGR as described in Section 6.3 of this report. Construction of temporary sludge drying beds and sludge removal is also included with this alternative. Additionally, this project will include construction of a headworks building with a mechanical screen and UV disinfection equipment.

Schematic Layout

Figure 7-5 presents the schematic layout for treatment system Alternative T3.

Operational Requirements

Daily operations completed by the operator include equipment inspection and maintenance, seasonal adjustments of SAGR zones, UV disinfection and general housekeeping and yard maintenance, and influent and effluent MPDES monitoring and reporting. The proposed system includes the following devices and mechanical equipment that may require operation and maintenance: blowers and aerators, and UV disinfection equipment. Periodic equipment maintenance work includes: blower lubrication, changing blower filters, aerator maintenance and repair, pump maintenance and repair, and UV lamp cleaning and replacement. Annual O&M costs are presented in Table 7-10.

Energy Requirements

This alternative would require an additional blower to provide aeration to the SAGR beds. Additionally, the new headworks and disinfection equipment will require additional energy above what is currently required by the facility. A summary of the estimated increase in operational costs is included in Table 7-10. A summary of the major energy requirements at the facility is included below.

- Aeration Equipment Increased Usage = 195,000 kWhr/yr
- Headworks: (3 hp) (0.75 kW/hp) (365 day) (24 hr/day) = 19,700 kWhr/yr
- UV Disinfection: (2 kW) (365 day) (24 hr/day)] = 17,500 kWhr/yr

Regulatory Compliance and Permits

Design standards applying to the improvements under this alternative are included in Circular DEQ-2. The population growth and flow design criteria are based on community input, historical population data for the City. This alternative would continue utilization of the MPDES surface water discharge permit and is capable of satisfying current and future limits as described earlier in this report. The design effluent BOD and TSS will allow the system to discharge 100% of the treatment system effluent to the existing discharge location. Disposal of sludge is regulated according to 40 CFR Part 503.

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Figure 7-5
Treatment Alternative T-3
SAGR - LAYOUT

CITY OF THOMPSON FALLS
WASTEWATER TREATMENT SYSTEM PER

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Land Requirements

No additional land acquisition will be needed for this alternative. The proposed improvements will be located within the existing treatment site property.

Environmental Considerations

The improvements under this alternative will be constructed on the land adjacent to the existing treatment lagoons owned by the City. The existing treatment lagoons will be reused for this alternative, minimizing the environmental impact from construction of a new lagoon.

Dust and noise may be present during construction of the project; however, contract documents will require that BMPs be employed before, during, and after construction until all areas of disturbance have been fully reclaimed. While environmental impacts are considered minimal and not permanent, some adverse environmental impacts are anticipated. This alternative would maintain the facilities compliance with the City's MPDES permit with the collection system expansion proposed.

The effluent quality from the SAGR system would be much greater than the existing system. Though it was shown earlier in this report that an ammonia limit is not necessary, this alternative would provide an effluent with far lower ammonia concentration than the existing system.

Construction Problems

Removal of sludge from the existing treatment lagoons will require construction of a temporary sludge drying bed. Geofabric filter bags will be used in the drying beds. Removal of sludge from treatment lagoons for maintenance is typically performed with dredge pumps mounted on a barge. This technique can have some efficiency limitations in removal of sludge from the lagoon, as the depth of sludge varies across the lagoon floor. The dredge pump suction line must also be located a small distance off the bottom of the lagoon to avoid pumping of lagoon liner cover material. Excavation of the sludge utilizing heavy equipment is not practical since it would likely damage the lagoon liner.

Cost Estimates

Table 7-9 presents the Opinion of Probable Cost for treatment system Alternative T3 Existing Partial Mix Lagoons with Submerged Attached Growth Reactor.

Table 7-9 - Alternative T3 Opinion of Probable Cost

OPINION OF PROBABLE COST ALTERNATIVE T3 – EXISTING PARTIAL MIX LAGOONS WITH SUBMERGED ATTACHED GROWTH REACTOR					
#	BID ITEM	QTY	UNITS	UNIT PRICE [1]	TOTAL
1	Exploratory Excavation	10	HR	$300.00	$3,000
2	Erosion Control	1	LS	$10,000.00	$10,000
3	Headworks Building	750	SF	$300.00	$225,000
4	Headworks Screen	1	LS	$150,000.00	$150,000
5	Disinfection Building	500	SF	$300.00	$150,000
6	Disinfection System Equipment	1	LS	$150,000.00	$150,000
7	Inlet Structure and Piping Modifications	1	LS	$30,000.00	$30,000
8	Lagoon Discharge Structure & Piping Modifications	1	EA	$30,000.00	$30,000
9	SAGR Aeration Supply & Process Equipment	1	LS	$650,000.00	$650,000
10	SAGR Reactor Beds	1	LS	$550,000.00	$550,000
11	SAGR & Lagoon Piping & Fittings	1	LS	$220,000.00	$220,000
12	SAGR Influent & Effluent Structures	1	LS	$50,000.00	$50,000
13	Aeration Building Modifications	1	LS	$30,000.00	$30,000
14	Sludge Drying Beds	1	LS	$130,000.00	$130,000
15	Sludge Drying Geotubes	1	LS	$210,000.00	$210,000
16	Influent flow measurement	1	EA	$10,000.00	$10,000
17	Effluent flow measurement	1	EA	$10,000.00	$10,000
18	Backup Power	1	LS	$120,000.00	$120,000
19	Connect to Existing Outfall	1	LS	$15,000.00	$15,000
20	Composite Sampler	1	LS	$10,000.00	$10,000
21	Landscaping and site earthwork	1	LS	$60,000.00	$60,000
22	Electrical/Instrumentation and Control	20%		$2,025,000.00	$ 405,000
	Direct Construction Subtotal				$2,422,000
	Mobilization		10%		$322,000
	Contingency		25%		$805,000
	Construction Subtotal				$4,345,000
	2021 Construction Cost [2]		3.1%		$4,890,000
	MPDES Permit Modifications				$15,000
	Geotechnical Investigation				$15,000
	Engineering		20%		$869,000
	Legal & Administrative		3%		$130,000
	TOTAL (Nearest Thousand $)				$5,919,000

Table 7-10 - Alternative T3 Opinion of Probable O&M Cost Increase

OPINION OF PROBABLE INCREASE TO ANNUAL OPERATION & MAINTENANCE COSTS ALTERNATIVE T3 – SUBMERGED ATTACHED GROWTH REACTOR					
#	ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	Salaries/Benefits	0.75	EA	$ 60,000.00	$ 45,000
2	Aeration Power	195,000	KWH	$ 0.12	$ 23,400
3	Headworks & UV	35,000	KWH	$ 0.12	$ 4,200
4	Primary Screening and Handling	1	LS	$ 2,000.00	$ 2,000
5	Sludge Removal and Disposal Reserve	1	LS	$ 10,000.00	$ 10,000
6	Monitoring & Lab Testing Fees	12	MO	$ 750.00	$ 9,000
7	Office Expenses/Training	1	LS	$ 5,000.00	$ 5,000
8	Spare Parts/Repair/Maintenance	1	LS	$ 15,000.00	$ 15,000
9	Contract Services/Trades	1	LS	$ 5,000.00	$ 5,000
	TOTAL				$ 103,600

The operation and maintenance costs to operate the system are presented in Table 7-10. The annual O&M cost increase is $103,600 with a present worth value of $1,541,400. The salvage value at the end of 20 years is $1,254,000 with a present worth value of $694,400. The overall present worth cost for this alternative is $6,766,000.

8.0 SELECTION OF PREFERRED ALTERNATIVE

Each of the alternatives reviewed in the Alternative Analysis is designed to meet the design criteria and applicable regulations identified in the Alternative Development. This section will examine advantages and disadvantages of each in terms of technical feasibility, environmental impacts, financial feasibility, public health and safety, operational and maintenance considerations, and public comment.

8.1 Ranking Criteria

A matrix to compare each alternative objectively against the other will be developed to select the preferred alternative. Each alternative will be given a score ranging from 0 to 10 for a number of criteria, with 0 representing a negative impact and 10 representing the maximum benefit to the community. The alternatives will begin with a score of 5 for each criterion, and then the score will be adjusted up or down relative to the benefit of the particular alternative in relation to the other alternatives.

In addition to scoring each alternative, the criteria themselves with be weighted in relation to one another. Weighting factors ranging from 1 to 10 will be used to give greater importance to items such as cost. This is appropriate, as often times higher investments are made to overcome many other problems such as reliability or to mitigate problems with technical feasibility or environmental concerns.

8.1.1 Technical Feasibility

Alternatives that were not technically feasible were removed from consideration during the Alternative Development. Consequently, the alternatives discussed in the Alternative Analysis would be scored very similarly in a decision matrix based solely on engineering.

However, issues with land acquisition often supersede the black-and-white world of engineering. This ranking category will include the feasibility of acquiring sufficient land in terms of lease, right-of-way, and/or land purchases. Although these are not strict engineering issues, problems with land acquisition can greatly impact a project's overall feasibility and require that land issues be given a very serious consideration.

This criterion will be provided with a weighting factor of 5.

8.1.2 Environmental Impacts

Considerations for stormwater runoff and the handling of partially treated wastewater during construction will need to be considered, but long term, detrimental environmental impacts are relatively low for all the alternatives.

This criterion will be provided with a weighting factor of 5.

8.1.3 Life Cycle Costs

The cost of extensive capital improvements is a great concern to small communities with limited budgets and resources. Costs also reflect measures to meet minimum health and safety requirements, applicable regulations, and environmental impacts in order to make an alternative viable in the first place. In addition, life cycle costs include both the estimated capital cost of the alternatives and the associated increase to O&M costs.

Accordingly, this criterion will be provided with the maximum weighting factor of 10. This represents over 30% of the total weighting, and Public Opinion is closely tied to cost also, giving the cost for each alternative even more weight.

In addition to providing the maximum emphasis on costs, a method must be utilized to provide an objective comparison of costs for each alternative relative to one another and not just an overall comparison. Given a range of costs for various alternatives, the relative cost of any alternative can be determined using the lowest cost and the highest cost from the range of costs and the following equation.

$$5 \times [(\text{Lowest Cost}) / (\text{Cost}) + (\text{Highest Cost} - \text{Cost}) / (\text{Highest Cost})]$$

For example, if a number of alternatives were compared having costs of $500,000, $1,000,000 and $2,000,000, the above equation would provide scores of 8.8, 5.0, and 1.3, respectively. The utilization of a formula to score the 20-year life cycle costs in the matrix eliminates any subjectivity and provides a consistent, relative comparison of costs.

8.1.4 Public Health and Safety

Alternatives that do not meet the public health and safety requirements as required by the state and federal governments were eliminated during the Alternative Development. The alternatives retained for the Alternative Analysis are designed to meet public health and safety laws, so the scoring for each alternative under this criterion would be expected to be fairly high.

This criterion will be provided with a weighting factor of 10.

8.1.5 Operational and Maintenance Considerations

Operation and maintenance is an important issue when considering any large capital improvements within a small community. The costs for O&M associated with the alternatives is included in the 20-year life cycle costs compared under the financial feasibility, but there are other considerations that must be weighed for the O&M associated with each alternative.

The City has limited resources and manpower, and some alternatives may have O&M requirements that drastically tax those limited resources creating deficiencies in other areas. City personnel also have a much more intrinsic knowledge of the sewer system than the average resident or even Council members. Priorities identified by the operators to facilitate the efficient operation of the system must be given some weight.

This criterion will be provided with a weighting factor of 7.

8.1.6 Public Comments

Efforts such as public hearings are ways to identify public opinion and perceptions. Costs are always a concern with consumers, but the health and safety of their families is just as important.

This criterion will be provided with a weighting factor of 7.

8.2 Scoring of Collection System Alternatives

8.2.1 Technical Feasibility

Both of the alternatives considered for expansion of the collection system are technically feasible. The additional highway and railway crossings included with Alternative C2 will present additional design considerations and permitting requirements.

- Alternative C1: Separate Force Main to Treatment Site – 9
- Alternative C2: Gravity to Main Lift Station – 8

8.2.2 Environmental Impacts

Both of the collection system alternatives address the major environmental concerns of the large unsewered area of the community. The energy consumption for Alternative C2 is slightly higher than Alternative C1.

- Alternative C1: Separate Force Main to Treatment Site – 9
- Alternative C2: Gravity to Main Lift Station – 8

8.2.3 Life Cycle Costs

The 20-Year Present Worth and weighted score for Lift Cycle Costs for the two alternatives are presented below:

- Alternative C1: Separate Force Main to Treatment Site - $18,347,000 – 5.1
- Alternative C2: Gravity to Main Lift Station - $18,829,800 – 4.9

8.2.4 Public Health and Safety

Both of the presented collection system alternatives address the public health and safety issues arising from the large unsewered area of the City.

- Alternative C1: Separate Force Main to Treatment Site – 9
- Alternative C2: Gravity to Main Lift Station – 9

8.2.5 Operational and Maintenance Considerations

The two collection system alternatives have similar considerations in regard to future operation and maintenance of the system. Alternative C1 would have an additional lift station than Alternative C2 to serve the hill area. The additional lift station would require additional maintenance in regard to cleaning and maintaining the pumps and other station components. However, Alternative C1 would not rely on the existing Main Lift Station to convey all of the wastewater from the system. By serving the existing system and the hill area with a separate lift stations, the entire system would not need to bypass if something were to happen to the Main Lift Station. In addition, by pumping collected wastewater from the hill area at a lift station on Preston Ave, which is at a higher elevation than the Main Lift Station, the energy required to pump wastewater to the treatment site is less.

- Alternative C1: Separate Force Main to Treatment Site – 7
- Alternative C2: Gravity to Main Lift Station – 7

8.2.6 Public Comments

The presented collection system alternatives were presented to the Mayor and City Public Works Director at a work session for this report. The City representatives did prefer the operational and maintenance advantages that Alternative C1 presented by not relying solely on the Main Lift Station to convey all of the collected wastewater from the system.

- Alternative C1: Separate Force Main to Treatment Site – 9
- Alternative C2: Gravity to Main Lift Station – 7

8.3 Scoring of Treatment Alternatives

8.3.1 Technical Feasibility

All of the presented treatment system alternatives are technically feasible. Alternative T1 does present additional design difficulties over the other two alternatives considered because of the considerations required for siting and design of the irrigation site; soils limited area, limited crops.

- T1: Storage and Irrigation – 5
- T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor – 9
- T3: Partial Mix Lagoon with Submerged Aerated Gravel Reactor (SAGR) – 9

8.3.2 Environmental Impacts

Alternatives T2 and T3 would be constructed within the footprint of the existing treatment facilities requiring minimal disturbances and will have minimal impact to existing land use. In comparison, Alternative T1 requires construction of a large storage and irrigation facility on new property. All of the alternatives considered have little adverse environmental impacts and all result in improved surface water quality. As such they are scored as follows.

- T1: Storage and Irrigation – 7
- T2: Complete Mix/Partial Mix Aerated Lagoons With Polishing Reactor – 9
- T3: Partial Mix Lagoon with Submerged Aerated Gravel Reactor (SAGR) – 9

8.3.3 Life Cycle Costs

The 20-Year Present Worth and weighted score for Lift Cycle Costs for the treatment system alternatives are presented below:

- Alternative T1: Storage and Irrigation with Surface Water Discharge - $7,977,200 – 3.6
- Alternative T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor - $5,763,400 – 6.4
- Alternative T3: Submerged Attached Growth Reactor - $6,766,000 – 5.0

8.3.4 Public Health and Safety

All of the presented treatment system alternatives have similar benefits to public health and safety. Alternative T2 and T3 will treat wastewater to a higher degree prior to discharging.

- T1: Storage and Irrigation – 7
- T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor – 8
- T3: Partial Mix Lagoon with Submerged Aerated Gravel Reactor (SAGR) – 8

8.3.5 Operational and Maintenance Considerations

Alternative T2 and T3 have the greatest advantage for operational and maintenance considerations. Alternatives T1 will require additional operational oversight and considerations with the additional irrigation equipment. The lagoon covers included with Alternative T2 would reduce the algae and duckweed blooms that occur within the lagoons which could reduce maintenance requirements. However, the alternative will include mixers that are not necessary for the other two alternatives.

- T1: Storage and Irrigation – 7
- T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor – 9
- T3: Partial Mix Lagoon with Submerged Aerated Gravel Reactor (SAGR) – 9

8.3.6 Public Comments

The presented treatment system alternatives were presented to the Mayor and City Public Works Director at a work session for this report. The City representatives did prefer the advanced lagoon systems presented in T2 and T3. Of these two, Alternative T2 was preferred as it did not involve construction of a new sludge drying bed and reduced algae blooms in the lagoons.

- T1: Storage and Irrigation – 7
- T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor – 9
- T3: Partial Mix Lagoon with Submerged Aerated Gravel Reactor (SAGR) – 8

8.4 Decision Matrix and Selection of Preferred Alternative

Table 8-1 below presents the ranking criteria for each alternative presented for the City of Thompson Falls' Collection System and Treatment Facility in a decision matrix with weighting factors applied for each criterion. The preferred alternative for each system component is highlighted.

Table 8-1 - Alternative Decision Matrix

Alternative	Feasibility		Enviro		Costs		Health & Safety		O & M		Public Comment		Total
Weighting Factor	5		5		10		10		7		7		
Collection													
C1	9	45	9	45	5.1	51	9	90	7	49	9	63	343
C2	8	40	8	40	4.9	49	9	90	7	49	7	49	317
Treatment Alternatives													
T1	5	25	7	35	3.6	36	7	70	7	49	7	49	264
T2	9	45	9	45	6.4	64	8	80	9	63	9	63	360
T3	9	45	9	45	5.0	50	8	80	9	63	8	56	339

9.0 DETAILED DESCRIPTION OF PREFERRED ALTERNATIVE

Based upon the decision matrix, public comment, and input from City officials and public works department the preferred alternative for the City is Collection System Alternative C1: Separate Force Main to Treatment Facility and Treatment System Alternative T2: Compete Mix/Partial Mix Aerated Lagoons with Polishing Reactor.

Given the estimate project cost to construction Alternative C1 and T2, it is the desire of the City to separate the proposed improvements into phases. The proposed collection system phasing can be seen in Figure 9-1.

As presented in Section 3.2.9, the existing treatment system effluent is limited to 87,930 gpd by its ability to meet the non-degredation allocated load for BOD with the current treatment technology in place. Calculations, presented in Section 5.6, show the existing treatment system can accept an additional 54,690 gpd average day flow before treatment system upgrades will be needed.

Table 9-1 presents the estimated wastewater flows for the Collection System Alternative C1 Phasing. Calculations for flow estimates for each phase of the collection system expansion are included in Appendix CC and based upon the spatial distribution of residential and non-residential users determined from the Montana Structures Shapefile, Appendix S.

Table 9-1 - Collection Phase System Flows

Collection Phase	Planning Period Flow Average Day (GPM)	Existing System Average Day (GPM)	Total System Flow Average Day (GPM)
C1-1	41,192	33,240	74,432
C1-2	43,818	-	118,250
C1-3	26,464	-	144,250
C1-4	16,066	-	160,780
Total	127,540	33,240	160,780

With the existing system flows and estimated flows from each phase of the collection system expansion, presented in Table 9-1, treatment system improvements included in Alternative T2 would be necessary during Phase 2 of the collection system expansion.

The proposed phases for improvements to the City of Thompson Falls Wastewater System are shown on Figure 9-1 and are as follows:

- Phase 1: Collection System Alternative C1-1 & Existing collection system improvements
- Phase 2: Collection System Alternative C1-2 & Treatment System Alternative T2
- Phase 3: Collection System Alternative C1-3
- Phase 4: Collection System Alternative C1-4

9.1 Site Location and Characteristics

The general location of the collection system expansion is north of US HWY 200 within the Thompson Falls City Limits, as shown previously in Figure 7-1. The proposed treatment system improvements alternative is located at the existing treatment site as shown previously in Figure 7-4.

Phase 1: Collection System Alternative C1-1 includes both expansion of collection system and improvements to existing system. The existing system improvements included in Phase 1 are listed below:

1. Repair one manhole within Solid Rock Estates that contributes significant inflow and infiltration
2. Replace approximately 600 feet of 6-inch orangeburg pipe with new 8-inch SDR 35 PVC sewer main and manholes along S. Jefferson St. and the alley east of S Jefferson St. between W Main St. and Maiden Ln.
3. Replace approximately 1,300 feet of 12-inch AC gravity collection main with new 12-inch SDR 35 PVC sewer main and manholes from approximately Pine St. west to the Main Lift Station
4. Rehabilitate approximately 240 feet of 8-inch clay pipe between Hill St and Ferry St with cured-in-place-pipe
5. New controls at the Main Lift Station
6. New backup power at the Main Lift Station

The collection system expansion for Phase 1 encompasses an area from US Highway 200 north to the developed edge of the City. The expansion extends from N Wood St. east to Spruce St. Phase 1 will also include connection of the elementary and junior high schools. Wastewater from Phase 1 will generally flow from north to south to Preston Ave. The collection main on Preston Ave will flow to the west to the West Preston Lift Station. The West Preston Lift Station will be located near the intersection of Preston Ave. and N Wood St.

The West Preston Lift Station will convey wastewater to the treatment facility through a new 8-inch PVC force main. The force main will run west along W Preston Ave and Harlow Rd to the facility access road where it will turn north and parallel the road to the lagoon inlet structure. The existing 6-inch AC force main will be replaced with new 6-inch PVC force main from the intersection of Harlow Rd and the facility access south to Lincoln St. As discussed above, the existing 6-inch AC crossing of the railway and US Highway 200 is through a casing. It may be possible to reutilize these casings for the purposes of installing the new PVC force main. However, given the age and unknown condition of the casing, a new trenchless crossing of the highway and railroad is assumed.

9.2 Operational Requirements

The proposed gravity collection system should be set up on a periodic flushing and cleaning schedule that results in the cleaning of each pipe segment in the system every five years. The system may experience periodic plugging that must be corrected by the system operator. These duties are important to manage though the operator skill level and manpower required with this technology is minimal, especially when compared with pressurized systems. The proposed collection system will have a very long service life and can be expected to last 50 years or more.

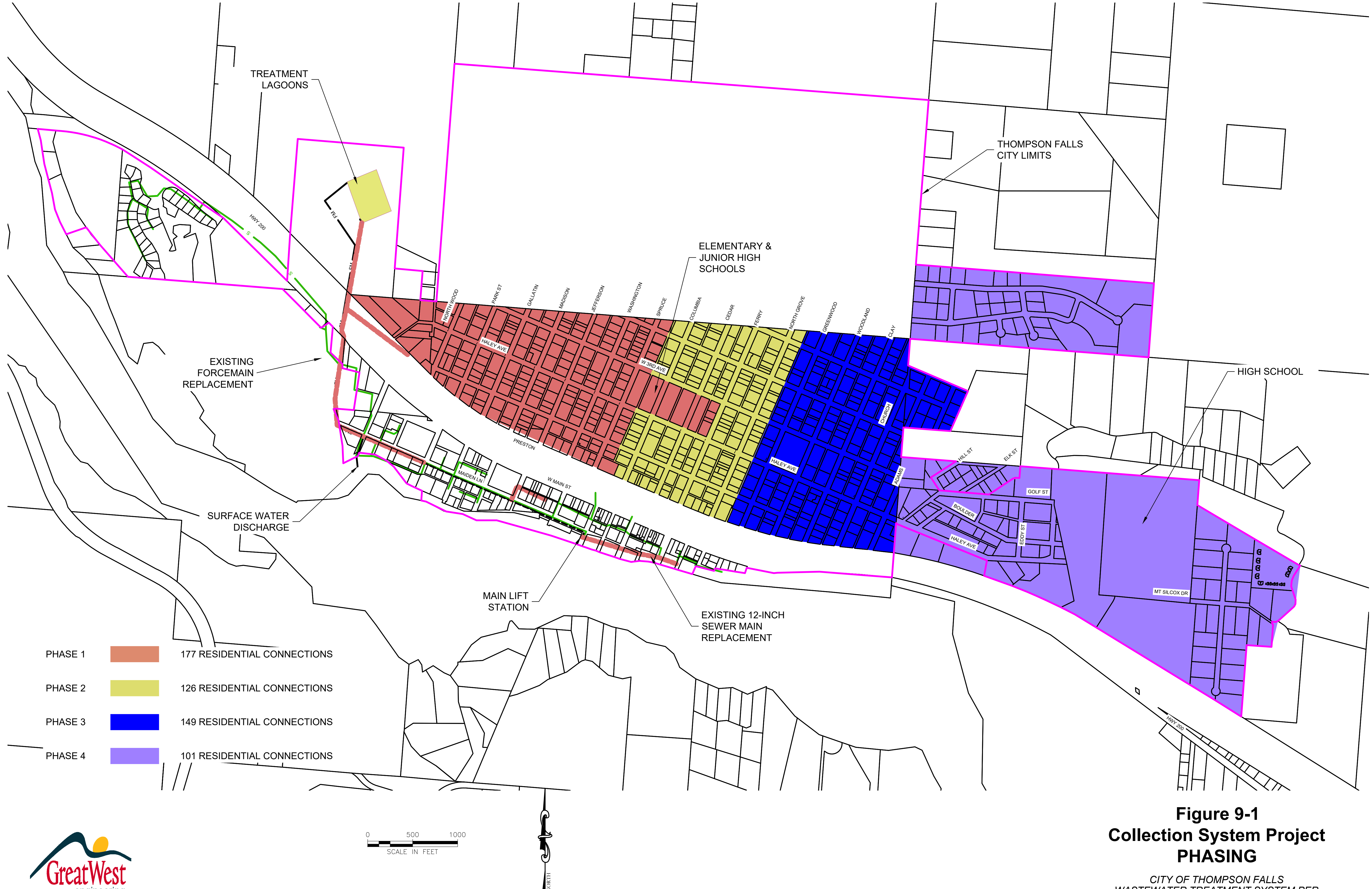

Figure 9-1
Collection System Project
PHASING

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Phase 1: Alternative C1-1 will include construction of one new lift stations to serve the expanded collection system. The new lift station will require additional operational and maintenance duties for the system operator. Since the existing system contains a lift station, the operator is familiar with the required maintenance. Routine monthly inspections should be established. The maintenance checklist for this alternative should, at a minimum, include the following items:

- Controls: check proper operation, inspect control wiring, check operation of light and horn.
- Pumps: clean and inspect pump floats or verify acceptable transducer operation
- General: cleaning and site maintenance as necessary

Packaged lift stations usually have a specific start-up and operational training associated with them. Equipment suppliers can offer more assistance with these systems simply because they typically have more experience and familiarity with the specifics of the equipment they sell and service. The project specifications will require training from the suppliers and/or manufacturers.

9.3 Impact on Existing Facilities

Phase 1: Alternative C1-1 will include repairs to identified deficiencies within the existing collection system. The proposed improvements to the existing collection system and Main Lift Station will have a positive effect on the system. By reducing inflow and infiltration into the system by replacing leaking manholes in the Solid Rock Estates Development, the Main Lift Station will not need to pump as much resulting in an energy and cost savings to the City. Replacement of the two aging sewer mains and CIPP rehabilitation of a third will reduce maintenance costs and time. The cost and time savings can be used to address other problems areas within the system, or provide additional reserve account funding for future capital improvement projects.

Wastewater flow from the proposed collection system expansion will be routed to the treatment lagoons through a force main from the West Preston Ave Lift Station. The proposed expansion will have minimal impact on the operation of the Main Lift Station. The replacement of the aging 6-inch AC force main will have a positive impact on the operation of the Main Lift Station.

The primary impact to the existing system facilities will be at the treatment lagoons. The additional hydraulic and organic loading to the facility will impact the effluent quality of the system.

The additional flow from the collection system expansion will reduce the detention time under aeration and quiescent settling time of the existing lagoon system. It has been shown above, that the existing system has capacity to treat wastewater up to an average day design inflow of 87,930 gpd before treatment upgrades are required to ensure the facility can meet existing permit limits. The estimated average day design flow to the treatment lagoons with Phase 1: Alternative C1-1 will be 74,432 gpd as shown in Table 9-1.

Based upon the estimated wastewater flows for each phase of the collection system expansion, treatment system updgrades are anticipated to be necessary with the Phase 2 collection system expansion. However, the treatment effectiveness will need to be monitored closely since the additional flow from the Phase 1 expansion will be near the existing treatment system's capacity to meet the mass based limits included in the permit. Continued monitoring of influent and effluent flows, per capita wastewater flow from Alt. C1-1 expansion area, impact to I & I improvements, treatment system performance.

9.4 Design Criteria

The proposed alternative would be designed and constructed in compliance with Circular DEQ-2 regulations. Plans would need to be reviewed and approved by the Montana Department of Environmental Quality before bidding and construction could begin. Because of the total length of the pipeline placement, more than one acre of land would likely be disturbed; thus, a storm water discharge permit would be needed during construction. The selected contractor would be responsible for obtaining a storm water permit, as would be indicated in the project specifications. Additionally, there will be Montana Department of Transportation (MDT) utility occupancy permit and encroachment permit required. Sanders County and BNSF will also likely require permits for work within their respective rights-of-way.

9.4.1 Treatment

No treatment system improvements are proposed with the recommended project; Phase 1 Collection System Alternative C1-1. As presented above, the existing treatment system will be impacted by the additional hydraulic and organic loads. It is recommended that the effluent quality from the lagoons be monitored to evaluate the ultimate impact of the increased loading. Treatment System improvements presented in the preferred Alternative T2 will be not be implemented until Phase 2 or Phase 3 of the collection system improvements (C1-2 or C1-3).

When treatment system upgrades become necessary, the recommended Alternative T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor presented in Section 7.2.2 will be implemented. A proposal from LEMNA Technologies for treatment system improvements is included in Appendix U. The design criteria that the treatment system improvements are based upon the future treatment standards analysis presented in this report to treat wastewater for the 20-year Planning Period hydraulic and organic loading presented in Section 5.3. The design criteria are summarized in Table 9-2, 9-3 and 9-4.

Table 9-2 - Alternative T2 Site Climatic Data

	Design
95^{th} percentile max summer	92.3 deg F
95^{th} percentile min winter	14.9 deg F
Elevation at Lagoons	2,550 ft

Table 9-3 - Alternative T2 Hydraulic and Organic Design Criteria

	Existing	Design
Q Avg Day	53,540 gpd	180,750 gpd
Q Peak Day	107,080 gpd	361,500 gpd
BOD5	260 mg/L	260 mg/L
TSS	300 mg/L	300 mg/L
TN	30.5 mg/L	30.5 mg/L
TP	8.0 mg/L	8.0 mg/L

Table 9-4 - Alternative T2 Treatment Limits

TBEL Group A – NSS Technology Based Effluent Limits			
Parameter	Units	Average Monthly	Average Weekly
BOD5	mg/L		10
	% removal	85	NA
TSS	mg/L		10
	% removal	85	NA
pH	SU	6.0-9.0	

Final Water Quality Based Effluent Limits (WQBEL)				
Parameter	Units	Average Monthly	Average Weekly	Maximum Daily
Ecoli summer (April 1 – Oct 31)	cfu/100 mL	126	242	-
Ecoli winter (Nov 1 – March 31)	cfu/100 mL	630	1,260	-
Total Residual Chlorine	mg/L	0.011	-	0.019
Ammonia, as N	mg/L	-	-	3
Total Nitrogen, as N	mg/L	-	-	-
Total Phosphorus, as P	mg/L	-	-	-

9.4.2 Lift Stations

This project will include installation of new pump controls and backup power at the Main Lift Station. Also included with this project is the installation of the West Preston Avenue Lift Station. This station will be sized to convey the peak hour flows from the entire collection system expansion. The preliminary design criteria for the West Preston Lift Station is included below. Supporting calculations are included in Appendix V.

- Duplex Pump Station
  - Capable of passing 3-inch diameter sphere
- Variable Frequency Drives
- Q = 328 gpm at 90 ft TDH
- Explosion Proof

The lift station will be a solids handling duplex package system. The City's current lift station is a wet well/dry well configuration with closed-coupled vertical turbine pumps. The type and configuration of the lift station will be evaluated during preliminary design of the proposed improvements. The lift station will include backup power and auto dialers for emergency operation and notification.

9.4.3 Collection System Layout

Figure 9-2 presents the layout of the proposed improvements for the Phase 1: Collection System Alternative C1-1.

9.4.4 Hydraulic Calculations

The hydraulic design of the West Preston Ave Lift Station was presented above and calculations are included in Appendix V. The forcemain size was selected to ensure a minimum scour velocity of 2 ft/s is maintained.

- Length = 1,850 ft
- Inside Diameter = 8.0-inch PVC or HDPE
- Elevation Gain = 84 feet
- Hazen-Williams C-Factor – 120
- Headloss @ 328 gpm (Peak Hour Hill Area) – 44 feet
- Forcemain Velocity @ 328 gpm (Peak Hour Hill Area) – 2.1 feet/second

The collection system expansion will be comprised of generally 8-inch diameter PVC pipe. The pipe will be installed at or above minimum grades included in Circular DEQ 2. The full flow capacity of an 8-inch PVC gravity main at minimum slope is 369 gpm. The estimated peak hour total system flow for the collection system expansion is 328 gpm.

9.5 Environmental Impacts and Mitigation

As part of any major construction project, the impacts of the project on the surrounding environment must be considered and provisions made to mitigate any negative impacts.

As part of quantifying the impacts to various environmental and historic resources, letters were sent to pertinent local, state, and federal agencies requesting comments on any potential environmental impacts as a result of proposed improvements. The letters and responses to these letters are included in Appendix F.

Although large areas may be disturbed as a result of open-trench digging, virtually all areas will be within existing rights-of-way and easements that have been previously disturbed by development. There will be no changes in land use after completion of the project. Some air quality problems with dust may arise during the actual construction period because the majority

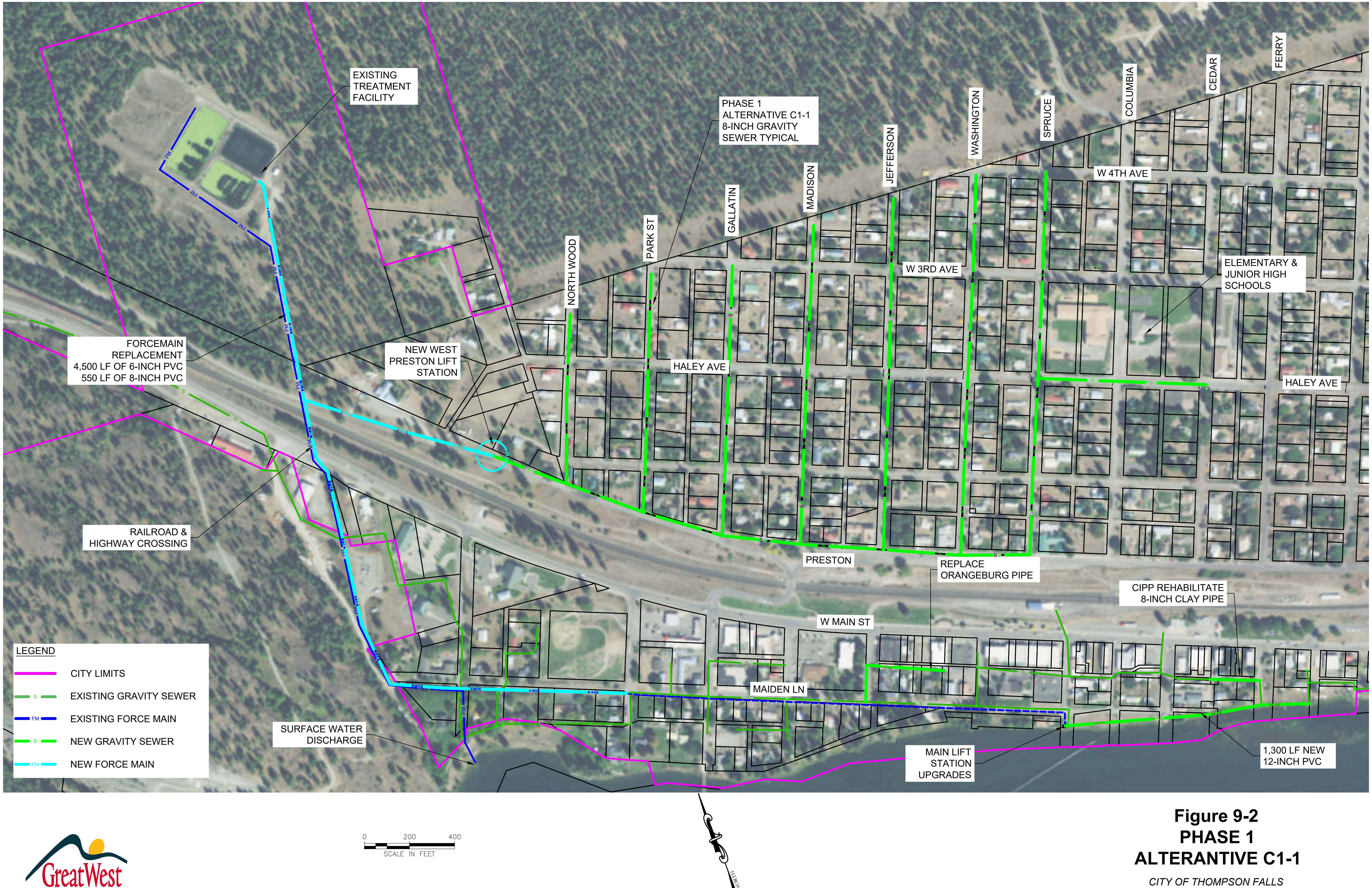

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Figure 9-2
PHASE 1
ALTERANTIVE C1-1

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WASTEWATER TREATMENT SYSTEM PER

of the streets are unpaved; however, it would be temporary and the contract documents would require that the Contractor provide dust control.

Similarly, there will be some temporary noise during construction. Once construction is complete, there will be minimal noise or dust problems arising as a result of the improvements. The contract documents shall also require that Best Management Practices (BMP) be employed before, during, and after construction until all areas of disturbance have been fully reclaimed and/or re-vegetated. For these reasons, environmental impacts are considered minimal and no permanent, negative environmental impacts are anticipated.

The overall impact to the environment will be positive as the work will include connection of approximately 180 residences and the elementary and junior high schools that currently are served by individual onsite wastewater treatment systems.

As described above, the project will result in increased hydraulic and organic loading to the treatment facility. The additional loading to the facility will impact the treatment process and may affect effluent quality. The existing facility has a design capacity of 144,000 gpd average day flow. However, the capacity of the facility to discharge treated effluent at secondary standards for BOD and TSS is limited to 87,930 gpd average day design flow by the non-degradation allocated load from the permit. Treatment system improvements outlined in Alternative T2: Complete Mix/Partial Mix Aerated Lagoons with Polishing Reactor will be implemented with either Phase 2 or Phase 3 of the collection system improvements (C1-2 or C1-3), depending upon the actual resulting loading to the treatment facility following construction and operation of the Phase 1 improvements.

9.6 Cost Summary

9.6.1 Project Cost Estimate

The engineer's opinion of probable costs for the Thompson Falls Phase 1 Wastewater System Improvements can be seen in Table 9-5.

Table 9-5 - Phase 1 Alternative C1-1 Opinion of Probable Cost

OPINION OF PROBABLE COST PHASE 1: ALTERNATIVE C1-1					
#	BID ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	Exploratory Excavation	50	HR	$ 300.00	$ 15,000
2	12" PVC SDR 35 Sewer Main	1,300	LF	$ 100.00	$ 130,000
3	8" PVC SDR 35 Sewer Main	11,170	LF	$ 60.00	$ 670,200
4	Standard Manholes	38	EA	$ 4,300.00	$ 163,400
5	Railroad/Highway Crossing	1	EA	$ 150,000.00	$ 150,000
6	Service Connection at Main	180	EA	$ 265.00	$ 47,700
7	Gravity 4" Sewer Service Line	14,400	LF	$ 38.00	$ 547,200
8	4" Sewer Service Connection @ Home	180	EA	$ 500.00	$ 90,000
9	Grinder Pump Service Unit	10	EA	$ 7,000.00	$ 70,000
10	Pressure 1.5" HDPE Service	800	LF	$ 25.00	$ 20,000
11	Abandon Existing Septic Tanks	190	EA	$ 1,500.00	$ 285,000
12	Service Line Surface Restoration	15,200	LF	$ 15.00	$ 228,000
13	Main Generator	1	LS	$ 50,000.00	$ 50,000
14	Main Lift Station Improvements	1	LS	$ 50,000.00	$ 50,000
15	West Preston Lift Station	1	LS	$ 200,000.00	$ 200,000
16	West Preston Generator	1	LS	$ 75,000.00	$ 75,000
17	6-inch Forcemain	4,100	LF	$ 55.00	$ 225,500
18	8-inch Forcemain	1,850	LF	$ 65.00	$ 120,250
19	Type A Surface Restoration (AC)	14,850	LF	$ 50.00	$ 742,500
20	Type B Surface Restoration (Agg)	3,540	LF	$ 25.00	$ 88,500
21	Electrical	1	LS	$ 150,000.00	$ 150,000
	Direct Construction Subtotal				$4,118,000
	Mobilization		10%		$412,000
	Traffic Control		3%		$124,000
	2019 Construction			3%	$283,428.60
	Contingency		10%		$494,000
	Construction Subtotal				$5,431,429
	Construction Engineering		20%		$1,086,000
	Legal & Administrative		3%		$163,000
	TOTAL (Nearest Thousand $)				$6,680,000

9.6.2 Annual Operating Budget

The annual operating budget for the City of Thompson Falls Sewer System was presented in Section 3.4. The potential impacts to the operating budget for the City are presented below in

Table 9-3. The following sections presents a summary of the sewer system operating budget with the Phase 1 project improvements.

Income

The current base sewer rate is $38.00 per month per EDU for residential accounts and $45.00 per month per EDU for commercial accounts for the first 4,000 gallons of discharged wastewater. An additional $4.00 per 1,000 gallons over 4,000 gallons per month is assessed for commercial and residential accounts. The discharge volume is an annual calculation, based upon the average monthly water consumption, from water meter records, for January through May and November through December from the previous year. The number of equivalent dwelling units (EDU) for the current sewer system users is 187. The monthly rate is the primary source of income for the funding the wastewater system, with late charges, and connection fees also contributing to yearly revenue. Average sewer bill calculations and supporting data is included in Appendix R.

The City has been considering adjusting the sewer rates for the existing system users. With the funding scenario, presented in Chapter 10, the potential monthly sewer rate per equivalent dwelling unit (EDU) following completion of Phase 1 of the sewer improvements proposed is estimated to be between $41.82 to $64.89.

The user rate presented for the proposed project and preferred funding scenario is a preliminary estimate of the billing rates required to pay current and future system debt and O&M costs as well as maintaining a modest reserve account. An in-depth evaluation of user rates was not performed within this PER.

O&M Costs

The proposed project will result in an increase to annual system operation and maintenance costs. As each phase of the collection system expansion and treatment system improvements are undertaken, further evaluation of their impact to O&M costs will be necessary. The average O&M for the existing system, summarized in Section 3.5 is $108,791.

The estimated increase to O&M costs for the Thompson Falls Phase 1 Wastewater System Improvements is presented in Table 9-6.

Table 9-6 - Phase 1 Opinion of Probable Annual O&M Cost Increase

OPINION OF PROBABLE INCREASE TO ANNUAL OPERATION & MAINTENANCE COSTS PHASE 1 ALTERNATIVE C1-1					
#	ITEM	QTY	UNITS	UNIT PRICE	TOTAL
1	Salaries/Benefits	100	MH	$ 25.00	$ 2,500.00
2	Administration	50	HR	$ 20.00	$ 1,000.00
3	Lift Station Power	7500	KWH	$ 0.12	$ 900.00
4	Spare Parts/Repair/Maintenance	1	LS	$ 5,000.00	$ 5,000.00
5	Clean 20% of Collection System	2234	LF	$ 2.00	$ 4,468.00
6	Reserve	1	LS	$ 2,500.00	$ 2,500.00
	TOTAL				$ 16,400.00

Debt Repayments and Coverage Requirements

The City currently pays on a Rural Development Loan. The annual payment for this loan is $13,977.

The proposed funding scenario for this project includes a loan through Rural Development. The estimated annual debt service for this loan will depend upon the final funding package received from Rural Development and may range from $53,020 to $159,049. The proposed funding package is discussed further in Chapter 10 and includes a combination of grants with the Rural Development funds.

9.6.3 Reserves

Currently, the City Sewer Operating Account has approximately $7,000 in reserve funds.

Debt Service Reserve

The recommended funding scenario includes a low interest loan from the USDA Rural Development (RD) program. RD does not require a loan reserve.

Short-Lived Asset Reserve

Short lived assets include equipment with useable life expectancies less than the 20-year design period, such as pumps, paint, and small equipment. Table 9-7 summarizes the short-lived assets for the Thompson Falls Phase 1 Wastewater Improvements.

Table 9-7 - Short-Lived Asset Reserve

Short-Lived Asset Reserve		
Item	Total Contribution	Annual Contribution
1-5 Years		
Seals for Lift Station Pumps (2 total)	$ 500.00	$ 100.00
5-10 Years		
Lift Station Pump Replacement (1)	$ 5,000.00	$ 500.00
10-15 Years		
Lift Station Pump Replacement (1)	$ 5,000.00	$ 334.00
Total Annual contribution for Short Lived-Assets		$ 934.00

10.0 RECOMMENDATIONS AND IMPLEMENTATION

10.1 Funding

The previous sections of this report have focused on the need for the project, physical and socio-economic characteristics of the community, project costs, and more extensively the technical viability. This section focuses on the financial strategy and implementation schedule. One of the main goals of a comprehensive PER is to provide a workable funding plan for recommended improvements included in the Preferred Alternative. This section discusses available funding sources as well as develops various funding scenarios. Ultimately, a preferred funding scenario is selected and further analyzed along with an associated implementation plan.

10.1.1 Funding Sources

Due to the high cost of the proposed improvements, the City of Thompson Falls plans to pursue outside assistance to fund the project in the form of grants and/or loans. The following sections provide a brief description of the potential funding sources and whether the City would be eligible for those funds.

Treasure State Endowment Program (TSEP)

TSEP is a state funded grant program, which is administered by the Montana Department of Commerce (MDOC). TSEP provides financial assistance to local governments for infrastructure improvements. Grants can be obtained from TSEP for up to $500,000 if the projected user rates are less than 125% of the target rate, for up to $625,000 if projected user rates are between 125% and 150% of the target rate, and for up to $750,000 if the projected user rates are over 150% of the target rate. TSEP grant recipients are required to match the grant dollar for dollar, but the match may come from a variety of sources including other grants, loans, or cash contributions.

Based upon the project combined water and wastewater bill for the City of Thompson Falls, and the target rate, the City qualifies for $750,000 in TSEP funds. TSEP funds are included in the preferred funding strategy presented below.

Renewable Resource Grant and Loan Program (RRGL)

RRGL is a state program that is funded through interest accrues on the Resource Indemnity Trust Fund and the sale or Coal Severance Tax Bonds and is administered by the Montana Department of Natural Resources and Conservation (DNRC). The primary purpose of the RRGL is to enhance Montana's renewable resources. For public facilities projects that conserve, manage, develop, or protect renewable resources grants of up $125,000 are available.

The preferred funding strategy assumes the use of $125,000 in RRGL grand funds. Although the RRGL program is competitive, the proposed project will enhance renewable resources in the area by reducing the potential for aggregated degradation of state waters from substandard on-site wastewater treatment systems within the currently unsewered area of the City.

Community Development Block Grant (CDBG)

CDBG is a federally funded program that is also administered by the Montana Department of Commerce (MDOC). The primary purpose of CDBG funds is to benefit low to moderate income (LMI) families. Hence, a municipality must have an LMI of 51% or greater. This is usually determined by the current Census. However, under certain circumstances, the MDOC may allow an income survey to be completed (such as there have been major economic changes since the Census or if a community is only slightly under the required LMI percentage).

The CDBG grant funds can be applied for in an amount of up to $450,000 with a limit of $15,000 per LMI household, so a community needs 30 LMI households to apply for the maximum grant funds. The use of CDBG funds requires a 25% local match that can be provided through cash funds, loans, or a combination thereof.

Based upon the 2015 American Community Survey Data the City of Thompson Falls has an LMI of 65.9 % qualifying it for the CDBG grant program. The preferred funding strategy assumes the use of $450,000 CDBG grant.

State Revolving Fund (SRF)

SRF provides low-interest loan funds for both water and wastewater projects through the Drinking Water State Revolving Fund (DWSRF) and the Water Pollution Control State Revolving Fund (WPCSRF), respectively. The SRF program is administered by the Montana

Department of Environmental Quality. Current loan terms include an interest rate of 2.5% for a 20-year period.

Though the City would qualify for an SRF Loan for the project, availability of loan forgiveness for wastewater projects is not always available. Given the lower loan interest rate and longer terms available through the Rural Development program along with the likelihood of an RD grant, the City will not pursue a loan through the State Revolving Fund.

USDA Rural Development (RD)

RD provides grant and loan funding to municipalities for water and wastewater projects that improve the quality of life and promote economic development in Rural America. Municipalities with a population of less than 10,000 are eligible to apply, though, priority is given to those with a population of less than 5,500.

Grant eligibility and loan interest rates are based on the community's median household income (MHI) and user rates. If the area to be served has a MHI of $38,205 or lower and the project is necessary to alleviate a health and/or sanitation concern, up to 75% of the project costs are grant eligible. Up to 45% of the project costs are grant eligible if the planning area has an MHI between $38,205 and $47,757.

Current loan interest rates for communities with an MHI below $38,205 is 2.375%, with a 40-year term.

Thompson Falls' MHI makes the project eligible for the poverty interest rate of 2.375% and the 40-year loan term helps in minimizing the financial impact to user rates. Conversations with Rural Development (RD) staff have indicated that a 30%/70% grant/loan combination should be assumed in the funding analysis. Given the great financial need and low income of the City as well as the significant improvements the project would have to health and safety, the City may qualify for a higher grant amount through RD, however, 30% grant should be assumed at this time. For this reason, a range has been provided for the RD grant and loan funds potentially available to the City of Thompson Falls.

The City intends to pursue RD funding for the proposed improvements project.

Montana Coal Board

The Coal Board provides grant funding to municipalities to adequately provide for the expansion of public services or facilities needed as a direct consequence of coal development activities. There is no maximum limit to the amount the Coal Board can fund, but available funding is very limited, so it can be difficult to receive any funds from the Coal Board, especially large sums.

The City would not likely qualify for Montana Coal Board funds.

Economic Development Administration (EDA)

EDA provides grant funding for projects that are demonstrated to be needed for the placement of a new business. The amount of grant is dependent on the number of jobs created.

Because the proposed project would not create a large number of jobs, the City will not apply for an EDA grant.

INTERCAP

INTERCAP provides loan funds at a low cost, variable interest rate to local governments. INTERCAP is administered by the Montana Board of Investments and is very flexible in the variety of funding which would include both water and wastewater projects. There is no funding cycle (funds are always available), however, the maximum loan term is 10 years.

Due to the relatively large amount of financing required, an INTERCAP loan with the shorter loan term would cause extremely high user rater for the residents and is not recommended for long-term financing.

10.1.2 Funding Strategy

Numerous options have been identified as potential funding sources for the Thompson Falls Phase 1 Wastewater System Improvements. The preferred funding package and that recommended by this PER includes:

- $ 125,000 DNRC Grant
- $ 750,000 TSEP Grant
- $ 450,000 CDBG Grant
- $ 1,338,750 - $ 4,016,250 RD Grant (25% - 75% of remaining project costs)

- $ 1,338,750 - $ 4,016,250 RD Loan (25% - 75% of remaining project costs)

Consideration of various possible funding strategies is depicted in Table 10-1, along with the estimated user rates. Conversations with Rural Development (RD) staff have indicated that a 30%/70% grant/loan combination should be assumed in the funding analysis. This funding package is presented in Scenario #1. Given the great financial need and low income of the City as well as the significant improvements the project would have to health and safety, the City may qualify for greater grant funding through RD. This is presented in Scenario #3. However, for planning purposed, RD recommends using a 30% grant and 70% loan funding scenario. Because of the uncertainty and variability in RD funding, a range has been provided for the RD grant and loan funds potentially available to the City of Thompson Falls.

The funding scenarios presented assume that the O&M costs and debt service for the existing system and proposed expansion will be distributed to all system users equally. The EDU count for the existing system and proposed expansion are 187 and 196 respectively, for a total EDU count after the project of 383.

With the funding scenarios indicated above, the potential monthly sewer rate per equivalent dwelling unit (EDU) following completion of Phase 1 of the sewer improvements proposed is estimated to be between $42.81 to $65.37. The resulting rate increase will put the City's combined system rate between 152% to 191% of the combined system target rate as determined by the Montana Department of Commerce.

Table 10-1 - Funding Scenarios

ITEM	SCENARIO #1 CDBG, DNRC, TSEP and RD (2.375% for 40 years*) 30% RD Grant	SCENARIO #2 CDBG, DNRC, TSEP and SRF (2.5% for 30 years)	SCENARIO #3 CDBG, DNRC, TSEP and RD (2.375% for 40 years) 75% RD Grant Participation
Collection System Improvements Phase	$6,680,000	$6,680,000	$6,680,000
Rounded Total	**$6,680,000**	**$6,680,000**	**$6,680,000**
TSEP Grant	$750,000	$750,000	$750,000
DNRC Grant	$125,000	$125,000	$125,000
CDBG Grant	$450,000	$450,000	$450,000
RD Grant	$1,606,500	$0	$4,016,250
SRF Principal Forgiveness	$0	$500,000	$0
SRF Loan	$0	$4,855,000	$0
RD Loan	$3,748,500	$0	$1,338,750
Total Project Funds	**$6,680,000**	**$6,680,000**	**$6,680,000**
SRF Bond Reserve (1 year payment)	$0	$116,035	$0
Total Loan Amount	**$3,748,500**	**$4,971,035**	**$1,338,750**
Annual Loan Payment	$146,620	$237,620	$52,370
Total Loan Payments Over Life of Loan	$5,864,800	$7,128,600	$2,094,800
Total Interest Paid Over Life of Loan	**$2,116,300**	**$2,157,566**	**$756,050**
Annual Loan Coverage	$14,662	$23,762	$5,237
TOTAL ANNUAL CAPITAL DEBT SERVICE COST	**$161,282**	**$261,382**	**$57,607**
User Capital Cost/Month	***$35.09***	***$56.87***	***$12.53***
Current Annual O&M [1]	$108,791	$108,791	$108,791
Current Annual Debt Service	$13,977	$13,977	$13,977
Additional O&M Due To Project	$16,400	$16,400	$16,400
TOTAL ANNUAL O&M COSTS to NEW USERS [2]	**$139,168**	**$139,168**	**$139,168**
New User O&M Cost/Month	***$30.28***	***$30.28***	***$30.28***
USER COST/MONTH FOR PROJECT [3]	**$65.37**	**$87.15**	**$42.81**
Existing Average User Cost/Month/EDU	$0.00	$0.00	$0.00
COST/MONTH INCREASE/EDU	**$65.37**	**$87.15**	**$42.81**
Existing Other System Cost/Month	$46.68	$46.68	$46.68
Total Proposed Water & Sewer Cost/Month	$112.05	$133.83	$89.49
Combined Systems Target Rate**	$58.64	$58.64	$58.64
PERCENT OF COMBINED TARGET RATE	**191.1%**	**228.2%**	**152.6%**

Using the preferred Scenario #1 as a basis, a detailed project budget is presented in Table 10-2, which provides a breakdown of each of the line item costs by funding source. Scenario #1 is the most realistic funding package at this time, and although a larger grant may become available, a 30% RD grant should be assumed at this time. This will impact the budget distribution presented in Table 10-2.

Table 10-2 - Project Budget Summary

Completed By: Great West Engineering	City of Thompson Falls - Wastewater Collection System Phase 1					29-Mar-18
ADMINISTRATIVE/FINANCE COSTS	Source: TSEP Grant	Source: RRGL Grant	Source: CDBG	Source: RD Grant	Source: RD Loan	Total:
Office Costs						0
Professional Services/Grant Admin	20,000	-	20,000	25,000	25,000	90,000
Legal Costs	1,000	-	1,000			2,000
Interest Fees-Predevelopment finance		-		10,000		10,000
Travel & Training	500	-	500			1,000
Debt Service Reserve		-				0
Audit Fees						0
Interim Interest				35,000		35,000
Bond Counsel & Related costs		-		25,000		25,000
TOTAL ADMINISTRATIVE / FINANCE COSTS:	21,500	-	21,500	95,000	25,000	163,000
ACTIVITY COSTS						
Engineering - Additional Services (Permitting, ROW/Easements, Interim Project Management, Funding Agency Review, O&M Manual/Training)	76,020					76,020
Engineering - Basic Services (Final Design, Bidding or Negotiating, Construction, Post Construction)	369,240		369,240			738,480
Engineering - Resident Project Rep				271,500		271,500
Construction	283,240	125,000	59,260	746,429	3,723,500	4,937,429
Contingency		-	-	493,571		493,571
ACTIVITY COSTS	728,500	125,000	428,500	1,511,500	3,723,500	6,517,000
TOTAL PROJECT COSTS	750,000	125,000	450,000	1,606,500	3,748,500	6,680,000

10.2 Implementation

Prior to implementation of the project, all funding must be in place. As noted earlier, the proposed funding package for the District uses CDBG, DNRC and TSEP grant funds along with an RD grant and loan package. Grant applications for DNRC and TSEP are due in May 15 and June 15, 2018, respectfully. The ranking of those applications is expected to be known by the end of 2018, with funds coming available in July 2019. RD and CDBG funding applications will follow acknowledgement of TSEP and DNRC grant funding.

It is anticipated that final design and approvals would be completed by and bidding could take place in January 2020. Commencement of construction activities is anticipated to start in April 2020. Table 10-3 provides a summary of the Project Implementation Schedule for Phase 1. Table 10-4 presents an estimated Schedule for Phase 2-4.

Table 10-3 - Project Implementation Schedule – Phase 1

City of Thompson Falls Project Implementation Schedule – Phase 1	
Action	Date
Draft PER Complete	September 2017
Resolutions, PER adoption, applications	September 2017
Prepare Final PER	September 2017
Apply for DNRC Grant & RD Grant/Loan	May 2018
Finalize Financing	May/June 2019
Begin Design	July 2019
Design Basis Report/Cost Estimates to the City	October, 2019
Submit Design Plans and Specifications to MDEQ	October 2019
MDEQ Review & Approval	December 2019
Advertise for Bids	January 2020
Finalize RD Financing	March 2020
Start Construction	April 2020
Complete Construction	December 2020

Table 10-4 - Project Implementation Schedule – Phases 2 through 4

City of Thompson Falls Project Implementation Schedule – Phase 2 to 4	
Action	Date
Phase 2 PER Update	May 2020
Phase 2 Funding	May/June 2021
Phase 2 Design	July 2021 to December 2021
Phase 2 Construction	April 2022 to December 2022
Phase 3 PER Update	May 2022
Phase 4 Funding	May/June 2023
Phase 3 Design	July 2023 to December 2023
Phase 3 Construction	April 2024 to December 2024
Phase 4 PER Update	May 2024
Phase 4 Funding	May/June 2025
Phase 4 Design	July 2025 to December 2025
Phase 4 Construction	April 2026 to December 2026

11.0 REFERENCES

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APPENDIX A

Resource Team Assessment Report

RESOURCE TEAM ASSESSMENT REPORT

For

SANDERS COUNTY
MONTANA

NOVEMBER 3 – 5, 2015

In Partnership with: Sanders County Community Development Corporation, Stahly Engineering and Associates, Montana West Economic Development, Lake County Community Development Corporation, Montana USDA/RD, Montana Dept. of Commerce/Office of Tourism, Billie Lee Project Consulting, SBA Montana District Office, and Montana Economic Developers Association.

INTRODUCTION

It was a privilege for the Sanders County Resource Team to spend time in your county and experience this unique and beautiful area of Montana. Thank you for your hospitality, your time, and for sharing with the team the vision you have for your home.

Before digging in to the report itself, I would like to thank Montana Department of Commerce (MDOC) for its support of the Montana Economic Developers Association (MEDA). It is a partnership between MDOC and MEDA that makes Resource Team projects available across the state.

Special thanks are due to the Sanders County Commissioners who supported the team's visit as well as countless thanks to Jen Kreiner, of Sanders County Community Development Corporation. Jen served as the champion behind this project and will continue her leadership role with the process through to completion. Jen tapped shoulders of town hosts who gathered community members together so the team could hear as many voices as possible during each visit. Town hosts included Debbie Lyman, Peggy Johnson, Liz Wormwood, Elizabeth Haggerman, Erika Lawyer, Peg Winebrenner and Steve Daggar.

In addition, the Sanders County Resource Team Assessment could not have happened without the support of Gypsy Ray and Lake County Community Development Corporation which serves as the Certified Regional Development Corporation for the area.

The Sanders County Resource Team Assessment had sponsors that contributed to the success to date including Sanders County, Falls Motel, Sanders County Transportation, and Lakeside Motel and Resort.

Finally, I applaud each and every team member who dedicated hours of work and volunteered their expertise in order to participate on the team: Dan Johnson, MT USDA/RD; Jeri Duran, MT Dept. of Commerce; Robie Culver, Stahly Engineering and Associates, Billie Lee, Billie Lee Project Consulting; Roger Hopkins, SBA Montana District Office, and Kellie Danielson, Montana West Economic Development.

Each team member's contact information is provided in the following report. Please feel free to call on any of us for additional information or support. It would be our pleasure.

The stage is now set for the future of Sanders County. There are a number of short term and long term accomplishable recommendations that the resource team has provided in this report. Each of you individually must decide what it is that you want to do—what kind of project you want to tackle. It is also important for the entire community and county to be involved in finding ways to accomplish its goals. A few celebrations at the successful conclusion of an activity that has involved a large number of citizens will lead to a feeling of accomplishment that will carry over into other activities. Look through the suggestions, pick out one, and get started. It can be done. It is your choice, your decision; you can do it!

Gloria O'Rourke

Gloria O'Rourke
MEDA Team Coordinator

PROCESS FOR DEVELOPMENT OF THIS REPORT

According to Montana Department of Commerce program requirements, Resource Team Assessments are to be approved through the community's Certified Regional Development Corporation (CRDC). The CRDC for Sanders County is Lake County Community Development Corporation, with Gypsy Ray serving as Executive Director. The local host, Sanders County Community Development Corporation and the County Commissioners of Sanders County initiated the request for a Resource Team to visit. Jen Kreiner served as liaison and coordinator for the team's visit. Montana Economic Developers Association (MEDA) provided staff support for the coordination of a resource team to assist Sanders County in evaluating its assets and challenges and in developing suggestions for improving the environment, social and economic future of the area.

Under the direction of Jen Kreiner, an agenda was developed, logistics arranged, as well as budgeting and publicity for the assessment. Resource Team members were selected to visit, interview citizens, businesses and community leaders to develop options for projects for Sanders County. The team members were selected based on their fields of expertise that local officials indicated would likely be needed to respond to the problem or project areas identified.

Throughout the Resource Team on November 3rd – 5th over 150 people attended listening sessions and made comments. All notes from all listening sessions as well as those submitted via email or handwritten are included in this report. The team was available for listening to the following groups:

Each participant was asked to respond to three questions designed to begin communication and discussion and to serve as a basis for developing recommendations in this report. The three questions were:

- What do you think are the major strengths and assets in Sanders County?
- What do you think are the major problems and challenges in Sanders County?
- What projects would you like to see completed in two, five, ten and twenty years in Sanders County?

Upon completion of the interviews on November 4th including visits in Heron, Noxon and Trout Creek, the team met in a work session to compare notes and share comments. A Town Hall Meeting was held that evening in Trout Creek to share the main issues that were heard. Upon completion of interviews on November 5th including visits in Plains, Hot Springs, and Dixon, the team again met in a work session to compare notes and identify main issues. A second Town Hall Meeting was held the evening of November 5th in Plains.

The team then agreed that each team member would carefully analyze the things said, synthesize what they heard with their knowledge of programs and resources, prepare their notes and suggestions, and forward these items to be combined into this final report to the people of Sanders County. The report is available on the MEDA website at http://www.medamembers.org under the Resources tab and the Resource Team Assessment tab.

A Town Hall Meeting is planned tentatively for January 21st, at 2:00pm in Thompson Falls. The purpose of the meeting will be to briefly review the report and guide attendees through a three step process to identify projects, set priorities and create working groups for action.

The team is always available for support and follow-up questions or resources. MEDA will check in on progress made by the working groups in six months and return to Sanders County in one year to celebrate successes.

SANDERS COUNTY RESOURCE TEAM
SANDERS COUNTY, MONTANA

November 3 – 5, 2015

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Sanders County Resource Assessment Agenda

Tuesday, November 3rd - Day 1:

- **3:00pm** Team has most of the day to travel to Thompson Falls and check-in at the Falls Motel; brief tour of the Thompson Falls area.
- **3:30pm** County Department Head meeting, Courthouse downtown T Falls
- **5:00pm** Working dinner meeting with County Commissioners and Community/Economic Development leadership, catered by Big Eddys.
- **7:00pm** Team heads to Falls Motel.

Wednesday, November 4th - Day 2:

- **7:30am** Team meets for breakfast in Thompson Falls and reviews the day's agenda and listening session protocol, as well as facilitator guide sheet. (Minnies Café)
- **8:30 - 9:45am** Drive to Heron and brief tour (Pick-up Minnie's Cafe)
- **9:45 - 10:00am** Team sets up for Heron Listening Session
- **10:00 - 10:50am** Heron Listening Session **LOCATION**: Heron Community Center **COORDINATOR:** Debbie Lyman
- **10:50 - 11:00am** Prepare to travel to Noxon
- **11:00 - 11:30am** Drive to Noxon; brief tour
- **11:30am - Noon** Team sets up for Noxon
- **Noon - 1:00pm** Working Lunch - Noxon Listening Session **LOCATION**: Sawtooth Grill **COORDINATOR:** Peggy Johnson
- **1:00 - 1:15pm** Team prepares to travel to Trout Creek
- **1:15 - 2:15pm** Travel to Trout Creek; brief tour
- **2:15 - 2:30pm** Team sets up for Trout Creek/Thompson Falls Listening Session
- **2:30 - 3:30pm** Trout Creek Listening Session **LOCATION**: Lakeside Resort **COORDINATOR:** Liz Wormwood/TCCIA and Elizabeth Haggerman
- **3:30 - 6pm** Team Work Session and Working Dinner to summarize west end listening sessions and prepare for Town Hall Meeting.
- **6:30- 7:30pm** Western Sanders County Town Hall Meeting **LOCATION**: Lakeside Resort **COORDINATORS:** Liz Wormwood, Elizabeth Haggerman
- **7:30 - 8:00pm** Team travels to Thompson Falls for lodging

Thursday, November 5th - Day 3:

- **7:30 - 8:15am** Team meets for breakfast; reviews agenda for the day.
- **8:15 - 8:45am** Team travels to Plains; brief tour
- **8:45 - 9:00am** Team sets up for Plains Listening Session
- **9:00 - 10:00am** Plains/Paradise Listening Session **LOCATION**: Clark Fork Valley Hospital **COORDINATOR:** Erika Lawyer
- **10:00 - 10:15am** Team prepares to travel to Hot Springs
- **10:30 - 11:15am** Travel to Hot Springs; brief tour
- **11:15- 11:30am** Team sets up for Hot Springs Listening Session
- **11:30 - 12:30** Hot Springs/Lone Pine Working Lunch and Listening Session **LOCATION**: Second Home Restaurant **COORDINATOR:** Peg Winebrenner
- **12:30 - 1:15pm** Team travels to Dixon; brief tour
- **1:15 - 1:30pm** Team sets up for Dixon Listening Session
- **1:30 - 2:30pm** Dixon Listening Session **LOCATION**: Dixon Senior Center **COORDINATOR:** Steve Daggar
- **2:30 - 3:30pm** Team travels back to Plains
- **3:30 - 6:00pm** Team Work Session to prepare for Town Meeting in Plains; working dinner at Dog Hill Bistro
- **6:30 - 7:30pm** Eastern Sanders County Town Hall Meeting **LOCATION**: Paradise School **COORDINATOR:** John Thorson **7:30 - 8:00pm** Team travels back to Thompson Falls for lodging.

MEDA SANDERS COUNTY RESOURCE TEAM ASSESSMENT
MAIN TOPICS AND ISSUES

The team's report covering the main topics and issues listed below is available online at http://www.medamembers.org under Resources and the Resource Team Assessment tab. As many team members as possible will return to facilitate a town meeting to help residents prioritize projects and ideas on January 19, 2016.

The charts below are a summary compilation from the Listening Sessions held in Thompson Falls, Heron, Noxon, Trout Creek, Plains, Hot Springs, and Dixon November 3rd – 5th, 2015. Over 150 people either submitted comments or were interviewed and responded to three questions: What are the strengths and assets of your community/Sanders County; What are the problems and challenges of your community/Sanders County; What projects would you like to see or what vision do you have for your community/Sanders County in the next 2, 5, 10, 20 years?

COUNTY-WIDE ISSUES

MAIN TOPIC: LAW ENFORCEMENT & SAFETY
ISSUES:
- Resident deputies
- Improved equipment and training
- Staff to oversee all fire departments
- Fire and EMS volunteer burnout and funding
- Drug and alcohol abuse resulting in increased crime

MAIN TOPIC: EDUCATION
ISSUES:
- Access to workforce training
- College and vocational options in high school (like robotics and code class in Plains)

MAIN TOPIC: HEALTHCARE
ISSUES:
- Aging services – age in place

MAIN TOPIC: INFRASTRUCTURE
ISSUES:
- Water
- Sewer
- Roads
- Cell phone and internet

MAIN TOPIC: NATURAL RESOURCES
ISSUES:
- Effective and responsible extraction; consider the market first
- Balance development and preservation
- Access and management of public lands
- Support of adequate water for agriculture
- Fire Wise Education
- Scotchman Peaks Wilderness

MAIN TOPIC: UNEMPLOYMENT & UNDER-EMPLOYMENT
ISSUE:
- Incentivize work over welfare

MAIN TOPIC: COMMUNICATIONS
ISSUES:
- Between communities all across the county
- Emergency notifications

MAIN TOPIC: CULTURE
ISSUES:
- Generational poverty
- Apathy and hopelessness
- Identify who we are as a community

MAIN TOPIC: DEVELOPMENT
ISSUES:
- Small Business – expand and/or recruit
- Responsible Natural Resource Development
- Engage retirees to share skills
- Who are we - Logging? Mining? Agriculture? High Tech? Light Industry? Green?

MAIN TOPIC: HOUSING NEEDS
ISSUES:
- Family
- Affordable
- Low Income
- For Seniors/Aging
- Workforce

MAIN TOPIC: TOURISM
ISSUES:
- Clean up and Beautification
- Coordination of tourism marketing
- Identify unique cultural assets of each area

MAIN TOPIC: INCREASE TRANSPORTATION SERVICES – COUNTY WIDE

OTHER ISSUES HEARD:
- Planning Board
- Growth Policy
- Contradiction: want visitors to spend $$$ vs. sustainable jobs

SPECIFIC ISSUES BY COMMUNITY

HERON

ISSUES:

- Law Enforcement Presence
- Aging Services
    - Clinic open five days per week
    - Life flight access
- Basic services
    - Grocery store
    - Fuel
    - Café
    - Daily gathering place
- Infrastructure
    - Water and Wastewater
    - Cell service and internet access
    - Cat Tail Bog – Railroad Crossing
    - Weed control
- Misc.
    - Culture of helplessness
    - Community Garden

NOXON

ISSUES:

- Tourism
    - Signage off of Highway 200
    - Trails and Connectivity
    - Development of actual recreational opportunities that people can access
- Law Enforcement Presence
- Aging Services
    - Senior Housing
    - Age in place; assisted living
- Planning Board
- Train Depot – Passenger Service
- Diversified Economy
- Infrastructure
    - Water & Sewer
    - Roads
    - Cell & Internet Service
- Education
    - Vocational training and distance learning
    - Workforce development

TROUT CREEK/THOMPSON FALLS

ISSUES:

- Law Enforcement & Safety
    - Improved presence
    - Domestic violence services
- Recreation
    - Indoor swimming pool
    - Larger work out facility
    - Trail (and bike) expansion
    - City/County Park District
- Infrastructure
    - Both state and county road projects
    - Water and sewer
    - Housing
    - Cell phone & Internet
    - Communication Infrastructure and public TV utilization
- Economic Development
    - Incentivize small business creation
    - Anti-business sentiment in the area
    - Old Mill site development
    - Downtown beautification
- Education
    - Opportunities for youth outside of school
    - Alternative programs/enriched education
    - Stable funding for rural schools
    - Drug and Alcohol Issues
- Misc.
    - Maintaining freedom

PLAINS/PARADISE

ISSUES:

- Youth
    - Mentorship – for youth and business start ups to reduce cycle of poverty
    - Boys and Girls Club
- Education
    - Basic Life Skills
        - Balance Check book
    - Soft Skills for youth and adults
    - Utilize Job Service
    - Train under skilled for business development
- Polarity of Thought
- Loss of Doctors
- Retirement of Skilled Workforce
    - Apprenticeships

HOT SPRINGS	DIXON

ISSUES:
✖ Infrastructure
    + Trail to highway
    + Bath house re-developed
    + A plan for street repair
✖ Communication
    + Continue to improve tribal relationship with community
    + Address the disconnect within Sanders County
    + New signage designating the reservation
✖ Development
    + Revitalize Homesteader Days
    + Develop elegant hot springs area
    + Availability of larger lots for larger homes
    + Be a center for integrated medicine; develop education program
	ISSUES:
	✖ Safety and Health
	    ✖ Clean the streets of trash vehicles, garbage
	    ✖ Blighted areas - concerns of health issues
	    ✖ Law enforcement needed – drop off site
	✖ Drugs and Alcohol abuse
	✖ Community
	    ✖ Community resurgence
	    ✖ Vison to create continuity throughout the generations
	    ✖ Access to transportation for the aging
	    ✖ Mercantile re-open
	    ✖ Extended after school programming

MEDA Sanders County Resource Team: Front row L to R – Robie Culver, Dan Johnson, and Jeri Duran. Back row L to R – Roger Hopkins, Kellie Danielson, Jen Kreiner, Gloria O'Rourke and Billie Lee. Taking the photo: team member Gypsy Ray.

SUMMARY OF ASSETS AND VISION

REPORT BY
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County-wide View of Assets

A major outcome for the Sanders County Resource Assessment Team was they understood why people live here. Although the communities within Sanders County are diverse in geography, industry, and lifestyle there were many comments that had a unified theme—the main one being the people. Our small rural towns breed a close-knit community with passionate, hard-working, and engaged people. This is an asset that is valued from Heron to Hot Springs to Dixon. It is because of that visitors see the true Montana experience where every interaction on Main Street is welcoming and friendly. Residents pull-together in times of need whether it is a community project or a family in need. This sense of community and support for your neighbor is not something found in metropolitan areas. It is a luxury that we afford here. These values make it a great place to raise a family or retire to Sanders County.

Natural beauty, recreational opportunities, and valuable natural resources were cited as strengths consistently in every listening session. Northwestern Montana is the best kept secret; with over 70% public lands this area boasts incredible fisheries, abundant wildlife and access to trails, and internationally renowned geothermal features. There are productive forests due to the climate in western Sanders County, as well as, rich mineral deposits.

It is no wonder that many retired people continue to relocate to the area. The cost-of-living is comparatively low to urban centers around Montana and outside the state. There is access to quality healthcare, great public schools, basic needs, and emergency services. Sanders County is a place where we put stock in family values, peaceful lifestyle, and commitment to our community. We choose Sanders County for the pace, serenity, and quality of life that it provides.

County-wide View of Vision

Overall, communities within Sanders County want to be stable and sustainable. A strong and diverse industry base would support the overall business community. Sustainable development of natural resources, growth of light-manufacturing, as well as tourism and technology-based businesses would reform the economic situation in Sanders County. This is the vision that includes living wage jobs for working families and affordable housing for them to live. Creation of workforce training both for adults and within our 9-12th grade public learning institutions would increase the skills available to employers. There would be consistent and available telecommunication services throughout the county in every community.

This is a vision of community resurgence; where we look local for goods and services, our public agencies meet the emergency and infrastructure needs in every community, where youth are supported socially and academically and they have the opportunity to stay where they were raised. Blighted properties would be cleaned-up, the wide-spread drug and alcohol abuse and crime that occurs, in turn would be addressed through a comprehensive and collective campaign by the cities/county which includes youth education. A mentorship program for the youth of our county would utilize skilled volunteers, possibly retirees who want to give back can circumvent the generational poverty found in our small, rural towns.

Infrastructure would be addressed from roads to housing as prioritized by the residents of Sanders County. Roads to bridges to water/sewer upgrades and maintenance, emergency services would have the available funding to meet resident needs, housing for our aging population would be addressed as a county-wide strategy so that our residents can age in place. Communications among the towns in Sanders County would exist. An informational platform to keep interested groups and individuals apprised of happenings (social, cultural, emergency) would emerge. Cooperation to achieve a balanced and productive outlook would be adopted so productivity can be efficient and possible. This is a vision where the polarity of thought would find value in the middle.

SANDERS COUNTY RESOURCE TEAM REPORTS

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Overview of Opportunities for Economic Growth
and
Key Steps for Boosting Rural Economies

The U. S. economy is driven by consumers. Cash spent for goods and services essential to personal and community health, safety and happiness, is the fuel that fires businesses. Without consumers and a reliable source of cash from wages, savings and credit, a community's potential to grow and thrive is limited.

Sanders County has very few indigenous consumers. The entire county population is barely that of many rural small towns - just over 11,000. Furthermore, the population is spread throughout the 2,700 square miles of the county - a land area nearly twice that of Delaware, a state with 80 times the population of Sanders County.

U.S. Census data captures Sanders County as compared to Montana, Delaware, and the United States.

People QuickFacts - U.S. Census Bureau	Sanders County	Montana	Delaware	U.S.
Population, 2014 estimate	11,364	1,023,579	935,614	
Population, 2010 (April 1)	11,413	989,417	897,936	
Population, percent change - April '10 July '14	-0.4%	3.5%	4.2%	3.3%
Area - square miles	2,760.52	145,545.80	1,948	
Persons 65 years and over, percent, 2014	26.0%	16.7%	16.4%	14.5%
Bachelor's degree or higher, percent of persons age 25+, 2009-2013	16.7%	28.7%	28.9%	28.8%
Per capita money income in past 12 months (2013 dollars), 2009-2013	$19,188	$25,373	$29,819	$28,165
Median household income, 2009-2013	$32,881	$46,230	$59,878	$53,046
Persons below poverty level, percent, 2009-2013	22.0%	15.2%	11.7%	15.4%
Unemployment rate (October 2015)	7%	4.1%	5.1	5%

The data show what everyone knows: Sanders County lacks the resources - human and capital - to stoke the fire of a local economy in the way larger communities can. Residents have to fulfill many of their basic needs by travelling to, and shopping in, larger communities with more diverse marketplaces.

Nevertheless basic health and safety needs of Sander County citizens are no less than those in larger communities: safe, clean water; reliable public safety response for fire and law enforcement protection; adequate and accessible health care; good roads and schools; sewage treatment systems to allow for business growth and housing while protecting ground and surface water.

The resource team heard of these needs at every listening session throughout the county. In addition to supporting these keystones of community development from the 19th and 20th centuries, Sanders County residents voiced frustration with spotty, if any, access and availability to the new infrastructure of the 21st Century - wireless phone service and broadband Internet connectivity.

This is the quandary the citizens of Sanders County find themselves: a small, widespread population of consumers, unable to provide a large enough market and a tax base to create or expand businesses and pay for needed infrastructure. It is the crux of the problem facing all rural communities where a small population, spread out over a large and diverse landscape, struggles to find the means to survive, let alone grow and thrive.

Location, location, location.

Sanders County residents can find some solace for the lack of economic strength when they look out the windows of their homes and cars. By the very nature of its low population and locale, they have what consumers in other areas simply can't buy: wide open spaces of unblemished beauty, solitude, and backdoor recreation.

This is countered, however, by the often heard expression throughout Western Montana: "You can't eat the scenery," and it's corollary, "You can't tax the scenery." The tax base, primarily from property taxes, is insufficient to pay for expansion of needed infrastructure and basic services, especially as the population of the county shrinks as noted in the Census data.

But the scenery can be capitalized upon in at least two specific ways: tourism and retirees. Both of these exist in Sanders County and are important sources of imported income. Census data reveal Sanders County has a higher percentage of residents over the age of 65 than either the population of Montana or the U.S.

Criticism or contempt toward either was not heard at any forum. What was expressed, and appropriately so, was discouragement of any attempt to focus economic development upon these resources and assets, specifically tourism, to the exclusion of other industries.

Unfortunately some of the assets that draw tourists can, and do, create problems, specifically with the large number of acres held in public trust by the U.S. Forest Service. Development of these lands is limited, and the natural resources of the forests - wood products primarily, once a vibrant source of income for the local economy - are locked up in litigation and regulation. Access to the mineral assets beneath the forests is also problematic. Mining is a highly regulated and market dependent industry.

Regulatory reform and market improvements are not going to be influenced by the citizens of Sanders County on their own. Neither will intervention by citizens to ameliorate the litigiousness of timber sales. Political action can be a means toward unlocking these resources and creating new jobs with resource extraction. But politics, by its very nature, is divisive without community consensus, and is a tediously slow, evolutionary process, even when consensus exists.

Divisiveness does not appear to be a concern in Sanders County. The listening sessions revealed a sense of pride in the community. Participation and engagement was significant. Thoughtful and valuable insights were offered and shared by participants, highlighting another, more intangible community asset: citizens and a citizenry who care about their community and individual community members.

The Thompson Falls City Council and Thompson Falls Downtown Committee are also to be credited for investing in a master plan for the county seat, arguably the center of the county's business and retail community. This plan, the Thompson Falls Downtown Master Plan (TFDMP) completed in October 2015, offers suggestions and an action plan for improving this core retail area. At the same time, the TFDMP offers insights and information about economic and community development opportunities that can be applied throughout the county to its diverse and vibrant communities: from Heron to Hot Springs; Noxon to Dixon.

You're not alone.

If the expression "misery loves company" has any truth, Sanders County residents can also find solace knowing the problems they face are not significantly different from those in other rural communities across the nation. Federal and non-profit entities routinely study rural economies and economics. The conclusions from the Harvard Business School's Institute for Strategy and Competitiveness offers one the most succinct and actionable analyses.

Key Steps for Boosting Rural Economies (source: http://www.isc.hbs.edu/competitiveness-economic-development/research-and-applications/Pages/economic-development-in-rural-areas.aspx), Economic Development in Rural Areas - Institute for Strategy and Competitiveness, Michael Porter, Director, Harvard Business School; accessed Nov. 19, 2015.

1. Rural economic development should focus on the **unique** strengths of each area, rather than concentrating on ameliorating generic weaknesses
2. The appropriate economic unit for strategy purposes must include not only rural areas but also **adjacent urban centers**
3. Rural economic development should **address and harness the efficient spatial distribution** of economic activity rather than attempt to replicate urban economies
4. A **single** national rural policy is unlikely to be meaningful and successful
5. Each community should bear **responsibility** for its economic success, not the federal government
6. Federal and state governments need to provide rural regions with the necessary **tools** and **financing mechanisms** to develop and execute an effective strategy

Of these six findings, the fourth is less directive and more instructive. However the other five can be applied to Sanders County as follows.

1. *Rural economic development should focus on the **unique** strengths of each area, rather than concentrating on ameliorating generic weaknesses.*

   The "strengths" acknowledged by Sanders County citizens during the listening sessions are robust. They include those previously mentioned: scenery, recreation, wide-open spaces, "freedom," strong pride in, and sense of, community. In addition, citizens are proud of their schools and churches, and people step up to help each other.

   By focusing on these strengths and assets, and building the means to capitalize on them, the community can make slow, steady progress toward "ameliorating" the weaknesses and growing an economy that can support and sustain necessary infrastructure improvements. Doing so will require finding alternative funding resources, specifically grant and credit resources, to help offset the costs associated with this development. A thorough list of these sources appears in TFDMP, (pdf found at www.downtownfalls.com) pages 7-10. Each option should be evaluated and debated as to their merits, not just for Thompson Falls, but for each community in the county and the county at large.

   a) major infrastructure improvements, such as sewage systems, even roads and bridges, will require a willingness for the community to support receipt of grant funds and to engage in debt financing
   b) tourism, well managed and strategically planned with the assistance of Montana State resources, can bring in more out-of-county and out-of-state revenue to help small businesses in the community
   c) neighborhood advisory councils can create a forum to help unincorporated areas of the county meet, discuss strategies, and prioritize community needs for the county commission and city councils (a change of government to a county charter would provide this flexibility for more direct citizen and community engagement)
   d) The TFDMP identified numerous opportunities for enhancement of public and private spaces in the downtown corridor of the county seat and largest community in the county;

adopting and moving forward with recommendations therein will have a spillover effect for the entire county and unincorporated areas

e) The hydrothermal geology of Hot Springs is an asset unique in Sanders County, as is the Paradise School; an investment in both is an investment in Sanders county at large

2. *The appropriate economic unit for strategy purposes must include not only rural areas but also* ***adjacent urban centers*** (combined with)
3. *Rural economic development should* ***address and harness the efficient spatial distribution*** *of economic activity rather than attempt to replicate urban economies*

Thompson Falls is equidistant from Missoula and Coeur d'Alene, Idaho, the two largest market areas within an hour and a half of the county. This proximity is both a positive and a negative: it is a positive in that there is a large, essentially "urban" population close to the county that is within an afternoon's drive. Given the right marketing campaign for Sanders County amenities and attractions, tourists will come to take in the scenery, buying gas, shopping at unique stores and eating at local restaurants.

Several independent efforts to engage tourism in Sanders County seek to capture visitors and travelers from out of the county. "Tour 200," and The Road to the Buffalo all play to the tourist; camping, hiking, fishing and hunting are also natural amenities in the summer, snowmobiling and cross-country skilling in the winter. These activities draw visitors to the area for longer than an afternoon day trip. The TFDMP identifies these assets and offers suggestions for "sprucing up" the retail corridor, enticing visitors to shop and dine at food establishments.

But the proximity is a negative as these larger retail markets, including Spokane just over two hours away, draw Sanders County residents to fulfill some of their shopping needs. The authors of the TFDMP analyzed this "leakage" of retail spending from Sanders County at nearly $12 million for general merchandise and another $4.5 million for health care and related services, $2.2 million for clothing, and $1.6 million for electronics and appliances.

This analysis is based upon the retail trade area identified on the next page. While residents of the communities of Dixon and Hot Springs may feel left out of this analysis, the TFDMP was designed, and funded, to study opportunities in Thompson Falls. References to this report are not to exclude other communities in Sanders County, but are to highlight the assets of this well-travelled corridor and how improvements to the core of Thompson Falls can accrue to the entire county.

Likewise, the county commissioners are well aware of the needs expressed by citizens of Dixon and Hot Springs, which will require improving communication with another county asset and important member of the community: the Salish-Kootenai tribe.

Not all of the retail leakage identified in the TFDPM can be recaptured. The authors are careful to caution readers to reach that conclusion. Any opportunities for small, and even mid-size retail outlets to locate in the county to capture some of this market while creating jobs should be further evaluated, either by public or private entities, including private investors.

(Source: City of Thompson Falls Master Plan, Land Solutions, LLC and Sitescape Associates, Oct. 2015, p. 79.)

4. *A **single** national rural policy is unlikely to be meaningful and successful*

Just as a single national policy will be ineffective for rural economic development, so, too, will a single statewide, or even countywide policy be the cure-all for Sanders County. While each of the listening sessions offered commonalities of assets and concerns, assets and issues unique to each community were also identified. This is where neighborhood councils, referenced in 1c above, could be helpful: what's at the top-of-the list for Dixon may not register for Noxon. Nevertheless, the concerns of both communities should be addressed, not at the expense of one or the other, but out of respect for both.

5. *Each community should bear **responsibility** for its economic success, not the federal government*

At each listening session, citizens expressed values of self-sufficiency, reliance upon the citizens of their community through churches and non-profit organizations, and lastly, upon government. The order of preference for government assistance puts local government first, state government second, and the federal government last.

Sanders County residents clearly accept their personal responsibilities, including individual efforts, to achieve economic success. That said, there are numerous tools available from federal and state agencies that can be used to enhance these individual and local community efforts.

6. *Federal and state governments need to provide rural regions with the necessary **tools** and **financing mechanisms** to develop and execute an effective strategy*

   As much as some residents may eschew government assistance, if economic growth is to occur, it must be at least partially subsidized. The necessary resources are not otherwise available from the small population, stretched across two Delawares.

   That's not to say private investment shouldn't be encouraged. But even private investors will need to see some of the missing infrastructure put in place, or the costs for participating in infrastructure improvements estimated, before significant investment is made in a business enterprise. This infrastructure includes:

   a) improved broadband service, capable of handling data transmission suitable for: marketing small businesses and selling goods and services; providing a means for distance workers - teleworkers - to work remotely for employers in other regions; and for manufacturers to share data and designs across the internet.
   b) improved/well maintained roads for tourists and for the cost-effective flow of goods and services into and out of Sanders County.
   c) reliable and resilient fire protection and law enforcement response.
   d) sewage treatment systems that will allow for industrial and retail growth and housing expansion, assuring that the water, a vital asset in Sanders County, is also protected.
   e) engaging social service networks to target what is perceived by young and old, in every community, to be a drug problem.
   f) engaging social and community service providers to break reliance upon public assistance as opposed to work; work is available, as noted in the front page picture of this report and down the road at another vibrant area business, Lawyer Nursery.

As heard during the listening sessions and supported by Census data, there is a need to provide services to the aging population of the county. Not only does the county have more residents age 65 and older than is typical in Montana or the rest of the country, the number will grow. These services not only include health care, but everything from handyman assistance, to assisted living housing.

Business development and expansion for services in Sanders County would be consistent with entrepreneurial business growth across the nation. All things being equal - such as internet and cell phone accessibility and basic public infrastructure (roads, sewer, public safety, schools, etc.) - emerging entrepreneurs and new businesses account for nearly all net job growth in the country and 20 percent of all new jobs created by new and existing business. In reporting this finding, Ernst & Young created this infographic, demonstrating that the majority of these new jobs are in the service and technology industries.

(SOURCE: http://www.kauffman.org/emerging) and article on the 2015 EY (Ernst & Young) Entrepreneurs of the year, at http://www.kauffman.org/what-we-do/resources/a-snapshot-of-the-emerging-entrepreneur?utm_source=newsletter&utm_medium=email&utm_campaign=ideasatwork11_25_15&_cldee=cnVzc0BtYXRyLm5ldA%3d%3d, Nov. 25, 2015.

Simultaneous with the improvement of county infrastructure to expand business services, federal and state resources can also help local business owners, and prospective business owners, with the tools to grow and expand. The Kaufmann Foundation has named Montana the most entrepreneurial state in the nation for the third year in a row. Why this is is a matter of speculation: a spirit of self-sufficiency; the need for an income source when traditional manufacturing, retail, and service employment is spread out among small rural communities; a culturally engrained history of small business development that settled the west.

Whatever the reason, nurturing this entrepreneurial spirit can help increase the number of these enterprises while helping others expand and grow to hire employees, all of which will help local communities serve residents and visitors to Sanders County.

a) Credit opportunities can be enhanced with government guaranteed loans through U.S.D.A. Rural Economic Development Loan and Grant programs, and the U.S. Small Business Administration loan programs
b) Local gap financing is available when traditional business loans are not
c) The SBA, through the Small Business Development Centers, SCORE, and the Montana Women's Business Centers, offer free and confidential one-on-counseling for business development and expansion
d) Business mentoring and assessment is available through the Montana Business Expansion and Retention (BEAR) program
e) Opportunities for businesses to expanded their markets overseas can be explored with the help of the SBA, Montana Department of Commerce, and U.S. Department of Commerce

As stewards of the county, every citizen - through community organizations, churches, public institutions and businesses - has an opportunity to create or enhance the basic community assets of Sanders County in a manner that protects the wide open, scenic splendor, of the county and honors its cultural, historical and geographic diversity.

Sanders County Resource Team Report

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MAIN TOPIC: INFRASTRUCTURE

Issue: Water and Wastewater Systems
Water and wastewater infrastructure was a topic in several communities in Sanders County. Aging or inadequate systems or extension of service to promote growth was mentioned as an issue in the communities of Heron, Noxon, Trout Creek, Paradise, Camas, and Thompson Falls. Many of Sanders County's communities do not have community water or sewer systems. This can be problematic, particularly where there is no room left on small lots to replace septic drain fields.

Repairing and updating existing systems or building new community systems can be extremely costly depending on the extent of upgrade that is required. State and federal regulations for public systems are complicated and can also contribute to the cost of the project.

Recommendations:
Reviewing existing systems and planning for potential upgrades is the first step in each community that has identified a water or wastewater issue. Rate structures should also be part of that review in order to understand how much the community is paying for services and whether or not that is adequate to maintain the existing system and set aside reserves for a potential capital project for upgrade or replacement. In acquiring grants for assistance with upgrades a target rate is often required in order to qualify for those grants. Communities who have not consistently raised rates to keep up with the cost of maintenance and replacement may see very large increases once an upgrade project is completed.

Most major upgrades for water and sewer are too expensive for a community to undertake without the use of grants or loans. Incorporated towns within the County have the ability to apply for state and federal grant and/or low interest loan funding. Unincorporated communities are generally required to form a water and sewer district in order to qualify for such funding. A County may apply on behalf of an unincorporated area and District formation can proceed concurrently with the project development. In some cases, an existing not-for-profit water or sewer company may be eligible for Federal but generally not State assistance.

Once a community identifies a need, the first step is to engage the professional services of an engineer with knowledge and expertise in planning and designing water or wastewater systems. Various state and federal agencies which will be listed in the recommended resources section provide planning grants that provide financial assistance for communities to hire an engineer.

There are at least two Technical Assistance providers serving Montana who can assist with hiring of an engineer as well as with the formation of a District. These providers can assist with the rate-setting process which is a necessary part of project financing. They offer operator training and operational guidance as well. Their contact information is listed below.

The engineer is then tasked with providing a Preliminary Engineering Report (PER). That report and the activities associated with completing the PER include:

1. an analysis of existing system conditions;
2. alternatives for improvements;
3. preliminary details for the chosen alternative;
4. an environmental assessment; and
5. public outreach activities to help the community explain the problem, potential solutions, and costs to the public.

It is important that a grant writer is identified to help in determining the most likely funding strategy for the identified project. The sooner the grant writer can become part of the planning project, the more efficient s/he will be in compiling the information needed for grant or loan applications. The grant writer will use the PER along with public outreach information and information about the communities planning activities to submit grants to various funding agencies depending on the financial need.

Acquisition of funding for infrastructure projects is usually a multi-year process and takes a great deal of coordination, often from a variety of sources. The services of a recognized Bond Counsel are often a necessary part of the funding arrangements.

Once funding is in place, the engineer used for planning may be retained to provide final design and construction management for the project as long as procurement has been properly conducted.

Recommended Resources:

Hiring an Engineer

Procuring a professional engineer is subject to Montana Statute. Engineers are hired based on their qualifications and then the cost of their services are negotiated after the procurement process has been followed.
http://dnrc.mt.gov/divisions/cardd/docs/resource-development/wasact/howtohireanengineer.pdf

General List of Resources

http://dnrc.mt.gov/divisions/cardd/docs/resource-development/wasact/Copyoffundingspreadsheetlegalagencyupdates101920151.pdf

Preliminary Engineering Planning Grants (most used)

Treasure State Endowment Program (TSEP): http://comdev.mt.gov/TSEP/tseppergrants.mcpx
Community Development Block Grant (CDBG) Program:
http://comdev.mt.gov/CDBG/cdbgplanninggrants.mcpx
Renewable Resource Grant and Loan (RRGL) Program: http://dnrc.mt.gov/grants-and-loans
USDA Rural Development (RD): http://www.rd.usda.gov/mt

Preliminary Engineering Planning Loans

DEQ State Revolving Fund (SRF) Loan Program: http://deq.mt.gov/wqinfo/srf/default.mcpx

INTERCAP Loan Program: http://investmentmt.com/INTERCAP

Construction Grants (most used)
Treasure State Endowment Program (TSEP):
http://comdev.mt.gov/TSEP/tsepconstructiongrants.mcpx
Community Development Block Grant (CDBG) Program:
http://comdev.mt.gov/CDBG/requiredappforms.mcpx
Renewable Resource Grant and Loan (RRGL) Program: http://dnrc.mt.gov/grants-and-loans
USDA Rural Development (RD): http://www.rd.usda.gov/mt

Construction Loans
DEQ State Revolving Fund (SRF) Loan Program: http://deq.mt.gov/wqinfo/srf/default.mcpx
INTERCAP Loan Program: http://investmentmt.com/INTERCAP
USDA Rural Development (RD): http://www.rd.usda.gov/mt

Bond Counsel
Jackson, Murdo & Grant, P.C.: http://www.jmgm.com/
Dorsey & Whitney, LLP: https://www.dorsey.com/locations/missoula

Technical Assistance Providers
Montana Rural Water Systems: http://www.mrws.org/
Mid-West Assistance Program: http://www.map-inc.org/montana.html

Issue: County Roads and Bridges
Sanders County operates three road districts that are responsible for maintenance of County roads and bridges. Many miles of road combined with Montana weather conditions and terrain that is not always conducive to keeping roads in tact make ongoing maintenance and upgrades an expensive necessity. Road and bridge condition is a topic of concern for residents of the County.

Recommendations:
Sanders County has GIS mapping available that shows all roads in the County. If the road districts are not using the GIS mapping system to identify and track maintenance needs and plans, that may be a way for the County to prioritize their road projects.

A bridge inventory should also be compiled. The Montana Department of Transportation (MDT) provides bridge inspection of all MDT and County maintained bridges over 20’ in length in Sanders County. The County is responsible for inspection of bridges under 20’. If bridges are not inspected by MDT it is recommended that they be inspected by a certified National Bridge Inspector (NBI). NBI certification is required if using TSEP fund for the bridge inventory/inspection.

Once inventories are compiled, road and bridge capital improvements plans (CIP) should be written in order to prioritize upgrade and replacement projects. That CIP should be updated on a regular basis to reflect additional needs or completed projects. The county has a CIP which was published in 2013.

Most funding for county roads comes from county budgets and is generated from property taxes or designated funds like Payment In Lieu of Taxes (PILT) which is an alternative form of payment from government sources that otherwise do not pay county taxes. Rural Improvement Districts (RID) can be formed to contribute to ongoing maintenance or major upgrades of transportation networks. Additional funding sources for roads may come from Federal Government grants that include the Federal Lands Access Program (FLAP), administered through MDT or Transportation Investment Generating Economic Recovery (TIGER) grants.

Bridge replacement projects may be part of MDT's responsibility if placed on the MDT priority list. Otherwise, the County may look for funding through the TSEP program. TSEP Bridge Construction grants, similar to water and wastewater grants, require the development of a PER by a professional engineer.

Recommended Resources:
Road Inventory and Mapping
The Montana Land Information Advisory Council (MLIAC) assists the State Library to identify, evaluate, and prioritize requests received from state agencies, local governments, and Indian tribal government entities to provide development and maintenance of services relating to the GIS and land information. They establish a granting process based on the Montana Land Information Act intended to develop a standardized, sustainable method to collect, maintain, and disseminate information in digital formats about the natural and artificial land characteristics of Montana. Calls for grant applications are available on a yearly basis and can usually be used for projects such as setting up a road mapping and information system.
http://geoinfo.msl.mt.gov/Home/GIS_Community/GIS_Coordination/MLIA_Grants

Preliminary Engineering Planning Grants
Bridge Inventories and Preliminary Engineering Reports can be funded by the Treasure State Endowment Program (TSEP). Bridge inventories can only be funded by TSEP planning grants every four years.: http://comdev.mt.gov/TSEP/tseppergrants.mcpx

Funding for Road and Bridge Construction Projects
Montana Code Annotated related to creation of an RID: http://leg.mt.gov/bills/mca/7/12/7-12-2181.htm
Montana Department of Transportation funding opportunities:
http://www.mdt.mt.gov/business/grants.shtml
Treasure State Endowment Program (TSEP): http://comdev.mt.gov/TSEP/tseppergrants.mcpx

Road Department Personnel Training
Montana Association of County Road Supervisors:
http://www.coe.montana.edu/ltapv2/resources/macrs/index.html

MAIN TOPIC: Housing

Issue: Senior Housing
In each community the citizens of Sanders County identified a desire to have additional resources available for senior housing. The desire is for people to be able to age in place with a range of services from affordable housing to assisted care facilities.

Recommendations:

Available, affordable housing is essential for the development of any community. The ability to keep experienced citizens in a community with ties to family and friends is helpful to both the citizens and their community.

In order for housing to be developed there needs to be a sustainable model to support the long term investment needed. This usually begins with a housing needs assessment. There are a few community minded investors willing to commit to this investment. They exist in both the for-profit and not-for-profit realm. Inquiries to existing facilities may provide information and contacts to reach these groups.

Another model that has been demonstrated is the cooperative housing model. The individuals needing the housing pool their resources and form a cooperative. The cooperative business model allows the occupants to own and operate the housing. There are provisions in the organizing documents to allow for both sale and purchase as transitions are necessary. The model provides for self-governance of the enterprise.

In some communities there is a business model which provides for assisted living. This does not constitute an endorsement, merely an example. The BeeHive Homes franchise provides for the establishment of assisted care facilities. There is a support network that goes with this.

Some individuals can extend the time in their existing homes by making modifications or upgrades such as ramps, wider doors, grab rails and bathroom improvements. Low to Very-Low income residents may receive financial assistance to make these upgrades through USDA Rural Development.

Recommended Resources:
For additional information and ideas, please visit the following websites:

Homeword: http://www.homeword.org
USDA Rural Development: http://www.rd.usda.gov/mt
Montana Cooperative Development Center: http://www.mcdc.coop/mcdc
HUD: http://portal.hud.gov/hudportal/HUD?src=/states/montana
BeeHive Homes: http://beehivehomes.com/

Issue: Single Family Housing
In each community visited, we heard of the need for additional housing. When asked for clarification about whether the need was for rentals, apartments or homes for purchase, the answer was repeatedly "all of the above." For a community to develop economically, there needs to be adequate housing, adequate relates to both quality and quantity.

Recommendations:
Homeownership can contribute to community stability and economic development. Homeowners tend to have an ownership in their communities and contribute to the tax base. They tend to volunteer more and engage in civic activities.

There are numerous opportunities for assistance with home purchases. Many of the providers require Homebuyer Education Classes and assist with financial fitness training. In some cases there are opportunities for down payment assistance and some programs offer subsidized interest rates.

A place to start for the County may be to engage with the Home Buyer Education providers to see if they will provide classes in Sanders County. This will enable residents to more easily access the classes and eventually the other programs.

In order to create more housing, it may be helpful to engage with local developers to determine their ability and interest in developing smaller scale developments. It may help to bring realtors and local banks to the table at the same time.

USDA Rural Development can finance homes in rural areas, all of Sanders County is eligible for this program. New construction, new manufactured homes on a foundation, qualifying existing homes and home repairs to provide decent, safe and sanitary housing as well as accessibility improvements are eligible. Interest rates can be subsidized for qualifying buyers. Loans are generally for 33 years and in some cases can be for 38 years. This program can partner or leverage with other providers. Housing Program Staff members can be invited to communities to provide information, meet with interested community members and participate in Homebuyer Education programs.

The Federal Home Loan Bank in Seattle offers the Home$tart and Home$tart Plus programs for downpayment assistance to qualified buyers. This program is accessed through conventional and government lenders.

The NeighborWorks MT Program offers Homebuyer Education and can provide downpayment assistance to qualified buyers.

Recommended Resources:
NeighborWorks MT: http://www.nwmt.org/NWMT%20Network/cap-profile
HomeWord: http://www.homeword.org/
HomeStart: http://www.fhlbdm.com/strong-communities-fund/western-office-housing-programs/homestart-homestartplus/?source=fhlbsea.com
USDA Rural Development: http://www.rd.usda.gov/mt

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MAIN TOPIC: COUNTY PLANNING

Issue: Need for County Planning Board, Growth Policy, and other Planning Activities

Recommendations:
Planning Board Appointment and Development of a Growth Policy
Sanders County does not currently have a planning board. County Commission appointment of a planning board is a first step in the process of developing a Growth Policy for the County. A Growth Policy is a community's growth and development plan. It evaluates existing community conditions and sets goals for housing, land use, economic development, local services, public safety, natural resources, transportation, and other unique characteristics and features of the community. A Growth Policy isn't a regulation or ordinance, but it serves as the legal basis for enacting them.

Other Planning Activities
In addition to developing and adopting a Growth Policy, additional planning activities can assist County Government with setting the course for maintaining and improving county facilities and infrastructure. A Comprehensive Capital Improvement Plan (CCIP) is a strategic tool for planning and financing public infrastructure. It is a process used to identify capital needs, establish priorities, and schedule and fund projects to improve existing, or construct new facilities.
Other CIP's that may be useful for specific pieces of County infrastructure include documents that address the needs of the County-managed airport or County-maintained roads and bridges.

Advantages of preparing a Growth Policy and other Planning Documents:
- Community values – preserves cultural and historical values, helps maintain the character of the community
- Safer communities - sets standards and promotes projects that improve infrastructure and services (roads, bridges, water resources, sewer systems, solid waste, fire and emergency services, health facilities)
- Promotes affordable housing
- Saves money - Identifies growth patterns that minimize the cost to provide local services and infrastructure. Helps local government create a long-term financial plan to meet public works needs.
- Builds community - greater understanding of issues
- Attracts business - a more attractive and well – planned community
- Funding opportunities - elevates community management in the eyes of funding agencies
- Helps local governments understand and be more responsive to citizens needs and desires

- Local governments operate more effectively – prevents public works crises, encourages consensus among local officials and staff.
- Can help local government meet statutory requirements – suggests strategy for development

Recommended Resources:
Hiring a Planning Professional or Engineer to assist with planning activities
Procuring a professional engineer is subject to Montana Statute. Engineers are hired based on their qualifications and then the cost of their services are negotiated after the procurement process has been followed.
http://dnrc.mt.gov/divisions/cardd/docs/resource-development/wasact/howtohireanengineer.pdf

The Department of Commerce may have requirements for procuring a planning professional if the community uses grant funding for developing grant funding.
http://comdev.mt.gov

Funding for Planning
Community Development Block Grant (CDBG) Program - Growth Policies, CCIP
http://comdev.mt.gov/CDBG/cdbgplanninggrants.mcpx

Treasure State Endowment Program (TSEP) – CCIP
http://comdev.mt.gov/TSEP/tseppergrants.mcpx

General List of Resources
Planning Board Members Handbook
Growth Policy Resource Book
Capital Improvements Planning Manual
http://comdev.mt.gov/cddpublications.mcpx

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MAIN TOPIC: DEVELOPMENT

Issue : Fostering Jobs and Business Investment

Suggested optimal business investment targets for Sanders County based upon the assets and liabilities associated with business location factors:

- *Agriculture-farming, multi-functional agriculture, value –added wood products, natural/organic products*

Natural, native or organic plants, herbs and fungi, are in high demand from consumers. They are used in skin products, cosmetics, food, beverages, and as dietary supplements. Growing and selling the natural plants to Montana based natural product industries creates opportunity for independent entrepreneurs.

Recommendations:
- Create a local meetup of citizenry interested in the natural products business enterprise and consider the meetup an unstructured association to share information, learn from and support one another.
- Tap into resources located nearby for education, inspiration and ideas.

Resources:
- Maarten Fischer, Kalispell, developed and piloted an entrepreneurial course in the field of multi-agriculture.
- David Amrein, Founder, Dr. Clarks' Research (Europe) and Mountain Meadow Herbs in Kalispell. Mountain Meadow Herbs is a manufacturer and may have opportunity to procure natural products from Sanders county entrepreneurs.
- Montana Organic Association

- *Mobile entrepreneurs/independent self employed*

Montana ranks number one in the United States for number of entrepreneurs per capita. Citizens are creative in the way they find a service they can perform or a product they can provide to capture an income.

Recommendation:
Engage retirees who have expertise or have been successful entrepreneurs to mentor and coach citizens interested in starting a business or expanding a business. Montana West Economic development has a mentoring/advising program where currently employed successful business people, especially entrepreneurs, and retired entrepreneurs are vetted by the Montana West staff, and serve as advisors/mentors either individually or in a small group to people with ideas. The mentors/advisors do not charge for their time, nor does Montana West. The desired result to help either launch or accelerate the idea, product or service by having access to expertise.

Resource: Montana West Economic Development, Kalispell
Consider applying for USDA Rural Business Enterprise Grant funds to support a local "pop up" program for business growth. The pop up is small or micro funding to assist citizens with a business in their home or garage move to a vacant space in the downtown or shared space. The pop ups could be seasonal or long-term. The new space provides better visibility, space and location to serve their customers. The funding from USDA is utilized to provide for equipment purchases, rent, or marketing, or other items to move the business from the coffee table to a professional location.

Resource: Lake County Community Development Corporation to assist with the grant writing, administration, and deployment

Micro Business Loans-partner with adjoining economic development of finance organizations to market and provide counsel to citizens for micro business loan funding.

Resources: Lake County Community Development Corporation, Montana West Economic Development, Montana Community Development Corporation, local lenders

Internet capacity-Blackfoot Telecommunications-Thompson Falls residents cost for land line and 10mbps of DSL is $95/mo. In Kalispell the cost is $82/mo with CenturyLink. All infrastructure is important, and broadband impacts government deployment of services, residential and business needs. Broadband capitalizes on education and safety factors. Community leadership should meet with the internet service companies leadership and particularly with Bitterroot Economic Development District about internet service capacity improvement ideas.

- *Tourism-natural resource silver, and signature event*

Recommendations:
Select an on-going successful community event or create a signature event similar to the Red Ants Pants Festival in White Sulphur Springs, Butte's Folk Festival, or Whitefish's Octoberfest, to market and bring people both in state and out of state to Sanders County. The visits may attract people to relocate in Sanders County for the lifestyle assets, and increase sales for local community business. Funding is available through the Montana Department of Commerce for tourism asset building. Local funds could be raised through the creation of a local business improvement district in the cities.

Wallace, Idaho is an example of capitalizing on the silver mining asset.

Resources: Montana Department of Commerce and Lake County Community Development

Has a resort community governance model been considered for the cities in Sanders County? This mechanism provides funding to the cities captured from the out of state visitors who use local services that all the local citizenry is paying for so the out of state visitors can enjoy.

Resources: Whitefish and Red Lodge local units of government would be resources to learn more about the resort city impact; Montana Department of Administration for procedures and regulatory data.

Preserve America Act-established under the Bush Administration, this resource provides assistance to the approved Preserve America communities tools and expertise to preserve historical assets.

Resources: Kalispell applied and was awarded the designation in 2009. Contact the city of Kalispell Community Development Director for more information, 758-7738.

Additional Comments:

During the listening sessions there were statements about attracting business to Sanders County. While that can happen, the likelihood is minimal, and the resources and effort should be focused on entrepreneurial activity, economic gardening, or simply put, growing business in Sanders County from within. Business location factors vary depending upon the product or service, but universally a business launches to solve a problem or need, and the location factors are to service the customers and market. Manufacturing's strength in Sanders County is the natural resources, but the weaknesses are government regulatory processes and the cost of inbound and outbound transportation. The professional and technical jobs are paying living wages, and is the typical growing business sector in most Montana communities. Don't discount the insurance, banking and other professional service providers, and the government employees, these are good paying jobs and have technical applications.

One of the most sensible quotes applicable to property comes from the movie "Gone With the Wind." Gerald O'Hara, the plantation owner of Tara, comments to his daughter, Scarlett, "land is the only thing worth fighting for, dying for; because it is the only thing that lasts." The impact of not having a planning board is puzzling; is the lack of planning devaluing the property in Sanders County?

Regarding government borrowing: the statements were made that Sanders County government has never borrowed money. In fact, one elected official stated they personally do not believe in debt. This author has little personal debt as well, but manages a business that has some debt in order to be profitable and serve the need of its customers. There is a difference between over extending in debt and having debt to keep infrastructure, safety and services (such as a community library that is all about education and serves as a community gathering place) from deteriorating and costing more to replace because of lack of maintenance and improvements.

Regarding a grant writer: a grant writer can attract six times their salary and contribute to the public and private sectors budgets, and impact local projects. Or, the organizations can contract with economic development organizations to provide that grant writing and admin service for them. In Flathead County there is vocal opposition occasionally towards accepting grants. However, when those grants are awarded, and when the project is completed, those vocal opposers are clapping their hands over the grant achievement. Don't let a few vocal opposers hold decision makers from going forward; otherwise, the vision and dreams to accomplish community projects or services will never happen, and those grant resources are being deployed somewhere, but not in your locale.

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MAIN TOPIC: TOURISM FOR SANDERS COUNTY

Issue: Increase tourism as economic development
The people of Sanders County (except in Heron) repeatedly said that increasing the number and spend of visitors into their community businesses would be a vital part of improving the economy of the county. Each community expressed concern over the condition of the downtown business districts, empty and rundown storefronts and the communities working together on marketing the county.

Recommendations:
Each community should consider starting tourism development by applying for a planning grant to complete a downtown revitalization **plan**. From the tourism perspective, the plan could include an assessment of existing businesses, potential business opportunities, needed infrastructure improvements (store signage, sidewalks, streetlights, etc.), landscaping, way finding, street-scaping, historic preservation and façade improvements, in addition to the bigger aspects of water, wastewater. A solid plan can be very effective in bringing the community together on priorities and enhancing community pride.

Community Planning Programs
The Montana Department of Commerce has two programs that can assist with revitalization studies – the Community Development Block Grant and the Big Sky Economic Development Trust Fund. Both programs can be used to hire a consultant for this type of plan that would include a list of priorities, cost of implementation, and timelines for completion. Thompson Falls has completed this project through CDBG funding. It would be helpful for all communities to see what these tools provide, as it is similar throughout Sanders County. This plan can set the community apart from others in grant application because there is already buy in at that level. This planning activity can also help establish tourism assets and identify marketing opportunities.

Financing Improvements
Individual communities can apply for a transportation grant from the Transportation Alternatives (Montana Department of Transportation) for overall downtown improvements including landscaping, streetscape improvements (lighting, sidewalk paving, benches, planters, façade and walkways, signs, public art and historical markers), for historic preservation projects, scenic or historic highway signage, and aesthetic improvements and other activities related to strengthening the cultural and environmental aspects of the state’s highways system.

County, city, organizations and individuals can also apply for Tourism Infrastructure Improvement Grants for brick and mortar projects that would enhance a visitor experience. This grant program has recently expanded to include for profit businesses. Additional funding through Indian Country Economic Development Programs for tribally owned businesses particularly in Hot Springs is also available.

Marketing

Citizens consistently described the beauty of the area, the art, and recreational opportunities in the area. They also talked about the 2000 plus vehicles per day that drive through the county on Highway 200. In addition, several events were mentioned in each community that could attract visitors from outside of the area to participate throughout the year. Currently, the communities do not have adequate resources to advertise to increase participation and in many cases do not have collaboration among the neighboring communities within the county. Each community should start with a "Moving Sanders County (or individual community) Forward" Workshop offered by the Montana Office of Tourism and Business Development. This workshop includes customized navigation of leveraging the State's Brand and its three brand pillars of 1. Spectacular Unspoiled Nature 2. Vibrant and Charming Small Towns 3. Breathtaking Experiences by and Relaxing Hospitality at Night. Attendees will learn about the Montana Visitor and their buying habits as well as best practices for business when managing your internet reputation and telling your best story. Co-operative opportunities with the State and Regional tourism marketing efforts can be discussed. The workshops are FREE for the communities. We have done over 20 around the state with over 500 attendees.

The Department of Commerce also has grants available for digital development and special event marketing.

Signage

Signing regulations with the Department of Transportation can be difficult to navigate. Rob Stapley with DOT has offered to send staff to the community meeting to answer questions from the community about their individual signage issues. Commerce is also partnering with DOT for some reference material on way finding issues. The staff at DOT is willing and able to address questions at any time. His contact information is listed below.

Resources:

For additional information please find contact and program information below:

Debra Demarais, Section Manager
Community Development Block Grant – Economic Development Program
Montana Department of Commerce
301 South Park
Ave. Helena, MT
59601
PH: 1-406-841-2736
Email: ddemarais@mt.gov
Website: http://cdbged.mt.gov

Annmarie Robinson, Section Manager
Big Sky Trust Fund Program
Montana Department of Commerce
301 South Park
Ave. Helena, MT
59601
PH: 1-406-841-2744
Email: ARobinson3@mt.gov
Website: www.bstf.mt.gov

Carol Crockett, Manager
Tourism Grant Program
Montana Department of Commerce
301 South Park
Ave. Helena, MT
59601
PH: 1-406-841-2796
Email: ccrockett@mt.gov
Website: http://tourism.mt.gov/MarketingDevelopment/GrantProgram

Julie Walker, Industry Outreach Coordinator
Montana Office of Tourism and Business Development
Montana Department of Commerce
301 South Park
Ave. Helena, MT
59601
PH: 1-406-841-2887
Email: jwalker3@mt.gov
Website: http://tourism.mt.gov/MarketingDevelopment

Tash Wisemiller, Main Street Program Manager
Montana Main Street Program
Montana Department of Commerce
301 South Park
Ave. Helena, MT
59601
PH: 1-406-841-2756
Email: TWisemiller@mt.gov
Website: http://mtmainstreet.mt.gov/default.mcpx

Heather Sobrepena-George, Indian Country Program Manager
Montana Office of Tourism and Business Development
Montana Department of Commerce
301 South Park
Ave. Helena, MT
59601
PH: 1-406-841-2775
Email: hsobrepenageorge@mt.gov

Website:http://businessresources.mt.gov/

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Website: www.mdt.me.gov/business/ctep/

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www.rurdev.usda.gov/MT_Home.html

MAIN TOPIC: Law Enforcement & Safety

Issue: Facilities and Equipment
In each community the citizens of Sanders County identified a desire to have an increased presence of trained and equipped law enforcement officers. In addition, Sheriff's Office Staff identified a need for facility improvements.

Recommendations:
Safety and security are important for the well-being of any community. Adequate training and proper safety equipment are essential for Law Enforcement personnel to do their work. A safe community is more conducive to economic development.

A community must understand that a desire for improved services comes with an obligation to provide funding for those services. There is an initial investment in capital improvements and an ongoing investment in operations and maintenance and debt service. Facilities can be financed from cash reserves on hand, loans and grants.

Since shared services are already a part of the way Sanders County provides court and jail services, it may be worth exploring a partnership to build new jail facilities.

The US Department of Justice has provided grants to hire new officers and pay a portion of their salary for up to three years. It may be worth exploring this while additional sources of funding are developed.

USDA Rural Development through the Community Facilities Program can finance public safety equipment and facilities.

The process begins with identifying current needs whether that is new patrol cars, communication devices or jail facilities. The next step would be to prioritize those needs. Once the priority needs are determined, sources of funding can be sought. Capital improvements such as a new jail would require the assistance of an architect for design and construction oversight. Hiring of an architect requires a competitive selection process based on qualifications.

Recommended Resources:
For additional information and ideas, please visit the following websites:

US Dept. of Justice: http://www.cops.usdoj.gov/Default.asp?Item=46
USDA Rural Development: http://www.rd.usda.gov/mt
FEMA: http://www.fema.gov/homeland-security-grant-program

MAIN TOPIC: Education

Issue: College and Vocational Options in High School
In many communities the citizens of Sanders County identified a desire to have an opportunity for students to access college level courses through the high schools.

Recommendations:
Extended learning opportunities can benefit students by giving them a leg up on future education as well as enhancing their learning opportunities and engagement in their education.

There are resources available through the Montana State University and Community College network. These entities provide programming and a network to extend learning opportunities.

USDA Rural Development through the Rural Utilities Service provides a grant program assist in setting up distance learning facilities.

Recommended Resources:
For additional information and ideas, please visit the following websites:

Flathead Valley Community College: http://www.fvcc.edu/
Missoula College: http://mc.umt.edu/
USDA Rural Development: http://www.rd.usda.gov/programs-services/distance-learning-telemedicine-grants

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http://www.bleeconsulting.com

MAIN TOPIC AREA: LAW ENFORCEMENT AND SAFETY

Issue: Improved Equipment and Training

Utilize these resources below to explore purchasing equipment and ideas for training.

Resources:
https://ric.nal.usda.gov/rural-fire-department-resources;
http://investmentmt.com/INTERCAP
http://www.publicsurplus.com/sms/browse/cataucs?catid=4

Issue: Staff to oversee all fire departments

Recommendations:
Assistance to Fire Fighters Grant (Due November Annually) under a regional application. Regional - Any eligible entity may act as a "host" applicant and apply for large-scale projects on behalf of itself and any number of other local AFG eligible organizations that will be participating partners in the award. Joint/Regional projects should achieve greater cost effectiveness and regional efficiency and resilience. If an applicant wishes to submit a Joint/Regional application, they should select the "Regional" radio button when filling out the application. For the purpose of this document and the AFG Application, the term "Regional" will serve the same meaning as "Joint/Regional."

Resources: http://www.publicsafetygrants.info/GrantDetails.aspx?gid=18039;

Issue: Fire and EMS Volunteer Burnout and Funding

Recommendations:

- http://ric.nal.usda.gov/community-development-resources/law-enforcement-and-crime/law-enforcement-funding-assistance

- http://www.volunteersignup.org

MAIN TOPIC AREA: EDUCATION

FVCC Online courses have been designed to fill the needs of busy people who desire to continue their education. There are three types of online learning:

1. **Online courses**—these courses are fully online.

2. **Interactive Television course (ITV)—**these are courses presented over an interactive television network between FVCC and partners at other locations.
3. **Hybrid Courses**—these courses are part face-to-face and part online.

Programs for High School Students

Missoula College offers options to help students prepare for college or to earn college credits while still in high school. Those options include Big Sky Pathways and Dual Enrollment coursework.

Benefits of Dual Enrollment

- Save $ on your college degree, with 50% off or free tuition and fees for high school students!
- Get a head start on earning a college degree!
- Earn credits that show college admission departments that you are prepared for college-level study!
- Gain access to challenging new learning opportunities!

Resource: http://mc.umt.edu/dualenrollment/

Recommendations:

- Set up partnerships with businesses similar to the Bitterroot College Fab Lab
- Explore partnerships with FVCC and Missoula College to offer curriculum locally – partner with local TV station to host group interactive TV courses
- Identify and exploratory group to meet with parties in Hamilton that spearheaded the establishment of the Bitterroot College now less than 5 years old – replicate for Sanders County. Revisit the Technology Center planning and research project completed by SCCDC and see if there is an approach that incorporates both ideas into a single center.
- Makers Spaces can often be completed at reasonable costs with donated materials if you can find the space. Some excellent articles have been written on the subject with great results – again – partnerships with local business lead to great results.
- Use the school kitchen to invite local chefs and county extension personnel to host and teach some cooking classes – invite the parents to eat as well as potential funders.
- Have county extension put on a safe food handling class for kids and adults using local products.

Resources:

http://www.edutopia.org/blog/designing-a-school-makerspace-jennifer-cooper ;
http://makered.org/wp-content/uploads/2014/09/Makerspace-Playbook-Feb-2013.pdf

Issue: Transportation between Communities and to Urban Areas

Resources: http://www.mdt.mt.gov/business/grants_transit.shtml;
https://www.ewu.edu/Documents/CBPA/NWTTAP/2015_Symposium/CSKT%20DHRD%20Transportation_Sias.pdf

NEXT STEPS – OPTIONS AND MORE OPTIONS

Sanders County has now held a MEDA Resource Team Assessment, heard from its people, recognized its strengths, and reviewed its challenges. The people of Sanders County now have this report in hand and can use it to explore new options, ideas, and resources.

The next step is for several members from the MEDA Sanders County Resource Team to return and hold a town meeting. The tentative date for this return visit and meeting is January 21st. The team will walk attendees through a three step process with the result being a prioritized list of issues the residents of Sanders County wish to address and identify volunteers who will work on those issues.

Following this, the MEDA Resource Team has several suggestions for moving Sanders County forward:

1. Equip those who are in volunteer or leadership positions with training to sharpen facilitation and leadership skills.
2. Consider using the ABCD model for Community Development as a guide for how to move forward. Your MSU Extension Agent will know of this process and may be trained to facilitate it. Here are some helpful links to get you started:

   Overview:
   http://www.abcdinstitute.org/docs/What%20isAssetBasedCommunityDevelopment(1)(3).pdf

   Link to the ToolKit: http://www.abcdinstitute.org/toolkit/index.html

3. Consider inviting an organization such as One Montana or Blackfoot Challenge to visit with the leadership of Sanders County to find "common ground" on divisive issues such as government, planning, natural resource protection, and mining.

4. Finally, consider "Community Questions: Engaging Citizens to Address Community Concerns," by Joe Sumners and Linda Hoke, Kettering Foundation "Citizens at Work" project.

   Key Insights in Design of Efforts

   1. **Citizens must be engaged if communities are to solve some of their most difficult problems.** Such problems have multiple causes and cannot be solved with a technical fix (unlike repairing streets and bridges). Effectively addressing these problems requires citizens to act – and keep on acting. So . . . ***engage citizens to address community problems.***

   2. **Citizens often think about problems differently than institutions or professionals.** Not only do people feel more empowered when they are encouraged to identify and frame the issues related to a problem or opportunity, but they often uncover different solutions than institutions or professionals who are looking at the problem from the lens of their own particular expertise. So … ***recognize the limits of professional expertise.***

   3. **People become engaged only around issues or problems that are of particular interest or concern to them.** It's not realistic to assume that all citizens will be engaged in all issues. The definition of "community" is therefore dynamic and ever

changing, with groups of people – who may or may not be connected by geographic borders – coming together to solve a problem or take advantage of an opportunity. So . . . ***start with what people care about.***

4. **Citizen engagement – and governance – is a skill learned by practice.** It's important to create mechanisms that allow for sustained citizen engagement rather than just one-time events. As citizens gain experience and see that they can make a difference, they may be drawn into issues beyond their initial areas of interest – particularly as they begin to see how many community issues are interrelated. So **. . .** ***establish structures that sustain engagement.***

5. **It's often most effective to engage citizens within the organizations and networks they are already a part of; we don't have to start from scratch.** It's likely that they are already talking about a particular issue in these networks and may have the capacity and connections to implement solutions. So **. . .** ***engage existing networks.***

6. **Networks and connections between organizations can multiply the power of civic initiatives and make them truly community-wide, or "public."** Yet, these connections typically don't happen by themselves – active intervention is often needed to connect groups that might, at first glance, seem to have very different interests. Even groups working on similar issues often have weak connections. Conveners can help communities re-define their relations, re-shape their networks, and restructure their capacity to act. So . . . ***connect existing networks and stakeholders.***

7. **When a group of people comes together for a community conversation, there will be tensions between goals, ideas, and values.** What may at first seem to be tensions between groups may, with further examination, be seen as common values that everyone shares – such as a desire for freedom or for security—but which pull against each other. Tensions and conflicts do not have to be resolved as long as everyone shows respect for diverse positions. We can agree to disagree. It's important to recognize tensions from the beginning of a community conversation. So . . . ***recognize and value tensions.***

Please contact Gloria O'Rourke, MEDA, in moving forward with any of these ideas, or others, if MEDA can be of assistance: gloria@medamembers.org or 406.563.5259.

The following document was contributed to the Toolkit by the Collaborative For Neighborhood Transformation.

What is Asset Based Community Development (ABCD)

Collaborative for Neighborhood Transformation
http://www.neighborhoodtransformation.net/

What is Asset Based Community Development (ABCD)

Asset Based Community Development (ABCD) is a *strategy* for sustainable community-driven development. Beyond the mobilization of a particular community, ABCD is concerned with how to link micro-assets to the macro-environment. The appeal of ABCD lies in its premise that communities can drive the development process themselves by identifying and mobilizing existing, but often unrecognized assets, and thereby responding to and creating local economic opportunity.

ABCD builds on the assets that are already found in the community and mobilizes individuals, associations, and institutions to come together to build on their assets-- not concentrate on their needs. An extensive period of time is spent in identifying the assets of individuals, associations, and then institutions before they are mobilized to work together to build on the identified assets of all involved. Then the identified assets from an individual are matched with people or groups who have an interest or need in that asset. The key is to begin to use what is already in the community.

In the past when a person had a need they went to their neighborhood for assistance. But this has shifted today to the belief that the neighbor does not have the skills to help them, therefore we must go to a professional for assistance.

The Welfare system today works in such a way that professionals have made clients and recipients of the poor, robbing them of the support from their neighbors who now think that they are not skilled enough to help. This leads to isolation of the individuals. The poor begin to see themselves as people with special needs that can only be met by outsiders, but this can be changed through the ABCD process.

A second power of ABCD is found in the local associations who should drive the community development process and leverage additional support and entitlements. These associations are the vehicles through which all a community's assets can be identified and then connected to another in ways that multiply their power and effectiveness. Users of the ABCD approach are deliberate in their intentions to lead by stepping back. Existing associations and networks (whether formal or informal) are assumed to be the source of constructive energy in the community. Community-driven development is done rather than development driven by external agencies.

ABCD draws out strengths and successes in a community's shared history as its starting point for change. Among all the assets that exist in the community, ABCD pays particular attention to the assets inherent in social relationships, as evident in formal and informal associations and networks.

ABCD's community-driven approach is in keeping with the principles and practice of *participatory approaches development,* where active participation and empowerment (and the prevention of disempowerment) are the basis of practice. It is a strategy directed towards sustainable, economic development that is community-driven.

Guiding Principles for ABCD

Most communities address social and economic problems with only a small amount of their total capacity. Much of the community capacity is not used and is needed! This is the challenge and opportunity of community engagement. Everyone in a community has something to offer. There is no one we don’t need.

- Everyone Has Gifts with rare exception; people can contribute and want to contribute. Gifts must be discovered.
- Relationships Build a Community see them, make them, and utilize them. An intentional effort to build and nourish relationships is the core of ABCD and of all community building.
- Citizens at the Center, it is essential to engage the wider community as actors (citizens) not just as recipients of services (clients).
- Leaders Involve Others as Active Members of the Community. Leaders from the wider community of voluntary associations, congregations, neighborhoods, and local business, can engage others from their sector. This "following" is based on trust, influence, and relationship.
- People Care About Something agencies and neighborhood groups often complain about apathy. Apathy is a sign of bad listening. People in communities are motivated to act. The challenge is to discover what their motivation is.
- Motivation to Act must be identified. People act on certain themes they feel strongly about, such as; concerns to address, dreams to realize, and personal talents to contribute. Every community is filled with invisible "motivation for action". Listen for it.
- Listening Conversation – one-on-one dialogue or small group conversations are ways of discovering motivation and invite participation. Forms, surveys and asset maps can be useful to guide intentional listening and relationship building.
- Ask, Ask, Ask – asking and inviting are key community-building actions. "Join us. We need you." This is the song of community.
- Asking Questions Rather Than Giving Answers Invites Stronger Participation. People in communities are usually asked to follow outside expert's answers for their community problems. A more powerful way to engage people is to invite communities to address 'questions' and finding their own answer-- with agencies following up to help.
- A Citizen-Centered "Inside-Out" Organization is the Key to Community Engagement A "citizen-centered" organization is one where local people control the organization and set the organization's agenda.
- Institutions Have Reached Their Limits in Problem-Solving all institutions such as government, non-profits, and businesses are stretched thin in their ability to solve community problems. They can not be successful without engaging the rest of the community in solutions.
- Institutions as Servants p*eople* are better than programs in engaging the wider community. Leaders in institutions have an essential role in community-building as they lead by "stepping back," creating opportunities for citizenship, care, and real democracy.

Five Key Assets in ABCD
Communities can no longer be thought of as complex masses of needs and problems, but rather diverse and potent webs of gifts and assets. Each community has a unique set of skills and capacities to channel for community development. ABCD categorizes asset inventories into five groups:

- Individuals: At the center of ABCD are residents of the community that have gifts and skills. Everyone has assets and gifts. Individual gifts and assets need to be recognized and identified. In community development you cannot do anything with people's needs, only their assets. Deficits or needs are only useful to institutions.
- Associations: Small informal groups of people, such as clubs, working with a common interest as volunteers are called associations in ABCD and are critical to community mobilization. They don't control anything; they are just coming together around a common interest by their individual choice.

- Institutions: Paid groups of people who generally are professionals who are structurally organized are called institutions. They include government agencies and private business, as well as schools, etc. They can all be valuable resources. The assets of these institutions help the community capture valuable resources and establish a sense of civic responsibility.
- Physical Assets: Physical assets such as land, buildings, space, and funds are other assets that can be used.
- Connections: There must be an exchange between people sharing their assts by bartering, etc. These connections are made by people who are connectors. It takes time to find out about individuals; this is normally done through building relationships with individual by individual.

Comparison of Associations and Institutions
While institutions are both important to ABCD, they are different. Consider the following comparison of the characteristics of institutions and associations:

	Associations	**Institutions**
How Governed	Power by consent	Controlled environment
How Decisions Made	Choice of members	Involuntary; powered by $
Who Designed	Designed for and by each other	Designed for production
Who Decides What To Do	Members	Needs a client or customer
Who Runs	Citizen volunteers	Service/not a servant
Who Are Beneficiaries	Citizen members	Consumer/client
Function	Freedom	Produces services
What drives	Capacity of members	Drive to meet needs
Amount of Control	Very little, I would not want to fly an airplane built by this	Tight hierarchical control

The gifts of institutions are important, but they must be steered in support of what the citizens want and need, not what the institution wants and needs. Typically poor communities are inundated with social service organizations that exist to do a particular job or provide a particular service, but they need a client.

What is Social Capital?
Social Capital refers to features of social organizations such as networks, norms, and trust which increase a society's productive potential. It is built on a web of relationships that exist within any given community that allows people to succeed or advance through associating together. Social capital is present in the networks, norms, and social trust inherent in associations whose members work together in concerted collaborative action. In a literal sense, social capital is the store of good-will and obligations generated by social relations.

At the core of ABCD is its focus on social relationships. Formal and informal associations, networks, and extended families are treated as assets and also as the means to mobilize other assets of the community. By treating relationships as assets, ABCD is a practical application of the concept of social capital.

APPENDIX B

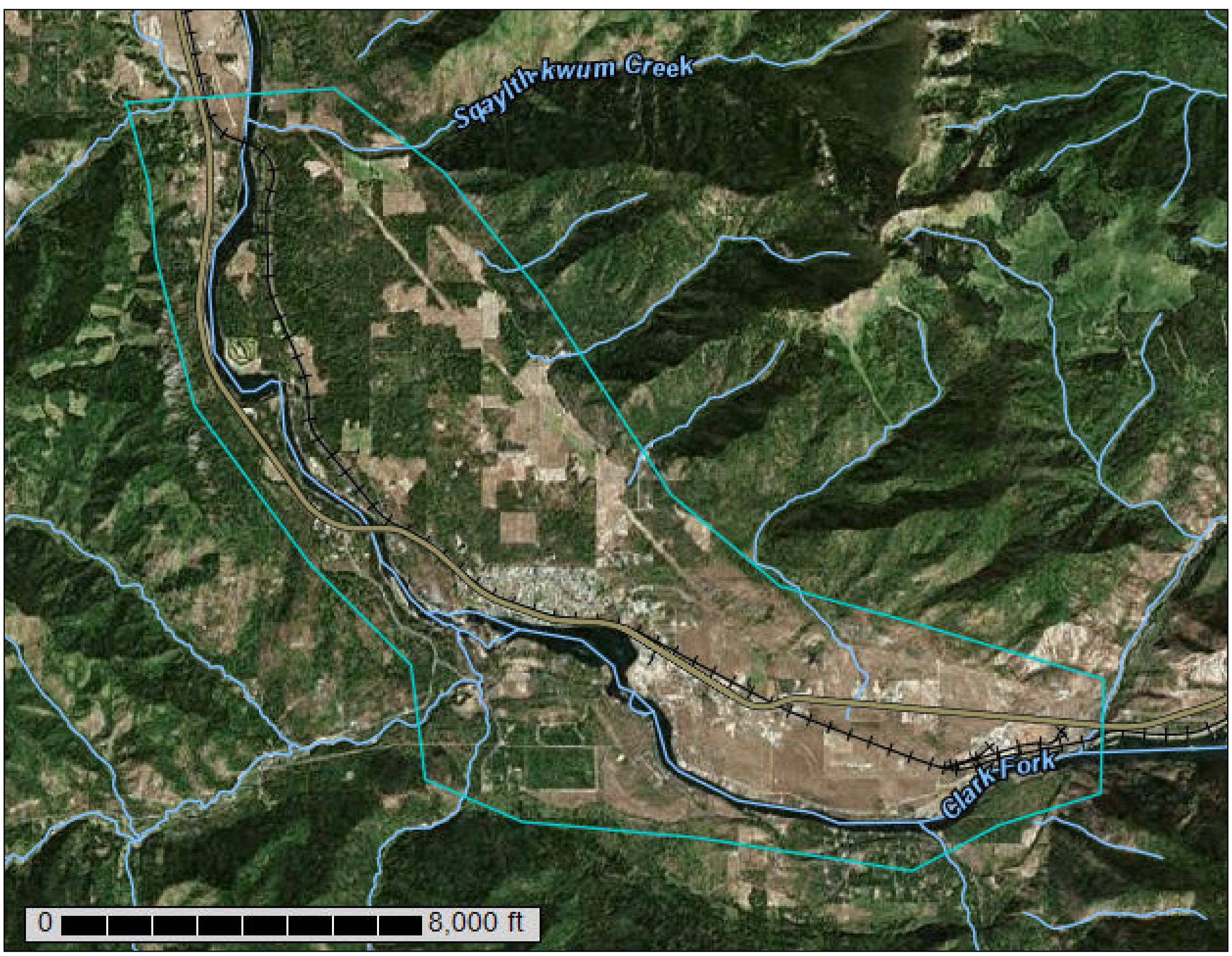
NRCS Web Soil Survey

USDA United States Department of Agriculture

NRCS Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Lolo National Forest Area, Montana, and Sanders and Parts of Lincoln and Flathead Counties, Montana



March 10, 2017

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Waste Management

Waste Management interpretations are tools designed to guide the user in evaluating soils for use of organic wastes and wastewater as productive resources. Example interpretations include land application of manure, food processing waste, and municipal sewage sludge, and disposal of wastewater by irrigation or overland flow process.

Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)

Wastewater includes municipal and food-processing wastewater and effluent from lagoons or storage ponds. Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. The effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 milligrams per liter. The wastewater from animal waste treatment lagoons or storage ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 milligrams per liter. When wastewater is applied, checks should be made to ensure that nitrogen, heavy metals, and salts are not added in excessive amounts.

Disposal of wastewater by irrigation not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also can improve crop production by increasing the amount of water available to crops. The ratings are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, saturated hydraulic conductivity (Ksat), slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, depth to a water table, and ponding. The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a soil to adsorb heavy metals. Permanently frozen soils are not suitable for disposal of wastewater by irrigation.

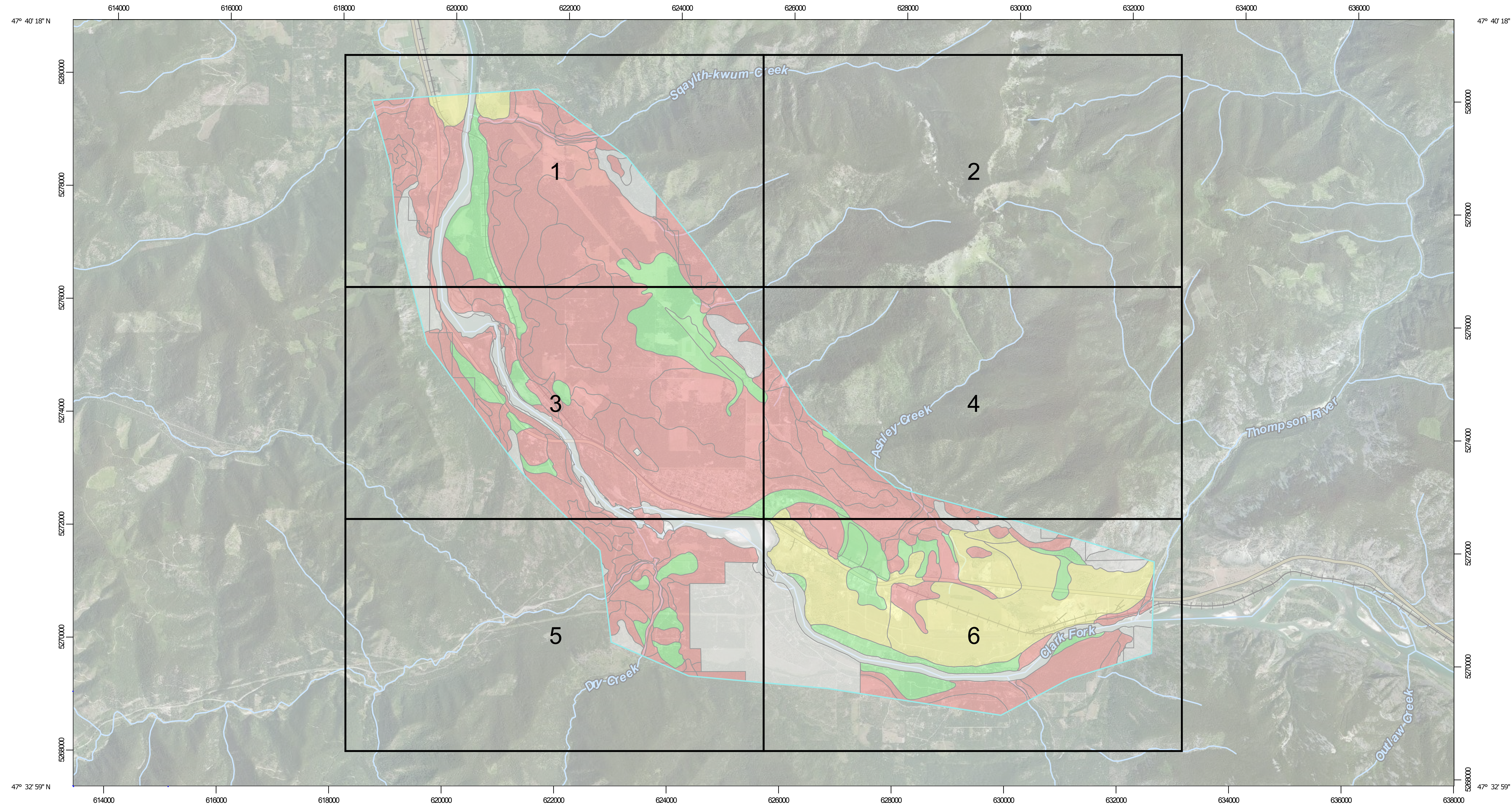
The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect agricultural waste management. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report
Map—Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)
Index Sheet



Map Scale: 1:66,000 if printed on B landscape (17" x 11") sheet.

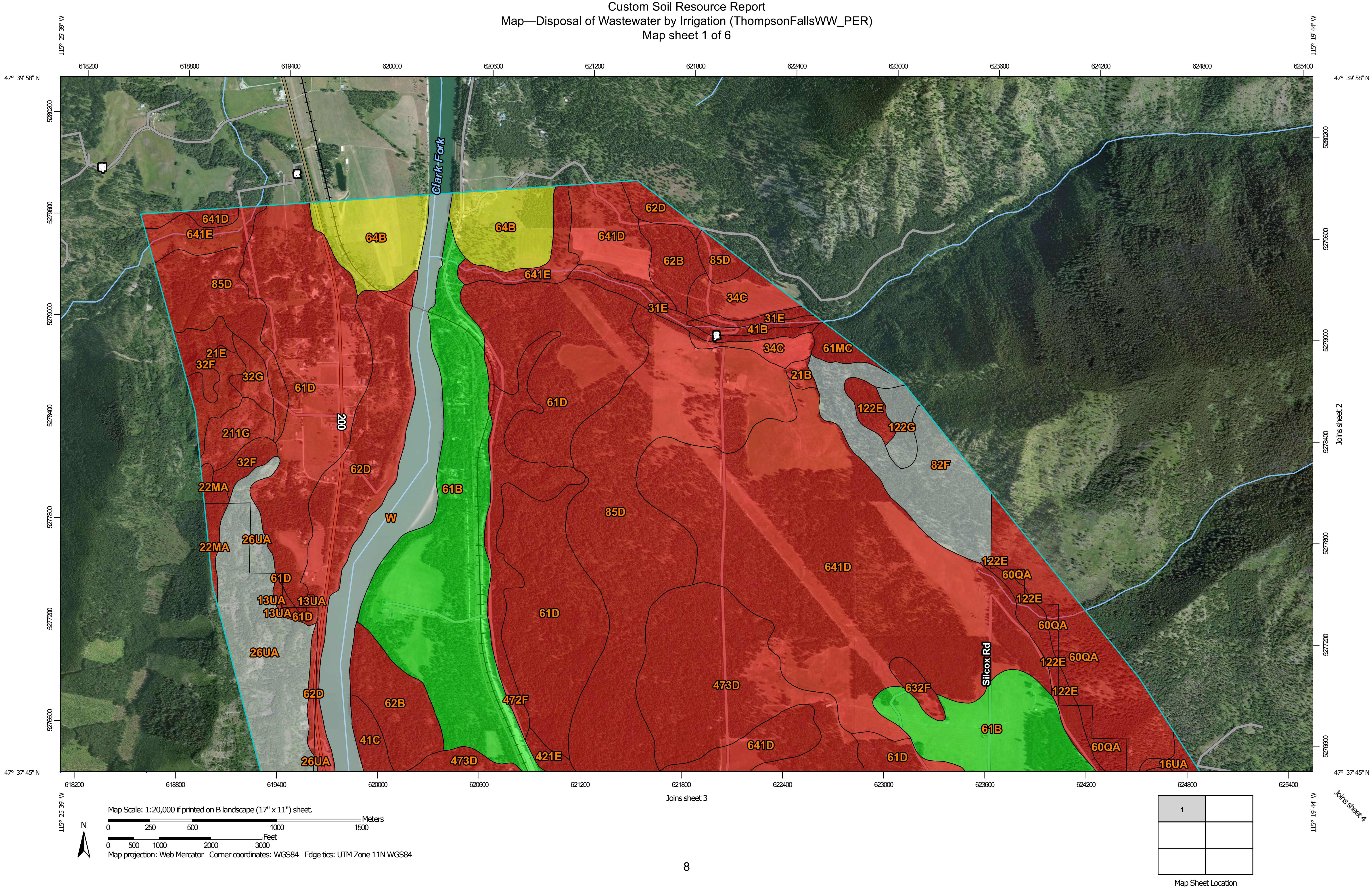
Meters: 0, 500, 1000, 2000, 3000

Feet: 0, 3000, 6000, 12000, 18000

N

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

Custom Soil Resource Report
Map—Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)
Map sheet 1 of 6



Map—Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)

Map sheet 2 of 6

Map Scale: 1:20,000 if printed on B landscape (17" x 11") sheet.

N

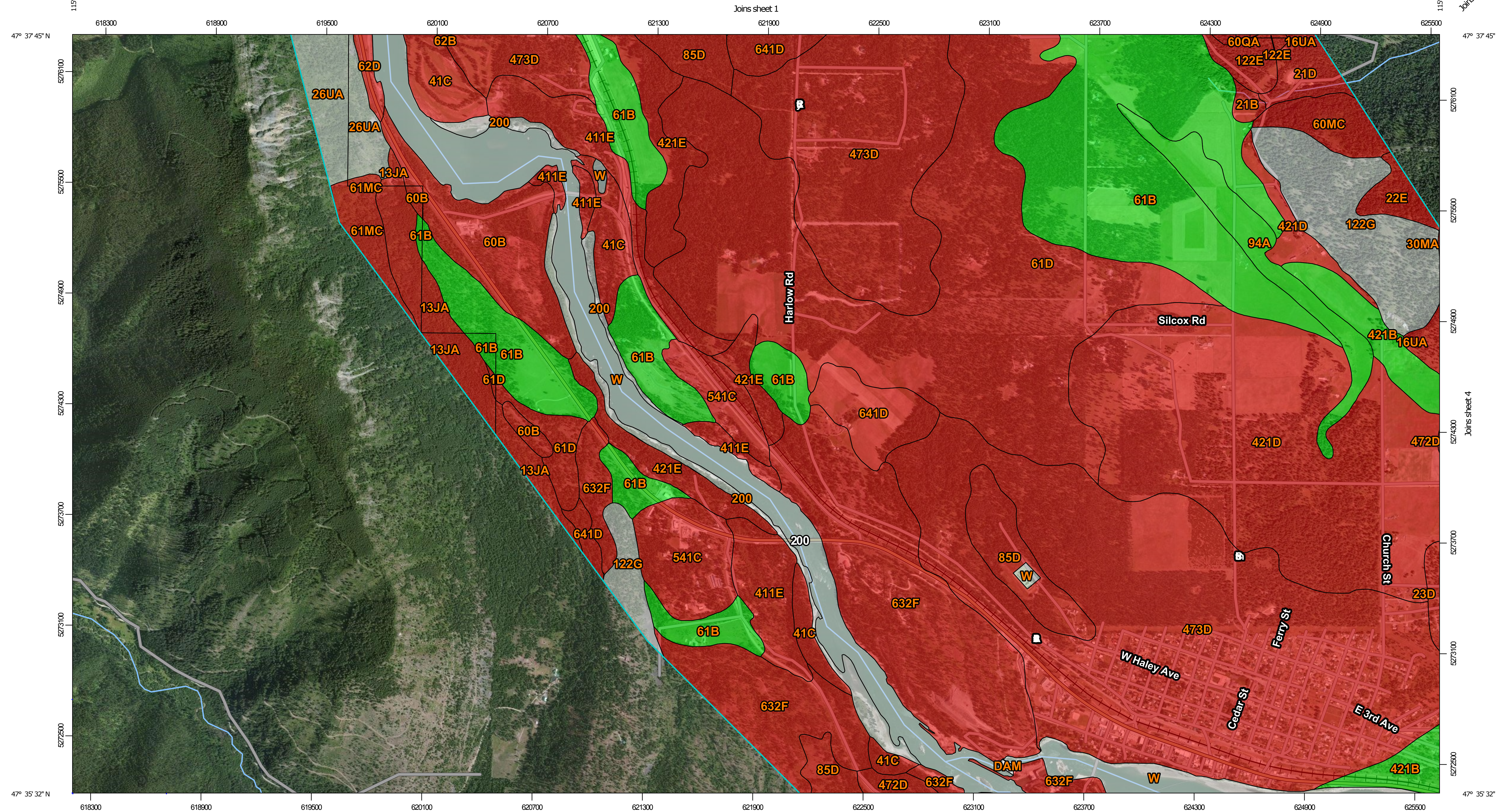
Meters: 0, 250, 500, 1000, 1500

Feet: 0, 500, 1000, 2000, 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

Map Sheet Location

Map—Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)
Map sheet 3 of 6



Map Scale: 1:20,000 if printed on B landscape (17" x 11") sheet.

Meters: 0, 250, 500, 1000, 1500

Feet: 0, 500, 1000, 2000, 3000

N

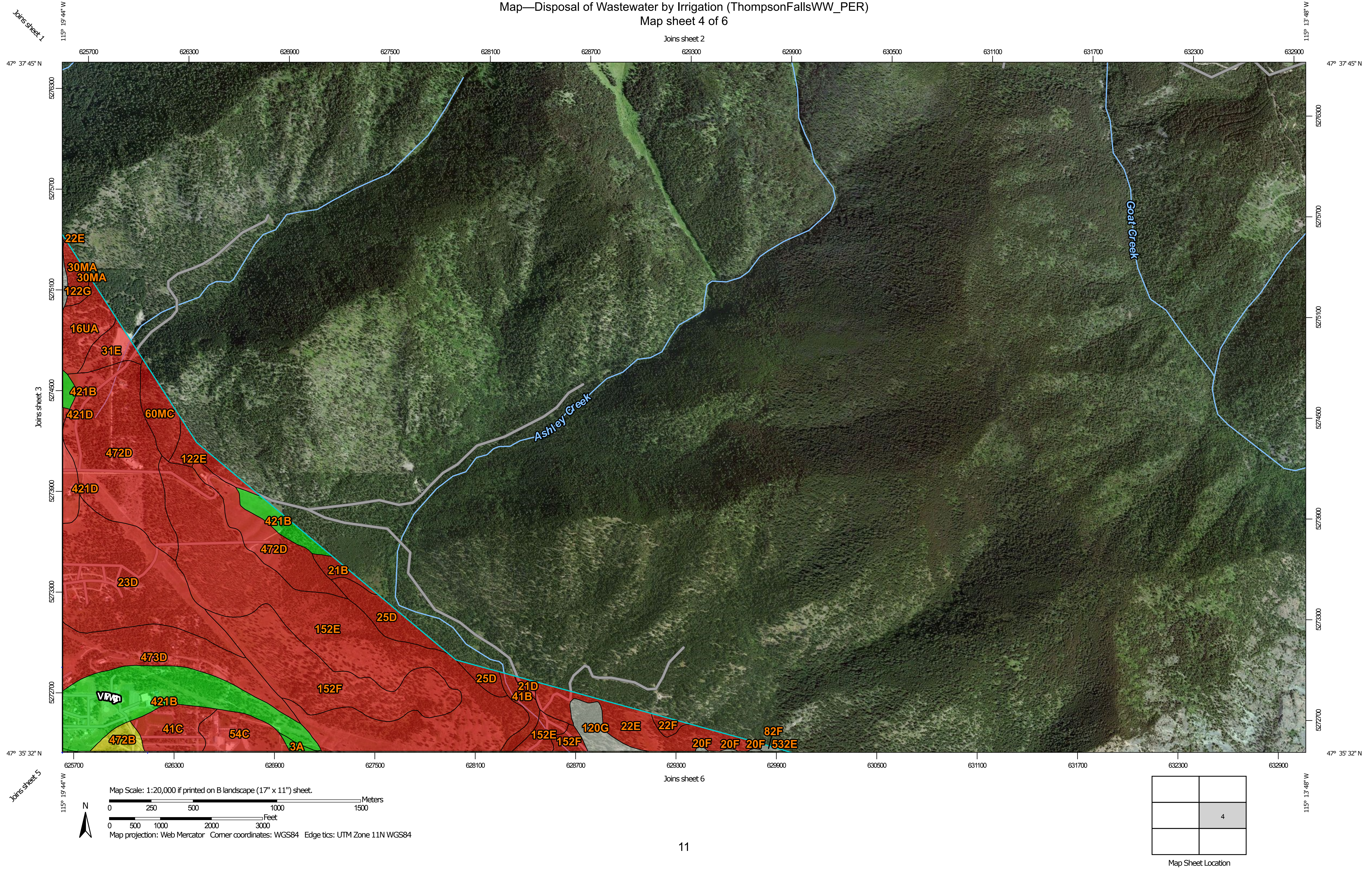
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

Map Sheet Location

3

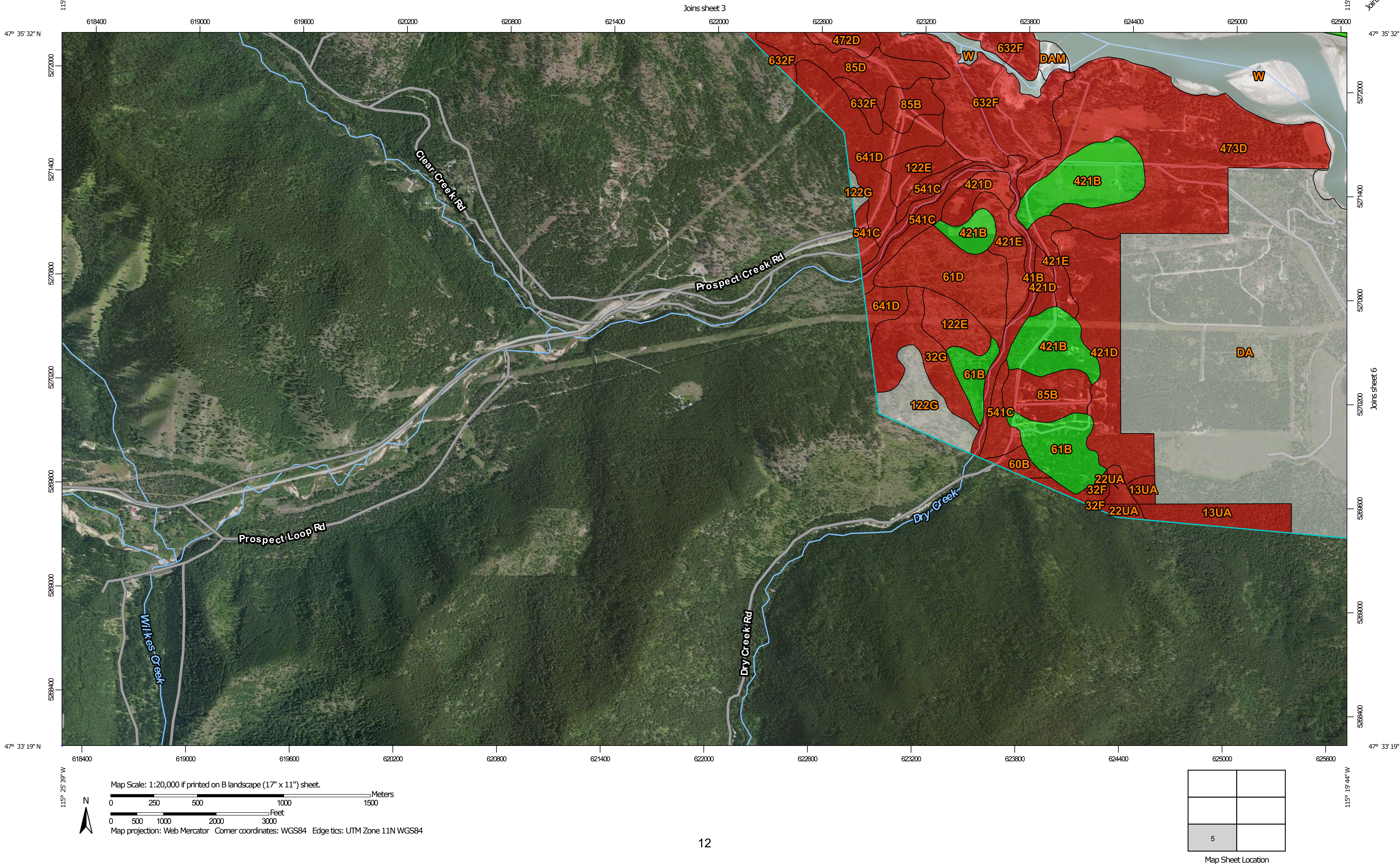
Map—Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)

Map sheet 4 of 6



Map—Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)

Map sheet 5 of 6



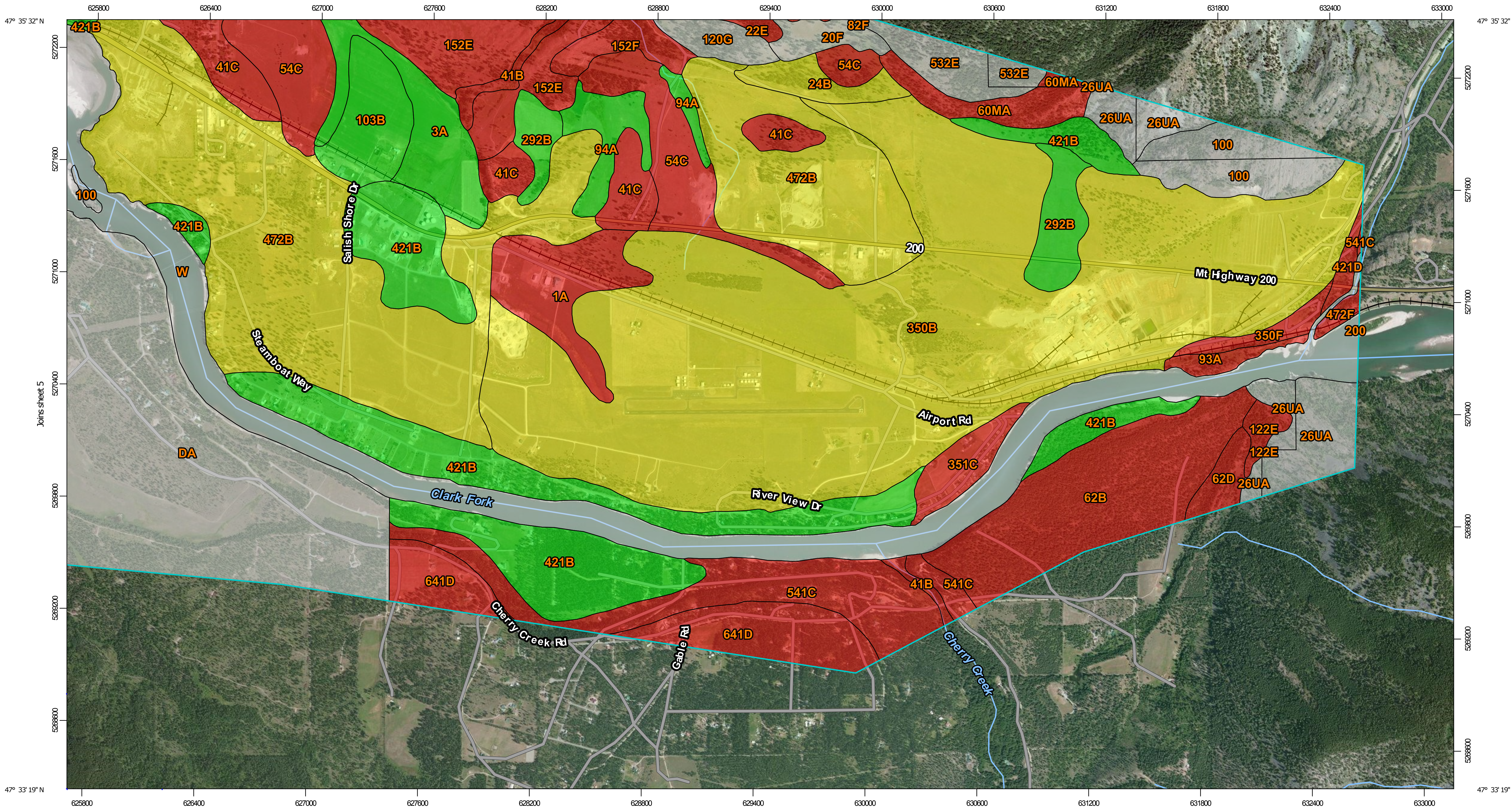
Map—Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)

Map sheet 6 of 6

Joins sheet 3

Joins sheet 4

Joins sheet 5



Map Scale: 1:20,000 if printed on B landscape (17" x 11") sheet.

N

Meters: 0, 250, 500, 1000, 1500

Feet: 0, 500, 1000, 2000, 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

Map Sheet Location

6

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

Very limited

Somewhat limited

Not limited

Not rated or not available

Soil Rating Lines

Very limited

Somewhat limited

Not limited

Not rated or not available

Soil Rating Points

Very limited

Somewhat limited

Not limited

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lolo National Forest Area, Montana
Survey Area Data: Version 17, Sep 19, 2016

Soil Survey Area: Sanders and Parts of Lincoln and Flathead Counties, Montana
Survey Area Data: Version 17, Sep 20, 2016

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 29, 2011—Jul 30, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

Tables—Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
13JA	Stryker and Wickware families, high stream terraces and escarpments	Very limited	Stryker (40%)	Too acid (1.00)	49.6	0.3%
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		
				Slow water movement (0.22)		
				No filtering capacity limitation (0.00)		
			Wickware (40%)	Too acid (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		
				Slow water movement (0.22)		
				No filtering capacity limitation (0.00)		
			Beeskove (10%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too acid (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.95)		
			Kadygulch (9%)	Filtering capacity (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Too steep for surface application (1.00)		
				Too acid (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.99)		
13UA	Combest and Kadygulch families, high stream terraces and escarpments	Very limited	Combest (45%)	Filtering capacity (1.00)	33.7	0.2%
				Too acid (1.00)		
				Too steep for surface application (1.00)		
				Droughty (0.67)		
				Too steep for sprinkler application (0.40)		
			Kadygulch (45%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too acid (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.99)		
			Mitten (9%)	Filtering capacity (1.00)		
				Too acid (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
16UA	Wellie-Wakepish families, association, hills and alluvial fans	Very limited	Wellie (60%)	Filtering capacity (1.00)	7.8	0.0%
				Droughty (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Wakepish (35%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Droughty (0.92)		
			Wickware (5%)	Too acid (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (0.22)		
22MA	Mitten-Wilde-Sixteenmile, very stony families, complex, flood scoured colluvial aprons and alluvial fans	Very limited	Mitten (55%)	Too steep for surface application (1.00)	8.3	0.0%
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
				Droughty (0.01)		
			Wilde (25%)	Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
				Droughty (0.98)		
			Sixteenmile, very stony (15%)	Depth to bedrock (1.00)		
				Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (1.00)		
22UA	Wakepish-Wilde-Sixteenmile, very stony families, complex, flood scoured footslopes	Very limited	Wilde (40%)	Too steep for surface application (1.00)	4.4	0.0%
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.57)		
			Wakepish (40%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Droughty (0.99)		
			Sixteenmile, very stony (15%)	Depth to bedrock (1.00)		
				Droughty (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (1.00)		
26UA	Rock outcrop-Specie, extremely stony-Wilde, extremely stony, families, complex, stream breaklands	Not rated	Rock outcrop (50%)		240.5	1.4%
			Rubble land, talus (5%)			
30MA	Argora-St. Marys families, association, moderately steep mountain slopes	Very limited	Argora (45%)	Too steep for surface application (1.00)	0.1	0.0%
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
			St. Marys (35%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Farva (10%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				No filtering capacity limitation (0.00)		
			Zaza, very stony (8%)	Depth to bedrock (1.00)		
				Droughty (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (1.00)		
32F	Mitten gravelly ashy silt loam, 35 to 60 percent slopes	Very limited	Mitten (90%)	Too steep for surface application (1.00)	0.2	0.0%
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.63)		
			Holloway (4%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.73)		
				Cobble content (0.01)		
			Tevis (3%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.94)		
				Too acid (0.77)		
60B	Bonnash gravelly ashy silt loam, 0 to 4 percent slopes	Very limited	Bonnash (90%)	Filtering capacity (1.00)	2.7	0.0%
				Droughty (0.20)		
			Niarada (5%)	Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for sprinkler application (0.40)		
				Droughty (0.02)		
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
60MA	Argora-Farva families-Rock outcrop complex, stream breaklands	Very limited	Argora (35%)	Too steep for surface application (1.00)	3.6	0.0%
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
			Farva (30%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.40)		
				No filtering capacity limitation (0.00)		
			Beeskove (10%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
60QA	Lostbasin family, extremely stony-Rock outcrop complex, stream breaklands	Very limited	Lostbasin, extremely stony (60%)	Too steep for surface application (1.00)	114.7	0.7%
				Too steep for sprinkler application (1.00)		
				Droughty (0.54)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Too acid (0.08)		
				No filtering capacity limitation (0.00)		
			Tevis, extremely stony (10%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Droughty (0.42)		
				No filtering capacity limitation (0.00)		
61B	Scotmont ashy fine sandy loam, 0 to 4 percent slopes	Not limited	Scotmont (85%)		6.4	0.0%
61D	Scotmont ashy fine sandy loam, 4 to 15 percent slopes	Very limited	Scotmont (85%)	Too steep for surface application (1.00)	1.8	0.0%
				Too steep for sprinkler application (0.40)		
			Lionwood (8%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
				Slow water movement (0.37)		
			Scotmont, greater slope (4%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Whitepine (3%)	Slow water movement (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
61MC	Beeskove-Argora families-Rock outcrop complex, dissected stream breaklands	Very limited	Beeskove (40%)	Too steep for surface application (1.00)	25.7	0.2%
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
			Argora (35%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
62D	Beaverdump gravelly ashy loam, 4 to 15 percent slopes	Very limited	Beaverdump (90%)	Filtering capacity (1.00)	7.1	0.0%
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
				Droughty (0.31)		
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Beaverdump, greater slope (5%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.31)		
100	Rock outcrop-Rubble land complex	Not rated	Rock outcrop (45%)		31.0	0.2%
			Rubble land (40%)			
122E	Winkler, cool-Rock outcrop-Sharrott, cool complex, 8 to 40 percent slopes	Very limited	Winkler (40%)	Too steep for surface application (1.00)	5.9	0.0%
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		
			Sharrott (25%)	Droughty (1.00)		
				Too steep for surface application (1.00)		
				Depth to bedrock (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (1.00)		
			Winkler, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
532E	Winkler-Sharrott-Rock outcrop complex, 8 to 40 percent slopes	Not rated	Winkler (40%)		9.9	0.1%
			Rock outcrop (20%)			
			Rubble land (5%)			
			Winkler, greater slope (5%)			
			Winkler, cool (5%)			
Subtotals for Soil Survey Area					**553.5**	**3.3%**
Totals for Area of Interest					**16,932.7**	**100.0%**

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
1A	Grantsdale silt loam, 0 to 4 percent slopes	Very limited	Grantsdale (85%)	Filtering capacity (1.00)	86.3	0.5%
				Droughty (0.01)		
			Grantsdale, greater slope (3%)	Filtering capacity (1.00)		
				Too steep for surface application (0.68)		
				Droughty (0.01)		
			Lamoose (2%)	Filtering capacity (1.00)		
				Depth to saturated zone (1.00)		
				Flooding (0.60)		
				Droughty (0.31)		
3A	Gird silt loam, 0 to 4 percent slopes	Not limited	Gird (85%)		81.7	0.5%
			McCollum (8%)			
13JA	Stryker and Wickware families, high stream terraces and escarpments	Very limited	Stryker (40%)	Too acid (1.00)	31.5	0.2%
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		
				Slow water movement (0.22)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				No filtering capacity limitation (0.00)		
			Wickware (40%)	Too acid (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		
				Slow water movement (0.22)		
				No filtering capacity limitation (0.00)		
			Beeskove (10%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too acid (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.95)		
			Kadygulch (9%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too acid (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.99)		
13UA	Combest and Kadygulch families, high stream terraces and escarpments	Very limited	Combest (45%)	Filtering capacity (1.00)	7.6	0.0%
				Too acid (1.00)		
				Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Droughty (0.67)		
				Too steep for sprinkler application (0.40)		
			Kadygulch (45%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too acid (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.99)		
			Mitten (9%)	Filtering capacity (1.00)		
				Too acid (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
16UA	Wellie-Wakepish families, association, hills and alluvial fans	Very limited	Wellie (60%)	Filtering capacity (1.00)	32.9	0.2%
				Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Wakepish (35%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too acid (1.00)		
				Droughty (0.92)		
			Wickware (5%)	Too acid (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (0.22)		
20F	Winkler gravelly loam, 35 to 60 percent slopes	Not rated	Winkler (85%)		23.8	0.1%
			Rock outcrop (5%)			
			Rubble land (5%)			
			Winkler, cool (5%)			
21B	Totelake gravelly loam, 2 to 8 percent slopes	Very limited	Totelake (90%)	Filtering capacity (1.00)	18.3	0.1%
				Droughty (1.00)		
				Too steep for surface application (0.32)		
			Totelake, greater slope (5%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Droughty (1.00)		
				Too steep for sprinkler application (0.78)		
21D	Totelake gravelly loam, 8 to 15 percent slopes	Very limited	Totelake (90%)	Filtering capacity (1.00)	28.6	0.2%
				Too steep for surface application (1.00)		
				Droughty (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Too steep for sprinkler application (0.78)		
			Combest (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.52)		
			Bigarm (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		
				Droughty (0.20)		
21E	Combest gravelly ashy silt loam, 15 to 35 percent slopes	Very limited	Combest (90%)	Too steep for surface application (1.00)	22.5	0.1%
				Too steep for sprinkler application (1.00)		
				Droughty (0.52)		
			Combest, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.52)		
22E	Winkler gravelly sandy loam, cool, 15 to 35 percent slopes	Very limited	Winkler (90%)	Too steep for surface application (1.00)	68.1	0.4%
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Wildgen (4%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.01)		
			Winkler, greater slope (3%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		
			Sharrott (2%)	Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Depth to bedrock (1.00)		
				Slow water movement (1.00)		
22F	Winkler gravelly sandy loam, cool, 35 to 60 percent slopes	Very limited	Winkler (90%)	Too steep for surface application (1.00)	3.7	0.0%
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		
			Sharrott (2%)	Droughty (1.00)		
				Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for sprinkler application (1.00)		
				Depth to bedrock (1.00)		
				Slow water movement (1.00)		
22MA	Mitten-Wilde-Sixteenmile, very stony families, complex, flood scoured colluvial aprons and alluvial fans	Very limited	Mitten (55%)	Too steep for surface application (1.00)	6.1	0.0%
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
				Droughty (0.01)		
			Wilde (25%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
				Droughty (0.98)		
			Sixteenmile, very stony (15%)	Depth to bedrock (1.00)		
				Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
22UA	Wakepish-Wilde-Sixteenmile, very stony families, complex, flood scoured footslopes	Very limited	Wilde (40%)	Too steep for surface application (1.00)	6.3	0.0%
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.57)		
			Wakepish (40%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Droughty (0.99)		
			Sixteenmile, very stony (15%)	Depth to bedrock (1.00)		
				Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (1.00)		
23D	Yourame gravelly loam, 4 to 15 percent slopes	Very limited	Yourame (85%)	Too steep for surface application (1.00)	126.1	0.7%
				Too steep for sprinkler application (0.40)		
				Slow water movement (0.37)		
			Bignell (5%)	Slow water movement (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
			Yourame, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (0.37)		
			Yourame, dry (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (0.37)		
				Droughty (0.04)		
24B	Dubay silt loam, 0 to 4 percent slopes	Somewhat limited	Dubay (90%)	Slow water movement (0.37)	30.9	0.2%
25D	Wildgen gravelly loam, 4 to 15 percent slopes	Very limited	Wildgen (85%)	Too steep for surface application (1.00)	27.2	0.2%
				Too steep for sprinkler application (0.40)		
				Droughty (0.06)		
			Combest (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Droughty (0.52)		
			Wildgen, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.06)		
26UA	Rock outcrop-Specie, extremely stony-Wilde, extremely stony, families, complex, stream breaklands	Not rated	Rock outcrop (50%)		77.2	0.5%
			Rubble land, talus (5%)			
30MA	Argora-St. Marys families, association, moderately steep mountain slopes	Very limited	Argora (45%)	Too steep for surface application (1.00)	9.2	0.1%
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
			St. Marys (35%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Farva (10%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				No filtering capacity limitation (0.00)		
			Zaza, very stony (8%)	Depth to bedrock (1.00)		
				Droughty (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (1.00)		
31E	Tevis gravelly loam, dry, 15 to 35 percent slopes	Very limited	Tevis (90%)	Droughty (1.00)	46.7	0.3%
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Mitten (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.73)		
			Tevis, greater slope (5%)	Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
32F	Mitten gravelly ashy silt loam, 35 to 60 percent slopes	Very limited	Mitten (90%)	Too steep for surface application (1.00)	42.1	0.2%
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.63)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Holloway (4%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.73)		
				Cobble content (0.01)		
			Tevis (3%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.94)		
				Too acid (0.77)		
32G	Mitten-Rubble land complex, 40 to 70 percent slopes	Very limited	Mitten (55%)	Too steep for surface application (1.00)	57.9	0.3%
				Too steep for sprinkler application (1.00)		
				Droughty (0.89)		
			Holloway (6%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.95)		
34C	Krause gravelly ashy silt loam, 2 to 8 percent slopes	Very limited	Krause (90%)	Filtering capacity (1.00)	49.5	0.3%
				Droughty (0.95)		
				Too steep for surface application (0.32)		
			Krause, greater slope (5%)	Filtering capacity (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for surface application (1.00)		
				Droughty (0.95)		
				Too steep for sprinkler application (0.78)		
			Krause, stony (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Cobble content (0.75)		
				Too steep for surface application (0.32)		
41B	Oldtrail-Glaciercreek-Larchpoint complex, 0 to 8 percent slopes	Very limited	Oldtrail (40%)	Filtering capacity (1.00)	72.9	0.4%
				Droughty (1.00)		
				Depth to saturated zone (0.68)		
				Flooding (0.60)		
				Too acid (0.14)		
			Glaciercreek (25%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Too steep for surface application (0.32)		
			Larchpoint (20%)	Filtering capacity (1.00)		
				Depth to saturated zone (1.00)		
				Too acid (1.00)		
				Flooding (0.60)		
			Glaciercreek, cool (8%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Too steep for surface application (0.32)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
			Oldtrail, greater slope (7%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		
				Depth to saturated zone (0.68)		
41C	Sacheen loamy fine sand, 2 to 8 percent slopes	Very limited	Sacheen (90%)	Filtering capacity (1.00)	225.2	1.3%
				Too steep for surface application (0.32)		
			Sacheen, fine sand (3%)	Filtering capacity (1.00)		
				Too steep for surface application (0.32)		
			Sacheen, greater slope (2%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
54C	Yellowbay gravelly loam, 2 to 8 percent slopes	Very limited	Yellowbay (90%)	Filtering capacity (1.00)	187.6	1.1%
				Droughty (1.00)		
				Too steep for surface application (0.32)		
			Beaverdump (5%)	Filtering capacity (1.00)		
				Droughty (0.31)		
			Yellowbay, greater slope (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		
60B	Bonnash gravelly ashy silt loam, 0 to 4 percent slopes	Very limited	Bonnash (90%)	Filtering capacity (1.00)	123.7	0.7%
				Droughty (0.20)		
			Niarada (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
				Droughty (0.02)		
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
60MA	Argora-Farva families-Rock outcrop complex, stream breaklands	Very limited	Argora (35%)	Too steep for surface application (1.00)	40.1	0.2%
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
			Farva (30%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.40)		
				No filtering capacity limitation (0.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
			Beeskove (10%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
60MC	Bendahl-Foyslake families-Rock outcrop, stream breaklands	Very limited	Bendahl (35%)	Too steep for surface application (1.00)	55.7	0.3%
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
			Foyslake (30%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
			Beeskove (10%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
60QA	Lostbasin family, extremely stony-Rock outcrop complex, stream breaklands	Very limited	Lostbasin, extremely stony (60%)	Too steep for surface application (1.00)	20.0	0.1%
				Too steep for sprinkler application (1.00)		
				Droughty (0.54)		
				Too acid (0.08)		
				No filtering capacity limitation (0.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
			Tevis, extremely stony (10%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Droughty (0.42)		
				No filtering capacity limitation (0.00)		
61B	Scotmont ashy fine sandy loam, 0 to 4 percent slopes	Not limited	Scotmont (85%)		1,063.3	6.3%
61D	Scotmont ashy fine sandy loam, 4 to 15 percent slopes	Very limited	Scotmont (85%)	Too steep for surface application (1.00)	1,372.1	8.1%
				Too steep for sprinkler application (0.40)		
			Lionwood (8%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
				Slow water movement (0.37)		
			Scotmont, greater slope (4%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Whitepine (3%)	Slow water movement (1.00)		
				Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for sprinkler application (0.40)		
61MC	Beeskove-Argora families-Rock outcrop complex, dissected stream breaklands	Very limited	Beeskove (40%)	Too steep for surface application (1.00)	15.1	0.1%
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
			Argora (35%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
62B	Beaverdump ashy gravelly loam, 0 to 4 percent slopes	Very limited	Beaverdump (90%)	Filtering capacity (1.00)	295.6	1.7%
				Droughty (0.31)		
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Too steep for surface application (0.32)		
			Beaverdump, greater slope (5%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
				Droughty (0.31)		
62D	Beaverdump gravelly ashy loam, 4 to 15 percent slopes	Very limited	Beaverdump (90%)	Filtering capacity (1.00)	196.4	1.2%

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
				Droughty (0.31)		
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (1.00)		
			Beaverdump, greater slope (5%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.31)		
64B	Lionwood ashy loam, 0 to 4 percent slopes	Somewhat limited	Lionwood (85%)	Slow water movement (0.37)	138.9	0.8%
82F	Sharrott, cool-Rock outcrop-Rubble land complex, 15 to 60 percent slopes	Not rated	Rock outcrop (25%)		119.5	0.7%
			Rubble land (20%)			
			Winkler, cool (10%)			
85B	Whitepine ashy silt loam, 0 to 4 percent slopes	Very limited	Whitepine (85%)	Slow water movement (1.00)	49.1	0.3%
			Whitepine, greater slope (4%)	Slow water movement (1.00)		
				Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Too steep for sprinkler application (0.40)		
			Iffgulch (1%)	Slow water movement (1.00)		
				Depth to saturated zone (1.00)		
				Flooding (0.60)		
				Too acid (0.14)		
85D	Whitepine ashy silt loam, 4 to 15 percent slopes	Very limited	Whitepine (85%)	Slow water movement (1.00)	584.1	3.4%
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
			Scotmont (9%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
			Whitepine, greater slope (3%)	Slow water movement (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Beaverdump (3%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for sprinkler application (0.40)		
				Droughty (0.31)		
93A	Horseplains fine sandy loam, 0 to 2 percent slopes	Very limited	Horseplains (90%)	Filtering capacity (1.00)	13.7	0.1%
			Horseplains, greater slope (5%)	Filtering capacity (1.00)		
			Horseplains, channeled (5%)	Filtering capacity (1.00)		
				Flooding (0.60)		
				Droughty (0.23)		
94A	Revais silt loam, 0 to 2 percent slopes	Not limited	Revais (90%)		118.2	0.7%
100	Rock outcrop-Rubble land complex	Not rated	Rock outcrop (45%)		48.6	0.3%
			Rubble land (40%)			
103B	Gird-McCollum complex, 0 to 4 percent slopes	Not limited	Gird (50%)		63.3	0.4%
			McCollum (40%)			
120G	Winkler-Sharrott-Rubble land complex, 40 to 85 percent slopes	Not rated	Winkler (40%)		40.1	0.2%
			Rubble land (15%)			
			Winkler, lesser slope (5%)			
			Rock outcrop (5%)			
			Winkler, cool (5%)			
122E	Winkler, cool-Rock outcrop-Sharrott, cool complex, 8 to 40 percent slopes	Very limited	Winkler (40%)	Too steep for surface application (1.00)	131.5	0.8%
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		
			Sharrott (25%)	Droughty (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for surface application (1.00)		
				Depth to bedrock (1.00)		
				Too steep for sprinkler application (1.00)		
				Slow water movement (1.00)		
			Winkler, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		
122G	Winkler, cool-Sharrott, cool-Rubble land complex, 40 to 85 percent slopes	Not rated	Winkler (55%)		217.3	1.3%
			Rubble land (15%)			
			Rock outcrop (4%)			
			Winkler, gravelly loam (3%)			
			Winkler, lesser slope (3%)			
152E	Bigarm, cool-Hogsby-Rock outcrop complex, 8 to 30 percent slopes	Very limited	Bigarm (55%)	Too steep for surface application (1.00)	362.6	2.1%
				Too steep for sprinkler application (1.00)		
				Large stones on the surface (0.18)		
				Droughty (0.08)		
			Hogsby (20%)	Droughty (1.00)		
				Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Depth to bedrock (1.00)		
				Too steep for sprinkler application (1.00)		
				Cobble content (0.75)		
			Bigarm, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.64)		
				Cobble content (0.32)		
152F	Bigarm, cool-Hogsby-Rock outcrop complex, 30 to 60 percent slopes	Very limited	Bigarm (40%)	Too steep for surface application (1.00)	131.8	0.8%
				Too steep for sprinkler application (1.00)		
				Droughty (0.64)		
				Cobble content (0.32)		
			Hogsby (25%)	Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Depth to bedrock (1.00)		
				Cobble content (0.87)		
			Bigarm, greater slope (5%)	Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for sprinkler application (1.00)		
				Droughty (0.64)		
				Cobble content (0.32)		
			Finleypoint (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.00)		
200	Riverwash	Not rated	Riverwash (90%)		59.0	0.3%
211G	Combest-Rubble land complex, 40 to 70 percent slopes	Very limited	Combest (60%)	Too steep for surface application (1.00)	26.1	0.2%
				Too steep for sprinkler application (1.00)		
				Droughty (0.52)		
			Sharrott (5%)	Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Depth to bedrock (1.00)		
			Combest, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.52)		
292B	McCollum fine sandy loam, 0 to 4 percent slopes	Not limited	McCollum (85%)		63.8	0.4%

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
350B	Bigarm gravelly loam, alluvial, 2 to 8 percent slopes	Somewhat limited	Bigarm (85%)	Too steep for surface application (0.32)	1,276.0	7.5%
				Droughty (0.20)		
			Bigarm, stony (5%)	Too steep for surface application (0.32)		
				Droughty (0.08)		
350F	Bigarm gravelly loam, alluvial, 30 to 50 percent slopes	Very limited	Bigarm (85%)	Too steep for surface application (1.00)	18.5	0.1%
				Too steep for sprinkler application (1.00)		
				Droughty (0.20)		
			Yellowbay (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Bigarm, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.77)		
				Cobble content (0.32)		
351C	McCollum-Belton fine sandy loams, 4 to 8 percent slopes	Very limited	Belton (40%)	Slow water movement (1.00)	34.3	0.2%
				Sodium content (0.92)		
				Too steep for surface application (0.68)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
			Bemishave (5%)	Slow water movement (1.00)		
			McCollum, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		
411E	Sacheen-Rock outcrop complex, 8 to 30 percent slopes	Very limited	Sacheen (60%)	Filtering capacity (1.00)	143.9	0.8%
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Selon, gravelly (6%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Sacheen, fine sand (2%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Selon (2%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
421B	Selon fine sandy loam, moist, 0 to 4 percent slopes	Not limited	Selon (85%)		700.7	4.1%
			Scotmont (5%)			
			McCollum (2%)			

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
421D	Selon fine sandy loam, moist, 4 to 15 percent slopes	Very limited	Selon (85%)	Too steep for surface application (1.00)	695.4	4.1%
				Too steep for sprinkler application (0.40)		
			Scotmont (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
			Selon, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Selon, gravelly (3%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
421E	Selon fine sandy loam, moist, 15 to 30 percent slopes	Very limited	Selon (85%)	Too steep for surface application (1.00)	154.9	0.9%
				Too steep for sprinkler application (1.00)		
			Sacheen (5%)	Filtering capacity (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
			Selon, gravelly (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Selon, \ (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
472B	Elkrock gravelly ashy silt loam, moist, 0 to 4 percent slopes	Somewhat limited	Elkrock (90%)	Droughty (0.96)	781.4	4.6%
			Elkrock, stony (5%)	Droughty (0.96)		
472D	Elkrock gravelly ashy silt loam, moist, 4 to 15 percent slopes	Very limited	Elkrock (90%)	Too steep for surface application (1.00)	175.9	1.0%
				Droughty (0.96)		
				Too steep for sprinkler application (0.40)		
			Elkrock, stony (4%)	Too steep for surface application (1.00)		
				Droughty (0.96)		
				Too steep for sprinkler application (0.40)		
			Elkrock, greater slope (4%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.96)		
			Sacheen (2%)	Filtering capacity (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for surface application (0.32)		
472F	Elkrock gravelly ashy silt loam, moist, 30 to 60 percent slopes	Very limited	Elkrock (90%)	Too steep for surface application (1.00)	85.6	0.5%
				Too steep for sprinkler application (1.00)		
				Droughty (0.96)		
			Elkrock, greater slope (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.96)		
			Elkrock, stony (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.96)		
473D	Elkrock-Selon complex, 4 to 15 percent slopes	Very limited	Elkrock (50%)	Too steep for surface application (1.00)	1,649.8	9.7%
				Droughty (0.96)		
				Too steep for sprinkler application (0.40)		
			Selon (35%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Elkrock, stony (5%)	Too steep for surface application (1.00)		
				Droughty (0.96)		
				Too steep for sprinkler application (0.40)		
			Elkrock, greater slope (4%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.96)		
			Bemishave (3%)	Slow water movement (1.00)		
			Sacheen (3%)	Filtering capacity (1.00)		
				Too steep for surface application (0.32)		
532E	Winkler-Sharrott-Rock outcrop complex, 8 to 40 percent slopes	Not rated	Winkler (40%)		37.9	0.2%
			Rock outcrop (20%)			
			Rubble land (5%)			
			Winkler, greater slope (5%)			
			Winkler, cool (5%)			
541C	Yellowbay gravelly loam, moist, 2 to 8 percent slopes	Very limited	Yellowbay (90%)	Filtering capacity (1.00)	306.1	1.8%
				Droughty (1.00)		
				Too steep for surface application (0.32)		
			Yellowbay, greater slope (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.78)		
			Yellowbay, cobbly (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Too steep for surface application (0.32)		
				Cobble content (0.32)		
632F	Rockhill-Rock outcrop complex, 15 to 60 percent slopes	Very limited	Rockhill (45%)	Droughty (1.00)	575.7	3.4%
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Depth to bedrock (1.00)		
			Mitten (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.89)		
			Holloway (5%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.95)		
641D	Lionwood-Scotmont-Whitepine complex, 4 to	Very limited	Lionwood (45%)	Too steep for surface application (1.00)	963.5	5.7%

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
	15 percent slopes			Too steep for sprinkler application (0.40)		
				Slow water movement (0.37)		
			Scotmont (30%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
			Whitepine (15%)	Slow water movement (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
			Scotmont, greater slope (2%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Fernline (2%)	Slow water movement (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
			Bonnash (2%)	Too steep for surface application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Too steep for sprinkler application (0.40)		
				Droughty (0.04)		
			Iffgulch (2%)	Slow water movement (1.00)		
				Depth to saturated zone (1.00)		
				Flooding (0.60)		
				Too acid (0.14)		
641E	Lionwood-Scotmont-Whitepine complex, 15 to 35 percent slopes	Very limited	Lionwood (40%)	Too steep for surface application (1.00)	57.0	0.3%
				Too steep for sprinkler application (1.00)		
				Slow water movement (0.37)		
			Scotmont (35%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Whitepine (15%)	Slow water movement (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Lionwood, greater slope (2%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		

Disposal of Wastewater by Irrigation— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Slow water movement (0.37)		
			Lionwood, lesser slope (2%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (0.40)		
				Slow water movement (0.37)		
			Fernline (2%)	Slow water movement (1.00)		
				Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
			Bonnash (2%)	Too steep for surface application (1.00)		
				Too steep for sprinkler application (1.00)		
				Droughty (0.04)		
			Iffgulch (2%)	Slow water movement (1.00)		
				Depth to saturated zone (1.00)		
				Flooding (0.60)		
				Too acid (0.14)		
DA	Denied access	Not rated	Denied access (100%)		1,023.9	6.0%
DAM	Dam	Not rated	Dam (100%)		7.5	0.0%
W	Water	Not rated	Water (100%)		971.6	5.7%
Subtotals for Soil Survey Area					**16,379.3**	**96.7%**
Totals for Area of Interest					**16,932.7**	**100.0%**

Disposal of Wastewater by Irrigation— Summary by Rating Value		
Rating	**Acres in AOI**	**Percent of AOI**
Very limited	9,700.4	57.3%
Somewhat limited	2,227.2	13.2%
Not limited	2,097.5	12.4%
Null or Not Rated	2,907.6	17.2%
Totals for Area of Interest	**16,932.7**	**100.0%**

Rating Options—Disposal of Wastewater by Irrigation (ThompsonFallsWW_PER)

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Land Application of Municipal Sewage Sludge (ThompsonFallsWW_PER)

Application of sewage sludge not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. Sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy metals and exotic organic compounds, and should be analyzed chemically prior to use.

The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include saturated hydraulic conductivity (Ksat), depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, soil erosion factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge. Permanently frozen soils are unsuitable for waste treatment.

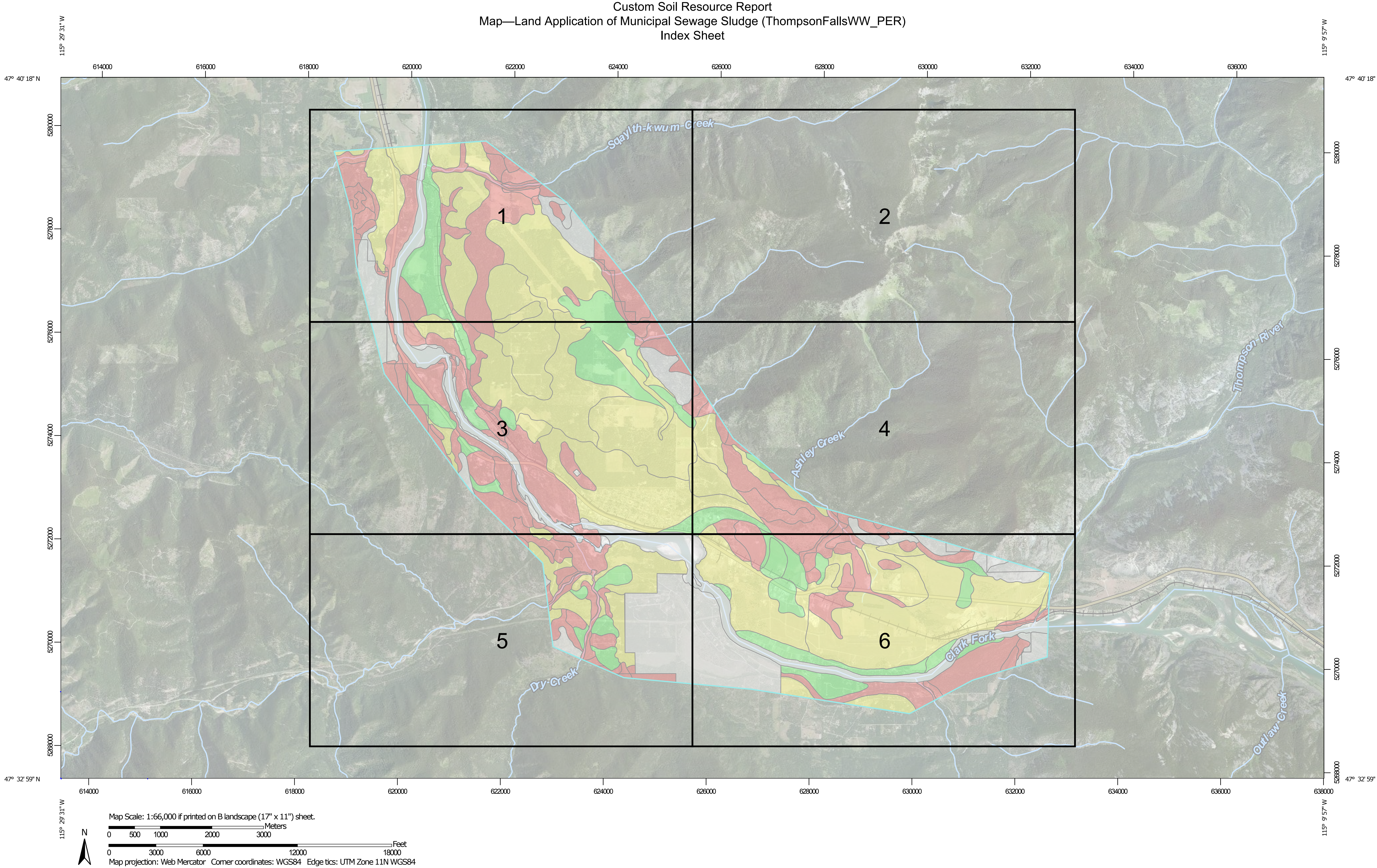
The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect agricultural waste management. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

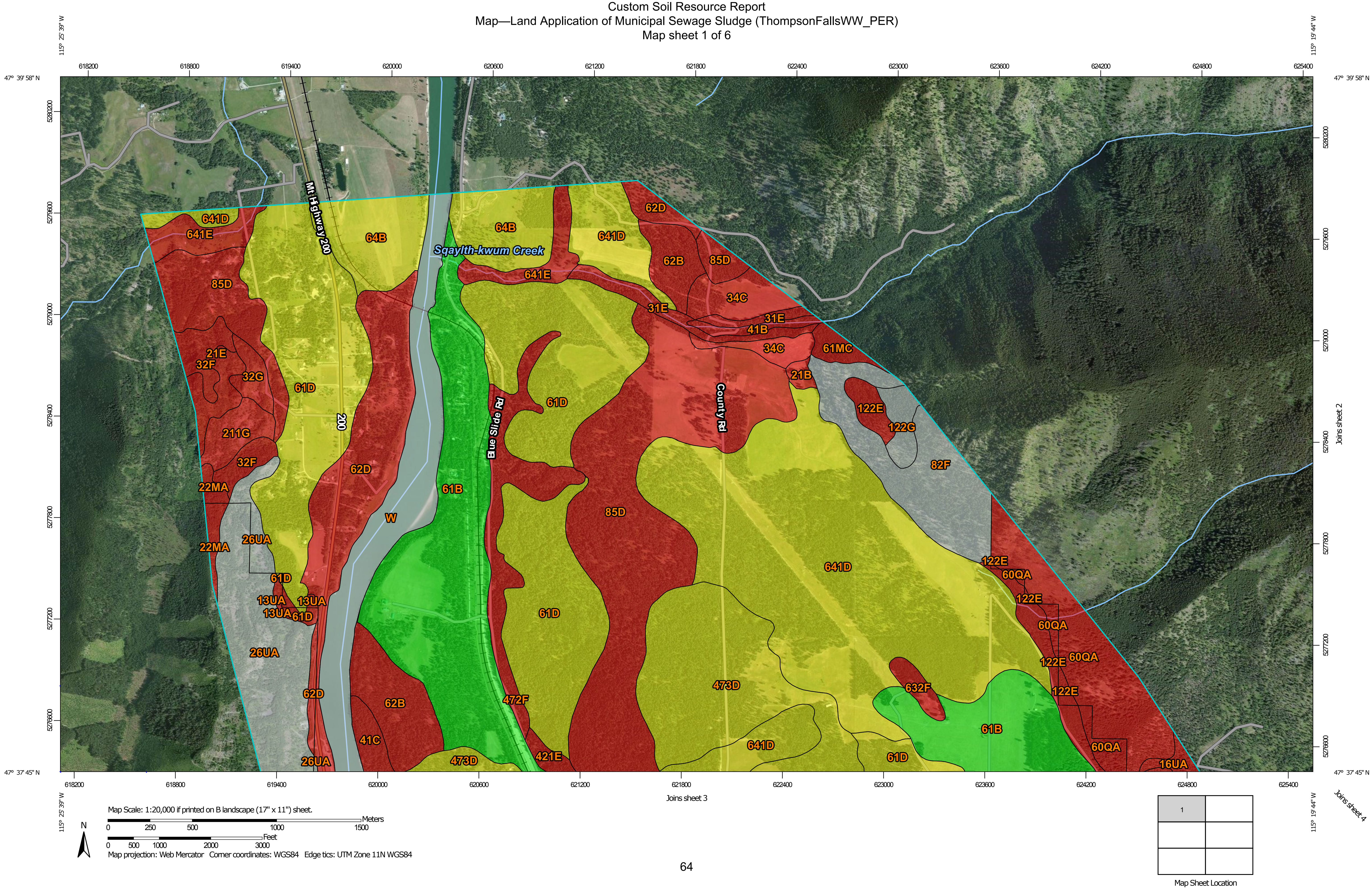
Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Custom Soil Resource Report
Map—Land Application of Municipal Sewage Sludge (ThompsonFallsWW_PER)
Index Sheet

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Mt Highway 200
200
Sqaylth-kwum Creek
Blue Slide Rd
County Rd
641D
641E
85D
21E
32F
32G
61D
211G
32F
22MA
22MA
26UA
61D
13UA
13UA
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632F
61B
641D
61D
62B
41C
473D
472F
421E
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Joins sheet 3
Joins sheet 4
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0 500 1000 2000 3000 Feet
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84
1
Map Sheet Location

Custom Soil Resource Report
Map—Land Application of Municipal Sewage Sludge (ThompsonFallsWW_PER)
Map sheet 2 of 6

Map Scale: 1:20,000 if printed on B landscape (17" x 11") sheet.

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Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

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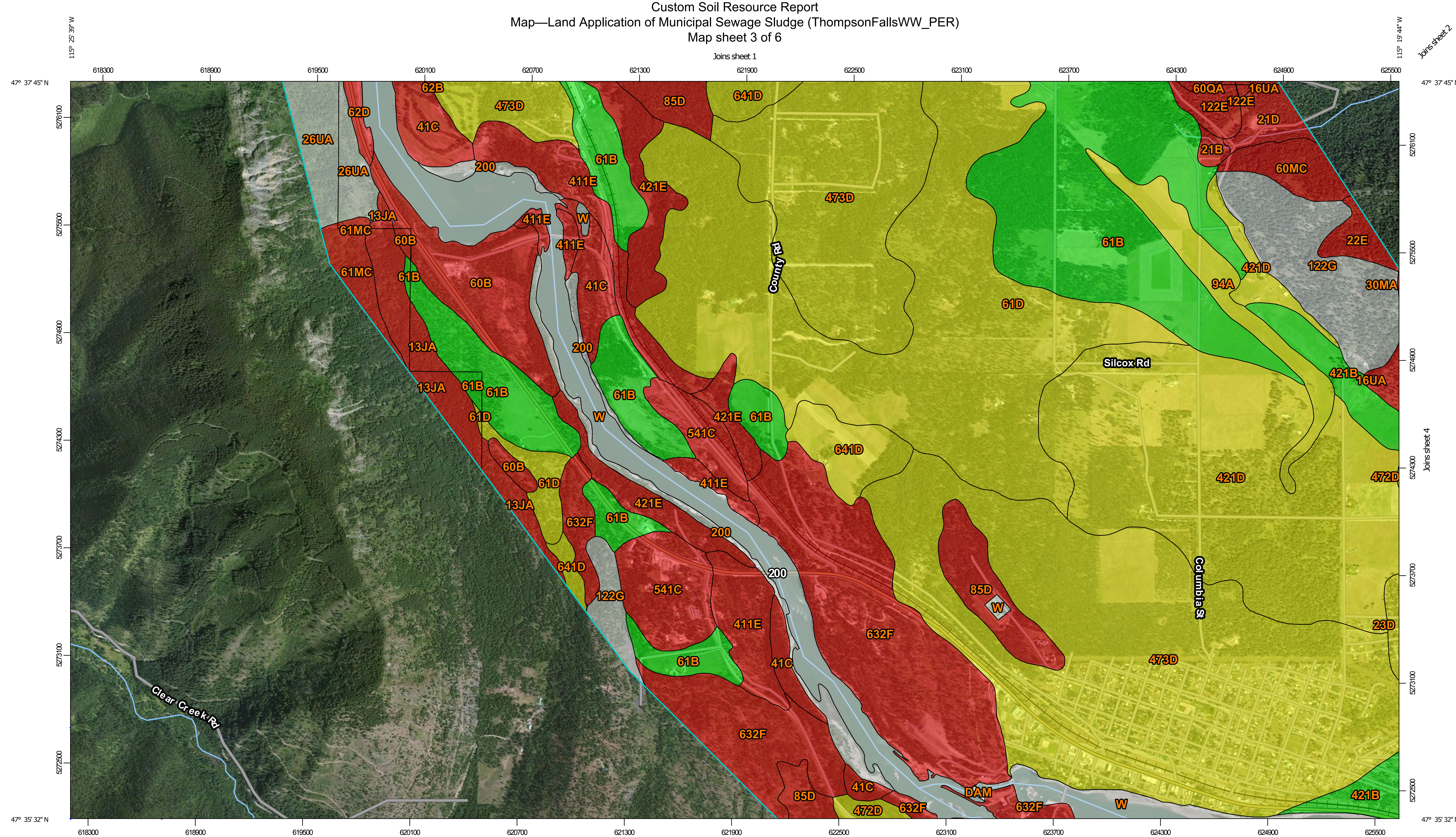
Map Sheet Location



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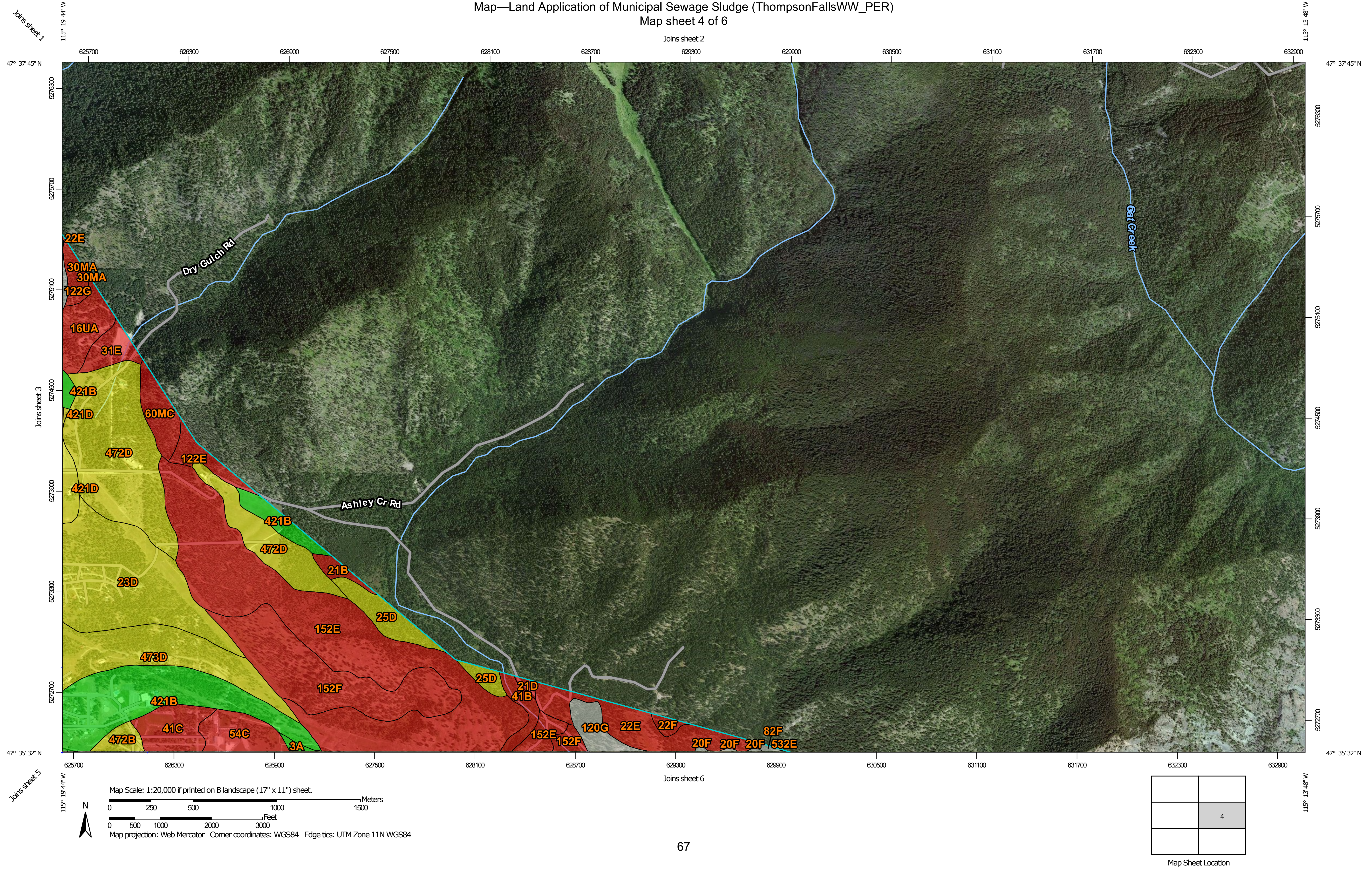
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632900
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5275700
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5274500
5274600
5273900
5273300
5272700
Dry Gulch Rd
Ashley Cr Rd
Cat Creek
22E
30MA
30MA
122G
16UA
31E
421B
421D
60MC
472D
122E
421D
421B
472D
21B
23D
25D
152E
473D
152F
25D
21D
41B
421B
41C
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152E
152F
120G
22E
22F
82F
20F
20F
20F
532E
Map Scale: 1:20,000 if printed on B landscape (17" x 11") sheet.
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Meters
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Feet
0 500 1000 2000 3000
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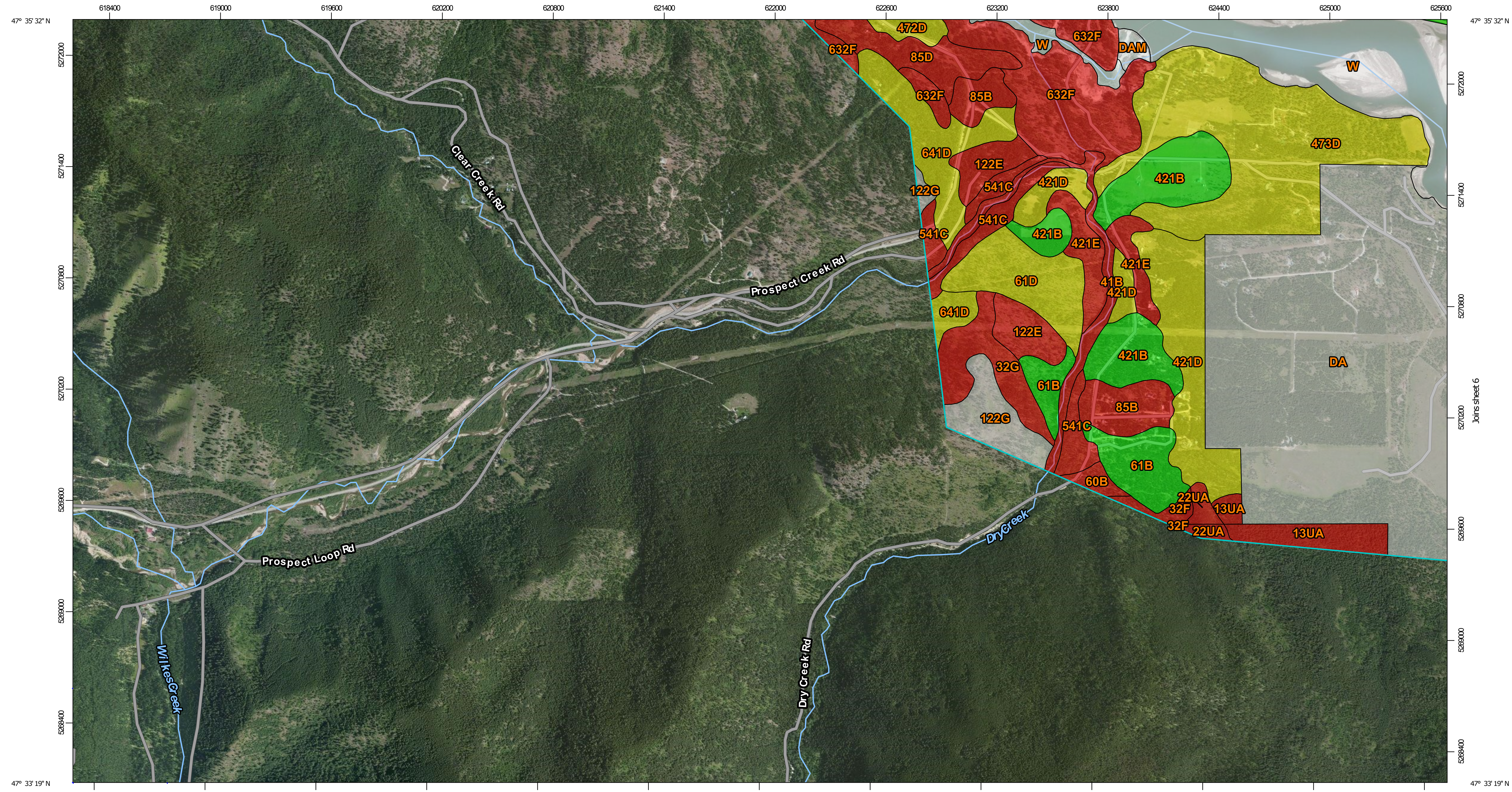
4
Map Sheet Location

Map—Land Application of Municipal Sewage Sludge (ThompsonFallsWW_PER)

Map sheet 5 of 6



Map Scale: 1:20,000 if printed on B landscape (17" x 11") sheet.

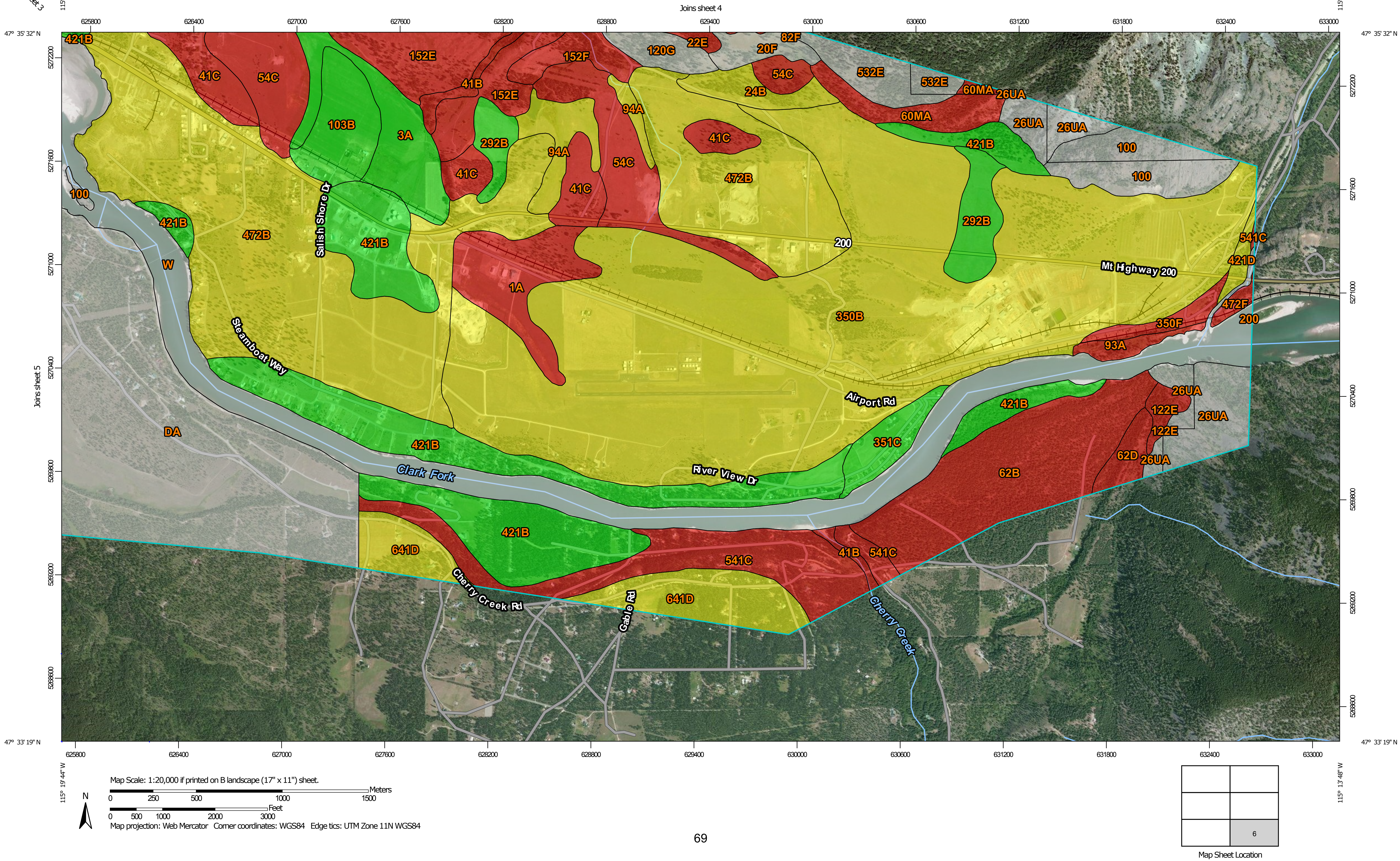
Meters: 0, 250, 500, 1000, 1500

Feet: 0, 500, 1000, 2000, 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

Map—Land Application of Municipal Sewage Sludge (ThompsonFallsWW_PER)

Map sheet 6 of 6



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

Very limited

Somewhat limited

Not limited

Not rated or not available

Soil Rating Lines

Very limited

Somewhat limited

Not limited

Not rated or not available

Soil Rating Points

Very limited

Somewhat limited

Not limited

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lolo National Forest Area, Montana
Survey Area Data: Version 17, Sep 19, 2016

Soil Survey Area: Sanders and Parts of Lincoln and Flathead Counties, Montana
Survey Area Data: Version 17, Sep 20, 2016

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 29, 2011—Jul 30, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

Tables—Land Application of Municipal Sewage Sludge (ThompsonFallsWW_PER)

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
13JA	Stryker and Wickware families, high stream terraces and escarpments	Very limited	Stryker (40%)	Too acid (1.00)	49.6	0.3%
				Slope (0.63)		
				Slow water movement (0.22)		
				No filtering capacity limitation (0.00)		
			Wickware (40%)	Too acid (1.00)		
				Slope (0.63)		
				Slow water movement (0.22)		
				No filtering capacity limitation (0.00)		
			Beeskove (10%)	Filtering capacity (1.00)		
				Too acid (1.00)		
				Slope (1.00)		
				Droughty (0.95)		
			Kadygulch (9%)	Filtering capacity (1.00)		
				Too acid (1.00)		
				Slope (1.00)		
				Droughty (0.99)		
13UA	Combest and Kadygulch families, high stream terraces and escarpments	Very limited	Combest (45%)	Filtering capacity (1.00)	33.7	0.2%
				Too acid (1.00)		
				Droughty (0.67)		
				Slope (0.16)		
			Kadygulch (45%)	Filtering capacity (1.00)		
				Too acid (1.00)		
				Slope (1.00)		
				Droughty (0.99)		
			Mitten (9%)	Filtering capacity (1.00)		
				Too acid (1.00)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Slope (0.16)		
16UA	Wellie-Wakepish families, association, hills and alluvial fans	Very limited	Wellie (60%)	Filtering capacity (1.00)	7.8	0.0%
				Droughty (1.00)		
				Slope (1.00)		
			Wakepish (35%)	Filtering capacity (1.00)		
				Slope (1.00)		
				Too acid (1.00)		
				Droughty (0.92)		
			Wickware (5%)	Too acid (1.00)		
				Slope (1.00)		
				Slow water movement (0.22)		
22MA	Mitten-Wilde-Sixteenmile, very stony families, complex, flood scoured colluvial aprons and alluvial fans	Very limited	Mitten (55%)	Slope (1.00)	8.3	0.0%
				Too acid (1.00)		
				Slow water movement (1.00)		
				Droughty (0.01)		
				No filtering capacity limitation (0.00)		
			Wilde (25%)	Slope (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
				Droughty (0.98)		
			Sixteenmile, very stony (15%)	Depth to bedrock (1.00)		
				Droughty (1.00)		
				Slope (1.00)		
				Slow water movement (1.00)		
				Too acid (0.21)		
22UA	Wakepish-Wilde-Sixteenmile, very stony families, complex, flood scoured footslopes	Very limited	Wilde (40%)	Slope (1.00)	4.4	0.0%
				Too acid (0.77)		
				Droughty (0.57)		
			Wakepish (40%)	Filtering capacity (1.00)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Slope (1.00)		
				Too acid (1.00)		
				Droughty (0.99)		
			Sixteenmile, very stony (15%)	Depth to bedrock (1.00)		
				Droughty (1.00)		
				Slope (1.00)		
				Slow water movement (1.00)		
				Too acid (0.21)		
26UA	Rock outcrop-Specie, extremely stony-Wilde, extremely stony, families, complex, stream breaklands	Not rated	Rock outcrop (50%)		240.5	1.4%
			Rubble land, talus (5%)			
30MA	Argora-St. Marys families, association, moderately steep mountain slopes	Very limited	Argora (45%)	Slope (1.00)	0.1	0.0%
				Too acid (1.00)		
			St. Marys (35%)	Slope (1.00)		
			Farva (10%)	Slope (1.00)		
				Too acid (1.00)		
				No filtering capacity limitation (0.00)		
			Zaza, very stony (8%)	Depth to bedrock (1.00)		
				Droughty (1.00)		
				Slope (1.00)		
				Slow water movement (1.00)		
				No filtering capacity limitation (0.00)		
32F	Mitten gravelly ashy silt loam, 35 to 60 percent slopes	Very limited	Mitten (90%)	Slope (1.00)	0.2	0.0%
				Too acid (0.77)		
				Droughty (0.63)		
			Holloway (4%)	Slope (1.00)		
				Too acid (0.77)		
				Droughty (0.73)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Cobble content (0.01)		
			Tevis (3%)	Slope (1.00)		
				Droughty (0.94)		
				Too acid (0.77)		
60B	Bonnash gravelly ashy silt loam, 0 to 4 percent slopes	Very limited	Bonnash (90%)	Filtering capacity (1.00)	2.7	0.0%
				Droughty (0.20)		
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
60MA	Argora-Farva families-Rock outcrop complex, stream breaklands	Very limited	Argora (35%)	Slope (1.00)	3.6	0.0%
				Too acid (1.00)		
				Slow water movement (1.00)		
			Farva (30%)	Slope (1.00)		
				Droughty (0.40)		
				No filtering capacity limitation (0.00)		
			Beeskove (10%)	Slope (1.00)		
				Too acid (1.00)		
60QA	Lostbasin family, extremely stony-Rock outcrop complex, stream breaklands	Very limited	Lostbasin, extremely stony (60%)	Slope (1.00)	114.7	0.7%
				Droughty (0.54)		
				Too acid (0.08)		
				No filtering capacity limitation (0.00)		
			Tevis, extremely stony (10%)	Slope (1.00)		
				Too acid (1.00)		
				Droughty (0.42)		
				No filtering capacity limitation (0.00)		
61B	Scotmont ashy fine sandy loam, 0 to 4 percent slopes	Not limited	Scotmont (85%)		6.4	0.0%
61D	Scotmont ashy fine sandy loam, 4 to 15 percent slopes	Somewhat limited	Scotmont (85%)	Slope (0.16)	1.8	0.0%
			Lionwood (8%)	Slow water movement (0.37)		
				Slope (0.16)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
61MC	Beeskove-Argora families-Rock outcrop complex, dissected stream breaklands	Very limited	Beeskove (40%)	Slope (1.00)	25.7	0.2%
				Too acid (1.00)		
			Argora (35%)	Slope (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
62D	Beaverdump gravelly ashy loam, 4 to 15 percent slopes	Very limited	Beaverdump (90%)	Filtering capacity (1.00)	7.1	0.0%
				Droughty (0.31)		
				Slope (0.16)		
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Slope (1.00)		
				Droughty (1.00)		
			Beaverdump, greater slope (5%)	Filtering capacity (1.00)		
				Slope (1.00)		
				Droughty (0.31)		
100	Rock outcrop-Rubble land complex	Not rated	Rock outcrop (45%)		31.0	0.2%
			Rubble land (40%)			
122E	Winkler, cool-Rock outcrop-Sharrott, cool complex, 8 to 40 percent slopes	Very limited	Winkler (40%)	Slope (1.00)	5.9	0.0%
				Too acid (0.77)		
				Droughty (0.70)		
			Sharrott (25%)	Droughty (1.00)		
				Depth to bedrock (1.00)		
				Slow water movement (1.00)		
				Slope (1.00)		
				Too acid (0.77)		
			Winkler, greater slope (5%)	Slope (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		
532E	Winkler-Sharrott-Rock outcrop complex, 8 to 40 percent slopes	Not rated	Winkler (40%)		9.9	0.1%
			Rock outcrop (20%)			
			Rubble land (5%)			

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Lolo National Forest Area, Montana (MT603)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
			Winkler, greater slope (5%)			
			Winkler, cool (5%)			
Subtotals for Soil Survey Area					**553.5**	**3.3%**
Totals for Area of Interest					**16,932.7**	**100.0%**

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
1A	Grantsdale silt loam, 0 to 4 percent slopes	Very limited	Grantsdale (85%)	Filtering capacity (1.00)	86.3	0.5%
				Droughty (0.01)		
			Grantsdale, greater slope (3%)	Filtering capacity (1.00)		
				Droughty (0.01)		
			Lamoose (2%)	Filtering capacity (1.00)		
				Depth to saturated zone (1.00)		
				Flooding (1.00)		
				Droughty (0.31)		
3A	Gird silt loam, 0 to 4 percent slopes	Not limited	Gird (85%)		81.7	0.5%
			McCollum (8%)			
			Gird, greater slope (2%)			
13JA	Stryker and Wickware families, high stream terraces and escarpments	Very limited	Stryker (40%)	Too acid (1.00)	31.5	0.2%
				Slope (0.63)		
				Slow water movement (0.22)		
				No filtering capacity limitation (0.00)		
			Wickware (40%)	Too acid (1.00)		
				Slope (0.63)		
				Slow water movement (0.22)		
				No filtering capacity limitation (0.00)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
			Beeskove (10%)	Filtering capacity (1.00)		
				Too acid (1.00)		
				Slope (1.00)		
				Droughty (0.95)		
			Kadygulch (9%)	Filtering capacity (1.00)		
				Too acid (1.00)		
				Slope (1.00)		
				Droughty (0.99)		
13UA	Combest and Kadygulch families, high stream terraces and escarpments	Very limited	Combest (45%)	Filtering capacity (1.00)	7.6	0.0%
				Too acid (1.00)		
				Droughty (0.67)		
				Slope (0.16)		
			Kadygulch (45%)	Filtering capacity (1.00)		
				Too acid (1.00)		
				Slope (1.00)		
				Droughty (0.99)		
			Mitten (9%)	Filtering capacity (1.00)		
				Too acid (1.00)		
				Slope (0.16)		
16UA	Wellie-Wakepish families, association, hills and alluvial fans	Very limited	Wellie (60%)	Filtering capacity (1.00)	32.9	0.2%
				Droughty (1.00)		
				Slope (1.00)		
			Wakepish (35%)	Filtering capacity (1.00)		
				Slope (1.00)		
				Too acid (1.00)		
				Droughty (0.92)		
			Wickware (5%)	Too acid (1.00)		
				Slope (1.00)		
				Slow water movement (0.22)		
20F	Winkler gravelly loam, 35 to 60 percent slopes	Not rated	Winkler (85%)		23.8	0.1%
			Rock outcrop (5%)			

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Rubble land (5%)			
			Winkler, cool (5%)			
21B	Totelake gravelly loam, 2 to 8 percent slopes	Very limited	Totelake (90%)	Filtering capacity (1.00)	18.3	0.1%
				Droughty (1.00)		
			Totelake, greater slope (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Slope (0.63)		
21D	Totelake gravelly loam, 8 to 15 percent slopes	Very limited	Totelake (90%)	Filtering capacity (1.00)	28.6	0.2%
				Droughty (1.00)		
				Slope (0.63)		
			Combest (5%)	Slope (1.00)		
				Droughty (0.52)		
21E	Combest gravelly ashy silt loam, 15 to 35 percent slopes	Very limited	Combest (90%)	Slope (1.00)	22.5	0.1%
				Droughty (0.52)		
			Combest, greater slope (5%)	Slope (1.00)		
				Droughty (0.52)		
22E	Winkler gravelly sandy loam, cool, 15 to 35 percent slopes	Very limited	Winkler (90%)	Slope (1.00)	68.1	0.4%
				Too acid (0.77)		
				Droughty (0.70)		
			Wildgen (4%)	Slope (1.00)		
				Too acid (0.77)		
				Droughty (0.01)		
			Winkler, greater slope (3%)	Slope (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		
			Sharrott (2%)	Droughty (1.00)		
				Slope (1.00)		
				Depth to bedrock (1.00)		
				Slow water movement (1.00)		
				Too acid (0.77)		
22F	Winkler gravelly sandy loam, cool, 35 to 60 percent slopes	Very limited	Winkler (90%)	Slope (1.00)	3.7	0.0%
				Too acid (0.77)		
				Droughty (0.70)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
			Sharrott (2%)	Droughty (1.00)		
				Slope (1.00)		
				Depth to bedrock (1.00)		
				Slow water movement (1.00)		
				Too acid (0.77)		
22MA	Mitten-Wilde-Sixteenmile, very stony families, complex, flood scoured colluvial aprons and alluvial fans	Very limited	Mitten (55%)	Slope (1.00)	6.1	0.0%
				Too acid (1.00)		
				Slow water movement (1.00)		
				Droughty (0.01)		
				No filtering capacity limitation (0.00)		
			Wilde (25%)	Slope (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
				Droughty (0.98)		
			Sixteenmile, very stony (15%)	Depth to bedrock (1.00)		
				Droughty (1.00)		
				Slope (1.00)		
				Slow water movement (1.00)		
				Too acid (0.21)		
22UA	Wakepish-Wilde-Sixteenmile, very stony families, complex, flood scoured footslopes	Very limited	Wilde (40%)	Slope (1.00)	6.3	0.0%
				Too acid (0.77)		
				Droughty (0.57)		
			Wakepish (40%)	Filtering capacity (1.00)		
				Slope (1.00)		
				Too acid (1.00)		
				Droughty (0.99)		
			Sixteenmile, very stony (15%)	Depth to bedrock (1.00)		
				Droughty (1.00)		
				Slope (1.00)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Slow water movement (1.00)		
				Too acid (0.21)		
23D	Yourame gravelly loam, 4 to 15 percent slopes	Somewhat limited	Yourame (85%)	Slow water movement (0.37)	126.1	0.7%
				Slope (0.16)		
24B	Dubay silt loam, 0 to 4 percent slopes	Somewhat limited	Dubay (90%)	Slow water movement (0.37)	30.9	0.2%
			Dubay, greater slope (5%)	Slow water movement (0.37)		
				Slope (0.16)		
25D	Wildgen gravelly loam, 4 to 15 percent slopes	Somewhat limited	Wildgen (85%)	Slope (0.16)	27.2	0.2%
				Droughty (0.06)		
			Combest (5%)	Slope (0.63)		
				Droughty (0.52)		
26UA	Rock outcrop-Specie, extremely stony-Wilde, extremely stony, families, complex, stream breaklands	Not rated	Rock outcrop (50%)		77.2	0.5%
			Rubble land, talus (5%)			
30MA	Argora-St. Marys families, association, moderately steep mountain slopes	Very limited	Argora (45%)	Slope (1.00)	9.2	0.1%
				Too acid (1.00)		
			St. Marys (35%)	Slope (1.00)		
			Farva (10%)	Slope (1.00)		
				Too acid (1.00)		
				No filtering capacity limitation (0.00)		
			Zaza, very stony (8%)	Depth to bedrock (1.00)		
				Droughty (1.00)		
				Slope (1.00)		
				Slow water movement (1.00)		
				No filtering capacity limitation (0.00)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
31E	Tevis gravelly loam, dry, 15 to 35 percent slopes	Very limited	Tevis (90%)	Droughty (1.00)	46.7	0.3%
				Slope (1.00)		
			Mitten (5%)	Slope (1.00)		
				Droughty (0.73)		
			Tevis, greater slope (5%)	Droughty (1.00)		
				Slope (1.00)		
32F	Mitten gravelly ashy silt loam, 35 to 60 percent slopes	Very limited	Mitten (90%)	Slope (1.00)	42.1	0.2%
				Too acid (0.77)		
				Droughty (0.63)		
			Holloway (4%)	Slope (1.00)		
				Too acid (0.77)		
				Droughty (0.73)		
				Cobble content (0.01)		
			Tevis (3%)	Slope (1.00)		
				Droughty (0.94)		
				Too acid (0.77)		
32G	Mitten-Rubble land complex, 40 to 70 percent slopes	Very limited	Mitten (55%)	Slope (1.00)	57.9	0.3%
				Droughty (0.89)		
			Holloway (6%)	Slope (1.00)		
				Droughty (0.95)		
34C	Krause gravelly ashy silt loam, 2 to 8 percent slopes	Very limited	Krause (90%)	Filtering capacity (1.00)	49.5	0.3%
				Droughty (0.95)		
			Krause, greater slope (5%)	Filtering capacity (1.00)		
				Droughty (0.95)		
				Slope (0.63)		
			Krause, stony (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Cobble content (0.75)		
41B	Oldtrail-Glaciercreek-Larchpoint complex, 0 to 8 percent slopes	Very limited	Oldtrail (40%)	Filtering capacity (1.00)	72.9	0.4%
				Flooding (1.00)		
				Droughty (1.00)		
				Depth to saturated zone (0.68)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Too acid (0.14)		
			Glaciercreek (25%)	Filtering capacity (1.00)		
				Droughty (1.00)		
			Larchpoint (20%)	Filtering capacity (1.00)		
				Depth to saturated zone (1.00)		
				Flooding (1.00)		
				Too acid (1.00)		
			Glaciercreek, cool (8%)	Filtering capacity (1.00)		
				Droughty (1.00)		
			Oldtrail, greater slope (7%)	Filtering capacity (1.00)		
				Flooding (1.00)		
				Droughty (1.00)		
				Depth to saturated zone (0.68)		
				Slope (0.63)		
41C	Sacheen loamy fine sand, 2 to 8 percent slopes	Very limited	Sacheen (90%)	Filtering capacity (1.00)	225.2	1.3%
			Sacheen, fine sand (3%)	Filtering capacity (1.00)		
			Sacheen, greater slope (2%)	Filtering capacity (1.00)		
				Slope (1.00)		
54C	Yellowbay gravelly loam, 2 to 8 percent slopes	Very limited	Yellowbay (90%)	Filtering capacity (1.00)	187.6	1.1%
				Droughty (1.00)		
			Beaverdump (5%)	Filtering capacity (1.00)		
				Droughty (0.31)		
			Yellowbay, greater slope (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Slope (0.63)		
60B	Bonnash gravelly ashy silt loam, 0 to 4 percent slopes	Very limited	Bonnash (90%)	Filtering capacity (1.00)	123.7	0.7%
				Droughty (0.20)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
60MA	Argora-Farva families-Rock outcrop complex, stream breaklands	Very limited	Argora (35%)	Slope (1.00)	40.1	0.2%
				Too acid (1.00)		
				Slow water movement (1.00)		
			Farva (30%)	Slope (1.00)		
				Droughty (0.40)		
				No filtering capacity limitation (0.00)		
			Beeskove (10%)	Slope (1.00)		
				Too acid (1.00)		
60MC	Bendahl-Foyslake families-Rock outcrop, stream breaklands	Very limited	Bendahl (35%)	Slope (1.00)	55.7	0.3%
				Too acid (1.00)		
			Foyslake (30%)	Slope (1.00)		
				Too acid (1.00)		
			Beeskove (10%)	Slope (1.00)		
				Too acid (1.00)		
60QA	Lostbasin family, extremely stony-Rock outcrop complex, stream breaklands	Very limited	Lostbasin, extremely stony (60%)	Slope (1.00)	20.0	0.1%
				Droughty (0.54)		
				Too acid (0.08)		
				No filtering capacity limitation (0.00)		
			Tevis, extremely stony (10%)	Slope (1.00)		
				Too acid (1.00)		
				Droughty (0.42)		
				No filtering capacity limitation (0.00)		
61B	Scotmont ashy fine sandy loam, 0 to 4 percent slopes	Not limited	Scotmont (85%)		1,063.3	6.3%
61D	Scotmont ashy fine sandy loam, 4 to 15 percent slopes	Somewhat limited	Scotmont (85%)	Slope (0.16)	1,372.1	8.1%
			Lionwood (8%)	Slow water movement (0.37)		
				Slope (0.16)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
61MC	Beeskove-Argora families-Rock outcrop complex, dissected stream breaklands	Very limited	Beeskove (40%)	Slope (1.00)	15.1	0.1%
				Too acid (1.00)		
			Argora (35%)	Slope (1.00)		
				Too acid (1.00)		
				Slow water movement (1.00)		
62B	Beaverdump ashy gravelly loam, 0 to 4 percent slopes	Very limited	Beaverdump (90%)	Filtering capacity (1.00)	295.6	1.7%
				Droughty (0.31)		
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
			Beaverdump, greater slope (5%)	Filtering capacity (1.00)		
				Droughty (0.31)		
				Slope (0.16)		
62D	Beaverdump gravelly ashy loam, 4 to 15 percent slopes	Very limited	Beaverdump (90%)	Filtering capacity (1.00)	196.4	1.2%
				Droughty (0.31)		
				Slope (0.16)		
			Glaciercreek (5%)	Filtering capacity (1.00)		
				Slope (1.00)		
				Droughty (1.00)		
			Beaverdump, greater slope (5%)	Filtering capacity (1.00)		
				Slope (1.00)		
				Droughty (0.31)		
64B	Lionwood ashy loam, 0 to 4 percent slopes	Somewhat limited	Lionwood (85%)	Slow water movement (0.37)	138.9	0.8%
			Lionwood, greater slope (2%)	Slow water movement (0.37)		
				Slope (0.16)		
82F	Sharrott, cool-Rock outcrop-Rubble land complex, 15 to 60 percent slopes	Not rated	Rock outcrop (25%)		119.5	0.7%
			Rubble land (20%)			
			Winkler, cool (10%)			

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
85B	Whitepine ashy silt loam, 0 to 4 percent slopes	Very limited	Whitepine (85%)	Slow water movement (1.00)	49.1	0.3%
			Whitepine, greater slope (4%)	Slow water movement (1.00)		
				Slope (0.16)		
			Iffgulch (1%)	Flooding (1.00)		
				Slow water movement (1.00)		
				Depth to saturated zone (1.00)		
				Too acid (0.14)		
85D	Whitepine ashy silt loam, 4 to 15 percent slopes	Very limited	Whitepine (85%)	Slow water movement (1.00)	584.1	3.4%
				Slope (0.16)		
			Whitepine, greater slope (3%)	Slow water movement (1.00)		
				Slope (1.00)		
			Beaverdump (3%)	Filtering capacity (1.00)		
				Droughty (0.31)		
				Slope (0.16)		
93A	Horseplains fine sandy loam, 0 to 2 percent slopes	Very limited	Horseplains (90%)	Filtering capacity (1.00)	13.7	0.1%
				Flooding (0.40)		
			Horseplains, greater slope (5%)	Filtering capacity (1.00)		
				Flooding (0.40)		
			Horseplains, channeled (5%)	Filtering capacity (1.00)		
				Flooding (1.00)		
				Droughty (0.23)		
94A	Revais silt loam, 0 to 2 percent slopes	Somewhat limited	Revais (90%)	Flooding (0.40)	118.2	0.7%
100	Rock outcrop-Rubble land complex	Not rated	Rock outcrop (45%)		48.6	0.3%
			Rubble land (40%)			

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
103B	Gird-McCollum complex, 0 to 4 percent slopes	Not limited	Gird (50%)		63.3	0.4%
			McCollum (40%)			
			McCollum, greater slope (5%)			
120G	Winkler-Sharrott-Rubble land complex, 40 to 85 percent slopes	Not rated	Winkler (40%)		40.1	0.2%
			Rubble land (15%)			
			Winkler, lesser slope (5%)			
			Rock outcrop (5%)			
			Winkler, cool (5%)			
122E	Winkler, cool-Rock outcrop-Sharrott, cool complex, 8 to 40 percent slopes	Very limited	Winkler (40%)	Slope (1.00)	131.5	0.8%
				Too acid (0.77)		
				Droughty (0.70)		
			Sharrott (25%)	Droughty (1.00)		
				Depth to bedrock (1.00)		
				Slow water movement (1.00)		
				Slope (1.00)		
				Too acid (0.77)		
			Winkler, greater slope (5%)	Slope (1.00)		
				Too acid (0.77)		
				Droughty (0.70)		
122G	Winkler, cool-Sharrott, cool-Rubble land complex, 40 to 85 percent slopes	Not rated	Winkler (55%)		217.3	1.3%
			Rubble land (15%)			
			Rock outcrop (4%)			
			Winkler, gravelly loam (3%)			
			Winkler, lesser slope (3%)			
152E	Bigarm, cool-Hogsby-Rock outcrop complex, 8 to 30 percent slopes	Very limited	Bigarm (55%)	Slope (1.00)	362.6	2.1%
				Large stones on the surface (0.18)		
				Droughty (0.08)		
			Hogsby (20%)	Droughty (1.00)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Depth to bedrock (1.00)		
				Slope (1.00)		
				Cobble content (0.75)		
			Bigarm, greater slope (5%)	Slope (1.00)		
				Droughty (0.64)		
				Cobble content (0.32)		
152F	Bigarm, cool-Hogsby-Rock outcrop complex, 30 to 60 percent slopes	Very limited	Bigarm (40%)	Slope (1.00)	131.8	0.8%
				Droughty (0.64)		
				Cobble content (0.32)		
			Hogsby (25%)	Droughty (1.00)		
				Slope (1.00)		
				Depth to bedrock (1.00)		
				Cobble content (0.87)		
			Bigarm, greater slope (5%)	Slope (1.00)		
				Droughty (0.64)		
				Cobble content (0.32)		
			Finleypoint (5%)	Slope (1.00)		
				Droughty (0.00)		
200	Riverwash	Not rated	Riverwash (90%)		59.0	0.3%
211G	Combest-Rubble land complex, 40 to 70 percent slopes	Very limited	Combest (60%)	Slope (1.00)	26.1	0.2%
				Droughty (0.52)		
			Sharrott (5%)	Droughty (1.00)		
				Slope (1.00)		
				Depth to bedrock (1.00)		
			Combest, greater slope (5%)	Slope (1.00)		
				Droughty (0.52)		
292B	McCollum fine sandy loam, 0 to 4 percent slopes	Not limited	McCollum (85%)		63.8	0.4%
			McCollum, greater slope (3%)			
350B	Bigarm gravelly loam, alluvial, 2 to 8 percent slopes	Somewhat limited	Bigarm (85%)	Droughty (0.20)	1,276.0	7.5%
			Bigarm, stony (5%)	Droughty (0.08)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
			Bigarm, greater slope (5%)	Slope (0.63)		
				Droughty (0.20)		
350F	Bigarm gravelly loam, alluvial, 30 to 50 percent slopes	Very limited	Bigarm (85%)	Slope (1.00)	18.5	0.1%
				Droughty (0.20)		
			Yellowbay (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Slope (1.00)		
			Bigarm, greater slope (5%)	Slope (1.00)		
				Droughty (0.77)		
				Cobble content (0.32)		
351C	McCollum-Belton fine sandy loams, 4 to 8 percent slopes	Not limited	McCollum (45%)		34.3	0.2%
			Gird (5%)			
411E	Sacheen-Rock outcrop complex, 8 to 30 percent slopes	Very limited	Sacheen (60%)	Filtering capacity (1.00)	143.9	0.8%
				Slope (1.00)		
			Selon, gravelly (6%)	Slope (1.00)		
			Sacheen, fine sand (2%)	Filtering capacity (1.00)		
				Slope (1.00)		
421B	Selon fine sandy loam, moist, 0 to 4 percent slopes	Not limited	Selon (85%)		700.7	4.1%
			Scotmont (5%)			
			McCollum (2%)			
421D	Selon fine sandy loam, moist, 4 to 15 percent slopes	Somewhat limited	Selon (85%)	Slope (0.16)	695.4	4.1%
			Scotmont (5%)	Slope (0.16)		
421E	Selon fine sandy loam, moist, 15 to 30 percent slopes	Very limited	Selon (85%)	Slope (1.00)	154.9	0.9%
			Sacheen (5%)	Filtering capacity (1.00)		
				Slope (1.00)		
			Selon, gravelly (5%)	Slope (1.00)		
			Selon, \ (5%)	Slope (1.00)		
472B	Elkrock gravelly ashy silt loam, moist, 0 to 4 percent slopes	Somewhat limited	Elkrock (90%)	Droughty (0.96)	781.4	4.6%
			Elkrock, stony (5%)	Droughty (0.96)		
			Elkrock, greater slope (5%)	Droughty (0.96)		
				Slope (0.16)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
472D	Elkrock gravelly ashy silt loam, moist, 4 to 15 percent slopes	Somewhat limited	Elkrock (90%)	Droughty (0.96)	175.9	1.0%
				Slope (0.16)		
			Elkrock, stony (4%)	Droughty (0.96)		
				Slope (0.16)		
472F	Elkrock gravelly ashy silt loam, moist, 30 to 60 percent slopes	Very limited	Elkrock (90%)	Slope (1.00)	85.6	0.5%
				Droughty (0.96)		
			Elkrock, greater slope (5%)	Slope (1.00)		
				Droughty (0.96)		
			Elkrock, stony (5%)	Slope (1.00)		
				Droughty (0.96)		
473D	Elkrock-Selon complex, 4 to 15 percent slopes	Somewhat limited	Elkrock (50%)	Droughty (0.96)	1,649.8	9.7%
				Slope (0.16)		
			Selon (35%)	Slope (0.16)		
			Elkrock, stony (5%)	Droughty (0.96)		
				Slope (0.16)		
532E	Winkler-Sharrott-Rock outcrop complex, 8 to 40 percent slopes	Not rated	Winkler (40%)		37.9	0.2%
			Rock outcrop (20%)			
			Rubble land (5%)			
			Winkler, greater slope (5%)			
			Winkler, cool (5%)			
541C	Yellowbay gravelly loam, moist, 2 to 8 percent slopes	Very limited	Yellowbay (90%)	Filtering capacity (1.00)	306.1	1.8%
				Droughty (1.00)		
			Yellowbay, greater slope (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Slope (0.63)		
			Yellowbay, cobbly (5%)	Filtering capacity (1.00)		
				Droughty (1.00)		
				Cobble content (0.32)		
632F	Rockhill-Rock outcrop complex, 15 to 60 percent slopes	Very limited	Rockhill (45%)	Droughty (1.00)	575.7	3.4%
				Slope (1.00)		
				Depth to bedrock (1.00)		
			Mitten (5%)	Slope (1.00)		

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
				Droughty (0.89)		
			Holloway (5%)	Slope (1.00)		
				Droughty (0.95)		
641D	Lionwood-Scotmont-Whitepine complex, 4 to 15 percent slopes	Somewhat limited	Lionwood (45%)	Slow water movement (0.37)	963.5	5.7%
				Slope (0.16)		
			Scotmont (30%)	Slope (0.16)		
			Lionwood, lesser slope (2%)	Slow water movement (0.37)		
			Bonnash (2%)	Slope (0.16)		
				Droughty (0.04)		
641E	Lionwood-Scotmont-Whitepine complex, 15 to 35 percent slopes	Very limited	Lionwood (40%)	Slope (1.00)	57.0	0.3%
				Slow water movement (0.37)		
			Scotmont (35%)	Slope (1.00)		
			Whitepine (15%)	Slow water movement (1.00)		
				Slope (1.00)		
			Lionwood, greater slope (2%)	Slope (1.00)		
				Slow water movement (0.37)		
			Fernline (2%)	Slow water movement (1.00)		
				Slope (1.00)		
			Bonnash (2%)	Slope (1.00)		
				Droughty (0.04)		
			Iffgulch (2%)	Flooding (1.00)		
				Slow water movement (1.00)		
				Depth to saturated zone (1.00)		
				Too acid (0.14)		
DA	Denied access	Not rated	Denied access (100%)		1,023.9	6.0%
DAM	Dam	Not rated	Dam (100%)		7.5	0.0%
W	Water	Not rated	Water (100%)		971.6	5.7%

Land Application of Municipal Sewage Sludge— Summary by Map Unit — Sanders and Parts of Lincoln and Flathead Counties, Montana (MT651)						
Map unit symbol	**Map unit name**	**Rating**	**Component name (percent)**	**Rating reasons (numeric values)**	**Acres in AOI**	**Percent of AOI**
Subtotals for Soil Survey Area					**16,379.3**	**96.7%**
Totals for Area of Interest					**16,932.7**	**100.0%**

Land Application of Municipal Sewage Sludge— Summary by Rating Value		
Rating	**Acres in AOI**	**Percent of AOI**
Somewhat limited	7,357.3	43.5%
Very limited	4,654.1	27.5%
Not limited	2,013.6	11.9%
Null or Not Rated	2,907.6	17.2%
Totals for Area of Interest	**16,932.7**	**100.0%**

Rating Options—Land Application of Municipal Sewage Sludge (ThompsonFallsWW_PER)

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

AOI Inventory

This folder contains a collection of tabular reports that present a variety of soil information. Included are various map unit description reports, special soil interpretation reports, and data summary reports.

Legend (ThompsonFallsWW_PER)

This report presents general information about the map units in the selected area. It shows map unit symbols and names for each map unit.

Report—Legend (ThompsonFallsWW_PER)

Legend–Lolo National Forest Area, Montana	
Map unit symbol and name	**Map unit acres**
13JA—Stryker and Wickware families, high stream terraces and escarpments	4,268
13UA—Combest and Kadygulch families, high stream terraces and escarpments	13,207
16UA—Wellie-Wakepish families, association, hills and alluvial fans	15,612
22MA—Mitten-Wilde-Sixteenmile, very stony families, complex, flood scoured colluvial aprons and alluvial fans	4,780
22UA—Wakepish-Wilde-Sixteenmile, very stony families, complex, flood scoured footslopes	18,387
26UA—Rock outcrop-Specie, extremely stony-Wilde, extremely stony, families, complex, stream breaklands	90,583
30MA—Argora-St. Marys families, association, moderately steep mountain slopes	7,065
32F—Mitten gravelly ashy silt loam, 35 to 60 percent slopes	0
60B—Bonnash gravelly ashy silt loam, 0 to 4 percent slopes	0
60MA—Argora-Farva families-Rock outcrop complex, stream breaklands	9,350
60QA—Lostbasin family, extremely stony-Rock outcrop complex, stream breaklands	42,218
61B—Scotmont ashy fine sandy loam, 0 to 4 percent slopes	0
61D—Scotmont ashy fine sandy loam, 4 to 15 percent slopes	0
61MC—Beeskove-Argora families-Rock outcrop complex, dissected stream breaklands	5,851

Legend–Lolo National Forest Area, Montana	
Map unit symbol and name	**Map unit acres**
62D—Beaverdump gravelly ashy loam, 4 to 15 percent slopes	0
100—Rock outcrop-Rubble land complex	0
122E—Winkler, cool-Rock outcrop-Sharrott, cool complex, 8 to 40 percent slopes	0
532E—Winkler-Sharrott-Rock outcrop complex, 8 to 40 percent slopes	0

Legend–Sanders and Parts of Lincoln and Flathead Counties, Montana	
Map unit symbol and name	**Map unit acres**
1A—Grantsdale silt loam, 0 to 4 percent slopes	2,368
3A—Gird silt loam, 0 to 4 percent slopes	2,979
13JA—Stryker and Wickware families, high stream terraces and escarpments	427
13UA—Combest and Kadygulch families, high stream terraces and escarpments	37
16UA—Wellie-Wakepish families, association, hills and alluvial fans	417
20F—Winkler gravelly loam, 35 to 60 percent slopes	8,186
21B—Totelake gravelly loam, 2 to 8 percent slopes	2,972
21D—Totelake gravelly loam, 8 to 15 percent slopes	481
21E—Combest gravelly ashy silt loam, 15 to 35 percent slopes	3,846
22E—Winkler gravelly sandy loam, cool, 15 to 35 percent slopes	18,756
22F—Winkler gravelly sandy loam, cool, 35 to 60 percent slopes	27,994
22MA—Mitten-Wilde-Sixteenmile, very stony families, complex, flood scoured colluvial aprons and alluvial fans	239
22UA—Wakepish-Wilde-Sixteenmile, very stony families, complex, flood scoured footslopes	291
23D—Yourame gravelly loam, 4 to 15 percent slopes	4,942
24B—Dubay silt loam, 0 to 4 percent slopes	359
25D—Wildgen gravelly loam, 4 to 15 percent slopes	2,387
26UA—Rock outcrop-Specie, extremely stony-Wilde, extremely stony, families, complex, stream breaklands	1,863
30MA—Argora-St. Marys families, association, moderately steep mountain slopes	14
31E—Tevis gravelly loam, dry, 15 to 35 percent slopes	2,450
32F—Mitten gravelly ashy silt loam, 35 to 60 percent slopes	33,246
32G—Mitten-Rubble land complex, 40 to 70 percent slopes	6,107
34C—Krause gravelly ashy silt loam, 2 to 8 percent slopes	2,826
41B—Oldtrail-Glaciercreek-Larchpoint complex, 0 to 8 percent slopes	5,092
41C—Sacheen loamy fine sand, 2 to 8 percent slopes	675
54C—Yellowbay gravelly loam, 2 to 8 percent slopes	1,859
60B—Bonnash gravelly ashy silt loam, 0 to 4 percent slopes	5,906
60MA—Argora-Farva families-Rock outcrop complex, stream breaklands	289
60MC—Bendahl-Foyslake families-Rock outcrop, stream breaklands	233
60QA—Lostbasin family, extremely stony-Rock outcrop complex, stream breaklands	274
61B—Scotmont ashy fine sandy loam, 0 to 4 percent slopes	2,050

Legend–Sanders and Parts of Lincoln and Flathead Counties, Montana	
Map unit symbol and name	**Map unit acres**
61D—Scotmont ashy fine sandy loam, 4 to 15 percent slopes	1,476
61MC—Beeskove-Argora families-Rock outcrop complex, dissected stream breaklands	141
62B—Beaverdump ashy gravelly loam, 0 to 4 percent slopes	1,222
62D—Beaverdump gravelly ashy loam, 4 to 15 percent slopes	3,004
64B—Lionwood ashy loam, 0 to 4 percent slopes	3,168
82F—Sharrott, cool-Rock outcrop-Rubble land complex, 15 to 60 percent slopes	5,756
85B—Whitepine ashy silt loam, 0 to 4 percent slopes	2,193
85D—Whitepine ashy silt loam, 4 to 15 percent slopes	993
93A—Horseplains fine sandy loam, 0 to 2 percent slopes	994
94A—Revais silt loam, 0 to 2 percent slopes	950
100—Rock outcrop-Rubble land complex	10,389
103B—Gird-McCollum complex, 0 to 4 percent slopes	977
120G—Winkler-Sharrott-Rubble land complex, 40 to 85 percent slopes	5,761
122E—Winkler, cool-Rock outcrop-Sharrott, cool complex, 8 to 40 percent slopes	4,162
122G—Winkler, cool-Sharrott, cool-Rubble land complex, 40 to 85 percent slopes	11,128
152E—Bigarm, cool-Hogsby-Rock outcrop complex, 8 to 30 percent slopes	2,507
152F—Bigarm, cool-Hogsby-Rock outcrop complex, 30 to 60 percent slopes	7,214
200—Riverwash	724
211G—Combest-Rubble land complex, 40 to 70 percent slopes	1,681
292B—McCollum fine sandy loam, 0 to 4 percent slopes	2,945
350B—Bigarm gravelly loam, alluvial, 2 to 8 percent slopes	1,798
350F—Bigarm gravelly loam, alluvial, 30 to 50 percent slopes	292
351C—McCollum-Belton fine sandy loams, 4 to 8 percent slopes	505
411E—Sacheen-Rock outcrop complex, 8 to 30 percent slopes	374
421B—Selon fine sandy loam, moist, 0 to 4 percent slopes	1,038
421D—Selon fine sandy loam, moist, 4 to 15 percent slopes	729
421E—Selon fine sandy loam, moist, 15 to 30 percent slopes	189
472B—Elkrock gravelly ashy silt loam, moist, 0 to 4 percent slopes	988
472D—Elkrock gravelly ashy silt loam, moist, 4 to 15 percent slopes	230
472F—Elkrock gravelly ashy silt loam, moist, 30 to 60 percent slopes	308
473D—Elkrock-Selon complex, 4 to 15 percent slopes	1,721
532E—Winkler-Sharrott-Rock outcrop complex, 8 to 40 percent slopes	1,968
541C—Yellowbay gravelly loam, moist, 2 to 8 percent slopes	679
632F—Rockhill-Rock outcrop complex, 15 to 60 percent slopes	2,502
641D—Lionwood-Scotmont-Whitepine complex, 4 to 15 percent slopes	9,614
641E—Lionwood-Scotmont-Whitepine complex, 15 to 35 percent slopes	949
DA—Denied access	1,517
DAM—Dam	40
W—Water	18,300

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APPENDIX C

GWIC Well Data

Gwic Id	PDF	DNRC WR	Site Name	Twn	Rng	Sec	Q Sec	Ver?	Type	Td	Swl	Pwl	Rwl	Yield	Test	Date	Use
213901			SACCHI SAM & DEBORA	21N	29W	4	A	No	WELL	360	35		34	3	AIR	38238	DOMESTIC
148521		C094516-00	SKINNER JAMES	21N	29W	4	BAA	No	WELL	342	160			20	AIR	34592	DOMESTIC
152759		C099756-00	PARLIK JAY	21N	29W	4	BBA	No	WELL	245	90			20	AIR	34710	DOMESTIC
76333			WEST GEORGE	21N	29W	4	BBB	No	WELL	25	22				OTHER	9133	DOMESTIC
246617			ROBBINS EVERETT & JENNINE	21N	29W	4	BD	No	WELL	300	138			16	PUMP	39687	DOMESTIC
168519			DYKSTRA WAYNE & LAURIE	21N	29W	4	C	No	WELL	341	272	320	272	16	AIR	36017	DOMESTIC
76334			GRANT DAVID & OLIVIA	21N	29W	4	CB	No	WELL		8				OTHER	9133	DOMESTIC
196366			THOMPSON FALLS ALLIANCE CHURCH	21N	29W	4	CBB	No	WELL	380	328.2		328	30	AIR	36725	DOMESTIC
196366			THOMPSON FALLS ALLIANCE CHURCH	21N	29W	4	CBB	No	WELL	380	328.2		328.5	79	PUMP	36725	DOMESTIC
76335			BENNET HOMES REALTY	21N	29W	4	CC	No	WELL	268	200	220		30	AIR	29300	PUBLIC WATER SUPPLY
76336		C021411-00	HANSEN JAY	21N	29W	4	D	No	WELL	410	360	370		10	AIR	28836	DOMESTIC
76337			DOTY DANIEL	21N	29W	4	DB	No	WELL	14	7			50	OTHER	2558	DOMESTIC
76338			KASHUBA JOHN & OLIVE	21N	29W	5	AAC	No	WELL	25	4				OTHER	24329	DOMESTIC
76339			SMITH LYLE	21N	29W	5	ABC	No	WELL	5	0				OTHER	1	DOMESTIC
251067			SMITH LYLE J.	21N	29W	5	ABC	No	WELL	5	0					1	STOCKWATER
76340			SMITH LYLE	21N	29W	5	ADB	No	WELL	10	4				OTHER	1	DOMESTIC
76343			WETZLER EVELYN	21N	29W	5	B	No	WELL	390	377	389		15	BAILER	23979	DOMESTIC
76341			WETZLER EVELYN	21N	29W	5	BB	No	WELL	427	390	395		20	PUMP	27046	DOMESTIC
76342			WETZLER EVELYN	21N	29W	5	BBA	No	WELL	400	389			200	OTHER	26665	DOMESTIC
76344			GOULD GEORGE & MONALU	21N	29W	5	BBB	No	WELL	385	364	365		10	BAILER	26852	DOMESTIC
187687			LAWS CHAD	21N	29W	5	BD	No	WELL	379	347		347	20	AIR	36843	DOMESTIC
76345			RAYMONT EARL S. & PHYLLIS	21N	29W	5	BDA	No	WELL	414	379	383		30	OTHER	26359	DOMESTIC
141467		C089170-00	ROBBINS EVERETT & JENNIE	21N	29W	5	BDD	No	WELL	410	350		50	15	AIR	34310	DOMESTIC
230268			ROBBINS EVERETT & JANINE	21N	29W	5	DDB	No	WELL	378	337			30	AIR	38880	DOMESTIC
158616		C115173-00	COLE RICHARD J & HELEN A	21N	29W	6	AA	No	WELL	313.1	256.33	313		15	AIR	35221	DOMESTIC
76346		C018742-00	CLARK ROBERT	21N	29W	6	AAD	No	WELL	397	355	375		30	AIR	28369	DOMESTIC
246171			SCOTT LEON & SHARON	21N	29W	6	BD	No	WELL	60	19			50	AIR	39668	DOMESTIC
76347			BROTHERTON FLOYD	21N	29W	6	CAD	No	WELL		42			1000	OTHER	18629	DOMESTIC
76348		C064149-00	JOHN LAWRENCE * RIMROCK LODGE - WELL 2	21N	29W	6	CCAA	No	WELL	825	75	800		20	AIR	31623	DOMESTIC
175583			LAWRENCE JOHN	21N	29W	6	CCD	No	WELL	288	35			40	AIR	36398	
76349			COLLINS NANCY	21N	29W	6	DBC	No	WELL	173	27	125		5	BAILER	24350	DOMESTIC
76350			COLE RICHARD	21N	29W	6	DD	No	WELL	50				8	OTHER	21186	DOMESTIC
76351			SANDERS JOSEPH & MARY	21N	29W	7	AD	No	WELL	55	36	42		40	AIR	30429	IRRIGATION
187681			SCHAUMAN TOR & SANNA	21N	29W	8		No	WELL	345	20			15	AIR	36003	DOMESTIC
196367			ENGDAL ROBERT AND LORI	21N	29W	8	AC	No	WELL	60	23		23	50	AIR	37351	DOMESTIC
205779			ENGDAL ROBERT AND LORI	21N	29W	8	AC	No	WELL	60	21			30	AIR	37731	DOMESTIC
181500			CENEX #1	21N	29W	8	ACD	No	WELL	36.6	30					36591	MONITORING
181501			CENEX #2	21N	29W	8	ACD	No	WELL	40	30					36591	MONITORING
181502			CENEX #3	21N	29W	8	ACD	No	WELL	38.6	30					36591	MONITORING
187987			OLSON BOB	21N	29W	8	AD	No	WELL	65	30			50	AIR	36002	DOMESTIC
148522			BRICKZEN ROBERT	21N	29W	8	BC	No	WELL	65	10			30	AIR	34654	DOMESTIC
211044			CHS BULK FACILTY * MW 4	21N	29W	8	BC	No	WELL	50						37188	MONITORING
234916			TOWN PUMP*MW 7	21N	29W	8	BC	No	WELL	45	37					39123	MONITORING
237595			MAXIM TECHNOLOGIES INC * THOMPSON FALLS FEED AND FUEL * MW-5	21N	29W	8	BCA	No	WELL	32.5	27.82					36082	MONITORING
251017			THOMPSON FALLS FEED AND FUEL * MW-1	21N	29W	8	BCA	No	WELL	37	30.52					36061	MONITORING
251023			THOMPSON FALLS FEED AND FUEL * MW-10	21N	29W	8	BCA	No	WELL	35.35	30.68					36321	MONITORING

Gwic Id	PDF	DNRC WR	Site Name	Twn	Rng	Sec	Q Sec	Ver?	Type	Td	Swl	Pwl	Rwl	Yield	Test	Date	Use
251029			THOMPSON FALLS FEED AND FUEL * MW-11	21N	29W	8	BCA	No	WELL	41	31.41					37748	MONITORING
251032			THOMPSON FALLS FEED AND FUEL * MW-12	21N	29W	8	BCA	No	WELL	41.5	34.33					37748	MONITORING
251020			THOMPSON FALLS FEED AND FUEL * MW-2	21N	29W	8	BCA	No	WELL	38.5	28.89					36062	MONITORING
251034			THOMPSON FALLS FEED AND FUEL * SVE-1	21N	29W	8	BCA	No	WELL	23						36068	MONITORING
251037			THOMPSON FALLS FEED AND FUEL * SVE-2	21N	29W	8	BCA	No	WELL	25.5						36062	MONITORING
251039			THOMPSON FALLS FEED AND FUEL * SVE-3	21N	29W	8	BCA	No	WELL	26						36074	MONITORING
236205			THOMPSON FALLS FEED AND FUEL* MW-3	21N	29W	8	BCA	No	WELL	34.5	30.45					36076	MONITORING
236204			THOMPSON FALLS FEED AND FUEL* MW-4	21N	29W	8	BCA	No	WELL	32	24.78					36081	MONITORING
236196			THOMPSON FALLS FEED AND FUEL* MW-6	21N	29W	8	BCA	No	WELL	32	27.82					36080	MONITORING
236203			THOMPSON FALLS FEED AND FUEL* MW-8	21N	29W	8	BCA	No	WELL	35	32.22					36103	MONITORING
236202			THOMPSON FALLS FOOD AND FUEL * MW-9	21N	29W	8	BCA	No	WELL	35.5	24.48					36103	MONITORING
236201			THOMPSON FALLS* MW-7	21N	29W	8	BCA	No	WELL	35.6	27.88					36090	MONITORING
76353			BRITT JOHN E. & IMOGENE H.	21N	29W	8	C	No	WELL	46	1			10	OTHER	21350	DOMESTIC
265818			TOWN PUMP * MW-2	21N	29W	8	CA	No	WELL	42						41009	MONITORING
265819			TOWN PUMP * MW-3	21N	29W	8	CA	No	WELL	40						41009	MONITORING
265820			TOWN PUMP * MW-4	21N	29W	8	CA	No	WELL	40						41009	MONITORING
265821			TOWN PUMP * MW-5	21N	29W	8	CA	No	WELL	40						41009	MONITORING
265826			TOWN PUMP * MW-6	21N	29W	8	CA	No	WELL	40						41009	MONITORING
265827			TOWN PUMP * MW-7	21N	29W	8	CA	No	WELL	40						41009	MONITORING
148523			BLANKENSHIP JIM	21N	29W	8	CAC	No	WELL	65	30			30	AIR	34580	DOMESTIC
137573		C087046-00	MCEWEN ART	21N	29W	8	CAC	No	WELL	102	30	50	30	8	PUMP	34061	DOMESTIC
182166			ZACHARIASEN ARNOLD AND GAYLE	21N	29W	8	CAC	No	WELL	100	19	15	19	15	AIR	36293	DOMESTIC
122703		C078104-00	PEACOCK GEORGE	21N	29W	8	CCC	No	WELL	82	13	13	13	28	PUMP	33359	DOMESTIC
76352		C073569-00	MENSIK FRED	21N	29W	8	CD	No	WELL	70	25		25	30	AIR	32786	DOMESTIC
212532			ESLER, JACK	21N	29W	8	DB	No	WELL	300	25		25	10	AIR	38161	DOMESTIC
209236			LOUCKS RON	21N	29W	8	DC	No	WELL	88	32		32	50	AIR	38041	DOMESTIC
180435			ENGER GAYLE AND THOMAS	21N	29W	8	DCA	No	WELL	60	31.5		31.5	35	AIR	36297	DOMESTIC
148524			WATSON BOB	21N	29W	8	DCC	No	WELL	45	18			30	AIR	34580	DOMESTIC
256948			LORD, DONALD AND VIRGINIA, MURRILL MARGARET	21N	29W	8	DD	No	WELL	400	354				AIR	40319	DOMESTIC
182210			MOSHER JOHN	21N	29W	9		No	WELL	220	30			20	AIR	35996	
188078			CITY OF THOMPSON FALLS	21N	29W	9	AACC	No	WELL	176	118			10	AIR	36661	PUBLIC WATER SUPPLY
188076			CITY OF THOMPSON FALLS	21N	29W	9	AACC	No	WELL	195	105	110	105	1100	PUMP	36675	PUBLIC WATER SUPPLY
188077			CITY OF THOMPSON FALLS	21N	29W	9	AACC	No	WELL	201	104	105	104	370	PUMP	36650	PUBLIC WATER SUPPLY
242681			CARMICHAEL DEAN & LORI	21N	29W	9	AB	No	WELL	160	125		125	35	AIR	39406	DOMESTIC
211477			MERRELL PATRICIA AND SCOTT	21N	29W	9	AB	No	WELL	160	104		104	50	AIR	38131	DOMESTIC
207374			PARDEE LENNEA AND CHAD	21N	29W	9	AB	No	WELL	160	116	118	116	20	PUMP	37908	DOMESTIC
193883			WOODS TIM	21N	29W	9	AB	No	WELL	160	119		120	30	AIR	37120	DOMESTIC
76355			STEPHENSON M.H.	21N	29W	9	B	No	WELL	39.5	11.5	12			BAILER	25358	DOMESTIC
193884			BURGHORD RON	21N	29W	9	BA	No	WELL	200	163		173	40	AIR	37125	DOMESTIC
246600			WIDNER BILL & PAULA	21N	29W	9	BB	No	WELL	160	104			40	AIR	39686	DOMESTIC
239200			CAMPBELL GARY L. & SHIRLEY A.	21N	29W	9	BC	No	WELL	160	38			32	AIR	39349	DOMESTIC
76354			LACY GLENN & SEAN	21N	29W	9	BC	No	WELL	300	175	275		5	AIR	30798	DOMESTIC
162025		C095238-00	LEUFKIN BUD	21N	29W	9	BD	No	WELL	180	140	140		75	AIR	34746	DOMESTIC
180363			LEUFKENS CO	21N	29W	9	BDC	No	WELL	184	105		105	100	AIR	36499	DOMESTIC
76357		C046941-00	CITY OF THOMPSON FALLS * TEST WELL #2	21N	29W	9	BDDC	Yes	WELL	58	14.42	14.7		250	PUMP	30264	MONITORING
76358		C046941-00	TOWN OF THOMPSON FALLS * TEST WELL #1	21N	29W	9	BDDC	Yes	WELL	44	18				OTHER	30257	MONITORING

Gwic Id	PDF	DNRC WR	Site Name	Twn	Rng	Sec	Q Sec	Ver?	Type	Td	Swl	Pwl	Rwl	Yield	Test	Date	Use
173088		W133418-00	CITY OF THOMPSON FALLS * WELL #1	21N	29W	9	CABB	No	WELL	47	18	18.2		250	OTHER	23558	PUBLIC WATER SUPPLY
76356		C046941-00	CITY OF THOMPSON FALLS * WELL 2	21N	29W	9	CABB	No	WELL	54	16	20		1500	PUMP	30327	PUBLIC WATER SUPPLY
132636			THOMPSON FALLS LUMBER CO * WELL # 1	21N	29W	9	CB	No	WELL	18	10	13		350	OTHER	26543	DOMESTIC
76359			THOMPSON FALLS LUMBER CO * WELL # 2	21N	29W	9	CB	No	WELL	18	10	13		350	OTHER	26543	DOMESTIC
290885			BASHAM, MICHAEL	21N	29W	9	CC	No	WELL	217	75		75	100	AIR	42489	DOMESTIC
76360			STERN CONSTRUCTION	21N	29W	9	D	No	WELL	39	30	31		8	OTHER	30448	UNKNOWN
141468		C089176-00	CROWN PACIFIC INLAND	21N	29W	9	DC	No	WELL	240	62	200	62	35	AIR	34306	DOMESTIC
76361			NICHOLS JACK	21N	29W	9	DCA	No	WELL	35	16	18		14	OTHER	27087	DOMESTIC
263564			CRESCENT VILLAGE PROPERTY OWNERS	21N	29W	9	DCD	No	WELL	250	40			40	AIR	27181	PUBLIC WATER SUPPLY
76362			STOBIE INC.	21N	29W	9	DCD	No	WELL	300	75	275		10	AIR	30325	PUBLIC WATER SUPPLY
76363			CAPITAL INVESTORS CORP	21N	29W	9	DD	No	WELL	250	40	115		20	AIR	27192	INDUSTRIAL
137574		C081487-00	SANDERS COUNTY HARVEST FOODS * WELL #2	21N	29W	9	DDCD	No	WELL	258	32.9		32	50	AIR	33648	PUBLIC WATER SUPPLY
76364			BAXTER C.A.	21N	29W	9	DDD	No	WELL		32			105	OTHER	16803	DOMESTIC
76378			OLIVER EARL C. & ALICE D.	21N	29W	16		No	WELL	55	37	25		15	BAILER	22764	DOMESTIC
154127			GATES GILES	21N	29W	16	AA	No	WELL	424	35			20	AIR	35012	DOMESTIC
175586			WOOD GRANGER PEGGY A	21N	29W	16	AA	No	WELL	260	60		60	20	AIR	36352	
76380			MURRAY O.J.	21N	29W	16	AAA	No	WELL	33.5	28	28.5		30	OTHER	22783	DOMESTIC
286488			MINER, DON	21N	29W	16	AB	No	WELL	305	40		40	19	AIR	42447	DOMESTIC
139594		C089272-00	VON-HEEDER CHIP	21N	29W	16	ABD	No	WELL	240	62	220	62	10	AIR	34269	UNKNOWN
214460			MONTOURE, KEN	21N	29W	16	ACBD	No	WELL	60	18		18	35	AIR	38240	DOMESTIC
273549			ENGER, GAIL & THOMAS	21N	29W	16	BB	No	WELL	160	27		27	10	AIR	41432	DOMESTIC
160492		C099866-00	OLIVER DONALD	21N	29W	16	BB	No	WELL	340	40	330	40	10	AIR	35328	DOMESTIC
76379		C082532-00	OLIVER EARL	21N	29W	16	BB	No	WELL	360	35		35	5	AIR	32405	DOMESTIC
285072			FLETCHER FAMILY REVOCABLE TRUST * 15-465	21N	29W	16	BD	No	WELL	400	22		22	8	AIR	42250	DOMESTIC
180434			LUNDGRESS CLARK AND RITA	21N	29W	16	BDB	No	WELL	340	30		50	10	AIR	36535	DOMESTIC
223631			BROWN, GARY W & BEVERLY J	21N	29W	16	CA	No	WELL	53	14			50	AIR	37756	DOMESTIC
254841			GUNN GERALD	21N	29W	16	CA	No	WELL	60	20			50	AIR	39340	DOMESTIC
223880			DYKSTRA WAYNE	21N	29W	16	CAA	No	WELL	43	20		20	65	AIR	38701	DOMESTIC
205783			COCKRELL PAUL	21N	29W	16	CDA	No	WELL	140	92		99	75	AIR	37377	DOMESTIC
217263			SMITH, PHYLLIS M. & MONTY W.	21N	29W	16	CDA	No	WELL	140	65			40	AIR	38432	DOMESTIC
131977			LEUFKENS BUD	21N	29W	16	DAC	No	WELL	141	21	60		100	AIR	33799	TEST WELL
135335		C081519-00	LEUFKIN BUD & JUDY	21N	29W	16	DAC	No	WELL	121	22	30		50	AIR	33702	
223278			MCCLOUD, LOREN	21N	29W	16	DB	No	WELL	50	21			50	AIR	37375	DOMESTIC
242202			LARSON TIMOTHY LEE	21N	29W	16	DBC	No	WELL	60	14			50	AIR	39532	DOMESTIC
248245			BENTON EDWARD & DEBRA	21N	29W	16	DC	No	WELL	80	55			50	AIR	39771	DOMESTIC
196374			POLEQUAPTEWA HONANI AND JEAN	21N	29W	16	DC	No	WELL	60	15.5		15.5	75	AIR	37313	DOMESTIC
205787			SMITH MONTY	21N	29W	16	DC	No	WELL	90	55			40	AIR	37389	DOMESTIC
223198			BENTON, DEBRA & EDWARD	21N	29W	16	DCB	No	WELL	87	56		87	40	AIR	38738	DOMESTIC
205786			GORDON TAMARA C	21N	29W	16	DCB	No	WELL	60	13.83			60	AIR	37391	DOMESTIC
148525		C093062-00	OLIVER DONALD E	21N	29W	16	DCB	No	WELL	100	50	70	20	35	AIR	34504	DOMESTIC
189684			OWEN SCOTT	21N	29W	16	DCB	No	WELL	60	21		36	50	AIR	36955	DOMESTIC
189687			MANIN BETHANNE AND BOB	21N	29W	16	DCC	No	WELL	140	92		95	40	AIR	37019	DOMESTIC
209268			RICHARDSON DIANE	21N	29W	16	DCC	No	WELL	140	93		93	30	AIR	38038	DOMESTIC
211461			SHIVELY JUDSON AND PHYLLIS	21N	29W	16	DCC	No	WELL	140	23			100	AIR	38078	DOMESTIC
211463			SHIVELY JUDSON AND PHYLLIS	21N	29W	16	DCC	No	WELL	140	23		23	100	AIR	38078	DOMESTIC
168521			OLIVER DONALD	21N	29W	16	DDC	No	WELL	100	55	65		30	AIR	35977	DOMESTIC

Gwic Id	PDF	DNRC WR	Site Name	Twn	Rng	Sec	Q Sec	Ver?	Type	Td	Swl	Pwl	Rwl	Yield	Test	Date	Use
76382			CURRY CLARENCE	21N	29W	17		No	WELL	280	130	142		2	OTHER	31553	DOMESTIC
76381			HILTABRAND HERBERT & AULIEL	21N	29W	17		No	WELL	400	225	395		2	AIR	30791	DOMESTIC
156945			BOLIN TED	21N	29W	17	A	No	WELL	160	38			10	AIR	35201	DOMESTIC
172463			BRADSHAW LINDA	21N	29W	17	A	No	WELL	85	30				AIR	36265	DOMESTIC
217913			BEACHY, LISA & WENDELL	21N	29W	17	AA	No	WELL	200	47		48	5	AIR	38443	DOMESTIC
254919			DECK DOUGLAS & CHRISTIE	21N	29W	17	AA	No	WELL	507	53.6			2.5	AIR	40240	DOMESTIC
272454			ELLIS, MELCHORE E. & ROSIE A.	21N	29W	17	AA	No	BOREHOLE	400	58			2	AIR	41425	DOMESTIC
281813			GURDEN, JIM DEAN	21N	29W	17	AA	No	WELL	200	121		120	3	AIR	41935	DOMESTIC
76383			JACKSON WILEY	21N	29W	17	AAA	No	WELL	33	19	20		25	PUMP	25386	DOMESTIC
180364			LINGARD, LINDA	21N	29W	17	AAAB	No	WELL	405	60		60	10	AIR	36503	DOMESTIC
222035			DECK, CHRISTY & DOUGLAS	21N	29W	17	AAC	No	WELL	200	140		144	4.5	AIR	38611	DOMESTIC
214351			PHILLIPS, MICHEAL & TERESSA	21N	29W	17	AC	No	WELL	280	106		100	1	AIR	37770	DOMESTIC
240063			SCOTT JAY & CONSTANCE	21N	29W	17	AC	No	WELL	600	99			14	AIR	39357	DOMESTIC
223191			KENYON, WILLIAM AND BRYNN D.	21N	29W	17	ACA	No	WELL	280	52			1	PUMP	38668	DOMESTIC
193885			LAHOMMEDIDEN EDNA AND BILL	21N	29W	17	ACC	No	WELL	450	77.5	212.5	175	5	PUMP	37099	DOMESTIC
223275			DENNIS, JACK	21N	29W	17	AD	No	WELL	60	20			10	AIR	38474	DOMESTIC
228006			STOVALL, RICHARD & CYNTHIA	21N	29W	17	ADB	No	WELL	200	50		50	5	AIR	38913	DOMESTIC
76384			CURRY CLARENCE	21N	29W	17	B	No	WELL	400	170	189	175	2	OTHER	32780	DOMESTIC
213615			SEXTON DALLAS	21N	29W	17	B	No	WELL	440	80		440	15	AIR	38200	DOMESTIC
158617			JACOBSON JAMES R	21N	29W	17	BAB	No	WELL	83	48.08	80	48.08	45	AIR	35181	DOMESTIC
152761		C095732-00	DAVIS CLARK	21N	29W	17	BB	No	WELL	164	60			30	AIR	34933	DOMESTIC
213956			ZOLLARS SHERI AND JEFF	21N	29W	17	BB	No	WELL	40	15		40	50	AIR	38200	DOMESTIC
287138			CURRY, DEAN AND KATRINA	21N	29W	17	BC	No	WELL	300	52		62	2.5	AIR	42508	DOMESTIC
290890			ORTIZ, JOEL	21N	29W	17	BC	No	WELL	180	60					42489	DOMESTIC
249206			PUTNAM EAN	21N	29W	17	BD	No	WELL	180	82			30	AIR	38427	DOMESTIC
213899			PUTNAMN EAN	21N	29W	17	BD	No	WELL	220	70		210	30	AIR	38224	DOMESTIC
236787			HYPERK, INC.	21N	29W	17	BDD	No	WELL	320	40			5	AIR	39253	DOMESTIC
228002			TALBOOM, ERICK AND ELLEN A	21N	29W	17	CA	No	WELL	160	75		75	1	AIR	38916	DOMESTIC
236780			REILLEY JAMES	21N	29W	17	CAB	No	WELL	400	52			6	AIR	39240	DOMESTIC
76386			HOWSE GEORGE F.	21N	29W	17	CBC	No	WELL	320						30399	UNUSED
76387			HOWSE GEORGE F.	21N	29W	17	CBC	No	WELL	108	84	96		15	OTHER	30399	UNKNOWN
76385			HOWSE, GEORGE/MCKENZIE, EVERETT	21N	29W	17	CBC	No	WELL	260	196	205		3	AIR	29201	UNKNOWN
206456			LEWIS BRETT	21N	29W	17	CCA	No	WELL	300	104		99	1.5	AIR	37807	DOMESTIC
162027			WOODSIDE PARK WATER DISTRICT	21N	29W	17	CDC	No	WELL	131	95	100		35	AIR	35586	PUBLIC WATER SUPPLY
76388		C016410-00	WOODSIDE PARK WATER AND SEWER DISTRICT	21N	29W	17	CDCC	No	WELL	129	114	114		30	BAILER	28413	PUBLIC WATER SUPPLY
223295			HENNESSEY, RALPH	21N	29W	17	DA	No	WELL	120	45		44.5	6	AIR	38658	DOMESTIC
242389			HYPER K	21N	29W	17	DA	No	WELL	340	10			8	AIR	39540	DOMESTIC
261887			KENYON, BILL	21N	29W	17	DA	No	WELL	640	95			4	AIR	40700	DOMESTIC
148526			TRULL JOHN	21N	29W	18	BAD	No	WELL	125	90			20	AIR	34674	DOMESTIC
205785			GORDON JAMES E AND WILLIAMS AD	21N	29W	18	DBC	No	WELL	56	14.75			60	AIR	37390	DOMESTIC

APPENDIX D

Surface Water Data

HUC: 17010213 Lower Clark Fork **Watershed:** Pend Oreille

TMDL Planning Area	ID305B	Waterbody Name/Location	Category	Size	Units	Use Class	AqL	Ag	DW	Rec	Cause Name *	Source Name *
Clark Fork River	MT76N001_010	CLARK FORK RIVER, Flathead River to Thompson Falls Reservoir	5	36.3	MILES	B-1	N	F	F	F	Dissolved Gas Supersaturation Fish-Passage Barrier	Dam or Impoundment Hydrostructure Impacts on Fish Passage
Clark Fork River	MT76N001_020	CLARK FORK RIVER, Noxon Dam to Noxon Bridge	5	2.85	MILES	B-1	N	F	F	F	Dissolved Gas Supersaturation Fish-Passage Barrier Other flow regime alterations Temperature, water	Dam or Impoundment Hydrostructure Impacts on Fish Passage
Middle Clark Fork Tributaries	MT76N003_010	LYNCH CREEK, headwaters to mouth (Clark Fork River)	4A	13.33	MILES	B-1	N	X	X	N	Alteration in stream-side or littoral vegetative covers Low flow alterations Nitrogen (Total) Phosphorus (Total) Sedimentation/Siltation Temperature, water	Channelization Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Irrigated Crop Production
Prospect Creek	MT76N003_020	PROSPECT CREEK, headwaters to mouth (Clark Fork River)	4A	19.07	MILES	B-1	N	F	N	F	Alteration in stream-side or littoral vegetative covers Antimony Lead Sedimentation/Siltation Zinc	Grazing in Riparian or Shoreline Zones Mine Tailings Silviculture Activities
Prospect Creek	MT76N003_021	ANTIMONY CREEK, headwaters to mouth (Prospect Creek)	4A	1.25	MILES	B-1	N	X	N	X	Antimony Arsenic Lead	Mill Tailings Natural Sources
Prospect Creek	MT76N003_022	COX GULCH, headwaters to mouth (Prospect Creek)	4A	3.61	MILES	B-1	N	X	N	X	Antimony Lead	Mine Tailings
Lower Clark Fork Tributaries	MT76N003_030	BEAVER CREEK, headwaters to mouth (Confluence with Clark Fork River)	4C	25.41	MILES	B-1	N	F	F	F	Alteration in stream-side or littoral vegetative covers	Forest Roads (Road Construction and Use) Grazing in Riparian or Shoreline Zones Natural Sources
Lower Clark Fork Tributaries	MT76N003_040	BULL RIVER, the North Fork to mouth (Cabinet Gorge Reservoir)	4A	25.18	MILES	B-1	N	F	X	F	Physical substrate habitat alterations	Silviculture Activities

AqL=Aquatic Life; **Ag**=Agriculture; **DW**=Drinking Water; **Rec**=Primary Contact Recreation
F=Fully Supporting; **T**=Threatened; **N**=Not Fully Supporting; **I**=Insufficient Information; **X**=Not Assessed; **-** = Beneficial Use Not Assigned
* The impairment cause and source names in this appendix are listed alphabetically. There is no implied relationship between the listed causes and sources. See individual assessment reports for details.

17.30.607 WATER-USE CLASSIFICATIONS--CLARK FORK COLUMBIA RIVER DRAINAGE EXCEPT THE FLATHEAD AND KOOTENAI RIVER DRAINAGES

(1) The water-use classifications adopted for the Clark Fork of the Columbia River drainage are as follows:

(a) Clark Fork River drainage except waters listed in (1)(a)(i) through (xv) B-1

(i) Warm Springs drainage to Meyer's Dam near Anaconda A-1

(ii) Hearst Lake drainage to the Lower Hearst Inlet (approximately at latitude 46.1013, longitude -113.0665) and Fifer Gulch drainage to the Anaconda city limits. (Anaconda municipal water supply) A-Closed

(iii) Silver Bow Creek (mainstem) from the confluence of Blacktail Creek to Warm Springs Creek I

(The concentrator tailings pond and Silver Bow Creek drainage from this pond downstream to Blacktail Creek and the tailings ponds at Warm Springs have no classification.)

(iv) Yankee Doodle Creek drainage to and including Moulton reservoir (approximately at latitude 46.0901, longitude -112.5092) A-Closed

(v) Basin Creek drainage to and including the South Butte water supply reservoir (approximately at latitude 45.8543, longitude -112.5454) A-Closed

(vi) Clark Fork River (mainstem) from Warm Springs Creek to Cottonwood Creek (near Deer Lodge) C-2

(vii) Clark Fork River (mainstem) from Cottonwood Creek to the Little Blackfoot River C-1

(viii) Tin Cup Joe Creek drainage to the Deer Lodge water supply intake (approximately at latitude 46.3892, longitude -112.8543) A-Closed

(ix) Georgetown Lake and tributaries above Georgetown Dam (headwaters of Flint Creek drainage) A-1

(x) Fred Burr Lake and headwaters from source to the outlet of the lake (Philipsburg water supply at approximate latitude 46.3096, longitude -113.1746) A-Closed

(xi) South Boulder Creek drainage to the Philipsburg water supply intake (approximately at latitude 46.3447, longitude -113.2266) A-1

(xii) Rattlesnake Creek drainage to the Missoula water supply intake (approximately at latitude 46.9149, longitude -113.9638) A-Closed

(xiii) Packer and Silver Creek drainage (tributaries to the St. Regis River) to the Saltese water supply intake A-1

(xiv) Ashley Creek drainage to the Thompson Falls water supply intake (approximately at latitude 47.6066, longitude -115.3) A-Closed

(xv) Pilgrim Creek drainage to the Noxon water supply intake (approximately at latitude 47.9906, longitude -115.7747) A-1

History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 3099, Eff. 12/9/94; TRANS, from DHES, 1996 MAR p. 1499; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2017 MAR p. 602, Eff. 5/13/17.

17.30.623 B-1 CLASSIFICATION STANDARDS

(1) Waters classified B-1 are to be maintained suitable for drinking, culinary, and food processing purposes, after conventional treatment; bathing, swimming, and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

(2) No person may violate the following specific water quality standards for waters classified B-1:

(a) Water quality criteria for Escherichia coli are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b). The water quality standard for Escherichia coli bacteria (E-coli) varies according to season, as follows:

(i) from April 1 through October 31, the geometric mean number of E-coli may not exceed 126 colony forming units per 100 milliliters and 10 percent of the total samples may not exceed 252 colony forming units per 100 milliliters during any 30-day period; and

(ii) from November 1 through March 31, the geometric mean number of E-coli may not exceed 630 colony forming units per 100 milliliters and 10 percent of the samples may not exceed 1,260 colony forming units per 100 milliliters during any 30-day period.

(b) Dissolved oxygen concentration must not be reduced below the applicable standards given in department Circular DEQ-7.

(c) Induced variation of hydrogen ion concentration (pH) within the range of 6.5 to 8.5 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change. Natural pH above 7.0 must be maintained above 7.0.

(d) The maximum allowable increase above naturally occurring turbidity is five nephelometric turbidity units except as permitted in 75-5-318, MCA.

(e) A 1ºF maximum increase above naturally occurring water temperature is allowed within the range of 32ºF to 66ºF; within the naturally occurring range of 66ºF to 66.5ºF, no discharge is allowed which will cause the water temperature to exceed 67ºF; and where the naturally occurring water temperature is 66.5ºF or greater, the maximum allowable increase in water temperature is 0.5ºF. A 2ºF per-hour maximum decrease below naturally occurring water temperature is allowed when the water temperature is above 55ºF. A 2ºF maximum decrease below naturally occurring water temperature is allowed within the range of 55ºF to 32ºF. This applies to all waters in the state classified B-1 except for Prickly Pear Creek from McClellan Creek to the Montana Highway No. 433 crossing where a 2ºF maximum increase above naturally occurring water temperature is allowed within the range of 32ºF to 65ºF; within the naturally occurring range of 65ºF to 66.5ºF, no discharge is allowed which will cause the water temperature to exceed 67ºF; and where the naturally occurring water temperature is 66.5ºF or greater, the maximum allowable increase in water temperature is 0.5ºF.

(f) No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in 75-5-318, MCA), settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

(g) True color must not be increased more than five color units above naturally occurring color.

(h) Concentrations of carcinogenic, bioconcentrating, toxic, radioactive, nutrient, or harmful parameters may not exceed the applicable standards set forth in Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A.

(i) Dischargers issued permits under ARM Title 17, chapter 30, subchapter 13, shall conform with ARM Title 17, chapter 30, subchapter 7, the nondegradation rules, and may not cause receiving water concentrations to exceed the applicable standards specified in

Department Circular DEQ-7 and, unless a nutrient standards variance has been granted, Department Circular DEQ-12A when stream flows equal or exceed the design flows specified in ARM 17.30.635(2).

(j) If site-specific criteria for aquatic life are adopted using the procedures given in 75-5-310, MCA, the criteria shall be used as water quality standards for the affected waters and as the basis for permit limits instead of the applicable standards in Department Circular DEQ-7.

(k) In accordance with 75-5-306(1), MCA, it is not necessary that wastes be treated to a purer condition than the natural condition of the receiving water as long as the minimum treatment requirements, adopted pursuant to 75-5-305, MCA, are met.

History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, 75-5-313, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; AMD, 1988 MAR p. 1191, Eff. 6/10/88; AMD, 1994 MAR p. 2136, Eff. 8/12/94; AMD, 1995 MAR p. 1798, Eff. 9/15/95; AMD, 1996 MAR p. 555, Eff. 2/23/96; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 1999 MAR p. 94, Eff. 1/15/99; AMD, 1999 MAR p. 2257, Eff. 10/8/99; AMD, 1999 MAR p. 2275, Eff. 10/8/99; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2014 MAR p. 1815, Eff. 8/8/14; AMD, 2017 MAR p. 602, Eff. 5/13/17.

17.30.635 GENERAL TREATMENT STANDARDS

(1) The degree of waste treatment required to restore and maintain the quality of surface waters shall be based on the surface water quality standards and the following:

(a) the state's policy of nondegradation of existing high water quality as described in 75-5-303, MCA;

(b) present and anticipated beneficial uses of the receiving water;

(c) the quality and nature of the flow of the receiving water;

(d) the quantity and quality of the sewage, industrial waste or other waste to be treated; and

(e) the presence or absence of other sources of pollution on the same watershed.

(2) For design of disposal systems, stream flow dilution requirements must be based on the minimum consecutive seven-day average flow which may be expected to occur on the average of once in ten years. When dilution flows are less than the above design flow at a point discharge, the discharge is to be governed by the permit conditions developed for the discharge through the waste discharge permit program. If the flow records on an affected surface water are insufficient to calculate a ten-year seven-day low flow, the department shall determine an acceptable stream flow for disposal system design. For total nitrogen and total phosphorus, the stream flow dilution requirements must be based on the seasonal 14Q5, which is the lowest average 14 consecutive day low flow, occurring from July through October, with an average recurrence frequency of once in five years.

(3) Where the department has determined that the disposal of sewage may adversely affect the quality of a lake or other state waters, the department may require additional information and data concerning such possible effects. Upon review of such information the department may impose specific requirements for sewage treatment and disposal as are necessary and appropriate to assure compliance with the Water Quality Act, Title 75, chapter 5, MCA.

History: 75-5-201, 75-5-301, MCA; IMP, 75-5-301, MCA; Eff. 12/31/72; AMD, Eff. 11/4/73; AMD, Eff. 9/5/74; AMD, 1980 MAR p. 2252, Eff. 8/1/80; AMD, 1982 MAR p. 1746, Eff. 10/1/82; AMD, 1984 MAR p. 1802, Eff. 12/14/84; TRANS, from DHES, and AMD, 1996 MAR p. 1499, Eff. 6/7/96; AMD, 2002 MAR p. 387, Eff. 2/15/02; AMD, 2006 MAR p. 528, Eff. 2/24/06; AMD, 2012 MAR p. 2060, Eff. 10/12/12; AMD, 2014 MAR p. 1815, Eff. 8/8/14.

APPENDIX E

Not Used

APPENDIX F

Environmental Letters & Responses

HELENA
PO Box 4817 ▪ 2501 Belt View Drive
Helena, MT 59604
406.449.8627 ▪ Fax 406.449.8631
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GreatWest engineering

August 15, 2017

Department of Commerce, Census and Economic Information Center
301 S Park Ave
PO Box 200505
Helena MT 59620

Re: Thompson Falls, Montana Wastewater System Improvements

Dear To Whom It May Concern:

We are requesting your review of possible environmental impacts from improvements planned for the City of Thompson Falls wastewater treatment system. A portion of the City is served by a wastewater collection system, with a treatment facility situated northwest of the City. With the help of a variety of funding agencies, the community plans a phased expansion of the collection system. This letter is intended to offer your organization an opportunity to provide input for the proposed expansion.

The upcoming expansion will include the installation of wastewater collection lines within developed areas north of West Main Street (Montana Highway 200). It will serve residential and commercial structures within the City limits. Wastewater will be transferred to the existing treatment facility via new pipelines with the necessary lift stations.

The existing treatment facility has the capacity to handle the proposed increase in wastewater inflow from Phase 1 of the Collection System expansion. Future phases of collection will require Treatment System improvements. The City is looking into advanced lagoon system technologies that will be constructed within the existing treatment plant site.

The disturbances involved with the construction of the proposed wastewater collection system expansion will occur within the urbanized City limits of Thompson Falls. Service lines to residences and businesses will cause localized disturbances of both private and City property. Temporary environmental effects are likely, such as noise, dust, etc. Those can be mitigated with the use of Best Management Practices for construction and contractual conditions/restrictions.

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MISSOULA
112 W. Front Street
Missoula, MT 59802
406.493.0312

Great West engineering

Please take a few moments to review the site and the proposed project. Please provide a written response detailing any comments you may have regarding the project and any potential environmental impacts that should be considered in the project design, avoidance, or mitigation measures.

If you have no comment on this project please check the box below and countersign the bottom of this letter and return to Great West Engineering, Inc. at the address listed above.

Please return your written comments to Steve Lipetzky, Project Engineer, slipetzky@greatwesteng.com or the following address:

Great West Engineering, Inc.
PO Box 4817
Helena, MT 59604

If you need any further information or wish to discuss the project, please contact me at (406) 495-6175.

Sincerely,

Great West Engineering, Inc.

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The Department of Commerce, Census and Economic Information Center has reviewed the enclosed proposal and has no comments.

Signature

HELENA
PO Box 4817 ▪ 2501 Belt View Drive
Helena, MT 59604
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GreatWest engineering

August 15, 2017

Department of Labor and Industry
1327 Lockey
PO Box 1728
Helena MT 59624

Re: Thompson Falls, Montana Wastewater System Improvements

Dear To Whom It May Concern:

We are requesting your review of possible environmental impacts from improvements planned for the City of Thompson Falls wastewater treatment system. A portion of the City is served by a wastewater collection system, with a treatment facility situated northwest of the City. With the help of a variety of funding agencies, the community plans a phased expansion of the collection system. This letter is intended to offer your organization an opportunity to provide input for the proposed expansion.

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Helena, MT 59604

If you need any further information or wish to discuss the project, please contact me at (406) 495-6175.

Sincerely,

Great West Engineering, Inc.

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The Department of Labor and Industry has reviewed the enclosed proposal and has no comments.

____
Signature

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GreatWest engineering®

August 15, 2017

Department of Environmental Quality
1520 E. 6th Ave.
PO Box 200901
Helena MT 59620-0901

Re: Thompson Falls, Montana Wastewater System Improvements

Dear To Whom It May Concern:

We are requesting your review of possible environmental impacts from improvements planned for the City of Thompson Falls wastewater treatment system. A portion of the City is served by a wastewater collection system, with a treatment facility situated northwest of the City. With the help of a variety of funding agencies, the community plans a phased expansion of the collection system. This letter is intended to offer your organization an opportunity to provide input for the proposed expansion.

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Sincerely,

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Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The Department of Environmental Quality has reviewed the enclosed proposal and has no comments.

____
Signature

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August 15, 2017

Department of Fish, Wildlife and Parks
490 North Meridian Road
Kalispell MT 59901

Re: Thompson Falls, Montana Wastewater System Improvements

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Sincerely,

Great West Engineering, Inc.

Steve Lipetzky

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The Department of Fish, Wildlife and Parks has reviewed the enclosed proposal and has no comments.

____

Signature

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August 15, 2017

Department of Natural Resources and Conservation
1625 Eleventh Ave
Helena MT 59620-1601

Re: Thompson Falls, Montana Wastewater System Improvements

Dear To Whom It May Concern:

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Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The Department of Natural Resources and Conservation has reviewed the enclosed proposal and has no comments.

____
Signature

HELENA
PO Box 4817 ▪ 2501 Belt View Drive
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August 15, 2017

Department of Transportation
2701 Prospect Ave
PO Box 201001
Helena MT 59620

Re: Thompson Falls, Montana Wastewater System Improvements

Dear To Whom It May Concern:

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Sincerely,

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Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The Department of Transportation has reviewed the enclosed proposal and has no comments.

Signature

HELENA
PO Box 4817 ▪ 2501 Belt View Drive
Helena, MT 59604
406.449.8627 ▪ Fax 406.449.8631

www.greatwesteng.com

GreatWest engineering

August 15, 2017

State Historic Preservation Office
225 North Roberts
PO Box 201202
Helena MT 59620

Re: Thompson Falls, Montana Wastewater System Improvements

Dear To Whom It May Concern:

We are requesting your review of possible environmental impacts from improvements planned for the City of Thompson Falls wastewater treatment system. A portion of the City is served by a wastewater collection system, with a treatment facility situated northwest of the City. With the help of a variety of funding agencies, the community plans a phased expansion of the collection system. This letter is intended to offer your organization an opportunity to provide input for the proposed expansion.

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BILLINGS
6780 Trade Center Ave.
Billings, MT 59101
406.652.5000
Fax 406.248.1363

BOISE
3363 N. Lakeharbor Ln
Boise, ID 83703
208.576.6646

MISSOULA
112 W. Front Street
Missoula, MT 59802
406.493.0312

Please take a few moments to review the site and the proposed project. Please provide a written response detailing any comments you may have regarding the project and any potential environmental impacts that should be considered in the project design, avoidance, or mitigation measures.

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Please return your written comments to Steve Lipetzky, Project Engineer, slipetzky@greatwesteng.com or the following address:

Great West Engineering, Inc.
PO Box 4817
Helena, MT 59604

If you need any further information or wish to discuss the project, please contact me at (406) 495-6175.

Sincerely,

Great West Engineering, Inc.

Steve Lipetzky

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The State Historic Preservation Office has reviewed the enclosed proposal and has no comments.

Signature

HELENA
PO Box 4817 ▪ 2501 Belt View Drive
Helena, MT 59604
406.449.8627 ▪ Fax 406.449.8631
www.greatwesteng.com

GreatWest engineering

August 15, 2017

US Environmental Protection Agency
Federal Building
10 West 15th Street, Suite 3200
Helena MT 59625

Re: Thompson Falls, Montana Wastewater System Improvements

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Steve Lipetzky

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The US Environmental Protection Agency has reviewed the enclosed proposal and has no comments.

Signature

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PO Box 4817 ▪ 2501 Belt View Drive
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406.449.8627 ▪ Fax 406.449.8631

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GreatWest engineering

August 15, 2017

US Fish and Wildlife Service
585 Shepherd Way
Helena MT 59601

Re: Thompson Falls, Montana Wastewater System Improvements

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Sincerely,

Great West Engineering, Inc.

Steve Lipetzky

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The US Fish and Wildlife Service has reviewed the enclosed proposal and has no comments.

____

Signature

HELENA
PO Box 4817 ▪ 2501 Belt View Drive
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406.449.8627 ▪ Fax 406.449.8631
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Great West engineering ®

August 15, 2017

US Forest Service
PO Box 7669
Missoul MT 59807

Re: Thompson Falls, Montana Wastewater System Improvements

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Sincerely,

Great West Engineering, Inc.

Steve Lipetzky

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The US Forest Service has reviewed the enclosed proposal and has no comments.

Signature

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PO Box 4817 ▪ 2501 Belt View Drive
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Great West engineering

August 15, 2017

US Army Corps of Engineers
10 West 15th Street Suite 2200
Helena MT 59626

Re: Thompson Falls, Montana Wastewater System Improvements

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Sincerely,

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Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The US Army Corps of Engineers has reviewed the enclosed proposal and has no comments.

____
Signature

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GreatWest engineering®

August 15, 2017

Federal Aviation Administration
2725 Skyway Drive
Helena MT 59602

Re: Thompson Falls, Montana Wastewater System Improvements

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Steve Lipetzky

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The Federal Aviation Administration has reviewed the enclosed proposal and has no comments.

____
Signature

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GreatWest engineering

August 15, 2017

Natural Resource Conservation Service
7487 Montana Highway 200
Plains MT 59859

Re: Thompson Falls, Montana Wastewater System Improvements

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Great West Engineering, Inc.

Steve Lipetzky

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The Natural Resource Conservation Service has reviewed the enclosed proposal and has no comments.

____
Signature

HELENA
PO Box 4817 ▪ 2501 Belt View Drive
Helena, MT 59604
406.449.8627 ▪ Fax 406.449.8631

www.greatwesteng.com

Great West engineering

August 15, 2017

Occupational Safety and Health Administration
2900 4th Ave. N
Billings MT 59101

Re: Thompson Falls, Montana Wastewater System Improvements

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Steve Lipetzky

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[ ] The Occupational Safety and Health Administration has reviewed the enclosed proposal and has no comments.

____
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HELENA
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August 15, 2017

US Department of Transportation
585 Shephard Way
Helena MT 59601

Re: Thompson Falls, Montana Wastewater System Improvements

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Great West Engineering, Inc.

Steve Lipetzky

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The US Department of Transportation has reviewed the enclosed proposal and has no comments.

____

Signature

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GreatWest engineering

August 15, 2017

Sanders County Floodplain Administrator
PO Box 519
Thompson Falls MT 59873

Re: Thompson Falls, Montana Wastewater System Improvements

Dear To Whom It May Concern:

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Sincerely,

Great West Engineering, Inc.

Steve Lipetzky, PE
Project Engineer

Attachment: Aerial Vicinity Map & Project Sketch

[ ] The Sanders County Floodplain Administrator has reviewed the enclosed proposal and has no comments.

____
Signature

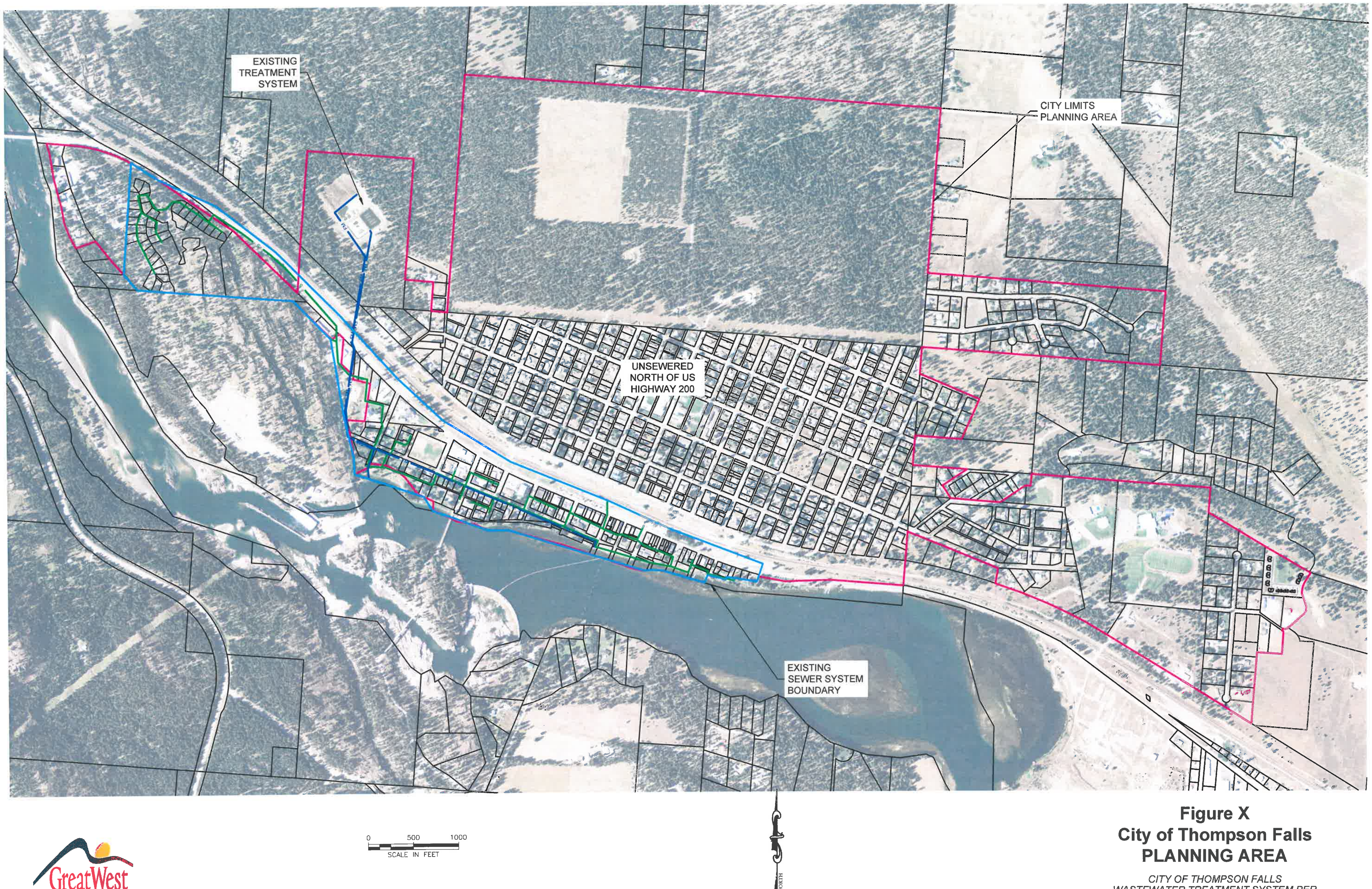

Figure X
City of Thompson Falls
PLANNING AREA

CITY OF THOMPSON FALLS
WASTEWATER TREATMENT SYSTEM PER

GreatWest engineering®

F:\1-16137-Thompson Falls Wastewater PER\CADD 1-16137\Exhibits\PER Exhibits\1-16137-PlanningArea.dwg

From:	Bruner, Heidy (FHWA)
To:	Steve Lipetzky
Cc:	Skinner, Jim (jskinner@mt.gov)
Subject:	City of Thompson Falls Wastewater System Improvements - August 15, 2017 Correspondence
Date:	Tuesday, August 22, 2017 12:32:13 PM

Dear Mr. Lipetzky,

Thank you for your August 15, 2017 letter, which notified us of the City of Thompson Falls proposed wastewater system improvements. The Federal Highway Administration appreciates the opportunity to review the proposed project and offer comment.

After reviewing the proposal and the defined boundaries of the project, it appears that the proposed project could impact highway infrastructure or right of way of Highway 200. If that is currently the case or if the project proposal evolves to include impacts to state transportation infrastructure, please coordinate your efforts with the Montana Department of Transportation (MDT), as appropriate.

To facilitate that coordination, I have copied Jim Skinner, Chief of the MDT Policy, Program & Performance Analysis Bureau. That MDT Bureau coordinates the Systems Impact Analysis Process (SIAP) reviews facilities impacting state roadways and non–MDT–initiated environmental review processes.

Thank you again for the opportunity to provide comment on this proposed project. Please contact me at (406) 441-3914 or Heidy.Bruner@dot.gov, if you wish to discuss my comments or if you have additional questions or concerns.

Kindly,
Heidy Bruner, P.E.
Federal Highway Administration – Montana Division
406.441.3914

Montana Department of
LABOR & INDUSTRY

Steve Bullock, Governor
Pam Bucy, Commissioner

Business Standards Division
Todd Younkin, Administrator

September 15, 2017

Steve Lipetzky
Great West Engineering
2501 Belt View Drive
Helena, MT 59604

Re: Wastewater System Improvements, Thompson Falls, Montana

Mr. Lipetzky:

The Building Codes Bureau is in receipt of your letter dated August 15, 2017 requesting that the Department of Labor and Industry provide any comments or helpful information with regards to the wastewater system improvements in Thompson Falls, Montana.

The department has jurisdiction over all building code requirements for Sanders County, and generally projects of this scope do not require plumbing permits for the individual waste water hookups as long there will be no plumbing work performed in the area of 2 feet from the building into the building (the department has permit jurisdiction inside any building out to 2 feet past the building line).

If the project will include any work requiring installation of electrical, mechanical or plumbing installations or the building of any vertical structures to compliment the waste water system work (pump station buildings, treatment plants, etc.) those permits will be required by the department. The project description does not appears to include a new lift station structure or improvements to the existing lift station; this work would require a building permit. As you progress further with your designs, you may contact the department again to determine the applicability of permits for this project.

Thank you for the project notification and if you have any questions please feel free to contact me at the email and number below.

Thank you,

Carrie Baker

Carrie E. Baker
Program Manager
Building Codes Bureau
Department of Labor and Industry
State of Montana
cbaker@mt.gov
406-841-2016

RECEIVED
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Great West

From: Murdo, Damon
To: Steve Lipetzky
Subject: THOMPSON FALLS, WASTEWATER SYSTEM IMPROVEMENTS
Date: Wednesday, August 16, 2017 3:55:23 PM

Big Sky. Big Land. Big History.
Montana
Historical Society

August 16, 2017

Steve Lipetzky
Great West Engineering
PO Box 4817
Helena MT 59604

RE: THOMPSON FALLS, WASTEWATER SYSTEM IMPROVEMENTS. SHPO Project #: 2017081607

Dear Mr. Lipetzky:

Thank you for your letter regarding the above-cited project. It is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If any structures are to be altered and are over fifty years old, we would recommend that they be recorded and a determination of their eligibility be made.

As long as there will be no disturbance or alteration to structures over fifty years of age we feel that there is a low likelihood cultural properties will be impacted. We, therefore, feel that a recommendation for a cultural resource inventory is unwarranted at this time. However, should structures need to be altered or if cultural materials be inadvertently discovered during this project we would ask that our office be contacted and the site investigated.

If you have any further questions or comments, you may contact me at (406) 444-7767 or by e-mail at dmurdo@mt.gov. Thank you for consulting with us.

Sincerely,

Damon Murdo
Cultural Records Manager
State Historic Preservation Office

File: DEQ/AIR WATER WASTE MNG/2017

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
HELENA REGULATORY OFFICE
10 WEST 15TH STREET, SUITE 2200
HELENA, MONTANA 59626

REPLY TO
ATTENTION OF

September 5, 2017

Regulatory Branch
Montana State Program
Corps No. **NWO-1996-90336-MTH**

Subject: Thompson Falls – Wastewater System Improvements

Steve lipestzky
Great West Engineering Inc.
PO Box 4817
Helena, Montana 59604-04817

Dear Mr. lipestzky:

We are responding to your request for comments regarding the above-referenced project. Specifically, you are proposing to expand the city's existing wastewater collection lines within developed areas north of West Main Street. The project is located near Clark Fork River, Latitude 47.597501°, Longitude -115.344797°, within Section 9, Township 21 N, Range 29 W, Sanders County, Montana.

The mission of the U.S. Army Corps of Engineers (Corps) Regulatory Program is to protect the Nation's aquatic resources while allowing reasonable development through fair, flexible and balanced permit decisions. In particular, under Section 404 of the Clean Water Act, we work to protect the biological, physical, and chemical integrity of the Nation's aquatic resources. Projects are evaluated on a case-by-case basis to determine the potential benefits and detriments that may occur as a result of the proposal. In all cases an applicant must avoid and minimize impacts to aquatic resources to the greatest extent practicable.

Under the authority of Section 404 of the Clean Water Act (CWA), DA permits are required for the discharge of fill material into waters of the U.S. Waters of the U.S. include the area below the ordinary high water mark of stream channels and lakes or ponds connected to the tributary system, and wetlands adjacent to these waters. Isolated waters and wetlands, as well as man-made channels, may be waters of the U.S. in certain circumstances, which must be determined on a case-by-case basis.

Based on the information provided in your submittal, we are unable to ascertain if regulated activities are proposed or if jurisdictional waters of the U.S. are present within the project area. If your final design includes the placement of fill material in any jurisdictional area described above, or otherwise requires authorization by a DA permit, please submit a Montana Joint Permit Application to this office prior to starting any work. After a review of the materials submitted we will determine what type of permit, if any, will be required. You can obtain a Montana Joint Permit Application Form at the following address: http://www.dnrc.mt.gov/licenses-and-permits/stream-permitting. A list of requirements for a complete Nationwide Permit application can be obtained at the following address: http://www.nwo.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/487708/pre-

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construction-notification/ If you do not have internet access please contact our office at the address below to obtain more information.

If a Section 404 permit is required for this project then there are several issues that the applicant should be aware of for this specific project. Upon initial review, this office has identified the project location to be within bull trout (*Salvelinus confluentus)* critical habitat. As part of the review process this office must evaluate any potential impacts to threatened or endangered species as detailed in Section 7 of the Endangered Species Act. To complete this review process it may be necessary for this office to submit received applications to the U.S. Fish and Wildlife Service for consultation on the potential impacts to threatened and endangered species. There are also several identified historic properties within the project boundaries that may require consultation with the State Historic Preservation Officer for this specific project. You are encouraged to consider these factor when designing your proposed project design and to be aware that this consultation could lengthen the time line to process any potential verification letters from this office. Submitting your application well in advance of the desired project initiation date is advisable.

Note that this letter is not a DA authorization to proceed. It only informs you of your need to obtain a DA permit if waters of the U.S. will be affected. If waters of the U.S. will not be affected by a jurisdictional activity a DA permit will not be required for the project.

Please refer to identification number NWO-1996-90336 in any correspondence concerning this project. If you have any questions, please contact Dylan Hickey by email at Dylan.J.Hickey@usace.army.mil, or telephone at (406) 441-1364.

Sincerely,

HICKEY.DYLAN.JER EMIAH.1535865112 Digitally signed by HICKEY.DYLAN.JEREMIAH.1535865112 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=HICKEY.DYLAN.JEREMIAH.1535865112 Date: 2017.09.05 14:18:55 -06'00'

Dylan Hickey
Regulatory Project Manager

APPENDIX G

Natural Heritage Program Species of Concern

Montana Natural Heritage - SOC Report

Animal Species of Concern

Species List Last Updated **05/03/2016**

32 Species of Concern
1 Special Status Species
Filtered by the following criteria:
Town (buffered by 10 miles) = Thompson Falls (based on mapped Species Occurrences)

A program of the Montana State Library's Natural Resource Information System operated by the University of Montana.

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Introduction

Species of Concern

Species of Concern

32 Species
Filtered by the following criteria:
Town (buffered by 10 miles) = Thompson Falls (based on mapped **Species Occurrences**)

MAMMALS (MAMMALIA) — *8 SPECIES*
TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS *(based on mapped Species Occurrences)*

SCIENTIFIC NAME / COMMON NAME / TAXA SORT	FAMILY (SCIENTIFIC) / FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Corynorhinus townsendii Townsend's Big-eared Bat	Vespertilionidae Bats	G4	S3		SENSITIVE	SENSITIVE	SGCN3	5%	87%	Caves in forested habitats
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Fergus, Flathead, Gallatin, Garfield, Granite, Harding, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Mineral, Missoula, Musselshell, Park, Phillips, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Silver Bow, Treasure, Valley, Yellowstone								
Gulo gulo Wolverine	Mustelidae Weasels	G4	S3	P	SENSITIVE	SENSITIVE	SGCN3	0%	37%	Boreal Forest and Alpine Habitats
		Species Occurrences verified in these Counties: Beaverhead, Broadwater, Carbon, Cascade, Deer Lodge, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland								
Lasiurus cinereus Hoary Bat	Vespertilionidae Bats	G3G4	S3				SGCN3	2%	100%	Riparian and forest
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Harding, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone								
Myotis lucifugus Little Brown Myotis	Vespertilionidae Bats	G3	S3				SGCN3	3%	100%	Generalist
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Mccone, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone								
Myotis thysanodes Fringed Myotis	Vespertilionidae Bats	G4	S3			SENSITIVE	SGCN3	0%	64%	Riparian and dry mixed conifer forests
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Custer, Deer Lodge, Fergus, Flathead, Gallatin, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Powder River, Powell, Prairie, Ravalli, Sanders, Silver Bow, Teton, Treasure								
Pekania pennanti Fisher	Mustelidae Weasels	G5	S3		SENSITIVE	SENSITIVE	SGCN3	1%	31%	Mixed conifer forests
		Species Occurrences verified in these Counties: Beaverhead, Deer Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Pondera, Powell, Ravalli, Sanders, Teton								
Sorex hoyi Pygmy Shrew	Soricidae Shrews	G5	S3				SGCN3	1%	15%	Open conifer forest, grasslands, and shrublands, often near water
		Species Occurrences verified in these Counties: Beaverhead, Divide, Flathead, Granite, Hill, Lake, Lewis and Clark, Lincoln, Missoula, Powell, Sanders, Sheridan, Teton, Valley								
Ursus arctos Grizzly Bear	Ursidae Bears	G4	S2S3	LT,XN	THREATENED	SENSITIVE	SGCN2-3	1%	22%	Conifer forest
		Species Occurrences verified in these Counties: Beaverhead, Carbon, Flathead, Gallatin, Glacier, Lake, Lewis and Clark, Lincoln, Madison, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Stillwater, Sweet Grass, Teton								

BIRDS (AVES) — *15 SPECIES*
TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS *(based on mapped Species Occurrences)*

SCIENTIFIC NAME / COMMON NAME / TAXA SORT	FAMILY (SCIENTIFIC) / FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Accipiter gentilis Northern Goshawk	Accipitridae Hawks / Kites / Eagles	G5	S3				SGCN3	2%	68%	Mixed conifer forests

BIRDS (AVES) — 15 SPECIES

TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS (based on mapped Species Occurrences)

SCIENTIFIC NAME / COMMON NAME / TAXA SORT	FAMILY (SCIENTIFIC) / FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Broadwater, Carbon, Carter, Cascade, Deer Lodge, Fergus, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Petroleum, Pondera, Powder River, Powell, Ravalli, Rosebud, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland								
Aquila chrysaetos Golden Eagle	**Accipitridae** Hawks / Kites / Eagles	G5	S3	BGEPA; MBTA; BCC		SENSITIVE	SGCN3	3%	100%	Grasslands
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Harding, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone								
Ardea herodias Great Blue Heron	**Ardeidae** Bitterns / Egrets / Herons / Night-Herons	G5	S3				SGCN3	3%	100%	Riparian forest
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Harding, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, McKenzie, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Treasure, Valley, Wheatland, Wibaux, Yellowstone **State Rank Reason:** Small breeding population size, evidence of recent declines, and declining regeneration of riparian cottonwood forests due to altered hydrology and grazing.								
Certhia americana Brown Creeper	**Certhiidae** Creepers	G5	S3				SGCN3	4%	53%	Moist conifer forests
		Species Occurrences verified in these Counties: Beaverhead, Broadwater, Carbon, Carter, Cascade, Chouteau, Deer Lodge, Fergus, Flathead, Gallatin, Glacier, Golden Valley, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Powder River, Powell, Ravalli, Rosebud, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland								
Coccothraustes vespertinus Evening Grosbeak	**Fringillidae** Finches	G5	S3				SGCN3	3%	100%	Conifer forest
		Species Occurrences verified in these Counties: Beaverhead, Broadwater, Carbon, Carter, Cascade, Chouteau, Fergus, Flathead, Gallatin, Glacier, Golden Valley, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Musselshell, Park, Pondera, Powder River, Powell, Ravalli, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland **State Rank Reason:** Populations in Montana and across North America have experienced rangewide declines, although the causes of these declines are unclear (Bonter and Harvey 2008).								
Dolichonyx oryzivorus Bobolink	**Icteridae** Blackbirds	G5	S3B				SGCN3	9%	100%	Moist grasslands
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Madison, Mccone, Meagher, Missoula, Musselshell, Park, Petroleum, Phillips, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Stillwater, Sweet Grass, Teton, Valley, Wheatland, Wibaux, Yellowstone **State Rank Reason:** Species has undergone recent large population declines in Montana and a patchwork of declines and increases have been documented in surrounding states and provinces.								
Dryocopus pileatus Pileated Woodpecker	**Picidae** Woodpeckers	G5	S3				SGCN3	1%	27%	Moist conifer forests
		Species Occurrences verified in these Counties: Beaverhead, Broadwater, Cascade, Deer Lodge, Flathead, Gallatin, Glacier, Granite, Jefferson, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Powell, Ravalli, Sanders, Silver Bow								
Falco peregrinus Peregrine Falcon	**Falconidae** Falcons	G4	S3	DM	SENSITIVE	SENSITIVE	SGCN3	2%	100%	Cliffs / canyons
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Cascade, Chouteau, Deer Lodge, Flathead, Gallatin, Glacier, Granite, Jefferson, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Prairie, Ravalli, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Yellowstone								
Haemorhous cassinii Cassin's Finch	**Fringillidae** Finches	G5	S3				SGCN3	11%	62%	Drier conifer forest
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Broadwater, Carbon, Cascade, Chouteau, Custer, Deer Lodge, Fergus, Flathead, Gallatin, Glacier, Golden Valley, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Powder River, Powell, Ravalli, Rosebud, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland, Yellowstone								
Histrionicus histrionicus Harlequin Duck	**Anatidae** Swans / Geese / Ducks	G4	S2B		SENSITIVE		SGCN2	4%	40%	Mountain streams
		Species Occurrences verified in these Counties: Carbon, Flathead, Glacier, Granite, Lewis and Clark, Lincoln, Mineral, Missoula, Park, Pondera, Powell, Sanders, Sweet Grass, Teton **State Rank Reason:** The Harlequin Duck has an extremely limited breeding range in Montana.								
Ixoreus naevius Varied Thrush	**Turdidae** Thrushes	G5	S3B				SGCN3	1%	37%	Moist conifer forests
		Species Occurrences verified in these Counties: Broadwater, Cascade, Flathead, Gallatin, Glacier, Golden Valley, Granite, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Teton **State Rank Reason:** The Varied Thrush has undergone recent population declines in Montana and across the Northern Rockies and where timber harvest, insect outbreak, and fire result in a loss of suitable breeding habitat.								
Melanerpes lewis Lewis's Woodpecker	**Picidae** Woodpeckers	G4	S2B				SGCN2	8%	78%	Riparian forest
		Species Occurrences verified in these Counties: Big Horn, Carter, Cascade, Deer Lodge, Flathead, Granite, Jefferson, Lake, Lewis and Clark, Lincoln, Missoula, Musselshell, Powder River, Powell, Ravalli, Rosebud, Sanders, Sweet Grass, Yellowstone								
Nucifraga columbiana Clark's Nutcracker	**Corvidae** Jays / Crows / Magpies	G5	S3				SGCN3	9%	84%	Conifer forest
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Deer Lodge, Fergus, Flathead, Gallatin, Glacier, Golden Valley, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Ravalli, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Wheatland								
Psiloscops flammeolus Flammulated Owl	**Strigidae** Owls	G4	S3B		SENSITIVE	SENSITIVE	SGCN3	2%	36%	Dry conifer forest
		Species Occurrences verified in these Counties: Beaverhead, Broadwater, Flathead, Gallatin, Granite, Jefferson, Lake, Lewis and Clark, Lincoln, Madison, Mineral, Missoula, Powell, Ravalli, Sanders								
Troglodytes pacificus Pacific Wren	**Troglodytidae** Wrens	G5	S3				SGCN3	1%	39%	Moist conifer forests
		Species Occurrences verified in these Counties: Beaverhead, Broadwater, Fergus, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Powell, Ravalli, Sanders, Stillwater, Sweet Grass, Teton								

REPTILES (REPTILIA)

1 SPECIES

TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS (based on mapped Species Occurrences)

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Elgaria coerulea Northern Alligator Lizard	Anguidae Alligator Lizards	G5	S3				SGCN3, SGIN	8%	12%	Talus slopes / rock outcrops
		Species Occurrences verified in these Counties: Flathead, Granite, Lake, Lincoln, Mineral, Missoula, Ravalli, Sanders								

AMPHIBIANS (AMPHIBIA)

1 SPECIES

TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS (based on mapped Species Occurrences)

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Plethodon idahoensis Coeur d'Alene Salamander	Plethodontidae Lungless Salamanders	G4	S2		SENSITIVE		SGCN2, SGIN	31%	5%	Spring / seep, waterfall, fractured rock
		Species Occurrences verified in these Counties: Lincoln, Mineral, Missoula, Ravalli, Sanders								

FISH (ACTINOPTERYGII)

2 SPECIES

TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS (based on mapped Species Occurrences)

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Oncorhynchus clarkii lewisi Westslope Cutthroat Trout	Salmonidae Trout	G4T3	S2		SENSITIVE	SENSITIVE	SGCN2		34%	Mountain streams, rivers, lakes
		Species Occurrences verified in these Counties: Beaverhead, Broadwater, Cascade, Chouteau, Deer Lodge, Fergus, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Teton, Wheatland								
Salvelinus confluentus Bull Trout	Salmonidae Trout	G4	S2	LT	THREATENED	SPECIAL STATUS	SGCN2	5%	18%	Mountain streams, rivers, lakes
		Species Occurrences verified in these Counties: Deer Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Powell, Ravalli, Sanders								

INVERTEBRATES - MOLLUSKS

4 SPECIES

TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS (based on mapped Species Occurrences)

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Kootenaia burkei Pygmy Slug	Arionidae Arionid Slugs	G2	S1S2					50%	4%	Moist conifer forests
		Species Occurrences verified in these Counties: Lincoln, Mineral, Sanders								
Polygyrella polygyrella Humped Coin	Megomphicidae Coins	G3	S1S2					75%	1%	Moist conifer forests
		Species Occurrences verified in these Counties: Mineral, Ravalli, Sanders								
Prophysaon humile Smoky Taildropper	Arionidae Arionid Slugs	G3	S2S3					50%	12%	Mesic/moist conifer forests
		Species Occurrences verified in these Counties: Flathead, Lake, Lincoln, Mineral, Missoula, Ravalli, Sanders								
Zacoleus idahoensis Sheathed Slug	Arionidae Arionid Slugs	G3G4	S2S3					50%	11%	Mesic/moist conifer forests
		Species Occurrences verified in these Counties: Flathead, Lake, Lincoln, Mineral, Missoula, Ravalli, Sanders								

INVERTEBRATES - OTHER

1 SPECIES

TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS (based on mapped Species Occurrences)

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
MILLIPEDES										
Orophe cabinetus A Millipede	Xystodesmidae Xystodesmid Millipedes	G1G3	S1S3							Moist mixed conifer forests
		Species Occurrences verified in these Counties: Lake, Mineral, Sanders								

Potential Species of Concern

Special Status Species

Additions To Statewide List

Species Removed From Statewide List

Species of Greatest Inventory Need

Citation for data on this website:
Montana Animal Species of Concern Report. Montana Natural Heritage Program and Montana Fish, Wildlife and Parks. Retrieved on 1/17/2017, from http://mtnhp.org/SpeciesOfConcern/?AorP=a

Montana Natural Heritage - SOC Report

Plant Species of Concern

6 Species of Concern

Species List Last Updated **05/03/2016**

Filtered by the following criteria:

Town (buffered by 10 miles) = Thompson Falls (based on mapped Species Occurrences)

A program of the Montana State Library's Natural Resource Information System operated by the University of Montana.

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Introduction

Species of Concern

Species of Concern

6 Species

Filtered by the following criteria:

Town (buffered by 10 miles) = Thompson Falls (based on mapped **Species Occurrences**)

FLOWERING PLANTS - DICOTS (MAGNOLIOPSIDA)

2 SPECIES

TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS (based on mapped Species Occurrences)

SCIENTIFIC NAME COMMON NAME TAXA SORT	OTHER NAMES	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	MNPS THREAT CATEGORY	HABITAT
Clarkia rhomboidea Diamond Clarkia		Onagraceae Evening-primrose Family	G5	S3		SENSITIVE		2	Forests (Open, montane)
			Species Occurrences verified in these Counties: Lincoln, Ravalli, Sanders **State Rank Reason:** Rare in Montana, where it is known from only a small portion of the northwest corner of the state, primarily along the lower Clark Fork River drainage. Some detrimental impacts from invasive weeds and subsequent herbicide treatments are possible as are loss of habitat due to fire suppression.						
Mimulus clivicola North Idaho Monkeyflower		Phrymaceae Lopseed Family	G4	S2?		SENSITIVE			
			Species Occurrences verified in these Counties: Mineral, Sanders **State Rank Reason:** See rank details.						

FLOWERING PLANTS - MONOCOTS (LILIOPSIDA)

2 SPECIES

TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS (based on mapped Species Occurrences)

SCIENTIFIC NAME COMMON NAME TAXA SORT	OTHER NAMES	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	MNPS THREAT CATEGORY	HABITAT
Allium acuminatum Tapertip Onion		Liliaceae Lillies	G5	S2S3		SENSITIVE			Dry Forest-Grassland
			Species Occurrences verified in these Counties: Lincoln, Madison, Ravalli, Sanders **State Rank Reason:** Rare in Montana, where it is known from several widely scattered sites in the western half of the state. Trend data are lacking. Threats to populations do not appear to be significant at this time, though invasive weeds may eventually pose problems at some sites.						
Cypripedium fasciculatum Clustered Lady's-slipper		Orchidaceae Orchids	G4	S3		SENSITIVE		1	Forests (Montane)
			Species Occurrences verified in these Counties: Lake, Mineral, Missoula, Sanders **State Rank Reason:** Clustered lady's-slipper is known for Montana from the northwest portion of the state, where it is documented from 10 moderate to large populations, 3 historical occurrences and many additional small occurrences. Most populations occur on National Forest lands. Potential negative impacts to the species have mainly been related to timber harvesting.						

BRYOPHYTES (BRYOPHYTA)

2 SPECIES

TOWN (BUFFERED BY 10 MILES) = THOMPSON FALLS (based on mapped Species Occurrences)

SCIENTIFIC NAME COMMON NAME TAXA SORT	OTHER NAMES	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	MNPS THREAT CATEGORY	HABITAT
Grimmia brittoniae Britton's dry rock moss		Grimmiaceae	G2	S2		SENSITIVE			
			Species Occurrences verified in these Counties: Flathead, Sanders						
Neckera douglasii Douglas' neckera moss		Neckeraceae	G4	S1					
			Species Occurrences verified in these Counties: Flathead, Lake, Sanders						

Potential Species of Concern

Special Status Species

Additions To Statewide List

Species Removed From Statewide List

Citation for data on this website:
Montana Plant Species of Concern Report. Montana Natural Heritage Program. Retrieved on 1/17/2017, from http://mtnhp.org/SpeciesOfConcern/?AorP=p

United States Department of the Interior
Fish and Wildlife Service
Ecological Services
Montana Field Office
585 Shepard Way, Suite 1
Helena, Montana 59601-6287
Phone: (406) 449-5225, Fax: (406) 449-5339

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES*
Endangered Species Act

January 2016

C = Candidate
LT = Listed Threatened
LE = Listed Endangered
P = Proposed

PCH = Proposed Critical Habitat
CH = Designated Critical Habitat
XN = Experimental non-essential population

*Note: Generally, this list identifies the counties where one would reasonably expect the species to occur, not necessarily every county where the species is listed

County/Scientific Name	Common Name	Status
BEAVERHEAD		
Spiranthes diluvialis	Ute Ladies' Tresses	LT
Ursus arctos horribilis	Grizzly Bear	LT
Lynx canadensis	Canada Lynx	LT
Pinus albicaulis	Whitebark Pine	C
BIG HORN		
Mustela nigripes	Black-footed Ferret	LE
Anthus spragueii	Sprague’s Pipit	C
BLAINE		
Scaphirhynchus albus	Pallid Sturgeon	LE
Mustela nigripes	Black-footed Ferret	LE
Anthus spragueii	Sprague’s Pipit	C
BROADWATER		
Spiranthes diluvialis	Ute Ladies' Tresses	LT
Anthus spragueii	Sprague’s Pipit	C
Lynx canadensis	Canada Lynx	LT
Pinus albicaulis	Whitebark Pine	C
CARBON		
Lynx canadensis	Canada Lynx	LT, CH
Mustela nigripes	Black-footed Ferret	LE
Ursus arctos horribilis	Grizzly Bear	LT
Anthus spragueii	Sprague’s Pipit	C
Pinus albicaulis	Whitebark Pine	C

County/Scientific Name	Common Name	Status
CARTER		
Mustela nigripes	Black-footed Ferret	LE
Myotis septentrionalis	Northern Long-eared Bat	LT
Anthus spragueii	Sprague’s Pipit	C
CASCADE		
Lynx canadensis	Canada Lynx	LT
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague’s Pipit	C
Pinus albicaulis	Whitebark Pine	C
CHOUTEAU		
Scaphirhynchus albus	Pallid Sturgeon	LE
Mustela nigripes	Black-footed Ferret	LE
Lynx canadensis	Canada Lynx	LT
Anthus spragueii	Sprague’s Pipit	C
Pinus albicaulis	Whitebark Pine	C
CUSTER		
Scaphirhynchus albus	Pallid Sturgeon	LE
Sterna antillarum athalassos	Interior Least Tern	LE
Mustela nigripes	Black-footed Ferret	LE
Grus americana	Whooping Crane	LE
Myotis septentrionalis	Northern Long-eared Bat	LT
Anthus spragueii	Sprague’s Pipit	C
DANIELS		
Grus americana	Whooping Crane	LE
Anthus spragueii	Sprague’s Pipit	C
DAWSON		
Scaphirhynchus albus	Pallid Sturgeon	LE
Sterna antillarum athalassos	Interior Least Tern	LE
Grus americana	Whooping Crane	LE
Charadrius melodus	Piping Plover	LT
Myotis septentrionalis	Northern Long-eared Bat	LT
Anthus spragueii	Sprague’s Pipit	C
DEER LODGE		
Salvelinus confluentus	Bull Trout	LT, CH
Ursus arctos horribilis	Grizzly Bear	LT
Lynx canadensis	Canada Lynx	LT
Pinus albicaulis	Whitebark Pine	C
FALLON		
Grus americana	Whooping Crane	LE
Calidris canutus rufa	Red Knot	LT
Myotis septentrionalis	Northern Long-eared Bat	LT
Anthus spragueii	Sprague’s Pipit	C
FERGUS		
Scaphirhynchus albus	Pallid Sturgeon	LE
Mustela nigripes	Black-footed Ferret	LE
Lynx canadensis	Canada Lynx	LT
Anthus spragueii	Sprague’s Pipit	C

County/Scientific Name	Common Name	Status
FLATHEAD		
Salvelinus confluentus	Bull Trout	LT, CH
Ursus arctos horribilis	Grizzly Bear	LT
Silene spaldingii	Spalding's Campion	LT
Lynx canadensis	Canada Lynx	LT, CH
Coccyzus americanus	Yellow-billed cuckoo (western pop.)	LT
Lednia tumana	Meltwater Lednian Stonefly	C
Pinus albicaulis	Whitebark Pine	C
GALLATIN		
Spiranthes diluvialis	Ute Ladies' Tresses	LT
Lynx canadensis	Canada Lynx	LT, CH
Ursus arctos horribilis	Grizzly Bear	LT
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C
GARFIELD		
Scaphirhynchus albus	Pallid Sturgeon	LE
Charadrius melodus	Piping Plover	LT, CH
Sterna antillarum athalassos	Interior Least Tern	LE
Mustela nigripes	Black-footed Ferret	LE
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague's Pipit	C
GLACIER		
Ursus arctos horribilis	Grizzly Bear	LT
Lynx canadensis	Canada Lynx	LT, CH
Salvelinus confluentus	Bull Trout	LT, CH
Lednia tumana	Meltwater Lednian Stonefly	C
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C
GOLDEN VALLEY		
Mustela nigripes	Black-footed Ferret	LE
Lynx canadensis	Canada Lynx	LT
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague's Pipit	C
GRANITE		
Lynx canadensis	Canada Lynx	LT, CH
Ursus arctos horribilis	Grizzly Bear	LT
Salvelinus confluentus	Bull Trout	LT, CH
Pinus albicaulis	Whitebark Pine	C
HILL		
Mustela nigripes	Black-footed Ferret	LE
Anthus spragueii	Sprague's Pipit	C
JEFFERSON		
Spiranthes diluvialis	Ute Ladies' Tresses	LT
Lynx canadensis	Canada Lynx	LT
Ursus arctos horribilis	Grizzly Bear	LT
Mustela nigripes	Black-footed Ferret	LE
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C
JUDITH BASIN		
Lynx canadensis	Canada Lynx	LT
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C

County/Scientific Name	Common Name	Status
LAKE		
Ursus arctos horribilis	Grizzly Bear	LT
Howellia aquatilis	Water Howellia	LT
Silene spaldingii	Spalding's Campion	LT
Lynx canadensis	Canada Lynx	LT, CH
Salvelinus confluentus	Bull Trout	LT, CH
Coccyzus americanus	Yellow-billed cuckoo (western pop.)	LT
Pinus albicaulis	Whitebark Pine	C
LEWIS AND CLARK		
Ursus arctos horribilis	Grizzly Bear	LT
Lynx canadensis	Canada Lynx	LT, CH
Salvelinus confluentus	Bull Trout	LT, CH
Mustela nigripes	Black-footed Ferret	LE
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague’s Pipit	C
Pinus albicaulis	Whitebark Pine	C
LIBERTY		
Mustela nigripes	Black-footed Ferret	LE
Calidris canutus rufa	LT	LT
Anthus spragueii	Sprague’s Pipit	C
LINCOLN		
Acipenser transmontanus	White Sturgeon (Kootenai River Pop.)	LE
Ursus arctos horribilis	Grizzly Bear	LT
Silene spaldingii	Spalding's Campion	LT
Lynx canadensis	Canada Lynx	LT, CH
Salvelinus confluentus	Bull Trout	LT, CH
Pinus albicaulis	Whitebark Pine	C
MADISON		
Spiranthes diluvialis	Ute Ladies' Tresses	LT
Lynx canadensis	Canada Lynx	LT
Ursus arctos horribilis	Grizzly Bear	LT
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague’s Pipit	C
Pinus albicaulis	Whitebark Pine	C
McCONE		
Scaphirhynchus albus	Pallid Sturgeon	LE
Charadrius melodus	Piping Plover	LT, CH
Sterna antillarum athalassos	Interior Least Tern	LE
Mustela nigripes	Black-footed Ferret	LE
Grus americana	Whooping Crane	LE
Anthus spragueii	Sprague’s Pipit	C
MEAGHER		
Lynx canadensis	Canada Lynx	LT
Anthus spragueii	Sprague’s Pipit	C
Pinus albicaulis	Whitebark Pine	C
MINERAL		
Lynx canadensis	Canada Lynx	LT
Salvelinus confluentus	Bull Trout	LT, CH
Pinus albicaulis	Whitebark Pine	C

County/Scientific Name	Common Name	Status
MISSOULA		
Ursus arctos horribilis	Grizzly Bear	LT
Howellia aquatilis	Water Howellia	LT
Lynx canadensis	Canada Lynx	LT, CH
Salvelinus confluentus	Bull Trout	LT, CH
Coccyzus americanus	Yellow-billed cuckoo (western pop.)	LT
Pinus albicaulis	Whitebark Pine	C
MUSSELSHELL		
Mustela nigripes	Black-footed Ferret	LE
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague's Pipit	C
PARK		
Lynx canadensis	Canada Lynx	LT, CH
Ursus arctos horribilis	Grizzly Bear	LT
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C
PETROLEUM		
Scaphirhynchus albus	Pallid Sturgeon	LE
Mustela nigripes	Black-footed Ferret	LE
Anthus spragueii	Sprague's Pipit	C
PHILLIPS		
Scaphirhynchus albus	Pallid Sturgeon	LE
Charadrius melodus	Piping Plover	LT, CH
Mustela nigripes	Black-footed Ferret	LE, XN
Grus americana	Whooping Crane	LE
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague's Pipit	C
PONDERA		
Charadrius melodus	Piping Plover	LT
Ursus arctos horribilis	Grizzly Bear	LT
Lynx canadensis	Canada Lynx	LT, CH
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C
POWDER RIVER		
Mustela nigripes	Black-footed Ferret	LE
Myotis septentrionalis	Northern Long-eared Bat	LT
Anthus spragueii	Sprague's Pipit	C
POWELL		
Ursus arctos horribilis	Grizzly Bear	LT
Lynx canadensis	Canada Lynx	LT, CH
Salvelinus confluentus	Bull Trout	LT, CH
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C
PRAIRIE		
Scaphirhynchus albus	Pallid Sturgeon	LE
Sterna antillarum athalassos	Interior Least Tern	LE
Grus americana	Whooping Crane	LE
Mustela nigripes	Black-footed Ferret	LE
Myotis septentrionalis	Northern Long-eared Bat	LT
Anthus spragueii	Sprague's Pipit	C

County/Scientific Name	Common Name	Status
RAVALLI		
Salvelinus confluentus	Bull Trout	LT, CH
Lynx canadensis	Canada Lynx	LT
Coccyzus americanus	Yellow-billed cuckoo (western pop.)	LT
Pinus albicaulis	Whitebark Pine	C
RICHLAND		
Scaphirhynchus albus	Pallid Sturgeon	LE
Charadrius melodus	Piping Plover	LT, CH
Sterna antillarum athalassos	Interior Least Tern	LE
Grus americana	Whooping Crane	LE
Myotis septentrionalis	Northern Long-eared Bat	LT
Anthus spragueii	Sprague’s Pipit	C
ROOSEVELT		
Scaphirhynchus albus	Pallid Sturgeon	LE
Charadrius melodus	Piping Plover	LT, CH
Sterna antillarum athalassos	Interior Least Tern	LE
Grus americana	Whooping Crane	LE
Calidris canutus rufa	Red Knot	LT
Myotis septentrionalis	Northern Long-eared Bat	LT
Anthus spragueii	Sprague’s Pipit	C
ROSEBUD		
Mustela nigripes	Black-footed Ferret	LE
Sterna antillarum athalassos	Interior Least Tern	LE
Scaphirhynchus albus	Pallid Sturgeon	LE
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague’s Pipit	C
SANDERS		
Ursus arctos horribilis	Grizzly Bear	LT
Lynx canadensis	Canada Lynx	LT
Salvelinus confluentus	Bull Trout	LT, CH
Pinus albicaulis	Whitebark Pine	C
Silene spaldingii	Spalding's Campion	LT
SHERIDAN		
Charadrius melodus	Piping Plover	LT, CH
Grus americana	Whooping Crane	LE
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague’s Pipit	C
SILVER BOW		
Salvelinus confluentus	Bull Trout	LT
Ursus arctos horribilis	Grizzly Bear	LT
Lynx canadensis	Canada Lynx	LT
Pinus albicaulis	Whitebark Pine	C
STILLWATER		
Lynx canadensis	Canada Lynx	LT, CH
Mustela nigripes	Black-footed Ferret	LE
Ursus arctos horribilis	Grizzly Bear	LT
Anthus spragueii	Sprague’s Pipit	C
Pinus albicaulis	Whitebark Pine	C

County/Scientific Name	Common Name	Status
SWEET GRASS		
Lynx canadensis	Canada Lynx	LT, CH
Mustela nigripes	Black-footed Ferret	LE
Ursus arctos horribilis	Grizzly Bear	LT
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C
TETON		
Ursus arctos horribilis	Grizzly Bear	LT
Lynx canadensis	Canada Lynx	LT, CH
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C
TOOLE		
Mustela nigripes	Black-footed Ferret	LE
Anthus spragueii	Sprague's Pipit	C
TREASURE		
Anthus spragueii	Sprague's Pipit	C
VALLEY		
Scaphirhynchus albus	Pallid Sturgeon	LE
Charadrius melodus	Piping Plover	LT, CH
Mustela nigripes	Black-footed Ferret	LE
Sterna antillarum athalassos	Interior Least Tern	LE
Grus americana	Whooping Crane	LE
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague's Pipit	C
WHEATLAND		
Mustela nigripes	Black-footed Ferret	LE
Lynx canadensis	Canada Lynx	LT
Anthus spragueii	Sprague's Pipit	C
Pinus albicaulis	Whitebark Pine	C
WIBAUX		
Scaphirhynchus albus	Pallid Sturgeon	LE
Sterna antillarum athalassos	Interior Least Tern	LE
Grus americana	Whooping Crane	LE
Myotis septentrionalis	Northern Long-eared Bat	LT
Anthus spragueii	Sprague's Pipit	C
YELLOWSTONE		
Mustela nigripes	Black-footed Ferret	LE
Grus americana	Whooping Crane	LE
Calidris canutus rufa	Red Knot	LT
Anthus spragueii	Sprague's Pipit	C

APPENDIX H

Floodplain Map & Wetlands Map

NATURAL HERITAGE MAP VIEWER

mt.gov Field Guide

Scale 1:9,017 Lat: 47.60247 Long: -115.35363 Spx: 160479.26 Spy: 388949.67

File | Standard Controls | Add Obs | Full Extent

Task Selection

NHP Wetland and Riparian Mapping

"Tasks" are different sets of Data, Tools, and Map Layers.

Switch Task | Reset Map

Tools

See Current Mapping Status

Show Wetland and Riparian

Summarize Wetland and Riparian By

Map Layers

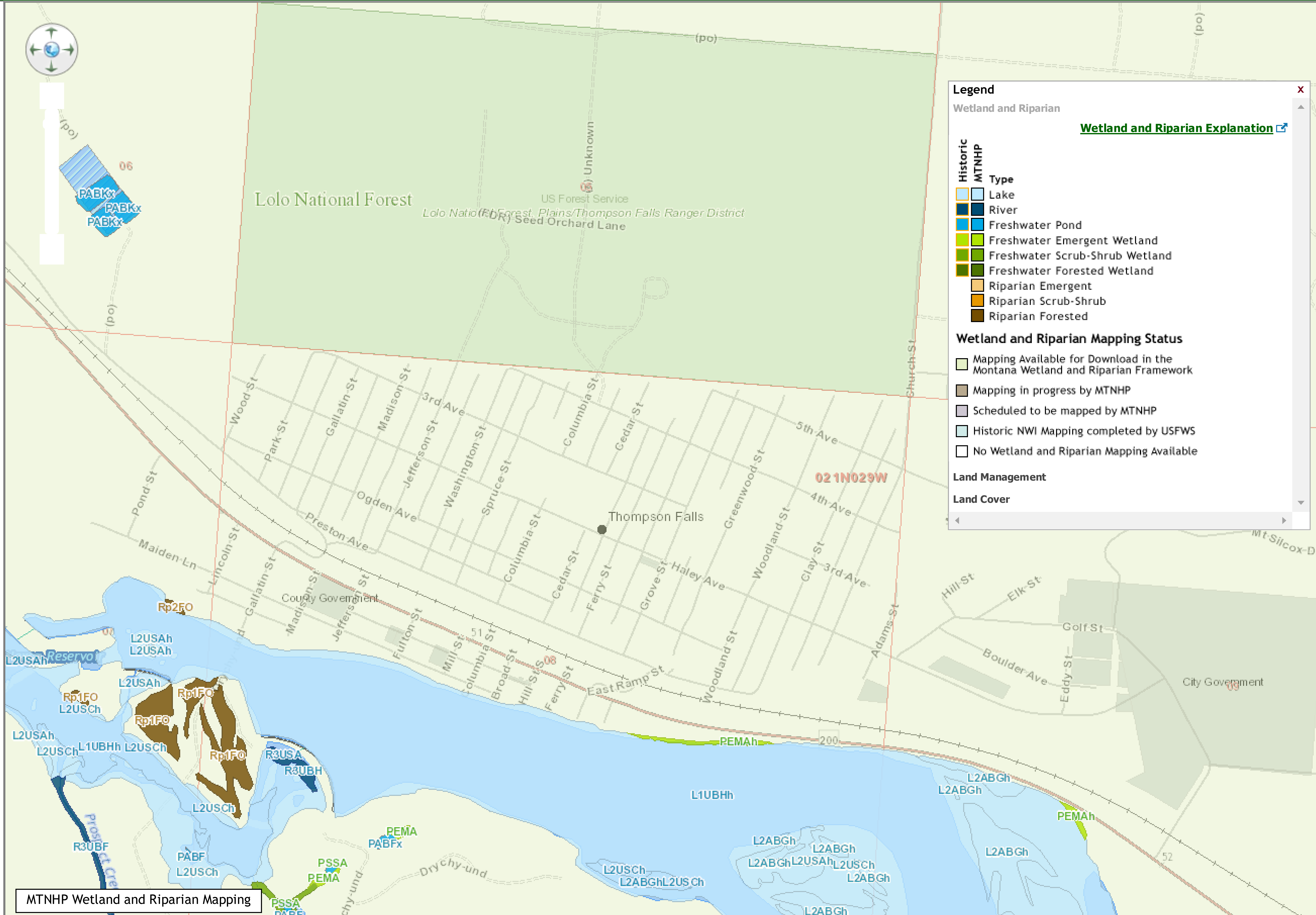
- [x] Show Summarize Boundaries
- [x] State Mask
- [ ] Site Photos
- [x] MTNHP Wetland and Riparian Mapping
- [ ] Historic NWI Wetland Mapping
- [x] Lakes and Streams
- [x] Wetland and Riparian Mapping Status
- [x] Township, Range & Section
- [ ] LL, QLL, QQLL
- [x] Towns
- [x] Roads
- [ ] Counties
- [x] Land Management

- [ ] Show Base Layers

Air Photos 2013 | Air Photos 2011

Base Layer Fader

Search for Location



Legend

Wetland and Riparian

Wetland and Riparian Explanation

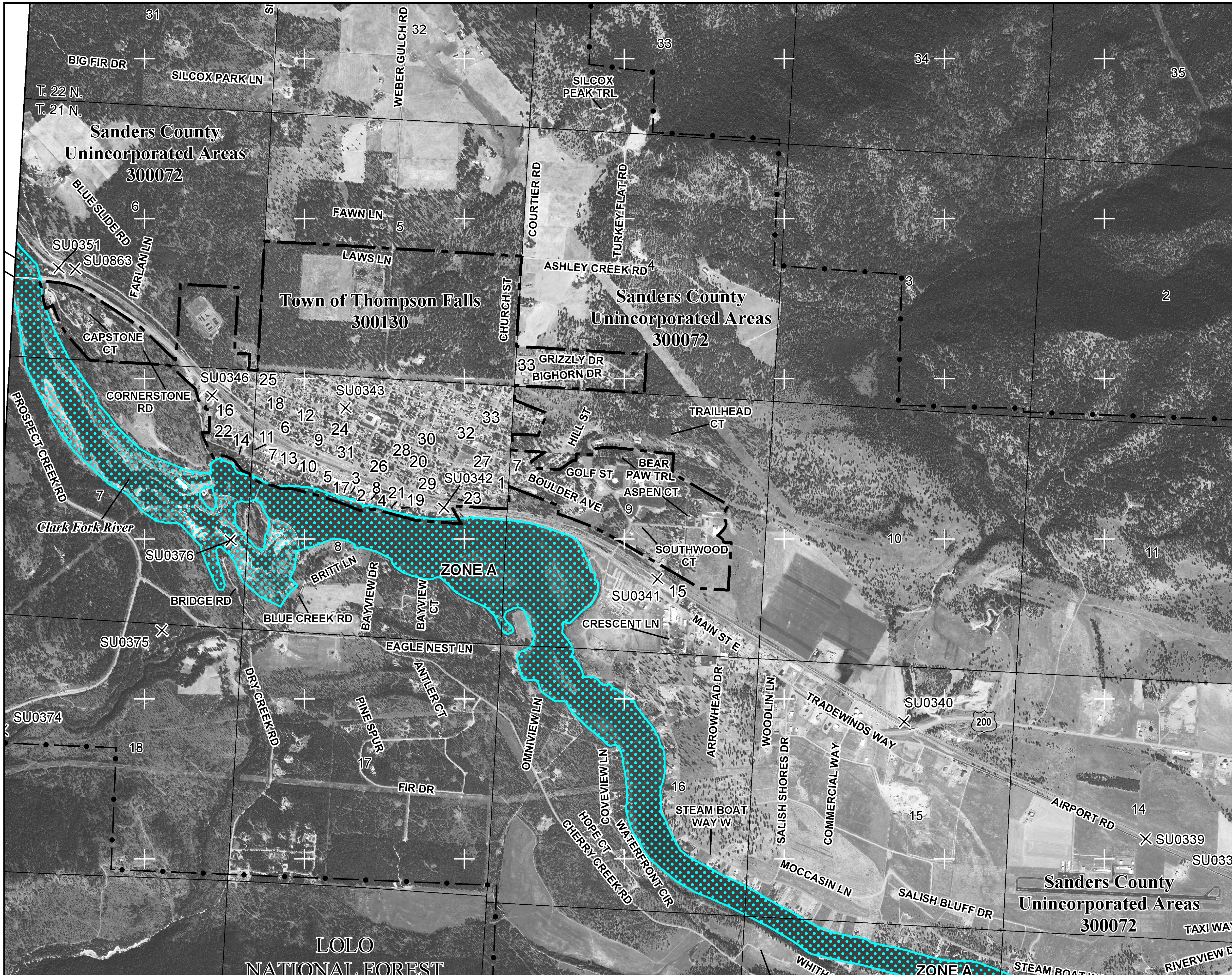
Historic	MTNHP	Type
		Lake
		River
		Freshwater Pond
		Freshwater Emergent Wetland
		Freshwater Scrub-Shrub Wetland
		Freshwater Forested Wetland
		Riparian Emergent
		Riparian Scrub-Shrub
		Riparian Forested

Wetland and Riparian Mapping Status

- Mapping Available for Download in the Montana Wetland and Riparian Framework
- Mapping in progress by MTNHP
- Scheduled to be mapped by MTNHP
- Historic NWI Mapping completed by USFWS
- No Wetland and Riparian Mapping Available

Land Management

Land Cover



MAP SCALE 1" = 2000'

1000 0 2000 4000

FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1375D

FIRM

FLOOD INSURANCE RATE MAP

SANDERS COUNTY, MONTANA

(AND INCORPORATED AREAS)

PANEL 1375 OF 2200

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SANDERS COUNTY, Unincorporated Areas	300072	1375	D
THOMPSON FALLS, TOWN OF	300130	1375	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
30089C1375D

EFFECTIVE DATE
JUNE 5, 2012

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

APPENDIX I

Census Data

Total Population, Montana Incorporated Cities & Towns by County, 1990 - 2015

See Sources Below

NOTE - Figures may be revised with the release of more recent data vintages

Geography	Census 1990 (April 1)	Mid Year (July 1) Estimates 1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Census 2000 [1] (April 1)	2000
Montana	799,065	800,204	809,680	825,770	844,761	861,306	876,553	886,254	889,865	892,431	897,507	902,200	903,773
Sanders County	8,669	8,680	8,628	8,842	9,230	9,644	10,019	10,093	10,155	10,097	10,124	10,238	10,287
Thompson Falls city	1,355	1,357	1,351	1,386	1,448	1,513	1,574	1,585	1,597	1,598	1,610	1,321	1,350
Balance of Sanders County	5,878	5,884	5,848	5,987	6,243	6,513	6,761	6,803	6,838	6,785	6,793	7,260	7,194

1 - The April 1, 2000 Population Estimates base reflects changes to the Census 2000 population from the County Resolution Program, legal boundary updates, and other geographic program revisions

2 - *Belt City* switched to *Belt Town* in the 2013 vintage of data released May 2014.

Source: US Department of Commerce, Census Bureau - Population Division

County Data:

Table CO-EST2001-12-30 - Time Series of Montana Intercensal Population Estimates by County: April 1, 1990 to April 1, 2000 (Released April 17, 2002)

Table 1. Intercensal Estimates of the Resident Population for Counties of Montana: April 1, 2000 to July 1, 2010 (CO-EST00INT-01-30) (Released Sept. 2011)

SUB-EST2015: Subcounty Resident Population Estimates: April 1, 2010 to July 1, 2015 (Released May 2016)

City & Town Data:

Population Estimates for Places: Annual Time Series, July 1, 1990 - July 1, 1999 (Released Oct. 20, 2000)

Intercensal Estimates of Resident Population for Incorporated Places and Minor Civil Divisions: April 1, 2000 to July 1, 2010 (Released October 2012)

SUB-EST2015: Subcounty Resident Population Estimates: April 1, 2010 to July 1, 2015 (Released May 2016)

Compiled 5/223/2016 by the Research & Information Services Bureau (RIS), MT Dept. of Commerce

See Sources Below

Geography	Mid Year (July 1) Estimates									Census 2010 (April 1)	Mid Year (July 1) Estimates					
	2001	2002	2003	2004	2005	2006	2007	2008	2009		2010	2011	2012	2013	2014	2015
Montana	906,961	911,667	919,630	930,009	940,102	952,692	964,706	976,415	983,982	989,415	990,643	997,746	1,005,157	1,014,402	1,023,252	########
Sanders County	10,489	10,466	10,554	10,895	11,002	11,178	11,364	11,433	11,471	11,413	11,394	11,371	11,371	11,323	11,329	11,336
Thompson Falls city	1,357	1,335	1,328	1,353	1,348	1,350	1,355	1,345	1,333	1,313	1,324	1,332	1,338	1,331	1,332	1,332
Balance of Sanders County	7,390	7,426	7,542	7,840	7,969	8,149	8,336	8,438	8,515	8,508	8,491	8,444	8,429	8,395	8,400	8,406

APPENDIX J

2016 DNRC Grant Application

PART TWO - Proposal Abstract

The Town of Thompson Falls is requesting $125,000 in DNRC Renewable Resource Grant funds to complete a project intended to protect, preserve and restore resources related to municipal infrastructure. The project encompasses two elements that the City considers to be detrimental to Montana's natural resources. The City's lift station, which is located approximately 15 feet from the Clark Fork River and has ongoing, frequent problems due to failing pumps. Currently, when the pumps fail the lift station fills and can overflow into raw wastewater the Clark Fork River.

The second element is a clay sewer collection main that was installed around 1948 and has numerous backups annually. Service lines were rerouted to avoid continual backups on the main. The main is located between Hill and Ferry Street, in an undeveloped 12-foot alley with difficult to access terrain that is within 200 feet of the Clark Fork River. The City spends significant time and resources cleaning and jetting the sewer main four to six times a year. These blockages lead to backups and surcharged manholes with the possibility of raw sewage surfacing in homes and overflowing into the river.

The 2016 Technical Report recommends that Thompson Falls replace lift station pumps and controls to prevent the lift station from overflowing into the Clark Fork River. The Technical Report also recommends to rehabilitate the existing clay sewer main in the undeveloped alley with cured-in-place piping (CIPP). These recommendations will reduce maintenance requirements for emergency cleaning, repairs, improve sanitary conditions for residents, promote water conservation and preservation by significantly reducing the potential for groundwater and surface water contamination from sewer overflows caused by the aging main, pumps and controls.

PART THREE: Resource and Citizen Benefits

The project will measurably conserve, manage, preserve, and enhance a renewable natural resource in Montana. The proposed project meets the following statute objectives of MCA 85-1-602: 1a) feasibility studies and design; 1b) Production of construction and rehabilitation plans; 1c) Construction, rehabilitation, production, education and other implementation efforts; 2a) development of natural resource-based recreation; 2a) development of natural resource-based recreation; 2c) improvement of water use efficiency, including development of new, efficient water systems, rehabilitation of older, less efficient water systems, and acquisition and installation of measuring devices required under 85-2-113; and development of state, tribal, federal, water projects; 2d) Water-related projects that improve water quality;

1. **Describe the projects renewable resource benefits-conservation, management, development and preservation and the method used to evaluate and quantify the project's renewable resource benefits. *(Tip: A project can have many resource benefits (conserve, manage, develop or preserve) to different resources (water, energy, soil, forests or others) and can receive points for each. Projects will rank better if they can demonstrate more than one resource benefit)***

The City of Thompson Falls proposed wastewater system improvements project, as recommended by the 2016 Technical Report will correct deficiencies to the community's wastewater collection system, lift station and lift station controls. The proposed improvements will have significant benefits to renewable resources. The proposed project will benefit:

- Water Resource Preservation
- Energy Conservation
- Improved Water Quality

Water Resource Preservation

The proposed project will have significant benefits to water resource preservation for the City of Thompson Falls. An aging sewer collection main located in the City, near the Clark Fork River has experienced numerous obstructions annually leading to sewer backups posing a serious threat to the river. The City has been having ongoing issues with the existing pumps in the lift station, as a result the pumps are not able to operate during these times. Additionally, the lift station wet well is located approximately 15 feet from the bank of the Clark Fork River. The lift station controls are also dated and are not reliable. As recently as March 2016 the lift station's controls failed causing more damaged to the pumps and forcing the City to have to manually operate the pumps. Whenever the lift station is exhibiting maintenance issues there is a potential for raw wastewater to overflow the wet well and discharge into the Clark Fork River. The U.S. EPA acknowledges that overflows of untreated sewage can contaminate our waters and cause serious water quality problems. The EPA's National Enforcement Initiative (FY 2014-2016) continues the set of national enforcement initiatives included in FY 2014-2016, which lists public health and environmental implications associated with pollutants in raw sewage. The Clark Fork River forms the southern boundary of the City. Given the proximity of the City's wastewater collection system to the river, any sanitary sewer overflows pose a significant environmental threat to surface water in the area. In addition to the lift station wet well, new cured-in-place pipping (CIPP) will be installed in an existing aging clay main. This rehabilitated sewer main will have a greater capacity to convey wastewater and significantly reduce the potential for system backups.

The City's an 8" clay tile section of gravity main was installed in an undeveloped alley between Hill Street and Ferry Street. The main was installed in 1948 and is approximately 250' uphill from the north bank of the Clark for River. This main typically backs up three to four times annually. Backups in the main lead to raw sewage backing up into residential homes. These backups became so regular that Thompson Falls decided to remove and reroute service lines on the main to avoid continual backups. The City jets this line four to six times a year on average in attempt to eliminate roots and other materials that have collected in the main. In addition to cleaning the main serval times a year, the City also treats the line with weed killer monthly. The roots in the jetted line are evidence of voids within the pipe that provide a conduit for raw wastewater to infiltrate into adjacent soils. Discharge of raw untreated wastewater out of the pipe poses a threat to groundwater quality in the area. Currently when the main backs up, manholes surcharge creating the possibility of raw sewage to overflow in the River. Given the proximity of the main to the Clark Fork River, a potential exists that contaminated groundwater may have detrimental effects to the surface water quality as well. Installation of CIPP within the existing main will provide a sealed conduit that prevents contamination of groundwater by raw sewage with minimal above ground disturbance. The rehabilitation of the main will also ensure that the City will not have to treat it monthly with weed killer that may also be entering the ground water and the river.

As previously stated, the City also experiences maintenance issues with the lift station and controls creating a potential for raw wastewater to backup and overflow the lift station, which is located in close proximity to the Clark Fork River (approximately 15 feet from the bank). The pumps and controls in the lift station were installed in 1998 and have had many maintenance issues leading to backups in the lift station. The lift station is the only lift station in the City's collection system, therefore; when the pumps have operational issues there is a potential for the lift station to overflow and discharge directly into the Clark Fork River. In addition, the lift station controls have had many problems, compounding to the issues caused by aging pumps. The controls have failed as recently as March 2016, causing the City to operate the pumps manually to ensure that raw wastewater does not surcharge the lift station wet well. This creates significant potential water quality issue and threat to public health and safety as maintenance and operational issues are becoming more and more frequent. By updating and installing new wastewater pumps in the lift station and new lift station controls, wastewater will be able to be confidently conveyed to the treatment site. The City will reduce the risk of raw wastewater overflowing from the wet well to the river, preventing the discharge of untreated sewage to the Clark Fork River once pumps and controls are in operation.

Energy Conservation

The City of Thompson Falls Public has indicated concerns with the ongoing maintenance issues from the aging lift station pumps. The pumps were installed 1998 and require frequent repairs, the City has also noted that finding parts for repairs has become a major issue. As these pumps have aged, they do not operate as efficiently as they once did. The proposed project will replace the aging pumps in the lift station, with newer more efficient pumps. The lift station will also receive new pump controls, ensuring the pumps operate as designed. The pump controls will include installation of an ultrasonic level transducer in the wet well, an integrated level monitor and duplex pump controller in the existing control cabinet and connecting pump control signals to the existing motor drives. This will increase pump efficiencies and ensure the pumps operate when they need to which will reduce the stations energy consumption.

Repairing the sewer main with cured-in-place piping will reduce annual maintenance of jetting the line and treating it with weed killer on a monthly basis. Currently the City jets the main four to six times a year, by installing cured-in-place piping the main will not need to be cleaned nearly as frequently ultimately reducing energy consumption.

Improved Water Quality

The project will greatly benefit surface water and groundwater quality by reducing the risk of having raw wastewater leak from the deteriorating main and failing lift station pumps within the City of Thompson Falls. By installing cured-in-place piping, the existing main will a closed vessel to convey wastewater and significantly reduce the potential for groundwater contamination. The installation of the new lift station pumps and controls will reduce the risk of the wet well overflowing and discharging into the Clark Fork River which will greatly benefit the Clark Fork River.

2. Describe the public or citizen benefits that enhance the common well-being, safety, health, or welfare of the citizens of Montana. *(Tip: A project can have many public or citizen benefits, including but not limited to economic, health, safety, and natural resource based recreation)*

The proposed wastewater improvements will be extremely beneficial to the health and well-being of the community. The proposed project will benefit:

- Health, Sanitation, and Security
- Community resource management
- Natural resource-based recreation
- Economic Development

Health, Sanitation, and Security

The main located in the alley between Hill Street and Ferry Street, experiences several backups on this section of aging pipe as discussed in the project summary. The blockages from roots and other debris within this sewer main have required emergency cleaning to prevent backups of sewage into peoples' homes and surfacing of raw sewage onto streets and in yards in residential areas which could ultimately make its way to the Clark Fork River. Currently, when the main backs up, the manholes upstream surcharge creating a potential for raw sewage to back up into homes and ultimately overflow onto the surface and into the Clark Fork River.

The lift station wet well has the potential to overflow and discharge raw wastewater from the lift station to the Clark Fork River any time the lift station pumps fail, creating a significant water quality issues and threat to public health and safety.

The U.S. EPA acknowledges that overflows of untreated sewage as well as back-ups into basements on the surface cause property damage and threaten public health. The EPA's National Enforcement Initiative (FY 2014-2016) continues the set of national enforcement initiatives included in FY 2014-2016, which lists public health and environmental implications associated with pollutants in raw sewage. The document states that raw sewage carries disease-causing microorganisms, viruses, bacteria and intestinal parasites that can cause serious innesses including cholera, dysentery, hepatitis, cryptosporidiosis and giardiasis. The most common effects of sewage related illnesses are gastroenteritis that can lead to fever, abdominal cramps, diarrhea, vomiting or infections of open cuts or rashes. Sensitive populations such as children, the elderly and those with weakened immune systems can be at a higher risk or illness from exposure to sewage. An EPA Enforcement Alert publication in 2006 indicates that although symptoms can be treated, no curative medical treatment is available for some sewage related illnesses. Accordingly, it is necessary to the City of Thompson Falls to complete the necessary improvements to the wastewater collection system and remove the wet well overflow piping to prevent exposure to raw sewage and protect human health.

Community Resource Management

The current deficiencies within the City of Thompson Falls' wastewater collection system have led to emergency maintenance practices by the system operator. When the obstructed sewer main backs up, wastewater surcharges in nearby manholes and sewer services upstream, the system operator must respond immediately to the situation. If the plugged main cannot be cleared with the community's maintenance equipment, a general contractor is contacted to perform the necessary repairs. This is an unsustainable use of limited, valuable community resources, which keeps the City's Public Works Director from focusing efforts on other regular operation and maintenance requirements of the City's other utilities. Replacement of aging sewer infrastructure is a sustainable utility management practice that increases the longevity of the utility. Decreasing the frequency of emergency maintenance required for a backed up sewer main, in an undeveloped alley is a significant economic benefit to the City.

An EPA Enforcement Alert publication in 2006 indicates that in addition to creating a health threat, sewage backups can have significant financial consequences from property destruction and interference with business operations.

Natural Resource-Based Recreation

The City of Thompson Falls is located alongside the Clark Fork River where recreational environments and access are a priority that must be protected. The existing recreational opportunities enhance the community's economy while at the same time serving Thompson Falls residents. The Clark Fork River forms the southern boundary of the City of Thompson Falls. The River is the main attraction for residence and visitors and the City's location allows for easy access for fishing, boating and site seeing. Discharge of raw wastewater to the Clark Fork River would have an adverse impact on the recreational appeal of the City. The proposed improvements to the City's collection system will help guarantee that the environmental resources of the area are preserved, ensuring the area continues to be an attractive destination for natural resource-based recreation.

Economic Development

With a median household income (MHI) of $24,582 (2010 American Community Survey), the City of Thompson Falls is one of the Montana's poorest communities. Only 47 of Montana's 353 cities and towns have a lower MHI than Thompson Falls. For decades, economic Development in Thompson Falls and Sanders County has been tied to the wood products industry, which has been in a severe decline since its peak in the 1980's. The region's timber industry no longer provides economic stability and residents of Thompson Falls understand that their community must diversify its economy and capitalize on other opportunities, which include the spectacular scenery and the Clark Fork River.

Solid public infrastructure must be available if Thompson Falls has any chance to enjoy sustainable economic growth. Without proper law enforcement, fire protection, education, electrical utilities, water service, wastewater collection and disposal, and other essential services, businesses and the economy will not flourish.

As discussed throughout this application and in the technical narrative, the existing wastewater collection system is deficient, ultimately limiting the City's ability to accommodate growth. It is possible that doing nothing and relying on the existing collection may result in a loss of jobs if existing businesses feel their ability to grow is limited and elect to move to another community.

An unreliable wastewater utility, which has significant potential of backing up raw wastewater onto residences' property, can have a negative effect on property values and home sales. By implementing the proposed project, the upgraded wastewater sewer main will have sufficient capacity to meet the projected needs of the community for a minimum of 20 years and do so in a manner that will satisfy current state and federal regulations. This type of quality infrastructure improvement will make Thompson Falls a more attractive place for new businesses as well as individuals wishing to live in a desirable area.

About documentation, the previously discussed relationship between strong public infrastructure and business and population growth is well documented in successful communities throughout Montana and the United States and serves as generally accepted criteria for strong economic growth. Businesses in Thompson Falls need a reliable wastewater system to continue to operate. These firms add to the tax base of the County and Town.

Also, the project will be designed to allow relatively easy expansion and should enable the City to allocate more resources to maintain the infrastructure that will allow growth to occur at a rate faster than projected.

PART FOUR: Technical Presentation

1. Project Identification

The project encompasses two related locations near Thompson Falls, Montana. The Technical Report, which can be found in Appendix A of this application includes the following figures for reference:

- Figure 1 – Location Map
- Figure 2 – City of Thompson Falls Project Site Map
- Figure 3 – City of Thompson Falls Vicinity Map

The table below includes the geographic locations of the project elements.

Project Area	Township/Range	Latitude/Longitude
Sewer Main Rehabilitation	S08 T21N R29W	47.593253 N, 115.343992 W
Lift Station Pumps & Wet Well	S08 T21N R29W	47.593275 N, 115.347128 W

The project is intended to improve, preserve and protect renewable resources by rehabilitating an aging sewer main, replacing lift station pumps to reduce the potential risk of raw wastewater overflowing and discharging into the Clark Fork River (approximately 15 feet away).

2. Project History

The proposed project has been broken down into two sites. The first site discussed is an aging section of sewer main, the second site is the City's only lift station. Both project locations are immediately adjacent to the Clark Fork River.

A. Sewer Collection Main

A section of 8-inch clay sewer main that was installed in approximately 1948 experiences numerous backups every year. The City of Thompson Falls has to jet the gravity sewer line and treat it with root killer on a monthly basis. When the line is cleaned, it is apparent that the majority of backups are cause by roots, as the bulk of the debris jetted out is roots. The line is also in an undeveloped 12-foot-wide alley with steep and difficult to access terrain. The City has removed all services connected to the section of the main and it now solely serves a gravity collection main. The City has devoted many hours and resources in an attempt to prevent backups as well as cleaning the line numerous times annually. The City is concerned that the clay will continue to deteriorate if it is not addressed in the near future.

B. Lift Station Pumps

The lift station is located next to the Clark Fork River, near the intersection of Mill and Maiden Street. The lift station pumps were installed in 1998 and are nearing 20 years old. The City experiences frequent pump maintenance issues, resulting in down time for the lift station. As recently as March 2016, the pumps failed and the lift station filled with raw wastewater that flooded and damaged the pumps. The City had to have the wet well pumped by a septic pumping truck, then continue to operate the pump manually until the pump controls and second pump were repaired. It should be noted that the lift station is located approximately 15 feet from the bank of the Clark Fork River. When the lift station is inoperable, raw wastewater is still flowing into the lift station and there is a potential risk of wastewater overflowing and discharging into the river. The City has struggled to find replacement parts for the pumps and controls due the condition and age. Finding spare parts has become costly for the City as the pumps age. Not having spare parts readily available during an emergency increases the risk of the wet well overflowing and potentially discharging in the Clark Fork River.

C. Lift Station Controls

The lift station controls were installed in 1998 when the lift station pumps were installed. The aging controls experience frequent failures, which cause the pumps to not turn on or off at preset water levels. In March of 2016, the pump controls failed and raw wastewater flooded and damaged the pumps. For a period of approximately three days the lift station had to be manually operated on one pump, while controls were repaired. The City relies on the lift station controls to operate the existing pumps, if the controls are not functioning correctly, the wet well will back up and could ultimately cause the raw wastewater to overflow into the Clark Fork River.

3. Project Purpose

The project is intended to preserve water quality by preventing the introduction of raw wastewater into groundwater and the Clark Fork River. The project will assist in developing a more efficient wastewater collection system for the City of Thompson Falls. The completed work will conserve and restore areas impacted by raw wastewater collection system backups and over flows, as well as protect groundwater, surface water and habitat resources.

Specifically, the project will rehabilitate a gravity main in difficult terrain by lining the main with cured-in-place piping (CIPP). The main is located in an undeveloped alley way with difficult terrain, approximately 200’ from the edge of the Clark Fork River. The project will also include removing and replacing two lift station pumps and adding new electric controls which includes an ultrasonic level transducer. The lift station pump improvements and pump control upgrades will ensure that raw wastewater will not backup in the wet well and overflow from the wet well into the Clark Fork River.

4. Current Condition of Renewable Resource

The Clark Fork River is near both of the sites and is currently a high-quality water. However, if the lift station pumps and controls are not replaced the possibility of the wet well overflowing and discharging into the Clark Fork River is very likely. This will have a negative long-term effect on the river water quality. Similarly, the sewer main between Hill Street and Ferry Street will continue to have more frequent backups if the main is not rehabilitated, which may affect the quality of the groundwater, soil and surface water quality in the area.

5. Desired Outcome

The City of Thompson Falls intends to reduce the impact of the parts of the wastewater collection system that are currently causing significant maintenance issues and pose a threat to the community

and local natural resources. The potential of the lift station wet well overflowing into the Clark Fork River will greatly be reduced when the existing pumps and controls are replaced with new and reliable pumps with new controls. Also, the aging clay sewer collection main will be lined and rehabilitated which will result in significantly less maintenance and eliminate raw wastewater backing up in an area close to the Clark Fork River.

6. Alternative Description

A. Sewer Collection Main

Photo of Alley between Hill Street and Ferry Street where existing problematic clay sewer collection main is located.

SM 1 - No Action

The aging clay sewer main in the Alley between Hill Street and Ferry Street will be left in place as it is. However, the City will continue to have numerous backups annually and will need to jet and apZply weed killer just as frequently, if not more often. The aging clay main could continue to fail by cracking allowing more roots and infiltration of raw wastewater as well as weed killer chemicals into the soil and groundwater. The potential for backup and surcharging of the manhole into the Clark Fork River will still remain with this option.

SM 2 - Replacing the Clay main with PVC main

Pipe replacement is a method of correcting alignment problems, eliminating root intrusion, reducing infiltration, pipe removal, and the installation of new sewer main piping. The aging clay main has begun to fail and replacing the clay main with a PVC main will ensure a water-tight main from the upstream manhole to the downstream manhole.

The biggest disadvantages of this option are the difficulties the contractor will encounter during construction activities. The main is situated in a 12-foot wide undeveloped alley with difficult terrain, retaining walls, and many utilities. The project would likely require contractors with specialized experience for installing a sewer main in a residential area with a very small footprint for access. That would likely increase construction costs and feasibility of the project. In addition, this option will be a nuisance to local residents due to extended periods of street closures which will be necessary for the excavations and stockpiling of excavated soil. Finally, the new mains will have a pipe joint every 20 feet. The advantages of this option are sewer grades can be adjusted, if necessary.

The estimated total capital cost for this option is $ 53,200.00

<u>SM 3 - Re-routing collection main</u>

Photo of Hill Street (facing South towards the Clark Fork River) where sewer collection main would be re-routed from alley way.

The aging clay main would be cut, plugged and abandoned in place, and a new PVC main would be installed at a new upstream manhole. The new main would then tie into an existing adjacent manhole and ultimately flowing into the lift station located a few blocks away. Abandoning this main is feasible as all sewer services are disconnected from the main and it is used purely as a gravity sewer main.

The disadvantages of this this option are again, the difficulties the contractor will encounter during construction activities. The main would be placed in a steep section of road way, that may prove to be difficult to install the piping at correct grades. This option would be a nuisance to local residents due to extended periods of street closures which will be necessary for construction. Finally, installation will require a new manhole and connecting into the existing manhole and 150 feet of a new PVC main.

The advantages are that this approach ensures that the main would be located in an accessible right-of-way and would provide a water-tight vessel.

The estimated total capital cost for this option is $ 41,600.00

SM 4 - Rehabilitating Collection Main – Cured-in-Place Pipe (CIPP)

CIPP is a trenchless technology for rehabilitating sewer mains. This option would include rehabilitation of the main and leave the existing manholes in place. It typically involves little to no excavation to complete. Mains are replaced one block at a time. First, the mains are TV inspected for structural soundness. Structural problems and service locations are noted during the TV inspection, however, in this section of main all service connections have been eliminated. If there are severe structural problems, they are excavated and spot repaired prior to installation of the CIPP. A resin impregnated flexible "sock" is pushed into the pipe with water pressure. Once the sock is in place, the resin impregnated side of the sock faces the interior surface of the old pipe. Water is then circulated through the pipe curing in the sock in-place. The resulting product is a hard, structurally sound pipe inside the old pipe. Once the CIPP has cured, the pipe will be able to be put into service.

One disadvantage of this option is that the sewer grades cannot be adjusted within the pipe replacement section, the grade is limited to the existing grade.

Advantages of this option are that the City can easily access the main at the upstream and downstream manholes, as access for maintenance equipment in the undeveloped, steep alley way is very limited. Lining the aging existing 8-inch clay main with CIPP allows the main to be rehabilitating without needing to excavate the existing site, as the main does not have sewer services connected to it. Lining the main will also allow it to stay in the same location and allow for a water-tight pipe. This would eliminate the current maintenance and backup issues the City has with the main. This alternative provides a high level of protection, similar to installing a new PVC main, however; CIPP will not require open-cut installation in the undeveloped alley or new manholes. Another advantage is that the construction can be completed quicker than traditional replacement. Rehabilitation of the clay main via CIPP will provide a seamless pipe with no joints that will be almost completely infiltration-proof.

The estimated total capital cost for this option is $ 33,000.00

B. Lift Station Pumps & Wet Well

Photo of Lift Station, wet well lid and overflow discharging pipe adjacent to the Clark Fork River.

L 1 - No Action.

The existing lift station pumps were installed in 1998. These pumps have had frequent maintenance issues that have caused lift station flooding. The lift station is the City's only lift station and the entire community's wastewater is pumped through this lift station to the treatment lagoons. Currently, whenever there is down time as a result of maintenance issues, raw wastewater has the potential to backup and overflow the wet well and discharge into the Clark Fork River. This can be detrimental to wildlife, the health of the Clark Fork River, cause erosion on the bank of the river, and may result in human health safety concerns. No action will likely result in deteriorating conditions for the wastewater collection system as well as the river.

L 2 - Rebuilding Aging Pumps

The existing lift station pumps need to be replaced or rebuilt to ensure the functionality of the lift station. The pumps are nearing 20 years old, rebuilding the pumps will help them to operate more effectively. Along with rebuilding the pumps the potential of the wet well to overflow and discharge raw wastewater into the Clark Fork River would be eliminated with this alternative. Rebuilding the pumps is still a significant cost and will not ensure that the pumps are able to operate for another 20 years. The City has also encountered issues finding parts for the older pumps. With rebuilt pumps, they will still continue to increase in age and making it significantly harder for the City to find replacement parts for any future maintenance.

The estimated total capital cost for this option is $ 39,750.00

L 3 - Replacing Aging Pumps

The existing lift station pumps and controls were installed in 1998 have caused issues that have resulted in the City spending valuable resources on maintenance problems. Typically, mechanical equipment has a life span of approximately 20 years. Completely replacing the pumps would increase the efficiency of the lift station and allow the system to operate as it was designed. Replacing the pumps would also reduce the risk for the wet well to overflow and discharge into the river, as the pumps will result in reliable lift station operation for the City. This approach would be attainable within the budgetary scope available through the RRGL Program.

The estimated total capital cost for this option is $ 88,750.00

C. Lift Station Pump Controls

C 1 - No Action

The existing lift station pump controls have had frequent control failures that have caused the lift station to flood. When this is noticed by the City crews, they must manually run the lift station until an electrician and parts are available for the repair. This has occurred as recently as March 2016, and the City had to manually pump the system for approximately three days. It is crucial that the raw wastewater at the wet well be pumped from the lift station. The controls help to ensure that the lift station itself operates properly and alerts the City if there are any issues. Currently, whenever there is down time as a result of maintenance issues, raw wastewater has the potential to overflow the wet well and discharge into the Clark Fork River. This can be detrimental to wildlife, the health of the Clark Fork River, cause erosion on the bank of the river, and may result in human health safety concerns. The existing floats and controls in the wet well and lift station have aged and need to be replace to ensure correct operation of the system. No action will likely result in deteriorating conditions for the wastewater collection system as well as the river.

C 2 - New Lift Station Controls

The existing lift station pump controls have had frequent electrical issues. It is crucial that the raw wastewater at the wet well be pumped from the lift station. The controls help to ensure that the lift station itself operates properly and alerts the City if there are any issues. Typically, electrical equipment has a lift span of approximately 20 years. This option would include installing an ultrasonic level transducer in the wet well. This would allow for accurate level readings of the wet well to be sent to the electrical control panel. In addition, an integrated level monitor and duplex pump control would be added to the existing control cabinet. Existing control parameters will be programed into the new controller, including pump alternation, and existing telephone dialer which would continue to be used for alarm transmission. The pump control signals will be connected to the existing motor drives in the control cabinet. Existing controls will be left in-place to the extent practical providing a fail-safe redundancy that the system does not currently have.

The estimated total capital cost for this option is $12,050.00

7. Cost-Benefit Analysis

A. Sewer Collection Main

SM 1 - No Action

The no action alternative would cost nothing for the immediate future. However, continued main backups and cleaning of the line creates significant operation and maintenance costs in the future. Eventually the main could completely fail and the City would be in an emergency situation to install a new gravity collection main. The older clay main will continue to deteriorate which will result in a leaking main and backups that can overflow causing health and safety issues. Ultimately failure of this main would eventually impact groundwater and surface waters, thereby degrading renewable resources.

SM 2 - Replacing the Clay main with PVC main

Replacing the clay main with a PVC main would prove to be a very difficult, construction project. The sewer main is located in an undeveloped alley way that has utilities, retaining walls and in general difficult terrain. It would be a very difficult and costly project based on constructability. The estimated total capital cost for this option is $ 53,200.00.

SM 3 - Re-routing collection main

The aging clay main would be intercepted by a new manhole and a new PVC see main would be installed downstream. The new main would then tie into an existing adjacent manhole and ultimately flowing into the lift station located a few blocks away. Asphalt and gravel surface restoration would need to be included into this alternative. This would add 150 lineal feet of sewer main to the project. The capital cost for this option would be $41,600.

SM 4 - Rehabilitating collection main – Cured in Place Pipe (CIPP)

The City can easily access the main at the upstream and downstream manholes, but access for maintenance equipment in the undeveloped, steep alley way is very limited. Lining the aging existing 8-inch clay main with cured-in-place pipe (CIPP) will allow the main to be rehabilitated without needing to excavate the existing site, as the main does not have sewer services connected to it. Lining the main will also allow the main to stay in the same location, but ensure a water-tight connection, eliminating current maintenance and backup issues the City has with the main. This option would cost would be approximately $33,000 and would significantly improve the renewable resource value. CIPP rehabilitation is the City's preferred alternative as it will provide a water-tight connection, will not require open-cut excavation and is the most cost effective alternative.

B. Lift Station Pumps & Wet Well

L 1 - No Action

The no-action alternative would cost nothing for the immediate future. However, continued maintenance repairs, issues and downtime of the existing pumps currently create cost and will continue to in the future. Due to the age of the pumps, the City has a very difficult time finding spare parts, which leads to even longer down time if there is a pump failure. Eventually the pumps will be non-operational and the City would have a constant flow of wastewater discharging through the wet well overflow into the Clark Fork River.   This would impact nearby wildlife, surface water quality, and create human health and safety concerns by degrading renewable resources.

L 2 - Rebuilding Aging Pumps

The existing lift station pumps need to be replaced or rebuilt to ensure the functionality of the lift station. The pumps are nearing 20 years old, rebuilding the pumps will help them to operate more effectively. With rebuilding the pumps, the potential for raw wastewater to overflow from the wet well and discharge into the river would be reduced. Rebuilding the pumps is still a significant cost and will not ensure that the pumps are able to operate for another 20 years. Immediate cost in the future would be lower than purchasing and installing new pumps, however; eventually the pumps will likely need repairs. Currently the City has a very difficult time getting spare parts for the aging pumps, as they are difficult to find. As the pumps age this will prove to be more and more difficult. More repairs could also result in a significant cost in the future that the City may not have the resources to fix. Rebuilding the existing pumps would cost approximately $39,750.

L 3 - Replacing Aging Pumps

The existing lift station pumps were installed in 1998 have caused issues resulting in the need for the City to spend valuable resources on maintenance problems. Typically, mechanical equipment has a life span of approximately 20 years. Completely replacing the pumps would increase the efficiency of the lift station and allow the system to operate as it was designed. Spare parts will likely be readily available for new pumps.   This option would include replacing the existing pumps to reduce the risk of potential overflow of raw wastewater from the wet well, as the pumps will result in reliable lift station operation for the City. This option would cost approximately $88,750 and greatly reduce the risk of failures within the collection system and significantly improve the renewable resource value for the City. Replacing the pumps is the preferred alternative for the lift station project. This alternative will have a higher initial cost, however; it will lower the risk of high cost emergency repairs. The City will be able to confidently operate the pumps for many years to come.

C. Lift Station Pump Controls

C 1 - No Action

The existing lift station pump controls have had frequent control issues. It is crucial that the raw wastewater at the wet well be pumped from the lift station, as this is the City's only lift station which collects the entire community's wastewater and delivers it to the treatment lagoons. The controls help to ensure that the lift station itself operates properly and alerts the City if there are any issues. Currently, whenever there is down time as a result of maintenance issues, raw wastewater has the potential to overflow the wet well and discharge into the Clark Fork River. The existing floats and controls in the wet well and lift station have aged and need to be replace to ensure correct operation of the system. If the controls are not working the City must manually operate the lift station until the controls are repaired. No action will likely result in deteriorating conditions for the wastewater collection system as well as the river. The estimated capital cost for a not action option would be

$0.00, but could end up costing the City significant valuable tax payer dollars addressing emergency issues as they arise. A control failure in March 2016 ended up costing the City approximately $17,000 to repair and operate the system.

C 2 - New Lift Station Controls

As previously stated, the existing lift station pump controls have had frequent control issues. The controls help to ensure that the lift station itself operates properly and alerts the City if there are any issues. Typically, electrical equipment has a life span of approximately 20 years. This option would include installing an ultrasonic level transducer in the wet well. This would allow for accurate level readings of the wet well to be sent to the electrical control panel. In addition, new controls would be integrated into the existing system controls. Existing controls will be programed into the new controller. Existing controls will be left in-place to the extent practical for a fail-safe redundancy that the system does not currently have. The estimated total capital cost for this option is $12,050.00. This is the preferred alternative as the control system would greatly benefit the city reduce the potential for the City to have to manually operate the system.

8.Project Implementation Plan

The project has been broken down into three separate projects, 1) the collection main, 2) new lift station pumps and 3) new lift station controls. Construction costs for each project is estimated to be under $80,000 and will not need to be publically bid, per MCA 7-5-4302. Quotes will be obtained for each project. The City's finances are extremely limited; thus the City has prioritized the projects in the event that quotes are higher than anticipated. The highest priority would be new lift station pumps, followed by rehabilitating the existing main and then installing new pump controls. The project as a whole will be completed via the following steps:

- Project Design (including cleaning/videoing of sewer main for CIPP);
- Preparing Sewer Main Checklist for Montana Department of Environment Quality (MDEQ)
- Montana Department of Environmental Quality (MDEQ) review and approval for CIPP;
- Obtaining Quotes/award, for all three projects;
- Removing existing lift station pumps and controls;
- Video/cleaning of sewer main by Contractor;
- Cured-in-place piping (CIPP) rehabilitation on clay sewer main;
- Installation of new lift station pumps
- Installation of new lift station controls;
- Engineering Certification and Operation & Maintenance Manual, for CIPP.

9.Project Time Schedule

Assuming the typical progression of legislative and DNRC approval, funding would be released between July and September of 2017. Videoing of the sewer main, design of the sewer main rehabilitation as well as lift station pumps and controls could begin any point after the award of the contract. Plans and specification would then be submitted to Montana Department of Environmental Quality (MDEQ) for review and approval during late 2017. Upon approval, quotes would be solicited immediately. The sewer main would be cleaned and videoed prior to beginning CIPP by the Contractor, once the bid was awarded. The pump controls and pumps would be installed after contractor submittals have been reviewed and approved by the engineer. The engineer would then supply a completion certification letter to MDEQ for the project. Prior to the project completion, the City will be provided with an Operation and Maintenance Manual, which will help ensure the longevity and effectiveness of the wastewater collection system improvements from this project.

10. Supporting Documentation

PLEASE SEE ATTACHED TECHNICAL REPORT (APPENDIX A)

PART FIVE: Project Management Plan

1. Identify staff requirements needed for successful project management. Discuss how you plan to meet those requirements. If possible, identify the members of your project management team, including any already properly procured consultants who will provide project management services.

The City will contract will a project administrator to assist with project development and management. Members of the management team include:

- Mayor Mark Sheets – Chief Elected Official, official project contact
- Chelsea Peterson – Town Clerk, fiscal contact, record keeping
- Kathryn McEnery– City Attorney, chief legal counsel
- Craig Erickson – Great West, grants manager
- Craig Pozega – Great West, project manager

2. Discuss procurement procedures and requirements related to your project.

The City follows statutes related to procurement of services as presented in Montana Code Annotated (MCA) sections 18-8-201 to 18-8-212 that states the selection must be based on qualifications. The City recently advertised for an engineer and selected Great West Engineering based upon submitted qualifications. The procurement process and resulting contract gives the City the option of retaining Great West for grant administration, design, and/or construction administration.

The City will obtain quotes for each of the three projects as outlined in Step 4 - the Technical Narrative as construction costs for each project is expected to be under $80,000.00 per MCA 7-5-4302. Cost estimates can be found in the Technical Report in Appendix A of this application.

3. Discuss coordination activities with other local, state, or federal agencies needed to implement the project and if the plan is part of another on-going or planned action.

The project's proposed funding package includes DNRC funds. The Administrator will prepare quarterly project reports to inform DNRC of the progress of the project. The Administrator will make requests to draw funds in the order presented in the grant application and will include copies of the Uniform spreadsheets to assist with tracking of funding.

Project design plans and permits will be reviewed and finalized by the City of Thompson Falls during regular Council meetings, as necessary. On-the-ground activities conducted by contractors and consultants will be coordinated through the City of Thompson Falls.

4. Discuss your public involvement plans during the planning and implementation of your project through completion and closeout.

Public input and involvement will be encouraged through open the City's Council meetings. Meetings will include an agenda item for public comment/questions. During this period, the Mayor will read any written public comments or questions received since the previous meeting. This avenue will be the formal method for City residents to participate in the project.

5. Describe how you will manage consultants responsible for completing major project tasks. Discuss how you will remain current on the status of consultant and contractor activities as project tasks are completed.

The City of Thompson Falls will contract with Great West Engineering to provide design and management services for this project. A scope of services will be provided in all contracts. Great West Engineering has considerable experience in administering and managing RRGL program projects. Their experience extends to irrigation facilities, stream and streambank restoration, bridge and culvert replacements, and water and sewer systems. Great West also has over 25 years of experience with municipal solid waste facilities. As the project management team, Great West Engineering with work directly with the City of Thompson Falls, the construction contractor, regulatory agencies and project stakeholders to ensure a successful project delivery.

The project startup will include a pre-construction conference will allow for coordination between the Contractor, Engineer, Administrator, City, and utilities.

The Engineer representative will hold weekly progress meetings at the project site. Engineer's and Contractor's supervisor's presence is mandatory. City personnel will be encouraged to attend.

The Administrator and Engineer will report at monthly Council meetings. The Administrator will prepare a report with each monthly drawdown request.

The City, with Administrator's assistance, will prepare project summaries for press releases and distribution along with utility billings.

If necessary, the Administrator will meet with concerned citizens.

The final project report will be written by the Administrator.

PART SIX: Financial Presentation

1. Total Budget

The City of Thompson Falls is requesting $125,000 in Montana Department of Natural Resources and Conservation Renewable Resources Grand funds, which will have provided approximately 93% of the budget for the Thompson Falls Wastewater Collection Systems Improvements Project. The objective of this project is to mitigate infrastructure impacts to groundwater and the Clark Fork River. Cost estimates used to generate this budget can be found in the attached Technical Report Appendix A.

Contract Administration

Costs for the contract administration and oversight by the City of Thompson Falls total **$3,300**, which is project-specific, reflecting the hours that will be spent by the City of Thompson Falls staff on the Thompson Falls Wastewater Collection Systems Improvements.

Professional and Technical Costs

Contracted costs for planning, design, and construction management are summarized in the table below. The total for professional and technical costs are approximately **$6,500**.

Project Task	Rate	per	Qty	Total
Project Design (CIPP)	$ 121.00	hr	16	$ 1,936.00
CIPP Construction Management	$ 121.00	hr	7	$ 847.00
DEQ review and approval	$ 70.00	hr	5	$ 350.00
Project Management	$ 150.00	hr	5	$ 750.00
Obtaining Quotes	$ 121.00	hr	3	$ 363.00
Pumps Construction Management	$150.00	hr	5	$750.00
Pump Controls Construction Management	$150.00	hr	5	$750.00
Construction Management Field Expenses	$ 121.00	hr	3	$ 363.00
Mileage	$ 0.65	mile	500	$ 320.00
Total Professional and Technical Costs				**$ 6,429.00**

Construction Costs

The clay sewer main cured-in-place piping located between Hill and Ferry Street, the new lift station controls, and new lift station pumps are estimated to be approximately **$124,000**. Costs estimates for all of the alternatives considered can be found in the Technical Report in Appendix A of this application, and discussed in detail in Technical Narrative of this application. A detailed breakdown of the construction and materials costs are also provided in the cost estimates found in Appendix A of this application.

2. Operation and Maintenance Costs

Operation and maintenance costs are anticipated to be less than current operation and maintenance costs. The lining of sewer main will eliminate foreseeable backups and the need jet the line and apply weed killer several times a year. The installation of new pumps and lift station controls will also reduce operation and maintenance costs. The new pumps will not need to be serviced as often. Being that the pumps will be almost 20 years newer, they will likely operate more efficiently and consume less power than the old pumps. Maintenance and operation will be less as result of this project and will be a reduction in cost of approximately $5,000 to $10,000 annually.

3. Funding Structure

The project currently has no matching funds. The City of Thompson Falls will be able to budget for the 7% ($8,800) of the project that will not be funded by grant funds, a written letter committing these funds has been provided by the City in Step 1 of this application. Follow-up activities (inspections, annual maintenance, etc.) in the future continue to be performed by the City.

4. Loan Information

Loan information is not applicable to this grant application.

Financial Documentation

1. The estimated professional/technical costs are included above in Part 1 of this section above.

   Copies of estimates used to generate the alternative cost estimates have been included in the Technical Report found in Appendix A of this application. Please refer to the Technical Report (Appendix A of this application) for the detailed construction cost estimates tables for this project.

2. The City does not intend to apply to other funding agencies for grant and or/load fund for this same project.

3. The City will be provided the remaining $8,800 for this project, a letter documenting this commitment has been included in Step 1 of this application.

Applicant Name __City of Thompson Falls__ **Budget Forms for Renewable Resource Projects**

1. Contract Administration

Date __May 13, 2016__

Category	DNRC Grant	DNRC Loan	Project Sponsor	Other ____ (Specify)	Other ____ (Specify)	Other ____ (Specify)	Total
Project manager	$3,300						$3,300
Administrative support							
Benefits							
Legal fees/bond counsel							
Audit fees							
Loan origination fee							
Bond reserve							
Subtotal	$3,300						$3,300
Communications							
Supplies							
Travel							
Rental							
Total Administration	$3,300						$3,300

Applicant Name **City of Thompson Falls** **Budget Forms for Renewable Resource Projects**

2. Professional and Technical Costs

Date **May 13, 2015**

Category	DNRC Grant	DNRC Loan	Project Sponsor	Other ______ (Specify)	Other ______ (Specify)	Other ______ (Specify)	Total
Professional/technical	$6,500.00						$6,500.00
Professional ______							
Other contracted services							
Subtotal Technical Services	$6,500.00						$6,500.00
Indirect costs, please Itemize							
Total Professional & Technical	$6,500.00						$6,500.00

Applicant Name City of Thompson Falls **Budget Forms For Renewable Resource Projects**

3. Construction Costs

Date May 15, 2016

Category	DNRC Grant	DNRC Loan	Project Sponsor	Other ____ *(Specify)*	Other ____ *(Specify)*	Other ____ *(Specify)*	Total
Labor	$27,000						$27,000
Materials	$97,000						$97,000
Equipment							
Construction contract							
Contingency (10%)							
Total Construction	$124,000						$124,000

4. Total Costs

A. Total Administration	$3,300						$3,300
B. Total Professional & Technical	$6,500						$6,500
C. Total Construction	$124,000						$124,000
Total Project Cost	$133,800						$133,800

INSERT APPLICANT AFFORDABILITY DATA.

PART SEVEN: Environmental Evaluation

The three elements of the proposed project address existing or potential environmental impacts incurred by municipal infrastructures. The sewer main in the undeveloped alley between Hill Street and Ferry Street is an 8-inch line that was installed in 1948, and was constructed under older, less protective environmental regulations. The lift station and wet well were originally constructed to reasonable specifications, but time and use have degraded the pumps as well as the controls and have exposed the wet well to the potent overflow to the Clark Fork River is overused.

Sewer Collection Main

SM 1 - No Action

The no-action alternative is the least environmentally responsible option. The aging clay sewer main in the Alley between Hill Street and Ferry Street would be left in place as it is. However, the City will continue to have numerous backups annually and will need to jet just as frequently, if not more often. Backups have the potential to reach surface water, as the line is less than 250 feet from the bank of the Clark Fork River. That would be a serious degradation of an important renewable resource The aging clay tile could continue to fail by cracking allowing more roots and infiltration of raw wastewater into the groundwater.

SM 2 - Replacing the Clay main with PVC main

Replacing the clay main with a PVC main will ensure a water-tight line from the upstream manhole to the downstream manhole. This would fix the environmental concerns for the foreseeable future. However, it would require expensive exposure and open cut excavation of the entire length of the main. A total replacement of the sewer main would have to be carefully designed and constructed due to the difficult terrain the main is located in.

SM 3 - Re-routing collection main

The aging clay main would be cut, plugged and abandoned in place, and a new PVC see main would be installed at the upstream manhole. The new main would then tie into an existing adjacent manhole and ultimately flowing into the lift station located a few blocks away. This approach ensures that the main would be located in an accessible right-of-way and would provide a water-tight vessel. However, adding additional length and installing a new PVC main is a still a costly approach and extensive open cut excavation in close proximity to the Clark Fork River could pose an environmental risk to an important renewable resource.

SM 4 - Rehabilitating Collection Main – Cured-in-Place Pipe (CIPP)

The City can easily access the main at the upstream and downstream manholes, but access for maintenance equipment in the undeveloped, steep alley way is very limited. Lining the aging existing 8-inch clay main with cured-in-place pipe (CIPP) would allow the main to be rehabilitating without the need to excavate the existing site. This alternative provides a high level of protection and will not require open-cut installation in the undeveloped alley. Rehabilitation of the clay main via CIPP will provide a high level of protection and will be the most cost efficient and environmentally useful option to fix the City's aging section of sewer main.

Lift Station Pumps & Wet Well

L 1 - No Action

The existing lift station pumps were installed in 1998 have had more frequent maintenance issues. The no-action alternative is the least environmentally responsible option. It is crucial that the raw wastewater at the wet well be pumped from the lift station. Currently, whenever there is down time do to maintenance issues, raw wastewater has the potential to overflow in the wet well and discharge into the nearby Clark Fork River (approximately 15 feet from the bank). With a no-action alternative this will continue serious degradation of the Clark Fork River, a very important renewable resource. It will continue to cause erosion on the bank of the river, and may result in human health safety concerns. No action will likely result in deteriorating conditions for the wastewater collection system as well as the river.

L 2 - Rebuilding Aging Pumps

The existing lift station pumps are nearing 20 years old, rebuilding the pumps will help them to operate more effectively. This would be an environmentally useful option as it removes the potential of the wet well to overflow and will repair issues with the pumps. However, the rebuilt pumps may need to be repaired more frequently as they age and will continue to need difficult to find replacement parts. If they do not operate correctly, they will still have a potential of not working causing wastewater to back up in the collection system. Any backups in the collection system would pose an environmental threat to the Clark Fork River.

L 3 - Replacing Aging Pumps

The existing lift station pumps were installed in 1998 have caused issues resulting in the City needing to spend valuable resources on maintenance problems. Typically, mechanical equipment has a life span of approximately 20 years. Completely replacing the pumps would increase the efficiency of the lift station and allow the system to operate as it was designed. Replacing the pumps would also eliminate the possibility that the wet well could overflow and discharge into the Clark Fork River (approximately 15 feet from the bank of the river). The pumps will result in reliable lift station operation for the City. This would be the highest level of environmental restoration.

Lift Station Controls

C 1 - No Action

The existing lift station pumps installed in 1998, the electrical control system has frequent issues and is not up to date. The no-action alternative is the least environmentally responsible option. It is crucial that the raw wastewater at the wet well be pumped from the lift station and that the electrical controls indicate when pumps turn on based on an accurate level reading of the wet well. Whenever there are electrical control issues, there is down time on the lift station pumps. This creates issues where raw wastewater has the potential to overflow from the wet well and discharge over the bank into the Clark Fork River. With a no-action alternative this will continue serious degradation of the Clark Fork River, a very important renewable resource. It will continue to cause erosion on the bank of the river, and may result in human health safety concerns. No action will likely result in deteriorating conditions for the wastewater collection system as well as the river.

C 2 - New Lift Station Controls

The existing lift station pump controls have had frequent electrical issues. It is crucial that the raw wastewater at the wet well be pumped from the lift station. The controls help to ensure that the lift station itself operates properly and alerts the City if there are any issues. Typically, electrical equipment has a lift span of approximately 20 years. This option would include installing an ultrasonic level transducer in the wet well. This would allow for accurate level readings of the wet well to be sent to the electrical control panel. Existing controls will be left in-pace to the extent practical providing a fail-safe redundancy that the system does not currently have. This option would provide the highest level of environmental restoration.

APPENDIX K

Flow Monitoring Data & Pictures

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Cornerstone Rd
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
Resolution	0.1	0.1	0.1	0.1	
Significant Digits	0	0	0	0	
3/24/2017 9:30	16.708	292.749	0.963	1.594	
3/24/2017 9:45	22.201	333.019	0.956	1.645	
3/24/2017 10:00	22.914	343.715	0.956	1.682	
3/24/2017 10:15	22.651	339.768	0.967	1.656	21.1185
3/24/2017 10:30	21.665	324.981	0.918	1.665	22.35775
3/24/2017 10:45	22.473	337.092	0.957	1.659	22.42575
3/24/2017 11:00	22.433	336.499	0.962	1.65	22.3055
3/24/2017 11:15	22.304	334.561	0.945	1.664	22.21875
3/24/2017 11:30	22.138	332.066	0.944	1.657	22.337
3/24/2017 11:45	21.131	316.968	0.904	1.654	22.0015
3/24/2017 12:00	23.604	354.062	1.012	1.651	22.29425
3/24/2017 12:15	21.543	323.145	0.926	1.648	22.104
3/24/2017 12:30	21.785	326.78	0.932	1.653	22.01575
3/24/2017 12:45	22.168	332.526	0.953	1.647	22.275
3/24/2017 13:00	21.373	320.602	0.926	1.638	21.71725
3/24/2017 13:15	22.879	343.193	0.982	1.65	22.05125
3/24/2017 13:30	21.423	321.34	0.931	1.635	21.96075
3/24/2017 13:45	22.053	330.801	0.936	1.663	21.932
3/24/2017 14:00	21.4	321.006	0.914	1.655	21.93875
3/24/2017 14:15	21.341	320.108	0.918	1.647	21.55425
3/24/2017 14:30	21.446	321.696	0.922	1.648	21.56
3/24/2017 14:45	21.201	318.021	0.916	1.642	21.347
3/24/2017 15:00	22.108	331.626	0.962	1.633	21.524
3/24/2017 15:15	20.819	312.291	0.91	1.628	21.3935
3/24/2017 15:30	22.038	330.568	0.955	1.638	21.5415
3/24/2017 15:45	20.19	302.847	0.887	1.623	21.28875
3/24/2017 16:00	20.922	313.823	0.908	1.636	20.99225
3/24/2017 16:15	21.198	317.975	0.929	1.626	21.087
3/24/2017 16:30	21.281	319.219	0.929	1.629	20.89775
3/24/2017 16:45	21.415	321.222	0.935	1.63	21.204
3/24/2017 17:00	20.249	303.729	0.883	1.631	21.03575
3/24/2017 17:15	21.954	329.313	0.949	1.641	21.22475
3/24/2017 17:30	19.982	299.73	0.871	1.631	20.9
3/24/2017 17:45	21.434	321.515	0.94	1.625	20.90475
3/24/2017 18:00	19.921	298.811	0.878	1.62	20.82275
3/24/2017 18:15	20.507	307.6	0.905	1.618	20.461
3/24/2017 18:30	23.198	347.97	0.988	1.658	21.265
3/24/2017 18:45	20.921	313.818	0.921	1.621	21.13675
3/24/2017 19:00	21.173	317.593	0.939	1.612	21.44975
3/24/2017 19:15	20.717	310.758	0.917	1.614	21.50225
3/24/2017 19:30	19.785	296.78	0.873	1.618	20.649
3/24/2017 19:45	20.58	308.703	0.914	1.611	20.56375
3/24/2017 20:00	20.015	300.223	0.891	1.608	20.27425
3/24/2017 20:15	21.55	323.254	0.966	1.6	20.4825
3/24/2017 20:30	20.825	312.376	0.926	1.609	20.7425
3/24/2017 20:45	18.764	281.462	0.838	1.605	20.2885
3/24/2017 21:00	21.194	317.905	0.947	1.603	20.58325
3/24/2017 21:15	21.64	324.596	0.937	1.64	20.60575
3/24/2017 21:30	20.781	311.714	0.924	1.609	20.59475
3/24/2017 21:45	20.556	308.338	0.91	1.614	21.04275
3/24/2017 22:00	19.101	286.515	0.85	1.609	20.5195
3/24/2017 22:15	20.623	309.344	0.924	1.601	20.26525
3/24/2017 22:30	20.655	309.83	0.913	1.616	20.23375
3/24/2017 22:45	20.305	304.582	0.894	1.62	20.171
3/24/2017 23:00	18.677	280.162	0.835	1.603	20.065
3/24/2017 23:15	20.081	301.211	0.898	1.603	19.9295
3/24/2017 23:30	20.455	306.825	0.892	1.631	19.8795
3/24/2017 23:45	19.396	290.943	0.858	1.615	19.65225
3/25/2017 0:00	20.553	308.302	0.92	1.601	20.12125
3/25/2017 0:15	20.341	305.117	0.916	1.594	20.18625
3/25/2017 0:30	20.006	300.097	0.899	1.597	20.074
3/25/2017 0:45	19.941	299.119	0.904	1.588	20.21025
3/25/2017 1:00	20.394	305.906	0.925	1.587	20.1705
3/25/2017 1:15	17.833	267.496	0.809	1.587	19.5435
3/25/2017 1:30	20.717	310.759	0.94	1.586	19.72125
3/25/2017 1:45	19.679	295.185	0.889	1.592	19.65575
3/25/2017 2:00	20.59	308.845	0.933	1.588	19.70475
3/25/2017 2:15	17.529	262.93	0.8	1.579	19.62875
3/25/2017 2:30	19.685	295.274	0.898	1.581	19.37075
3/25/2017 2:45	19.16	287.4	0.875	1.58	19.241
3/25/2017 3:00	18.357	275.36	0.842	1.575	18.68275
3/25/2017 3:15	20.359	305.381	0.935	1.573	19.39025
3/25/2017 3:30	18.607	279.112	0.84	1.592	19.12075
3/25/2017 3:45	18.656	279.835	0.838	1.598	18.99475
3/25/2017 4:00	18.816	282.245	0.85	1.592	19.1095
3/25/2017 4:15	18.853	282.797	0.848	1.596	18.733
3/25/2017 4:30	19.761	296.419	0.891	1.593	19.0215
3/25/2017 4:45	19.867	298.008	0.893	1.597	19.32425
3/25/2017 5:00	19.498	292.474	0.888	1.583	19.49475
3/25/2017 5:15	18.172	272.573	0.822	1.59	19.3245
3/25/2017 5:30	20.364	305.453	0.933	1.576	19.47525
3/25/2017 5:45	17.609	264.128	0.803	1.582	18.91075
3/25/2017 6:00	19.542	293.123	0.888	1.585	18.92175
3/25/2017 6:15	19.135	287.023	0.873	1.58	19.1625
3/25/2017 6:30	16.762	251.436	0.767	1.578	18.262
3/25/2017 6:45	18.892	283.382	0.859	1.584	18.58275

Daily Flow (gpm)			
Date	Minimum	Average	Maximum
24-Mar	16.71	21.1	23.6
25-Mar	15.25	18.71	22.04
26-Mar	13.59	16.17	18.43
27-Mar	12.12	14.72	17.65
28-Mar	9.72	13.06	17.41
29-Mar	8.13	11.94	13.82
30-Mar	4.62	10.56	15.1
31-Mar	9	9.79	12.33
1-Apr	6.16	8.36	10
2-Apr	6.54	7.97	11.61
3-Apr	5.6	6.46	12.87
4-Apr	5.36	6.08	10.03
5-Apr	4.84	5.6	7.71
6-Apr	3.85	5.56	10.14
7-Apr	4.73	5.08	6.06

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
3/25/2017 7:00	19.637	294.561	0.898	1.578	18.6065
3/25/2017 7:15	19.58	293.696	0.896	1.577	18.71775
3/25/2017 7:30	17.643	264.643	0.811	1.572	18.938
3/25/2017 7:45	19.742	296.125	0.91	1.569	19.1505
3/25/2017 8:00	17.965	269.481	0.823	1.575	18.7325
3/25/2017 8:15	18.059	270.882	0.833	1.569	18.35225
3/25/2017 8:30	19.079	286.187	0.88	1.568	18.71125
3/25/2017 8:45	19.423	291.345	0.893	1.572	18.6315
3/25/2017 9:00	18.574	278.606	0.857	1.568	18.78375
3/25/2017 9:15	20.238	303.571	0.917	1.589	19.3285
3/25/2017 9:30	18.588	278.824	0.855	1.572	19.20575
3/25/2017 9:45	19.644	294.665	0.907	1.568	19.261
3/25/2017 10:00	19.939	299.08	0.927	1.56	19.60225
3/25/2017 10:15	20.044	300.658	0.93	1.562	19.55375
3/25/2017 10:30	22.044	330.664	1.02	1.565	20.41775
3/25/2017 10:45	17.938	269.064	0.832	1.562	19.99125
3/25/2017 11:00	19.488	292.313	0.881	1.59	19.8785
3/25/2017 11:15	18.702	280.525	0.862	1.57	19.543
3/25/2017 11:30	18.505	277.571	0.857	1.564	18.65825
3/25/2017 11:45	19.492	292.384	0.886	1.585	19.04675
3/25/2017 12:00	17.484	262.253	0.808	1.566	18.54575
3/25/2017 12:15	18.62	279.303	0.856	1.572	18.52525
3/25/2017 12:30	18.701	280.522	0.881	1.546	18.57425
3/25/2017 12:45	19.027	285.401	0.889	1.555	18.458
3/25/2017 13:00	18.121	271.816	0.85	1.55	18.61725
3/25/2017 13:15	17.592	263.882	0.829	1.545	18.36025
3/25/2017 13:30	17.389	260.828	0.819	1.546	18.03225
3/25/2017 13:45	19.812	297.187	0.941	1.537	18.2285
3/25/2017 14:00	18.465	276.979	0.871	1.545	18.3145
3/25/2017 14:15	21.434	321.517	0.923	1.645	19.275
3/25/2017 14:30	19.045	285.675	0.877	1.57	19.689
3/25/2017 14:45	18.703	280.544	0.857	1.575	19.41175
3/25/2017 15:00	20.248	303.718	0.926	1.578	19.8575
3/25/2017 15:15	17.357	260.352	0.808	1.559	18.83825
3/25/2017 15:30	18.353	275.294	0.844	1.572	18.66525
3/25/2017 15:45	19.726	295.888	0.899	1.582	18.921
3/25/2017 16:00	19.962	299.423	0.924	1.565	18.8495
3/25/2017 16:15	18.873	283.092	0.885	1.55	19.2285
3/25/2017 16:30	18.248	273.717	0.853	1.554	19.20225
3/25/2017 16:45	18.667	280.002	0.86	1.57	18.9375
3/25/2017 17:00	18.562	278.433	0.855	1.57	18.5875
3/25/2017 17:15	18.145	272.18	0.849	1.553	18.4055
3/25/2017 17:30	18.425	276.378	0.86	1.555	18.44975
3/25/2017 17:45	19.052	285.781	0.887	1.558	18.546
3/25/2017 18:00	18.109	271.638	0.848	1.552	18.43275
3/25/2017 18:15	18.255	273.819	0.848	1.561	18.46025
3/25/2017 18:30	17.896	268.444	0.836	1.555	18.328
3/25/2017 18:45	17.514	262.715	0.808	1.568	17.9435
3/25/2017 19:00	16.187	242.805	0.755	1.557	17.463
3/25/2017 19:15	17.496	262.446	0.815	1.558	17.27325
3/25/2017 19:30	16.441	246.615	0.769	1.553	16.9095
3/25/2017 19:45	18.859	282.881	0.872	1.565	17.24575
3/25/2017 20:00	17.286	259.288	0.809	1.553	17.5205
3/25/2017 20:15	18.412	276.173	0.864	1.549	17.7495
3/25/2017 20:30	15.565	233.47	0.731	1.549	17.5305
3/25/2017 20:45	17.861	267.914	0.838	1.55	17.281
3/25/2017 21:00	18.182	272.729	0.856	1.546	17.505
3/25/2017 21:15	18.253	273.802	0.851	1.556	17.46525
3/25/2017 21:30	17.756	266.341	0.836	1.546	18.013
3/25/2017 21:45	17.892	268.38	0.84	1.549	18.02075
3/25/2017 22:00	17.847	267.708	0.844	1.542	17.937
3/25/2017 22:15	18.047	270.698	0.846	1.551	17.8855
3/25/2017 22:30	18.119	271.788	0.854	1.545	17.97625
3/25/2017 22:45	15.247	228.699	0.727	1.532	17.315
3/25/2017 23:00	18.876	283.133	0.892	1.542	17.57225
3/25/2017 23:15	18.755	281.32	0.893	1.534	17.74925
3/25/2017 23:30	17.314	259.706	0.826	1.532	17.548
3/25/2017 23:45	16.339	245.079	0.781	1.529	17.821
3/26/2017 0:00	17.859	267.882	0.843	1.544	17.56675
3/26/2017 0:15	17.454	261.805	0.838	1.525	17.2415
3/26/2017 0:30	17.671	265.071	0.853	1.519	17.33075
3/26/2017 0:45	18.304	274.554	0.875	1.53	17.822
3/26/2017 1:00	18.432	276.476	0.877	1.535	17.96525
3/26/2017 1:15	18.206	273.095	0.872	1.527	18.15325
3/26/2017 1:30	17.57	263.55	0.842	1.528	18.128
3/26/2017 1:45	16.873	253.09	0.809	1.526	17.77025
3/26/2017 2:00	16.841	252.618	0.812	1.521	17.3725
3/26/2017 2:15	16.963	254.445	0.811	1.53	17.06175
3/26/2017 2:30	15.142	227.123	0.736	1.511	16.45475
3/26/2017 2:45	16.513	247.702	0.802	1.514	16.36475
3/26/2017 3:00	13.586	203.785	0.66	1.513	15.551
3/26/2017 3:15	15.865	237.972	0.772	1.511	15.2765
3/26/2017 3:30	15.652	234.781	0.764	1.507	15.404
3/26/2017 3:45	14.905	223.572	0.727	1.509	15.002
3/26/2017 4:00	14.702	220.536	0.72	1.505	15.281
3/26/2017 4:15	18.414	276.214	0.895	1.512	15.91825
3/26/2017 4:30	14.743	221.144	0.724	1.501	15.691
3/26/2017 4:45	16.987	254.8	0.838	1.496	16.2115
3/26/2017 5:00	17.387	260.809	0.852	1.504	16.88275
3/26/2017 5:15	16.147	242.198	0.794	1.5	16.316
3/26/2017 5:30	16.608	249.124	0.818	1.498	16.78225
3/26/2017 5:45	16.782	251.73	0.828	1.497	16.731

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
3/26/2017 6:00	16.709	250.64	0.826	1.494	16.5615
3/26/2017 6:15	15.733	235.999	0.779	1.493	16.458
3/26/2017 6:30	15.77	236.557	0.785	1.487	16.2485
3/26/2017 6:45	17.158	257.371	0.852	1.49	16.3425
3/26/2017 7:00	16.618	249.27	0.829	1.485	16.31975
3/26/2017 7:15	14.879	223.184	0.741	1.487	16.10625
3/26/2017 7:30	16.197	242.952	0.806	1.488	16.213
3/26/2017 7:45	15.257	228.86	0.767	1.477	15.73775
3/26/2017 8:00	17.165	257.474	0.858	1.483	15.8745
3/26/2017 8:15	15.853	237.801	0.796	1.478	16.118
3/26/2017 8:30	14.921	223.819	0.754	1.472	15.799
3/26/2017 8:45	15.962	239.428	0.799	1.482	15.97525
3/26/2017 9:00	16.168	242.523	0.808	1.483	15.726
3/26/2017 9:15	15.592	233.875	0.782	1.479	15.66075
3/26/2017 9:30	16.541	248.11	0.835	1.472	16.06575
3/26/2017 9:45	15.865	237.982	0.765	1.52	16.0415
3/26/2017 10:00	17.663	264.94	0.863	1.507	16.41525
3/26/2017 10:15	16.84	252.599	0.778	1.567	16.72725
3/26/2017 10:30	17.19	257.847	0.836	1.512	16.8895
3/26/2017 10:45	15.964	239.457	0.782	1.504	16.91425
3/26/2017 11:00	16.538	248.069	0.817	1.495	16.633
3/26/2017 11:15	15.73	235.947	0.766	1.51	16.3555
3/26/2017 11:30	18.237	273.561	0.854	1.553	16.61725
3/26/2017 11:45	16.665	249.97	0.792	1.536	16.7925
3/26/2017 12:00	16.508	247.619	0.796	1.521	16.785
3/26/2017 12:15	17.461	261.918	0.792	1.586	17.21775
3/26/2017 12:30	17.994	269.909	0.842	1.553	17.157
3/26/2017 12:45	16.604	249.064	0.817	1.499	17.14175
3/26/2017 13:00	15.671	235.069	0.772	1.498	16.9325
3/26/2017 13:15	15.665	234.968	0.777	1.491	16.4835
3/26/2017 13:30	16.882	253.233	0.827	1.505	16.2055
3/26/2017 13:45	16.317	244.758	0.812	1.487	16.13375
3/26/2017 14:00	16.777	251.66	0.829	1.495	16.41025
3/26/2017 14:15	16.659	249.892	0.821	1.498	16.65875
3/26/2017 14:30	15.313	229.694	0.76	1.49	16.2665
3/26/2017 14:45	16.249	243.737	0.807	1.489	16.2495
3/26/2017 15:00	14.519	217.784	0.719	1.493	15.685
3/26/2017 15:15	16.734	251.013	0.829	1.492	15.70375
3/26/2017 15:30	16.118	241.776	0.792	1.501	15.905
3/26/2017 15:45	15.33	229.955	0.759	1.493	15.67525
3/26/2017 16:00	15.714	235.711	0.781	1.488	15.974
3/26/2017 16:15	15.678	235.172	0.781	1.486	15.71
3/26/2017 16:30	16.445	246.672	0.821	1.485	15.79175
3/26/2017 16:45	15.259	228.88	0.758	1.489	15.774
3/26/2017 17:00	15.995	239.922	0.803	1.478	15.84425
3/26/2017 17:15	15.376	230.645	0.769	1.482	15.76875
3/26/2017 17:30	15.286	229.284	0.764	1.484	15.479
3/26/2017 17:45	16.917	253.76	0.82	1.515	15.8935
3/26/2017 18:00	15.587	233.8	0.767	1.5	15.7915
3/26/2017 18:15	14.846	222.687	0.741	1.485	15.659
3/26/2017 18:30	17.162	257.428	0.842	1.503	16.128
3/26/2017 18:45	14.779	221.686	0.73	1.496	15.5935
3/26/2017 19:00	14.944	224.153	0.744	1.487	15.43275
3/26/2017 19:15	15.115	226.73	0.753	1.486	15.5
3/26/2017 19:30	15.081	226.209	0.745	1.495	14.97975
3/26/2017 19:45	17.31	259.649	0.843	1.511	15.6125
3/26/2017 20:00	16.54	248.1	0.832	1.477	16.0115
3/26/2017 20:15	14.975	224.625	0.756	1.473	15.9765
3/26/2017 20:30	15.348	230.213	0.776	1.471	16.04325
3/26/2017 20:45	17.167	257.501	0.864	1.476	16.0075
3/26/2017 21:00	16.002	240.03	0.802	1.48	15.873
3/26/2017 21:15	15.281	229.211	0.751	1.5	15.9495
3/26/2017 21:30	16.179	242.679	0.773	1.53	16.15725
3/26/2017 21:45	15.712	235.675	0.761	1.515	15.7935
3/26/2017 22:00	16.041	240.614	0.799	1.487	15.80325
3/26/2017 22:15	14.927	223.901	0.757	1.468	15.71475
3/26/2017 22:30	15.487	232.306	0.79	1.462	15.54175
3/26/2017 22:45	14.593	218.888	0.734	1.477	15.262
3/26/2017 23:00	14.614	219.212	0.744	1.464	14.90525
3/26/2017 23:15	16.33	244.944	0.804	1.498	15.256
3/26/2017 23:30	15.699	235.482	0.788	1.479	15.309
3/26/2017 23:45	14.471	217.072	0.731	1.473	15.2785
3/27/2017 0:00	14.592	218.875	0.741	1.467	15.273
3/27/2017 0:15	13.944	209.153	0.708	1.467	14.6765
3/27/2017 0:30	14.244	213.659	0.725	1.464	14.31275
3/27/2017 0:45	14.811	222.161	0.761	1.455	14.39775
3/27/2017 1:00	14.593	218.89	0.746	1.46	14.398
3/27/2017 1:15	14.76	221.406	0.752	1.464	14.602
3/27/2017 1:30	14.819	222.284	0.753	1.466	14.74575
3/27/2017 1:45	13.48	202.202	0.685	1.466	14.413
3/27/2017 2:00	15.435	231.52	0.787	1.463	14.6235
3/27/2017 2:15	15.878	238.165	0.818	1.452	14.903
3/27/2017 2:30	15.086	226.291	0.774	1.457	14.96975
3/27/2017 2:45	14.086	211.297	0.727	1.45	15.12125
3/27/2017 3:00	14.767	221.511	0.756	1.459	14.95425
3/27/2017 3:15	15.653	234.8	0.802	1.457	14.898
3/27/2017 3:30	15.325	229.872	0.789	1.452	14.95775
3/27/2017 3:45	14.98	224.698	0.775	1.448	15.18125
3/27/2017 4:00	15.026	225.396	0.78	1.445	15.246
3/27/2017 4:15	15.395	230.929	0.792	1.454	15.1815
3/27/2017 4:30	14.848	222.72	0.772	1.443	15.06225
3/27/2017 4:45	14.505	217.581	0.742	1.459	14.9435

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
3/27/2017 5:00	14.176	212.638	0.73	1.453	14.731
3/27/2017 5:15	14.934	224.004	0.773	1.448	14.61575
3/27/2017 5:30	15.014	225.211	0.769	1.458	14.65725
3/27/2017 5:45	14.068	211.019	0.732	1.442	14.548
3/27/2017 6:00	14.511	217.662	0.751	1.447	14.63175
3/27/2017 6:15	14.658	219.867	0.757	1.45	14.56275
3/27/2017 6:30	14.563	218.442	0.748	1.455	14.45
3/27/2017 6:45	14.468	217.02	0.746	1.452	14.55
3/27/2017 7:00	13.762	206.426	0.717	1.441	14.36275
3/27/2017 7:15	13.693	205.399	0.713	1.442	14.1215
3/27/2017 7:30	13.928	208.924	0.721	1.447	13.96275
3/27/2017 7:45	14.024	210.355	0.733	1.437	13.85175
3/27/2017 8:00	14.105	211.577	0.732	1.445	13.9375
3/27/2017 8:15	13.999	209.98	0.724	1.448	14.014
3/27/2017 8:30	14.027	210.403	0.733	1.439	14.03875
3/27/2017 8:45	14.44	216.604	0.745	1.451	14.14275
3/27/2017 9:00	14.597	218.959	0.76	1.441	14.26575
3/27/2017 9:15	17.069	256.039	0.816	1.53	15.03325
3/27/2017 9:30	15.472	232.085	0.684	1.615	15.3945
3/27/2017 9:45	15.745	236.182	0.684	1.636	15.72075
3/27/2017 10:00	17.65	264.745	0.731	1.691	16.484
3/27/2017 10:15	14.841	222.61	0.654	1.619	15.927
3/27/2017 10:30	14.394	215.906	0.641	1.608	15.6575
3/27/2017 10:45	13.307	199.607	0.592	1.609	15.048
3/27/2017 11:00	12.115	181.726	0.544	1.598	13.66425
3/27/2017 11:15	16.076	241.14	0.721	1.599	13.973
3/27/2017 11:30	15.535	233.028	0.703	1.589	14.25825
3/27/2017 11:45	13.844	207.661	0.63	1.583	14.3925
3/27/2017 12:00	14.586	218.786	0.658	1.593	15.01025
3/27/2017 12:15	15.969	239.537	0.73	1.578	14.9835
3/27/2017 12:30	15.236	228.546	0.687	1.594	14.90875
3/27/2017 12:45	15.003	225.047	0.681	1.585	15.1985
3/27/2017 13:00	15.357	230.355	0.685	1.605	15.39125
3/27/2017 13:15	14.688	220.32	0.67	1.581	15.071
3/27/2017 13:30	17.189	257.833	0.734	1.655	15.55925
3/27/2017 13:45	17.46	261.896	0.758	1.636	16.1735
3/27/2017 14:00	15.968	239.513	0.707	1.615	16.32625
3/27/2017 14:15	13.741	206.111	0.631	1.573	16.0895
3/27/2017 14:30	14.538	218.064	0.675	1.562	15.42675
3/27/2017 14:45	14.264	213.953	0.661	1.564	14.62775
3/27/2017 15:00	14.587	218.801	0.672	1.57	14.2825
3/27/2017 15:15	14.624	219.358	0.662	1.59	14.50325
3/27/2017 15:30	14.91	223.65	0.689	1.567	14.59625
3/27/2017 15:45	14.295	214.422	0.653	1.578	14.604
3/27/2017 16:00	14.255	213.826	0.66	1.564	14.521
3/27/2017 16:15	14.145	212.173	0.655	1.564	14.40125
3/27/2017 16:30	15.479	232.185	0.715	1.567	14.5435
3/27/2017 16:45	14.85	222.743	0.696	1.551	14.68225
3/27/2017 17:00	14.385	215.768	0.665	1.566	14.71475
3/27/2017 17:15	14.368	215.514	0.665	1.564	14.7705
3/27/2017 17:30	15.232	228.484	0.699	1.575	14.70875
3/27/2017 17:45	14.464	216.965	0.672	1.56	14.61225
3/27/2017 18:00	14.513	217.696	0.678	1.555	14.64425
3/27/2017 18:15	13.697	205.452	0.639	1.557	14.4765
3/27/2017 18:30	13.793	206.902	0.641	1.56	14.11675
3/27/2017 18:45	14.555	218.319	0.668	1.574	14.1395
3/27/2017 19:00	15.675	235.13	0.733	1.554	14.43
3/27/2017 19:15	15.656	234.833	0.728	1.56	14.91975
3/27/2017 19:30	13.105	196.574	0.61	1.558	14.74775
3/27/2017 19:45	15.12	226.799	0.707	1.554	14.889
3/27/2017 20:00	14.382	215.726	0.674	1.551	14.56575
3/27/2017 20:15	14.137	212.057	0.665	1.547	14.186
3/27/2017 20:30	14.358	215.37	0.677	1.545	14.49925
3/27/2017 20:45	15.007	225.1	0.698	1.56	14.471
3/27/2017 21:00	15.373	230.597	0.71	1.567	14.71875
3/27/2017 21:15	13.736	206.041	0.646	1.548	14.6185
3/27/2017 21:30	14.249	213.739	0.676	1.538	14.59125
3/27/2017 21:45	13.797	206.961	0.65	1.546	14.28875
3/27/2017 22:00	14.579	218.687	0.695	1.533	14.09025
3/27/2017 22:15	15.276	229.137	0.705	1.567	14.47525
3/27/2017 22:30	14.967	224.508	0.71	1.538	14.65475
3/27/2017 22:45	14.516	217.744	0.684	1.545	14.8345
3/27/2017 23:00	14.607	219.1	0.698	1.531	14.8415
3/27/2017 23:15	14.9	223.502	0	1.552	14.7475
3/27/2017 23:30	14.094	211.414	0.674	1.529	14.52925
3/27/2017 23:45	14.115	211.723	0	1.531	14.429
3/28/2017 0:00	13.866	207.994	0.662	1.532	14.24375
3/28/2017 0:15	13.174	197.61	0.629	1.531	13.81225
3/28/2017 0:30	14.732	220.98	0.706	1.527	13.97175
3/28/2017 0:45	13.859	207.885	0.661	1.532	13.90775
3/28/2017 1:00	13.681	205.21	0.66	1.52	13.8615
3/28/2017 1:15	15.124	226.853	0.721	1.533	14.349
3/28/2017 1:30	13.357	200.355	0.639	1.529	14.00525
3/28/2017 1:45	14.914	223.707	0.714	1.528	14.269
3/28/2017 2:00	10.754	161.314	0.511	1.537	13.53725
3/28/2017 2:15	13.868	208.026	0.666	1.525	13.22325
3/28/2017 2:30	17.408	261.127	0.834	1.527	14.236
3/28/2017 2:45	13.243	198.638	0.638	1.522	13.81825
3/28/2017 3:00	12.97	194.552	0.627	1.518	14.37225
3/28/2017 3:15	13.499	202.485	0.652	1.519	14.28
3/28/2017 3:30	13.714	205.704	0.654	1.532	13.3565
3/28/2017 3:45	14.186	212.784	0.687	1.516	13.59225

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
3/28/2017 4:00	13.904	208.556	0.669	1.522	13.82575
3/28/2017 4:15	13.465	201.968	0.651	1.518	13.81725
3/28/2017 4:30	12.103	181.546	0.583	1.521	13.4145
3/28/2017 4:45	13.665	204.975	0.661	1.518	13.28425
3/28/2017 5:00	14.579	218.686	0.714	1.505	13.453
3/28/2017 5:15	10.929	163.94	0.532	1.511	12.819
3/28/2017 5:30	13.061	195.916	0.632	1.516	13.0585
3/28/2017 5:45	13.783	206.74	0.671	1.511	13.088
3/28/2017 6:00	13.158	197.372	0.641	1.51	12.73275
3/28/2017 6:15	14.921	223.808	0.724	1.514	13.73075
3/28/2017 6:30	13.945	209.181	0.68	1.508	13.95175
3/28/2017 6:45	14.52	217.798	0.706	1.511	14.136
3/28/2017 7:00	13.695	205.42	0.669	1.507	14.27025
3/28/2017 7:15	14.316	214.734	0.702	1.503	14.119
3/28/2017 7:30	13.497	202.458	0.664	1.499	14.007
3/28/2017 7:45	13.536	203.038	0.659	1.511	13.761
3/28/2017 8:00	13.616	204.233	0.662	1.512	13.74125
3/28/2017 8:15	13.231	198.468	0.647	1.506	13.47
3/28/2017 8:30	11.872	178.078	0.581	1.506	13.06375
3/28/2017 8:45	12.256	183.834	0.602	1.5	12.74375
3/28/2017 9:00	13.174	197.612	0.649	1.498	12.63325
3/28/2017 9:15	14.127	211.898	0.689	1.509	12.85725
3/28/2017 9:30	12.871	193.065	0.624	1.515	13.107
3/28/2017 9:45	12.104	181.559	0.595	1.501	13.069
3/28/2017 10:00	12.231	183.46	0.598	1.505	12.83325
3/28/2017 10:15	13.157	197.358	0.641	1.51	12.59075
3/28/2017 10:30	13.387	200.811	0.654	1.507	12.71975
3/28/2017 10:45	12.169	182.539	0.603	1.492	12.736
3/28/2017 11:00	13.342	200.135	0.659	1.495	13.01375
3/28/2017 11:15	12.895	193.429	0.638	1.494	12.94825
3/28/2017 11:30	11.373	170.591	0.567	1.485	12.44475
3/28/2017 11:45	13.83	207.457	0.67	1.516	12.86
3/28/2017 12:00	13.781	206.714	0.667	1.517	12.96975
3/28/2017 12:15	11.898	178.466	0.582	1.505	12.7205
3/28/2017 12:30	11.858	177.871	0	1.501	12.84175
3/28/2017 12:45	11.785	176.78	0	1.495	12.3305
3/28/2017 13:00	12.238	183.575	0.602	1.499	11.94475
3/28/2017 13:15	13.784	206.753	0.664	1.521	12.41625
3/28/2017 13:30	14.556	218.333	0.689	1.54	13.09075
3/28/2017 13:45	13.833	207.489	0.671	1.515	13.60275
3/28/2017 14:00	13.969	209.53	0.683	1.506	14.0355
3/28/2017 14:15	16.086	241.289	0.786	1.506	14.611
3/28/2017 14:30	14.031	210.463	0.685	1.508	14.47975
3/28/2017 14:45	14.019	210.278	0.683	1.51	14.52625
3/28/2017 15:00	14.995	224.921	0.732	1.508	14.78275
3/28/2017 15:15	13.15	197.257	0.644	1.505	14.04875
3/28/2017 15:30	13.37	200.548	0	1.522	13.8835
3/28/2017 15:45	13.394	200.903	0	1.524	13.72725
3/28/2017 16:00	12.07	181.044	0.597	1.494	12.996
3/28/2017 16:15	12.089	181.338	0	1.496	12.73075
3/28/2017 16:30	12.726	190.896	0	1.55	12.56975
3/28/2017 16:45	12.223	183.343	0	1.507	12.277
3/28/2017 17:00	10.502	157.532	0.508	1.517	11.885
3/28/2017 17:15	10.267	154	0	1.494	11.4295
3/28/2017 17:30	10.238	153.563	0	1.491	10.8075
3/28/2017 17:45	11.47	172.048	0.58	1.471	10.61925
3/28/2017 18:00	11.561	173.415	0	1.479	10.884
3/28/2017 18:15	13.313	199.7	0.664	1.486	11.6455
3/28/2017 18:30	13.786	206.795	0.692	1.479	12.5325
3/28/2017 18:45	12.657	189.855	0.636	1.477	12.82925
3/28/2017 19:00	12.588	188.816	0	1.472	13.086
3/28/2017 19:15	10.28	154.202	0.519	1.473	12.32775
3/28/2017 19:30	12.606	189.089	0.635	1.475	12.03275
3/28/2017 19:45	9.821	147.321	0.491	1.482	11.32375
3/28/2017 20:00	9.716	145.735	0	1.471	10.60575
3/28/2017 20:15	12.831	192.468	0.65	1.47	11.2435
3/28/2017 20:30	11.467	172.005	0.58	1.471	10.95875
3/28/2017 20:45	11.509	172.636	0	1.474	11.38075
3/28/2017 21:00	11.612	174.173	0.584	1.477	11.85475
3/28/2017 21:15	11.48	172.196	0	1.466	11.517
3/28/2017 21:30	13.805	207.077	0.697	1.472	12.1015
3/28/2017 21:45	14.29	214.355	0.722	1.472	12.79675
3/28/2017 22:00	14.335	215.023	0	1.475	13.4775
3/28/2017 22:15	13.809	207.13	0.699	1.469	14.05975
3/28/2017 22:30	13.938	209.071	0	1.479	14.093
3/28/2017 22:45	12.85	192.745	0.652	1.468	13.733
3/28/2017 23:00	14.364	215.453	0.726	1.471	13.74025
3/28/2017 23:15	12.621	189.309	0.643	1.464	13.44325
3/28/2017 23:30	12.523	187.845	0	1.456	13.0895
3/28/2017 23:45	12.569	188.542	0	1.46	13.01925
3/29/2017 0:00	12.049	180.736	0.618	1.457	12.4405
3/29/2017 0:15	12.634	189.505	0.648	1.456	12.44375
3/29/2017 0:30	12.562	188.427	0	1.45	12.4535
3/29/2017 0:45	13.743	206.146	0.705	1.456	12.747
3/29/2017 1:00	13.723	205.841	0	1.455	13.1655
3/29/2017 1:15	11.802	177.028	0.607	1.454	12.9575
3/29/2017 1:30	13.235	198.524	0.684	1.449	13.12575
3/29/2017 1:45	12.002	180.031	0.619	1.451	12.6905
3/29/2017 2:00	11.993	179.897	0	1.451	12.258
3/29/2017 2:15	13.377	200.65	0.698	1.44	12.65175
3/29/2017 2:30	13.392	200.876	0	1.441	12.691
3/29/2017 2:45	13.54	203.099	0	1.452	13.0755

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
3/29/2017 3:00	13.414	201.215	0	1.443	13.43075
3/29/2017 3:15	13.407	201.102	0	1.442	13.43825
3/29/2017 3:30	13.563	203.439	0	1.454	13.481
3/29/2017 3:45	13.49	202.345	0	1.448	13.4685
3/29/2017 4:00	13.51	202.646	0	1.45	13.4925
3/29/2017 4:15	13.492	202.382	0	1.449	13.51375
3/29/2017 4:30	13.691	205.367	0	1.463	13.54575
3/29/2017 4:45	12.074	181.114	0.625	1.447	13.19175
3/29/2017 5:00	13.687	205.311	0.7	1.46	13.236
3/29/2017 5:15	13.536	203.038	0	1.448	13.247
3/29/2017 5:30	13.49	202.347	0	1.445	13.19675
3/29/2017 5:45	13.246	198.696	0.687	1.445	13.48975
3/29/2017 6:00	13.331	199.959	0	1.451	13.40075
3/29/2017 6:15	11.379	170.692	0.585	1.454	12.8615
3/29/2017 6:30	11.437	171.557	0	1.459	12.34825
3/29/2017 6:45	11.418	171.263	0	1.458	11.89125
3/29/2017 7:00	11.289	169.332	0	1.446	11.38075
3/29/2017 7:15	11.329	169.933	0	1.45	11.36825
3/29/2017 7:30	11.28	169.205	0	1.446	11.329
3/29/2017 7:45	11.24	168.607	0.584	1.444	11.2845
3/29/2017 8:00	11.639	174.592	0.605	1.443	11.372
3/29/2017 8:15	12.746	191.193	0.664	1.441	11.72625
3/29/2017 8:30	12.118	181.774	0.629	1.444	11.93575
3/29/2017 8:45	12.003	180.05	0.627	1.439	12.1265
3/29/2017 9:00	12.358	185.369	0.645	1.439	12.30625
3/29/2017 9:15	11.265	168.977	0.579	1.454	11.936
3/29/2017 9:30	12.395	185.927	0.633	1.461	12.00525
3/29/2017 9:45	11.648	174.716	0.592	1.467	11.9165
3/29/2017 10:00	12.417	186.25	0.642	1.448	11.93125
3/29/2017 10:15	13.817	207.258	0.715	1.448	12.56925
3/29/2017 10:30	11.404	171.054	0.58	1.466	12.3215
3/29/2017 10:45	11.926	178.896	0.611	1.458	12.391
3/29/2017 11:00	8.125	121.87	0.421	1.446	11.318
3/29/2017 11:15	12.345	185.171	0.635	1.454	10.95
3/29/2017 11:30	10.081	151.213	0.516	1.459	10.61925
3/29/2017 11:45	13.014	195.213	0.655	1.475	10.89125
3/29/2017 12:00	13.763	206.445	0.68	1.496	12.30075
3/29/2017 12:15	12.626	189.391	0.633	1.48	12.371
3/29/2017 12:30	12.951	194.271	0.646	1.486	13.0885
3/29/2017 12:45	12.494	187.408	0.615	1.498	12.9585
3/29/2017 13:00	12.134	182.014	0.607	1.482	12.55125
3/29/2017 13:15	12.475	187.125	0.615	1.497	12.5135
3/29/2017 13:30	12.911	193.662	0.647	1.481	12.5035
3/29/2017 13:45	11.482	172.235	0.595	1.447	12.2505
3/29/2017 14:00	10.689	160.335	0.554	1.446	11.88925
3/29/2017 14:15	12.318	184.766	0.626	1.466	11.85
3/29/2017 14:30	12.473	187.099	0.648	1.443	11.7405
3/29/2017 14:45	12.402	186.034	0	1.438	11.9705
3/29/2017 15:00	9.889	148.34	0.515	1.441	11.7705
3/29/2017 15:15	9.827	147.408	0.515	1.436	11.14775
3/29/2017 15:30	10.703	160.539	0.562	1.434	10.70525
3/29/2017 15:45	10.873	163.092	0	1.449	10.323
3/29/2017 16:00	12.561	188.412	0.644	1.457	10.991
3/29/2017 16:15	11.582	173.723	0.6	1.446	11.42975
3/29/2017 16:30	10.407	156.107	0.547	1.433	11.35575
3/29/2017 16:45	10.537	158.059	0	1.445	11.27175
3/29/2017 17:00	11.095	166.431	0.582	1.434	10.90525
3/29/2017 17:15	11.385	170.771	0	1.46	10.856
3/29/2017 17:30	11.753	176.295	0.62	1.428	11.1925
3/29/2017 17:45	12.016	180.236	0.64	1.42	11.56225
3/29/2017 18:00	12.173	182.6	0.617	1.468	11.83175
3/29/2017 18:15	11.855	177.832	0.626	1.428	11.94925
3/29/2017 18:30	11.252	168.777	0.591	1.433	11.824
3/29/2017 18:45	10.707	160.599	0.552	1.451	11.49675
3/29/2017 19:00	11.306	169.584	0.584	1.45	11.28
3/29/2017 19:15	11.453	171.795	0.606	1.425	11.1795
3/29/2017 19:30	10.009	150.132	0.529	1.427	10.86875
3/29/2017 19:45	10.656	159.833	0.567	1.421	10.856
3/29/2017 20:00	11.403	171.049	0.609	1.416	10.88025
3/29/2017 20:15	11.22	168.305	0.599	1.417	10.822
3/29/2017 20:30	11.355	170.332	0.609	1.413	11.1585
3/29/2017 20:45	11.534	173.003	0.611	1.424	11.378
3/29/2017 21:00	11.766	176.483	0.613	1.441	11.46875
3/29/2017 21:15	11.984	179.767	0.64	1.417	11.65975
3/29/2017 21:30	11.89	178.347	0	1.409	11.7935
3/29/2017 21:45	11.722	175.828	0	1.395	11.8405
3/29/2017 22:00	11.759	176.381	0	1.398	11.83875
3/29/2017 22:15	11.738	176.074	0	1.397	11.77725
3/29/2017 22:30	10.866	162.985	0.584	1.411	11.52125
3/29/2017 22:45	12.015	180.229	0.649	1.406	11.5945
3/29/2017 23:00	11.839	177.592	0	1.391	11.6145
3/29/2017 23:15	11.393	170.9	0.628	1.386	11.52825
3/29/2017 23:30	8.232	123.48	0.443	1.408	10.86975
3/29/2017 23:45	8.15	122.249	0	1.398	9.9035
3/30/2017 0:00	9.924	148.865	0.544	1.391	9.42475
3/30/2017 0:15	10.29	154.35	0.564	1.391	9.149
3/30/2017 0:30	9.769	146.536	0.527	1.406	9.53325
3/30/2017 0:45	9.703	145.544	0	1.399	9.9215
3/30/2017 1:00	9.686	145.291	0	1.398	9.862
3/30/2017 1:15	9.621	144.308	0	1.391	9.69475
3/30/2017 1:30	9.583	143.741	0	1.387	9.64825
3/30/2017 1:45	10.531	157.962	0.582	1.383	9.85525

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
3/30/2017 2:00	10.533	157.993	0	1.383	10.067
3/30/2017 2:15	10.475	157.128	0	1.378	10.2805
3/30/2017 2:30	10.378	155.674	0.576	1.379	10.47925
3/30/2017 2:45	11.442	171.627	0.638	1.374	10.707
3/30/2017 3:00	11.491	172.371	0	1.378	10.9465
3/30/2017 3:15	11.541	173.116	0	1.382	11.213
3/30/2017 3:30	11.028	165.418	0.608	1.385	11.3755
3/30/2017 3:45	10.283	154.241	0.576	1.37	11.08575
3/30/2017 4:00	7.343	110.143	0.403	1.39	10.04875
3/30/2017 4:15	11.371	170.572	0.632	1.378	10.00625
3/30/2017 4:30	9.619	144.281	0.541	1.367	9.654
3/30/2017 4:45	9.615	144.224	0	1.367	9.487
3/30/2017 5:00	11.167	167.5	0.63	1.363	10.443
3/30/2017 5:15	11.138	167.067	0	1.361	10.38475
3/30/2017 5:30	11.127	166.901	0	1.36	10.76175
3/30/2017 5:45	11.147	167.201	0	1.361	11.14475
3/30/2017 6:00	4.621	69.322	0.26	1.366	9.50825
3/30/2017 6:15	11.167	167.503	0.627	1.367	9.5155
3/30/2017 6:30	11.03	165.45	0	1.356	9.49125
3/30/2017 6:45	7.875	118.122	0.444	1.364	8.67325
3/30/2017 7:00	10.744	161.161	0.612	1.355	10.204
3/30/2017 7:15	10.091	151.36	0.571	1.361	9.935
3/30/2017 7:30	9.98	149.707	0	1.351	9.6725
3/30/2017 7:45	9.802	147.026	0.555	1.361	10.15425
3/30/2017 8:00	11.316	169.745	0.633	1.371	10.29725
3/30/2017 8:15	11.187	167.798	0	1.36	10.57125
3/30/2017 8:30	12.445	186.679	0	1.465	11.1875
3/30/2017 8:45	10.732	160.982	0.576	1.411	11.42
3/30/2017 9:00	10.907	163.607	0.604	1.381	11.31775
3/30/2017 9:15	13.389	200.837	0.696	1.444	11.86825
3/30/2017 9:30	11.153	167.3	0.607	1.398	11.54525
3/30/2017 9:45	10.916	163.744	0.612	1.369	11.59125
3/30/2017 10:00	11.185	167.772	0.612	1.393	11.66075
3/30/2017 10:15	10.953	164.3	0.593	1.403	11.05175
3/30/2017 10:30	10.533	158	0	1.365	10.89675
3/30/2017 10:45	9.538	143.065	0.542	1.357	10.55225
3/30/2017 11:00	9.436	141.541	0.541	1.349	10.115
3/30/2017 11:15	10.072	151.074	0.581	1.342	9.89475
3/30/2017 11:30	10.589	158.841	0.612	1.341	9.90875
3/30/2017 11:45	10.575	158.623	0	1.339	10.168
3/30/2017 12:00	10.981	164.72	0	1.375	10.55425
3/30/2017 12:15	12.022	180.335	0.619	1.453	11.04175
3/30/2017 12:30	9.602	144.029	0.53	1.384	10.795
3/30/2017 12:45	10.588	158.818	0.601	1.358	10.79825
3/30/2017 13:00	10.393	155.895	0.59	1.357	10.65125
3/30/2017 13:15	10.402	156.03	0	1.358	10.24625
3/30/2017 13:30	10.405	156.072	0	1.358	10.447
3/30/2017 13:45	10.254	153.805	0	1.344	10.3635
3/30/2017 14:00	9.447	141.705	0.534	1.362	10.127
3/30/2017 14:15	15.096	226.446	0.754	1.484	11.3005
3/30/2017 14:30	10.805	162.079	0.576	1.418	11.4005
3/30/2017 14:45	10.254	153.807	0.46	1.599	11.4005
3/30/2017 15:00	10.249	153.736	0	1.598	11.601
3/30/2017 15:15	10.374	155.616	0	1.612	10.4205
3/30/2017 15:30	10.435	156.531	0	1.619	10.328
3/30/2017 15:45	10.132	151.977	0.447	1.619	10.2975
3/30/2017 16:00	9.998	149.965	0	1.604	10.23475
3/30/2017 16:15	9.984	149.76	0	1.602	10.13725
3/30/2017 16:30	9.987	149.811	0	1.603	10.02525
3/30/2017 16:45	10.098	151.474	0	1.615	10.01675
3/30/2017 17:00	10.245	153.67	0.463	1.592	10.0785
3/30/2017 17:15	10.251	153.759	0	1.592	10.14525
3/30/2017 17:30	10.578	158.667	0.462	1.63	10.293
3/30/2017 17:45	11.859	177.888	0.527	1.609	10.73325
3/30/2017 18:00	10.594	158.904	0.48	1.588	10.8205
3/30/2017 18:15	12.393	185.895	0.559	1.593	11.356
3/30/2017 18:30	12.258	183.872	0	1.581	11.776
3/30/2017 18:45	12.261	183.912	0	1.581	11.8765
3/30/2017 19:00	10.833	162.496	0.496	1.577	11.93625
3/30/2017 19:15	10.748	161.22	0	1.569	11.525
3/30/2017 19:30	10.713	160.699	0	1.565	11.13875
3/30/2017 19:45	10.657	159.848	0	1.559	10.73775
3/30/2017 20:00	10.638	159.572	0	1.558	10.689
3/30/2017 20:15	10.741	161.121	0	1.568	10.68725
3/30/2017 20:30	10.714	160.711	0	1.565	10.6875
3/30/2017 20:45	10.644	159.659	0	1.558	10.68425
3/30/2017 21:00	10.611	159.163	0	1.555	10.6775
3/30/2017 21:15	10.539	158.09	0	1.547	10.627
3/30/2017 21:30	10.824	162.365	0	1.577	10.6545
3/30/2017 21:45	10.836	162.536	0	1.578	10.7025
3/30/2017 22:00	10.616	159.246	0	1.555	10.70375
3/30/2017 22:15	10.53	157.944	0	1.546	10.7015
3/30/2017 22:30	10.715	160.731	0	1.565	10.67425
3/30/2017 22:45	10.647	159.71	0	1.558	10.627
3/30/2017 23:00	10.508	157.619	0	1.544	10.6
3/30/2017 23:15	10.42	156.298	0	1.535	10.5725
3/30/2017 23:30	10.469	157.042	0	1.54	10.511
3/30/2017 23:45	10.444	156.663	0	1.538	10.46025
3/31/2017 0:00	10.451	156.772	0	1.538	10.446
3/31/2017 0:15	10.479	157.184	0	1.541	10.46075
3/31/2017 0:30	10.351	155.266	0	1.528	10.43125
3/31/2017 0:45	10.292	154.387	0	1.522	10.39325

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
3/31/2017 1:00	10.229	153.432	0	1.515	10.33775
3/31/2017 1:15	10.353	155.293	0	1.528	10.30625
3/31/2017 1:30	10.335	155.02	0	1.526	10.30225
3/31/2017 1:45	10.287	154.309	0	1.522	10.301
3/31/2017 2:00	10.43	156.443	0	1.536	10.35125
3/31/2017 2:15	10.302	154.528	0	1.523	10.3385
3/31/2017 2:30	9.217	138.255	0.444	1.521	10.059
3/31/2017 2:45	9.158	137.375	0	1.515	9.77675
3/31/2017 3:00	9.15	137.253	0	1.514	9.45675
3/31/2017 3:15	9.153	137.301	0	1.514	9.1695
3/31/2017 3:30	9.15	137.253	0	1.514	9.15275
3/31/2017 3:45	9.145	137.179	0	1.513	9.1495
3/31/2017 4:00	9.206	138.084	0	1.52	9.1635
3/31/2017 4:15	9.119	136.789	0	1.51	9.155
3/31/2017 4:30	9.106	136.593	0	1.509	9.144
3/31/2017 4:45	9.459	141.889	0	1.549	9.2225
3/31/2017 5:00	9.41	141.151	0	1.543	9.2735
3/31/2017 5:15	9.428	141.422	0	1.546	9.35075
3/31/2017 5:30	9.335	140.02	0	1.535	9.408
3/31/2017 5:45	9.34	140.094	0	1.535	9.37825
3/31/2017 6:00	9.336	140.045	0	1.535	9.35975
3/31/2017 6:15	9.297	139.456	0	1.531	9.327
3/31/2017 6:30	9.277	139.161	0	1.528	9.3125
3/31/2017 6:45	9.287	139.308	0	1.529	9.29925
3/31/2017 7:00	9.3	139.505	0	1.531	9.29025
3/31/2017 7:15	9.308	139.627	0	1.532	9.293
3/31/2017 7:30	9.294	139.406	0	1.53	9.29725
3/31/2017 7:45	9.315	139.725	0	1.533	9.30425
3/31/2017 8:00	9.228	138.426	0	1.523	9.28625
3/31/2017 8:15	9.43	141.446	0	1.546	9.31675
3/31/2017 8:30	9.359	140.388	0	1.538	9.333
3/31/2017 8:45	9.503	142.552	0	1.554	9.38
3/31/2017 9:00	9.465	141.981	0	1.55	9.43925
3/31/2017 9:15	9.81	147.157	0	1.589	9.53425
3/31/2017 9:30	9.599	143.981	0	1.565	9.59425
3/31/2017 9:45	9.439	141.58	0	1.547	9.57825
3/31/2017 10:00	9.442	141.626	0	1.547	9.5725
3/31/2017 10:15	9.462	141.925	0	1.549	9.4855
3/31/2017 10:30	9.476	142.147	0	1.551	9.45475
3/31/2017 10:45	9.702	145.535	0	1.577	9.5205
3/31/2017 11:00	9.747	146.205	0	1.582	9.59675
3/31/2017 11:15	9.6	143.996	0	1.565	9.63125
3/31/2017 11:30	10.706	160.585	0	1.689	9.93875
3/31/2017 11:45	10.215	153.229	0.458	1.601	10.067
3/31/2017 12:00	11.835	177.522	0.505	1.656	10.589
3/31/2017 12:15	11.114	166.706	0.472	1.662	10.9675
3/31/2017 12:30	9.138	137.064	0.409	1.601	10.5755
3/31/2017 12:45	9.288	139.325	0	1.619	10.34375
3/31/2017 13:00	9.106	136.586	0	1.597	9.6615
3/31/2017 13:15	9.934	149.003	0	1.697	9.3665
3/31/2017 13:30	9.318	139.774	0	1.623	9.4115
3/31/2017 13:45	10.272	154.084	0.462	1.597	9.6575
3/31/2017 14:00	10.032	150.487	0	1.571	9.889
3/31/2017 14:15	9.888	148.327	0	1.555	9.8775
3/31/2017 14:30	9.721	145.822	0	1.537	9.97825
3/31/2017 14:45	9.657	144.859	0	1.529	9.8245
3/31/2017 15:00	9.692	145.376	0	1.533	9.7395
3/31/2017 15:15	9.636	144.537	0	1.527	9.6765
3/31/2017 15:30	9.61	144.157	0	1.524	9.64875
3/31/2017 15:45	9.674	145.103	0	1.531	9.653
3/31/2017 16:00	9.719	145.792	0	1.536	9.65975
3/31/2017 16:15	10.416	156.242	0.49	1.547	9.85475
3/31/2017 16:30	11.124	166.854	0	1.619	10.23325
3/31/2017 16:45	12.175	182.632	0.552	1.587	10.8585
3/31/2017 17:00	11.946	179.194	0	1.566	11.41525
3/31/2017 17:15	11.742	176.124	0	1.547	11.74675
3/31/2017 17:30	11.754	176.31	0	1.548	11.90425
3/31/2017 17:45	11.563	173.439	0	1.531	11.75125
3/31/2017 18:00	11.593	173.896	0	1.533	11.663
3/31/2017 18:15	11.429	171.431	0	1.518	11.58475
3/31/2017 18:30	12.326	184.89	0	1.6	11.72775
3/31/2017 18:45	9.617	144.255	0.456	1.538	11.24125
3/31/2017 19:00	9.369	140.534	0.445	1.536	10.68525
3/31/2017 19:15	9.21	138.145	0	1.518	10.1305
3/31/2017 19:30	9.284	139.254	0	1.526	9.37
3/31/2017 19:45	9.343	140.142	0	1.533	9.3015
3/31/2017 20:00	9.29	139.357	0	1.527	9.28175
3/31/2017 20:15	9.181	137.711	0	1.514	9.2745
3/31/2017 20:30	9.233	138.495	0	1.52	9.26175
3/31/2017 20:45	9.277	139.158	0	1.525	9.24525
3/31/2017 21:00	9.164	137.466	0	1.512	9.21375
3/31/2017 21:15	9.925	148.878	0	1.599	9.39975
3/31/2017 21:30	9.313	139.699	0	1.53	9.41975
3/31/2017 21:45	9.305	139.568	0	1.529	9.42675
3/31/2017 22:00	9.165	137.482	0	1.513	9.427
3/31/2017 22:15	9.089	136.336	0	1.504	9.218
3/31/2017 22:30	9.213	138.199	0	1.518	9.193
3/31/2017 22:45	9.107	136.607	0	1.506	9.1435
3/31/2017 23:00	9.151	137.268	0	1.511	9.14
3/31/2017 23:15	8.998	134.972	0	1.493	9.11725
3/31/2017 23:30	9.104	136.558	0	1.505	9.09
3/31/2017 23:45	9.023	135.338	0	1.496	9.069

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
4/1/2017 0:00	9.565	143.475	0	1.558	9.1725
4/1/2017 0:15	8.184	122.763	0.401	1.505	8.969
4/1/2017 0:30	8.247	123.703	0.408	1.493	8.75475
4/1/2017 0:45	8.199	122.991	0	1.487	8.54875
4/1/2017 1:00	8.381	125.721	0	1.51	8.25275
4/1/2017 1:15	8.197	122.95	0	1.487	8.256
4/1/2017 1:30	8.115	121.724	0	1.477	8.223
4/1/2017 1:45	8.159	122.391	0	1.482	8.213
4/1/2017 2:00	8.082	121.237	0	1.473	8.13825
4/1/2017 2:15	8.106	121.592	0	1.476	8.1155
4/1/2017 2:30	8.054	120.815	0	1.469	8.10025
4/1/2017 2:45	8.082	121.237	0	1.473	8.081
4/1/2017 3:00	8.025	120.371	0	1.465	8.06675
4/1/2017 3:15	8.051	120.77	0	1.469	8.053
4/1/2017 3:30	8.003	120.039	0	1.462	8.04025
4/1/2017 3:45	8.051	120.77	0	1.469	8.0325
4/1/2017 4:00	8.037	120.549	0	1.467	8.0355
4/1/2017 4:15	8.066	120.992	0	1.471	8.03925
4/1/2017 4:30	8.048	120.726	0	1.468	8.0505
4/1/2017 4:45	8.065	120.97	0	1.47	8.054
4/1/2017 5:00	8.074	121.103	0	1.471	8.06325
4/1/2017 5:15	8.065	120.97	0	1.47	8.063
4/1/2017 5:30	8.108	121.615	0	1.476	8.078
4/1/2017 5:45	8.022	120.325	0	1.465	8.06725
4/1/2017 6:00	7.997	119.948	0	1.462	8.048
4/1/2017 6:15	8.02	120.303	0	1.465	8.03675
4/1/2017 6:30	8	119.993	0	1.462	8.00975
4/1/2017 6:45	7.952	119.284	0	1.456	7.99225
4/1/2017 7:00	7.924	118.864	0	1.453	7.974
4/1/2017 7:15	8.001	120.015	0	1.462	7.96925
4/1/2017 7:30	7.887	118.312	0	1.448	7.941
4/1/2017 7:45	7.951	119.262	0	1.456	7.94075
4/1/2017 8:00	7.967	119.505	0	1.458	7.9515
4/1/2017 8:15	8.127	121.901	0	1.478	7.983
4/1/2017 8:30	7.971	119.572	0	1.459	8.004
4/1/2017 8:45	7.946	119.194	0	1.455	8.00275
4/1/2017 9:00	8.1	121.499	0	1.475	8.036
4/1/2017 9:15	8.17	122.545	0	1.484	8.04675
4/1/2017 9:30	8.198	122.967	0	1.487	8.1035
4/1/2017 9:45	8.262	123.927	0	1.495	8.1825
4/1/2017 10:00	8.26	123.903	0	1.495	8.2225
4/1/2017 10:15	8.339	125.087	0	1.505	8.26475
4/1/2017 10:30	8.478	127.173	0	1.522	8.33475
4/1/2017 10:45	9.674	145.109	0.481	1.489	8.68775
4/1/2017 11:00	9.433	141.492	0	1.463	8.981
4/1/2017 11:15	9.611	144.161	0	1.482	9.299
4/1/2017 11:30	9.492	142.383	0	1.47	9.5525
4/1/2017 11:45	9.381	140.712	0	1.458	9.47925
4/1/2017 12:00	9.443	141.651	0	1.464	9.48175
4/1/2017 12:15	9.405	141.077	0	1.46	9.43025
4/1/2017 12:30	9.296	139.438	0	1.448	9.38125
4/1/2017 12:45	9.337	140.062	0	1.453	9.37025
4/1/2017 13:00	9.348	140.219	0	1.454	9.3465
4/1/2017 13:15	9.456	141.836	0	1.466	9.35925
4/1/2017 13:30	9.353	140.297	0	1.455	9.3735
4/1/2017 13:45	9.327	139.906	0	1.452	9.371
4/1/2017 14:00	9.51	142.646	0	1.471	9.4115
4/1/2017 14:15	9.485	142.28	0	1.469	9.41875
4/1/2017 14:30	9.393	140.896	0	1.459	9.42875
4/1/2017 14:45	9.389	140.842	0	1.458	9.44425
4/1/2017 15:00	9.409	141.129	0	1.461	9.419
4/1/2017 15:15	9.341	140.113	0	1.453	9.383
4/1/2017 15:30	9.367	140.504	0	1.456	9.3765
4/1/2017 15:45	9.353	140.295	0	1.455	9.3675
4/1/2017 16:00	9.228	138.422	0	1.441	9.32225
4/1/2017 16:15	9.214	138.215	0	1.439	9.2905
4/1/2017 16:30	9.282	139.227	0	1.447	9.26925
4/1/2017 16:45	8.511	127.663	0.454	1.418	9.05875
4/1/2017 17:00	8.163	122.446	0.43	1.429	8.7925
4/1/2017 17:15	8.16	122.401	0	1.429	8.529
4/1/2017 17:30	8.236	123.536	0	1.438	8.2675
4/1/2017 17:45	8.236	123.536	0	1.438	8.19875
4/1/2017 18:00	8.194	122.91	0	1.433	8.2065
4/1/2017 18:15	8.315	124.721	0	1.448	8.24525
4/1/2017 18:30	9.215	138.219	0.463	1.478	8.49
4/1/2017 18:45	8.897	133.449	0.463	1.442	8.65525
4/1/2017 19:00	8.916	133.747	0	1.445	8.83575
4/1/2017 19:15	9.999	149.982	0.462	1.568	9.25675
4/1/2017 19:30	9.063	135.944	0.437	1.521	9.21875
4/1/2017 19:45	8.267	124.003	0.4	1.516	9.06125
4/1/2017 20:00	7.28	109.193	0.359	1.496	8.65225
4/1/2017 20:15	7.408	111.127	0	1.514	8.0045
4/1/2017 20:30	8.349	125.24	0.412	1.495	7.826
4/1/2017 20:45	8.177	122.65	0	1.474	7.8035
4/1/2017 21:00	8.165	122.471	0	1.472	8.02475
4/1/2017 21:15	8.211	123.168	0	1.478	8.2255
4/1/2017 21:30	6.249	93.735	0.313	1.48	7.7005
4/1/2017 21:45	6.25	93.752	0	1.48	7.21875
4/1/2017 22:00	6.249	93.735	0	1.48	6.73975
4/1/2017 22:15	6.293	94.402	0	1.488	6.26025
4/1/2017 22:30	6.164	92.456	0	1.466	6.239
4/1/2017 22:45	6.244	93.667	0	1.479	6.2375

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
4/1/2017 23:00	6.479	97.185	0	1.518	6.295
4/1/2017 23:15	8.095	121.425	0.403	1.486	6.7455
4/1/2017 23:30	8.104	121.556	0	1.487	7.2305
4/1/2017 23:45	8.013	120.191	0	1.476	7.67275
4/2/2017 0:00	7.902	118.524	0	1.461	8.0285
4/2/2017 0:15	7.902	118.525	0	1.461	7.98025
4/2/2017 0:30	7.833	117.497	0	1.453	7.9125
4/2/2017 0:45	7.891	118.372	0	1.46	7.882
4/2/2017 1:00	7.845	117.673	0	1.454	7.86775
4/2/2017 1:15	7.908	118.613	0	1.462	7.86925
4/2/2017 1:30	7.924	118.854	0	1.464	7.892
4/2/2017 1:45	7.855	117.825	0	1.455	7.883
4/2/2017 2:00	7.833	117.497	0	1.453	7.88
4/2/2017 2:15	7.791	116.864	0	1.447	7.85075
4/2/2017 2:30	7.781	116.711	0	1.446	7.815
4/2/2017 2:45	8.085	121.27	0	1.485	7.8725
4/2/2017 3:00	7.785	116.777	0	1.446	7.8605
4/2/2017 3:15	7.737	116.057	0	1.44	7.847
4/2/2017 3:30	7.744	116.166	0	1.441	7.83775
4/2/2017 3:45	7.765	116.471	0	1.444	7.75775
4/2/2017 4:00	7.835	117.519	0	1.453	7.77025
4/2/2017 4:15	7.849	117.738	0	1.455	7.79825
4/2/2017 4:30	7.762	116.428	0	1.443	7.80275
4/2/2017 4:45	7.685	115.275	0	1.433	7.78275
4/2/2017 5:00	7.698	115.47	0	1.435	7.7485
4/2/2017 5:15	7.653	114.797	0	1.429	7.6995
4/2/2017 5:30	7.659	114.884	0	1.43	7.67375
4/2/2017 5:45	7.669	115.036	0	1.431	7.66975
4/2/2017 6:00	7.681	115.209	0	1.433	7.6655
4/2/2017 6:15	7.652	114.775	0	1.429	7.66525
4/2/2017 6:30	7.644	114.666	0	1.428	7.6615
4/2/2017 6:45	7.624	114.363	0	1.426	7.65025
4/2/2017 7:00	7.72	115.796	0	1.438	7.66
4/2/2017 7:15	7.755	116.319	0	1.442	7.68575
4/2/2017 7:30	7.653	114.796	0	1.429	7.688
4/2/2017 7:45	7.636	114.536	0	1.427	7.691
4/2/2017 8:00	7.649	114.731	0	1.429	7.67325
4/2/2017 8:15	7.665	114.97	0	1.431	7.65075
4/2/2017 8:30	7.652	114.774	0	1.429	7.6505
4/2/2017 8:45	7.692	115.383	0	1.434	7.6645
4/2/2017 9:00	7.624	114.362	0	1.426	7.65825
4/2/2017 9:15	7.579	113.691	0	1.42	7.63675
4/2/2017 9:30	7.979	119.685	0	1.471	7.7185
4/2/2017 9:45	11.614	174.207	0.526	1.588	8.699
4/2/2017 10:00	9.345	140.173	0.453	1.514	9.12925
4/2/2017 10:15	10.811	162.164	0.524	1.515	9.93725
4/2/2017 10:30	10.884	163.262	0	1.522	10.6635
4/2/2017 10:45	10.388	155.824	0	1.474	10.357
4/2/2017 11:00	10.147	152.212	0	1.45	10.5575
4/2/2017 11:15	10.104	151.561	0	1.445	10.38075
4/2/2017 11:30	10.074	151.107	0	1.442	10.17825
4/2/2017 11:45	9.904	148.565	0	1.426	10.05725
4/2/2017 12:00	9.863	147.946	0	1.421	9.98625
4/2/2017 12:15	10.865	162.972	0	1.52	10.1765
4/2/2017 12:30	10.345	155.175	0.484	1.554	10.24425
4/2/2017 12:45	8.062	120.923	0.413	1.457	9.78375
4/2/2017 13:00	7.587	113.811	0.401	1.427	9.21475
4/2/2017 13:15	7.5	112.498	0	1.416	8.3735
4/2/2017 13:30	7.451	111.765	0	1.409	7.65
4/2/2017 13:45	7.427	111.399	0	1.406	7.49125
4/2/2017 14:00	9.879	148.183	0.449	1.584	8.06425
4/2/2017 14:15	7.62	114.305	0.371	1.511	8.09425
4/2/2017 14:30	7.036	105.534	0	1.429	7.9905
4/2/2017 14:45	7.12	106.794	0	1.441	7.91375
4/2/2017 15:00	6.99	104.854	0	1.423	7.1915
4/2/2017 15:15	7.065	105.97	0	1.433	7.05275
4/2/2017 15:30	7.765	116.47	0.364	1.551	7.235
4/2/2017 15:45	9.716	145.742	0.458	1.546	7.884
4/2/2017 16:00	8.717	130.748	0.435	1.484	8.31575
4/2/2017 16:15	8.296	124.445	0	1.434	8.6235
4/2/2017 16:30	8.153	122.291	0	1.416	8.7205
4/2/2017 16:45	8.139	122.079	0	1.415	8.32625
4/2/2017 17:00	8.329	124.933	0	1.438	8.22925
4/2/2017 17:15	8.254	123.807	0	1.429	8.21875
4/2/2017 17:30	8.761	131.41	0	1.489	8.37075
4/2/2017 17:45	8.18	122.707	0	1.42	8.381
4/2/2017 18:00	7.988	119.821	0	1.396	8.29575
4/2/2017 18:15	8.249	123.738	0	1.428	8.2945
4/2/2017 18:30	7.996	119.935	0	1.397	8.10325
4/2/2017 18:45	8.555	128.327	0	1.465	8.197
4/2/2017 19:00	7.719	115.786	0.416	1.407	8.12975
4/2/2017 19:15	7.993	119.901	0	1.442	8.06575
4/2/2017 19:30	7.029	105.442	0.367	1.44	7.824
4/2/2017 19:45	6.758	101.368	0	1.401	7.37475
4/2/2017 20:00	6.751	101.27	0	1.4	7.13275
4/2/2017 20:15	6.711	100.664	0	1.394	6.81225
4/2/2017 20:30	6.738	101.074	0	1.398	6.7395
4/2/2017 20:45	6.685	100.273	0	1.39	6.72125
4/2/2017 21:00	6.935	104.02	0	1.426	6.76725
4/2/2017 21:15	6.738	101.074	0	1.398	6.774
4/2/2017 21:30	6.734	101.015	0	1.397	6.773
4/2/2017 21:45	6.608	99.124	0	1.379	6.75375

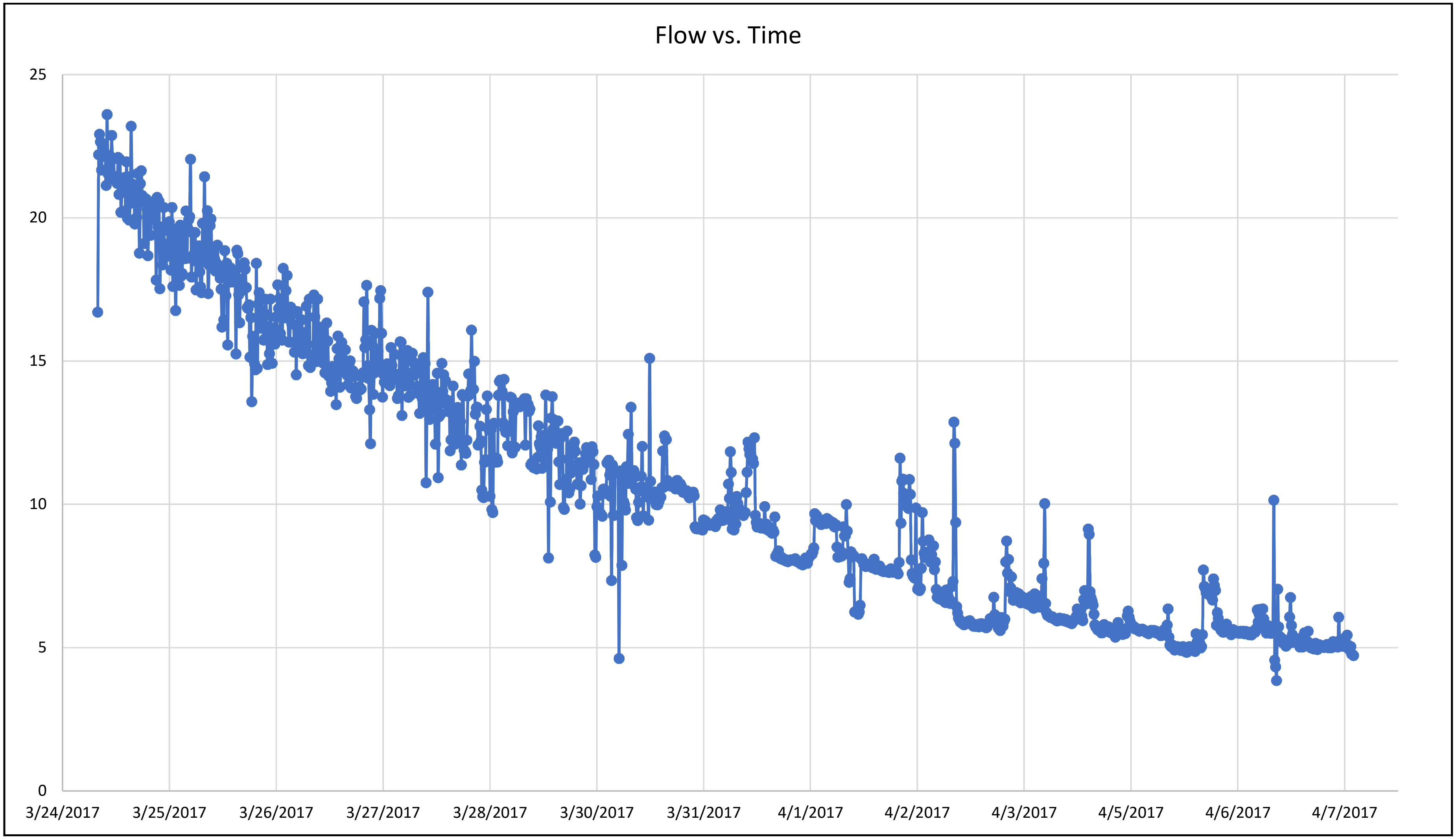
Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
4/2/2017 22:00	6.575	98.618	0	1.374	6.66375
4/2/2017 22:15	7.014	105.204	0	1.437	6.73275
4/2/2017 22:30	6.751	101.269	0	1.4	6.737
4/2/2017 22:45	6.76	101.407	0	1.401	6.775
4/2/2017 23:00	6.668	100.02	0	1.388	6.79825
4/2/2017 23:15	6.54	98.094	0	1.369	6.67975
4/2/2017 23:30	6.615	99.221	0	1.38	6.64575
4/2/2017 23:45	7.137	107.048	0	1.455	6.74
4/3/2017 0:00	7.315	109.719	0	1.48	6.90175
4/3/2017 0:15	12.873	193.1	0.647	1.477	8.485
4/3/2017 0:30	12.134	182.016	0.553	1.582	9.86475
4/3/2017 0:45	9.373	140.589	0.44	1.55	10.42375
4/3/2017 1:00	6.429	96.431	0.336	1.439	10.20225
4/3/2017 1:15	6.216	93.247	0	1.406	8.538
4/3/2017 1:30	6.027	90.403	0	1.376	7.01125
4/3/2017 1:45	5.982	89.724	0	1.369	6.1635
4/3/2017 2:00	5.895	88.43	0	1.355	6.03
4/3/2017 2:15	5.878	88.163	0	1.352	5.9455
4/3/2017 2:30	5.847	87.703	0	1.347	5.9005
4/3/2017 2:45	5.821	87.316	0	1.343	5.86025
4/3/2017 3:00	5.8	86.999	0	1.34	5.8365
4/3/2017 3:15	5.888	88.321	0	1.354	5.839
4/3/2017 3:30	5.861	87.915	0	1.35	5.8425
4/3/2017 3:45	5.849	87.739	0	1.348	5.8495
4/3/2017 4:00	5.915	88.728	0	1.358	5.87825
4/3/2017 4:15	5.886	88.286	0	1.354	5.87775
4/3/2017 4:30	5.945	89.17	0	1.363	5.89875
4/3/2017 4:45	5.832	87.474	0	1.345	5.8945
4/3/2017 5:00	5.822	87.333	0	1.343	5.87125
4/3/2017 5:15	5.8	86.999	0	1.34	5.84975
4/3/2017 5:30	5.751	86.26	0	1.332	5.80125
4/3/2017 5:45	5.783	86.752	0	1.337	5.789
4/3/2017 6:00	5.739	86.085	0	1.33	5.76825
4/3/2017 6:15	5.802	87.034	0	1.34	5.76875
4/3/2017 6:30	5.748	86.225	0	1.332	5.768
4/3/2017 6:45	5.78	86.699	0	1.337	5.76725
4/3/2017 7:00	5.728	85.927	0	1.328	5.7645
4/3/2017 7:15	5.833	87.492	0	1.345	5.77225
4/3/2017 7:30	5.785	86.77	0	1.337	5.7815
4/3/2017 7:45	5.835	87.527	0	1.346	5.79525
4/3/2017 8:00	5.786	86.787	0	1.338	5.80975
4/3/2017 8:15	5.761	86.419	0	1.334	5.79175
4/3/2017 8:30	5.726	85.892	0	1.328	5.777
4/3/2017 8:45	5.736	86.033	0	1.33	5.75225
4/3/2017 9:00	5.692	85.384	0	1.323	5.72875
4/3/2017 9:15	5.714	85.717	0	1.326	5.717
4/3/2017 9:30	5.86	87.898	0	1.35	5.7505
4/3/2017 9:45	5.902	88.534	0	1.356	5.792
4/3/2017 10:00	6.016	90.237	0	1.374	5.873
4/3/2017 10:15	5.934	89.013	0	1.361	5.928
4/3/2017 10:30	5.894	88.412	0	1.355	5.9365
4/3/2017 10:45	5.912	88.677	0	1.358	5.939
4/3/2017 11:00	6.762	101.424	0	1.491	6.1255
4/3/2017 11:15	6.151	92.272	0	1.396	6.17975
4/3/2017 11:30	5.893	88.398	0	1.355	6.1795
4/3/2017 11:45	5.882	88.223	0	1.353	6.172
4/3/2017 12:00	5.797	86.954	0	1.339	5.93075
4/3/2017 12:15	5.674	85.109	0	1.32	5.8115
4/3/2017 12:30	5.686	85.283	0	1.322	5.75975
4/3/2017 12:45	5.597	83.955	0	1.307	5.6885
4/3/2017 13:00	6.052	90.773	0	1.38	5.75225
4/3/2017 13:15	6.009	90.132	0	1.373	5.836
4/3/2017 13:30	5.746	86.193	0	1.331	5.851
4/3/2017 13:45	5.92	88.804	0	1.359	5.93175
4/3/2017 14:00	6.001	90.011	0	1.372	5.919
4/3/2017 14:15	7.99	119.854	0.427	1.416	6.41425
4/3/2017 14:30	8.725	130.868	0.407	1.555	7.159
4/3/2017 14:45	7.599	113.989	0.407	1.413	7.57875
4/3/2017 15:00	8.077	121.159	0.394	1.508	8.09775
4/3/2017 15:15	6.959	104.38	0	1.359	7.84
4/3/2017 15:30	7.099	106.487	0	1.378	7.4335
4/3/2017 15:45	7.47	112.056	0	1.428	7.40125
4/3/2017 16:00	6.886	103.297	0	1.35	7.1035
4/3/2017 16:15	6.655	99.83	0	1.318	7.0275
4/3/2017 16:30	6.866	102.986	0	1.347	6.96925
4/3/2017 16:45	6.684	100.256	0	1.322	6.77275
4/3/2017 17:00	6.93	103.955	0	1.356	6.78375
4/3/2017 17:15	6.648	99.72	0	1.317	6.782
4/3/2017 17:30	6.802	102.026	0	1.338	6.766
4/3/2017 17:45	6.878	103.165	0	1.348	6.8145
4/3/2017 18:00	6.734	101.015	0	1.329	6.7655
4/3/2017 18:15	6.57	98.551	0	1.306	6.746
4/3/2017 18:30	6.779	101.678	0	1.335	6.74025
4/3/2017 18:45	6.765	101.47	0	1.333	6.712
4/3/2017 19:00	6.615	99.227	0	1.313	6.68225
4/3/2017 19:15	6.622	99.331	0	1.314	6.69525
4/3/2017 19:30	6.558	98.368	0	1.305	6.64
4/3/2017 19:45	6.555	98.327	0	1.304	6.5875
4/3/2017 20:00	6.717	100.748	0	1.326	6.613
4/3/2017 20:15	6.522	97.835	0	1.3	6.588
4/3/2017 20:30	6.505	97.569	0	1.297	6.57475
4/3/2017 20:45	6.748	101.222	0	1.331	6.623

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
4/3/2017 21:00	6.782	101.737	0	1.336	6.63925
4/3/2017 21:15	6.558	98.366	0	1.305	6.64825
4/3/2017 21:30	6.407	96.104	0	1.284	6.62375
4/3/2017 21:45	6.372	95.575	0	1.279	6.52975
4/3/2017 22:00	6.882	103.229	0	1.349	6.55475
4/3/2017 22:15	6.488	97.324	0	1.295	6.53725
4/3/2017 22:30	6.63	99.454	0	1.315	6.593
4/3/2017 22:45	6.58	98.696	0	1.308	6.645
4/3/2017 23:00	6.425	96.368	0	1.286	6.53075
4/3/2017 23:15	6.802	102.03	0	1.338	6.60925
4/3/2017 23:30	6.525	97.877	0	1.3	6.583
4/3/2017 23:45	6.411	96.165	0	1.284	6.54075
4/4/2017 0:00	7.404	111.067	0	1.419	6.7855
4/4/2017 0:15	6.401	96.011	0.379	1.319	6.68525
4/4/2017 0:30	7.944	119.158	0.417	1.434	7.04
4/4/2017 0:45	10.025	150.381	0.467	1.558	7.9435
4/4/2017 1:00	6.545	98.18	0.386	1.321	7.72875
4/4/2017 1:15	6.22	93.298	0.385	1.279	7.6835
4/4/2017 1:30	6.129	91.938	0	1.266	7.22975
4/4/2017 1:45	6.143	92.148	0	1.268	6.25925
4/4/2017 2:00	6.089	91.335	0	1.26	6.14525
4/4/2017 2:15	6.053	90.799	0	1.255	6.1035
4/4/2017 2:30	6.068	91.014	0	1.257	6.08825
4/4/2017 2:45	6.075	91.132	0	1.258	6.07125
4/4/2017 3:00	6.054	90.817	0	1.255	6.0625
4/4/2017 3:15	5.998	89.973	0	1.247	6.04875
4/4/2017 3:30	6.001	90.012	0	1.248	6.032
4/4/2017 3:45	5.962	89.424	0	1.242	6.00375
4/4/2017 4:00	5.937	89.05	0	1.238	5.9745
4/4/2017 4:15	5.943	89.148	0	1.239	5.96075
4/4/2017 4:30	5.992	89.873	0	1.246	5.9585
4/4/2017 4:45	6.026	90.383	0	1.251	5.9745
4/4/2017 5:00	5.959	89.383	0	1.242	5.98
4/4/2017 5:15	5.956	89.344	0	1.241	5.98325
4/4/2017 5:30	5.977	89.657	0	1.244	5.9795
4/4/2017 5:45	6.005	90.069	0	1.248	5.97425
4/4/2017 6:00	5.988	89.814	0	1.246	5.9815
4/4/2017 6:15	5.925	88.876	0	1.237	5.97375
4/4/2017 6:30	5.981	89.718	0	1.245	5.97475
4/4/2017 6:45	5.909	88.641	0	1.234	5.95075
4/4/2017 7:00	5.898	88.466	0	1.233	5.92825
4/4/2017 7:15	5.889	88.329	0	1.231	5.91925
4/4/2017 7:30	5.929	88.934	0	1.237	5.90625
4/4/2017 7:45	5.887	88.309	0	1.231	5.90075
4/4/2017 8:00	5.841	87.608	0	1.225	5.8865
4/4/2017 8:15	5.924	88.856	0	1.237	5.89525
4/4/2017 8:30	5.929	88.934	0	1.237	5.89525
4/4/2017 8:45	6.001	90.012	0	1.248	5.92375
4/4/2017 9:00	5.982	89.737	0	1.245	5.959
4/4/2017 9:15	6.103	91.546	0	1.262	6.00375
4/4/2017 9:30	6.352	95.273	0	1.298	6.1095
4/4/2017 9:45	6.15	92.256	0	1.269	6.14675
4/4/2017 10:00	6.109	91.629	0	1.263	6.1785
4/4/2017 10:15	6.134	92.005	0	1.267	6.18625
4/4/2017 10:30	6.329	94.94	0	1.294	6.1805
4/4/2017 10:45	6.1	91.493	0	1.262	6.168
4/4/2017 11:00	5.94	89.099	0	1.239	6.12575
4/4/2017 11:15	6.679	100.18	0	1.344	6.262
4/4/2017 11:30	6.99	104.844	0.42	1.305	6.42725
4/4/2017 11:45	6.519	97.787	0	1.244	6.532
4/4/2017 12:00	6.793	101.901	0	1.28	6.74525
4/4/2017 12:15	6.56	98.394	0	1.249	6.7155
4/4/2017 12:30	9.137	137.049	0.488	1.417	7.25225
4/4/2017 12:45	8.958	134.376	0.517	1.342	7.862
4/4/2017 13:00	6.948	104.215	0.426	1.287	7.90075
4/4/2017 13:15	6.744	101.159	0	1.261	7.94675
4/4/2017 13:30	6.622	99.329	0	1.245	7.318
4/4/2017 13:45	6.483	97.238	0.372	1.348	6.69925
4/4/2017 14:00	6.17	92.555	0	1.303	6.50475
4/4/2017 14:15	5.8	86.995	0	1.248	6.26875
4/4/2017 14:30	5.717	85.749	0	1.236	6.0425
4/4/2017 14:45	5.689	85.334	0	1.232	5.844
4/4/2017 15:00	5.625	84.371	0	1.222	5.70775
4/4/2017 15:15	5.647	84.707	0	1.225	5.6695
4/4/2017 15:30	5.62	84.294	0	1.221	5.64525
4/4/2017 15:45	5.578	83.672	0	1.215	5.6175
4/4/2017 16:00	5.518	82.773	0	1.206	5.59075
4/4/2017 16:15	5.516	82.736	0	1.206	5.558
4/4/2017 16:30	5.688	85.324	0	1.232	5.575
4/4/2017 16:45	5.807	87.101	0	1.249	5.63225
4/4/2017 17:00	5.697	85.456	0	1.233	5.677
4/4/2017 17:15	5.598	83.972	0	1.218	5.6975
4/4/2017 17:30	5.572	83.578	0	1.214	5.6685
4/4/2017 17:45	5.719	85.779	0	1.236	5.6465
4/4/2017 18:00	5.722	85.836	0	1.237	5.65275
4/4/2017 18:15	5.661	84.912	0	1.227	5.6685
4/4/2017 18:30	5.523	82.85	0	1.207	5.65625
4/4/2017 18:45	5.568	83.524	0	1.214	5.6185
4/4/2017 19:00	5.537	83.056	0	1.209	5.57225
4/4/2017 19:15	5.532	82.981	0	1.208	5.54
4/4/2017 19:30	5.464	81.954	0	1.198	5.52525
4/4/2017 19:45	5.363	80.448	0	1.183	5.474

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
4/4/2017 20:00	5.443	81.638	0	1.195	5.4505
4/4/2017 20:15	5.454	81.805	0	1.196	5.431
4/4/2017 20:30	5.879	88.186	0	1.26	5.53475
4/4/2017 20:45	5.646	84.686	0	1.225	5.6055
4/4/2017 21:00	5.536	83.037	0	1.209	5.62875
4/4/2017 21:15	5.505	82.573	0	1.204	5.6415
4/4/2017 21:30	5.494	82.404	0	1.202	5.54525
4/4/2017 21:45	5.463	81.941	0	1.198	5.4995
4/4/2017 22:00	5.517	82.759	0	1.206	5.49475
4/4/2017 22:15	5.568	83.527	0	1.214	5.5105
4/4/2017 22:30	5.497	82.458	0	1.203	5.51125
4/4/2017 22:45	5.667	85.011	0	1.228	5.56225
4/4/2017 23:00	6.099	91.479	0	1.292	5.70775
4/4/2017 23:15	6.282	94.237	0.401	1.252	5.88625
4/4/2017 23:30	6.06	90.896	0.4	1.224	6.027
4/4/2017 23:45	5.932	88.986	0	1.206	6.09325
4/5/2017 0:00	5.82	87.305	0	1.19	6.0235
4/5/2017 0:15	5.778	86.666	0	1.184	5.8975
4/5/2017 0:30	5.76	86.404	0	1.182	5.8225
4/5/2017 0:45	5.731	85.965	0	1.177	5.77225
4/5/2017 1:00	5.652	84.773	0	1.166	5.73025
4/5/2017 1:15	5.654	84.813	0	1.167	5.69925
4/5/2017 1:30	5.67	85.048	0	1.169	5.67675
4/5/2017 1:45	5.63	84.453	0	1.163	5.6515
4/5/2017 2:00	5.596	83.939	0	1.158	5.6375
4/5/2017 2:15	5.576	83.643	0	1.155	5.618
4/5/2017 2:30	5.612	84.176	0	1.16	5.6035
4/5/2017 2:45	5.618	84.275	0	1.161	5.6005
4/5/2017 3:00	5.646	84.691	0	1.165	5.613
4/5/2017 3:15	5.634	84.513	0	1.164	5.6275
4/5/2017 3:30	5.592	83.88	0	1.158	5.6225
4/5/2017 3:45	5.593	83.902	0	1.158	5.61625
4/5/2017 4:00	5.542	83.132	0	1.151	5.59025
4/5/2017 4:15	5.529	82.935	0	1.149	5.564
4/5/2017 4:30	5.508	82.62	0	1.146	5.543
4/5/2017 4:45	5.484	82.266	0	1.142	5.51575
4/5/2017 5:00	5.538	83.073	0	1.15	5.51475
4/5/2017 5:15	5.557	83.349	0	1.153	5.52175
4/5/2017 5:30	5.605	84.08	0	1.16	5.546
4/5/2017 5:45	5.55	83.251	0	1.152	5.5625
4/5/2017 6:00	5.554	83.31	0	1.152	5.5665
4/5/2017 6:15	5.596	83.942	0	1.158	5.57625
4/5/2017 6:30	5.552	83.273	0	1.152	5.563
4/5/2017 6:45	5.519	82.78	0	1.147	5.55525
4/5/2017 7:00	5.567	83.507	0	1.154	5.5585
4/5/2017 7:15	5.496	82.446	0	1.144	5.5335
4/5/2017 7:30	5.487	82.308	0	1.143	5.51725
4/5/2017 7:45	5.462	81.935	0	1.139	5.503
4/5/2017 8:00	5.418	81.268	0	1.133	5.46575
4/5/2017 8:15	5.432	81.484	0	1.135	5.44975
4/5/2017 8:30	5.456	81.837	0	1.138	5.442
4/5/2017 8:45	5.554	83.313	0	1.152	5.465
4/5/2017 9:00	5.635	84.519	0	1.164	5.51925
4/5/2017 9:15	5.613	84.202	0	1.161	5.5645
4/5/2017 9:30	5.574	83.609	0	1.155	5.594
4/5/2017 9:45	5.786	86.788	0	1.185	5.652
4/5/2017 10:00	6.349	95.242	0.397	1.271	5.8305
4/5/2017 10:15	5.363	80.443	0.357	1.216	5.768
4/5/2017 10:30	5.095	76.427	0	1.174	5.64825
4/5/2017 10:45	5.047	75.703	0	1.166	5.4635
4/5/2017 11:00	5.024	75.367	0	1.163	5.13225
4/5/2017 11:15	5.086	76.285	0	1.172	5.063
4/5/2017 11:30	5.009	75.134	0	1.16	5.0415
4/5/2017 11:45	4.92	73.795	0	1.146	5.00975
4/5/2017 12:00	4.949	74.235	0	1.15	4.991
4/5/2017 12:15	4.962	74.428	0	1.153	4.96
4/5/2017 12:30	5.033	75.488	0	1.164	4.966
4/5/2017 12:45	4.944	74.164	0	1.15	4.972
4/5/2017 13:00	4.936	74.041	0	1.148	4.96875
4/5/2017 13:15	4.934	74.006	0	1.148	4.96175
4/5/2017 13:30	4.902	73.531	0	1.143	4.929
4/5/2017 13:45	4.964	74.464	0	1.153	4.934
4/5/2017 14:00	5.035	75.523	0	1.164	4.95875
4/5/2017 14:15	4.923	73.848	0	1.146	4.956
4/5/2017 14:30	4.904	73.566	0	1.143	4.9565
4/5/2017 14:45	4.852	72.78	0	1.135	4.9285
4/5/2017 15:00	4.84	72.605	0	1.133	4.87975
4/5/2017 15:15	4.849	72.728	0	1.134	4.86125
4/5/2017 15:30	4.905	73.569	0	1.143	4.8615
4/5/2017 15:45	5.036	75.544	0	1.164	4.9075
4/5/2017 16:00	4.984	74.766	0	1.156	4.9435
4/5/2017 16:15	4.937	74.062	0	1.149	4.9655
4/5/2017 16:30	4.957	74.361	0	1.152	4.9785
4/5/2017 16:45	4.934	74.009	0	1.148	4.953
4/5/2017 17:00	4.947	74.206	0	1.15	4.94375
4/5/2017 17:15	4.865	72.976	0	1.137	4.92575
4/5/2017 17:30	5.485	82.28	0	1.235	5.05775
4/5/2017 17:45	5.187	77.798	0	1.188	5.121
4/5/2017 18:00	5.002	75.034	0	1.159	5.13475
4/5/2017 18:15	5.119	76.792	0	1.178	5.19825
4/5/2017 18:30	5.175	77.629	0	1.186	5.12075
4/5/2017 18:45	4.987	74.808	0	1.157	5.07075

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
4/5/2017 19:00	5.035	75.518	0	1.164	5.079
4/5/2017 19:15	5.45	81.743	0	1.23	5.16175
4/5/2017 19:30	7.71	115.648	0.513	1.216	5.7955
4/5/2017 19:45	7.133	106.991	0	1.152	6.332
4/5/2017 20:00	7.063	105.942	0	1.144	6.839
4/5/2017 20:15	6.92	103.805	0	1.128	7.2065
4/5/2017 20:30	6.92	103.805	0	1.128	7.009
4/5/2017 20:45	6.873	103.097	0	1.123	6.944
4/5/2017 21:00	6.977	104.651	0	1.135	6.9225
4/5/2017 21:15	6.903	103.544	0	1.126	6.91825
4/5/2017 21:30	6.798	101.966	0	1.115	6.88775
4/5/2017 21:45	6.761	101.417	0	1.11	6.85975
4/5/2017 22:00	6.663	99.952	0	1.099	6.78125
4/5/2017 22:15	7.4	111	0	1.182	6.9055
4/5/2017 22:30	7.167	107.502	0	1.156	6.99775
4/5/2017 22:45	7.002	105.029	0	1.138	7.058
4/5/2017 23:00	5.779	86.688	0.416	1.152	6.837
4/5/2017 23:15	6.223	93.348	0.432	1.181	6.54275
4/5/2017 23:30	6.019	90.285	0	1.154	6.25575
4/5/2017 23:45	5.848	87.717	0	1.132	5.96725
4/6/2017 0:00	5.7	85.503	0	1.112	5.9475
4/6/2017 0:15	5.607	84.103	0	1.099	5.7935
4/6/2017 0:30	5.587	83.806	0	1.097	5.6855
4/6/2017 0:45	5.54	83.096	0	1.09	5.6085
4/6/2017 1:00	5.544	83.159	0	1.091	5.5695
4/6/2017 1:15	5.65	84.743	0	1.105	5.58025
4/6/2017 1:30	5.717	85.751	0	1.114	5.61275
4/6/2017 1:45	5.822	87.332	0	1.128	5.68325
4/6/2017 2:00	5.696	85.436	0	1.111	5.72125
4/6/2017 2:15	5.648	84.727	0	1.105	5.72075
4/6/2017 2:30	5.595	83.931	0	1.098	5.69025
4/6/2017 2:45	5.616	84.245	0	1.101	5.63875
4/6/2017 3:00	5.455	81.828	0	1.079	5.5785
4/6/2017 3:15	5.489	82.33	0	1.083	5.53875
4/6/2017 3:30	5.632	84.475	0	1.103	5.548
4/6/2017 3:45	5.597	83.952	0	1.098	5.54325
4/6/2017 4:00	5.523	82.851	0	1.088	5.56025
4/6/2017 4:15	5.579	83.685	0	1.096	5.58275
4/6/2017 4:30	5.521	82.809	0	1.088	5.555
4/6/2017 4:45	5.536	83.038	0	1.09	5.53975
4/6/2017 5:00	5.511	82.663	0	1.086	5.53675
4/6/2017 5:15	5.498	82.476	0	1.085	5.5165
4/6/2017 5:30	5.573	83.601	0	1.095	5.5295
4/6/2017 5:45	5.558	83.372	0	1.093	5.535
4/6/2017 6:00	5.516	82.746	0	1.087	5.53625
4/6/2017 6:15	5.572	83.58	0	1.095	5.55475
4/6/2017 6:30	5.489	82.335	0	1.083	5.53375
4/6/2017 6:45	5.536	83.042	0	1.09	5.52825
4/6/2017 7:00	5.565	83.48	0	1.094	5.5405
4/6/2017 7:15	5.529	82.938	0	1.089	5.52975
4/6/2017 7:30	5.53	82.955	0	1.089	5.54
4/6/2017 7:45	5.453	81.795	0	1.078	5.51925
4/6/2017 8:00	5.464	81.961	0	1.08	5.494
4/6/2017 8:15	5.543	83.147	0	1.091	5.4975
4/6/2017 8:30	5.443	81.65	0	1.077	5.47575
4/6/2017 8:45	5.485	82.272	0	1.083	5.48375
4/6/2017 9:00	5.55	83.255	0	1.092	5.50525
4/6/2017 9:15	5.59	83.856	0	1.097	5.517
4/6/2017 9:30	5.539	83.084	0	1.09	5.541
4/6/2017 9:45	5.659	84.887	0	1.106	5.5845
4/6/2017 10:00	6.319	94.786	0	1.194	5.77675
4/6/2017 10:15	5.893	88.4	0	1.138	5.8525
4/6/2017 10:30	6.17	92.548	0	1.174	6.01025
4/6/2017 10:45	6.337	95.056	0	1.196	6.17975
4/6/2017 11:00	6.069	91.035	0	1.161	6.11725
4/6/2017 11:15	5.924	88.865	0	1.142	6.125
4/6/2017 11:30	6.354	95.304	0	1.198	6.171
4/6/2017 11:45	6.009	90.142	0	1.153	6.089
4/6/2017 12:00	5.798	86.963	0	1.125	6.02125
4/6/2017 12:15	5.603	84.047	0	1.099	5.941
4/6/2017 12:30	5.511	82.67	0	1.086	5.73025
4/6/2017 12:45	5.621	84.319	0	1.101	5.63325
4/6/2017 13:00	5.769	86.541	0	1.121	5.626
4/6/2017 13:15	5.594	83.917	0	1.098	5.62375
4/6/2017 13:30	5.522	82.832	0	1.088	5.6265
4/6/2017 13:45	5.503	82.545	0	1.085	5.597
4/6/2017 14:00	5.656	84.838	0	1.106	5.56875
4/6/2017 14:15	5.65	84.754	0	1.105	5.58275
4/6/2017 14:30	10.144	152.156	0.444	1.626	6.73825
4/6/2017 14:45	4.563	68.444	0.275	1.302	6.50325
4/6/2017 15:00	4.333	65.001	0.255	1.325	6.1725
4/6/2017 15:15	3.847	57.71	0	1.221	5.72175
4/6/2017 15:30	7.043	105.651	0.418	1.315	4.9465
4/6/2017 15:45	5.724	85.854	0	1.14	5.23675
4/6/2017 16:00	5.394	80.904	0	1.094	5.502
4/6/2017 16:15	5.304	79.553	0	1.082	5.86625
4/6/2017 16:30	5.341	80.112	0	1.087	5.44075
4/6/2017 16:45	5.179	77.686	0	1.064	5.3045
4/6/2017 17:00	5.284	79.258	0	1.079	5.277
4/6/2017 17:15	5.195	77.93	0	1.067	5.24975
4/6/2017 17:30	5.105	76.573	0	1.054	5.19075
4/6/2017 17:45	5.054	75.813	0	1.047	5.1595

Label	Flow Rate	Total Flow	Velocity	Level	hourly average
Units	gpm	gal	ft/s	in	gpm
4/6/2017 18:00	5.256	78.846	0	1.075	5.1525
4/6/2017 18:15	5.248	78.72	0	1.074	5.16575
4/6/2017 18:30	5.139	77.081	0	1.059	5.17425
4/6/2017 18:45	6.069	91.041	0.399	1.227	5.428
4/6/2017 19:00	6.754	101.306	0.427	1.26	5.8025
4/6/2017 19:15	5.777	86.655	0	1.131	5.93475
4/6/2017 19:30	5.453	81.8	0	1.087	6.01325
4/6/2017 19:45	5.185	77.772	0	1.05	5.79225
4/6/2017 20:00	5.239	78.584	0	1.058	5.4135
4/6/2017 20:15	5.253	78.797	0	1.06	5.2825
4/6/2017 20:30	5.18	77.694	0	1.049	5.21425
4/6/2017 20:45	5.318	79.77	0	1.069	5.2475
4/6/2017 21:00	5.236	78.542	0	1.057	5.24675
4/6/2017 21:15	5.144	77.162	0	1.044	5.2195
4/6/2017 21:30	5.024	75.353	0	1.028	5.1805
4/6/2017 21:45	5.054	75.815	0	1.032	5.1145
4/6/2017 22:00	5.046	75.695	0	1.031	5.067
4/6/2017 22:15	5.024	75.353	0	1.028	5.037
4/6/2017 22:30	5.126	76.884	0	1.042	5.0625
4/6/2017 22:45	5.515	82.722	0	1.096	5.17775
4/6/2017 23:00	5.224	78.353	0	1.056	5.22225
4/6/2017 23:15	5.197	77.953	0	1.052	5.2655
4/6/2017 23:30	5.224	78.364	0	1.056	5.29
4/6/2017 23:45	5.575	83.627	0	1.104	5.305
4/7/2017 0:00	5.052	75.775	0	1.032	5.262
4/7/2017 0:15	5.142	77.133	0	1.044	5.24825
4/7/2017 0:30	5	75.002	0	1.024	5.19225
4/7/2017 0:45	4.988	74.821	0	1.023	5.0455
4/7/2017 1:00	5.032	75.484	0	1.029	5.0405
4/7/2017 1:15	4.957	74.361	0	1.018	4.99425
4/7/2017 1:30	5.044	75.66	0	1.03	5.00525
4/7/2017 1:45	5.147	77.208	0	1.045	5.045
4/7/2017 2:00	5.076	76.143	0	1.035	5.056
4/7/2017 2:15	4.929	73.935	0	1.014	5.049
4/7/2017 2:30	4.979	74.681	0	1.021	5.03275
4/7/2017 2:45	5.102	76.532	0	1.039	5.0215
4/7/2017 3:00	5.067	76.007	0	1.034	5.01925
4/7/2017 3:15	5.046	75.685	0	1.031	5.0485
4/7/2017 3:30	5.043	75.64	0	1.03	5.0645
4/7/2017 3:45	5.015	75.223	0	1.026	5.04275
4/7/2017 4:00	5.003	75.042	0	1.025	5.02675
4/7/2017 4:15	5.068	76.027	0	1.034	5.03225
4/7/2017 4:30	5.062	75.927	0	1.033	5.037
4/7/2017 4:45	5.106	76.592	0	1.039	5.05975
4/7/2017 5:00	5.047	75.705	0	1.031	5.07075
4/7/2017 5:15	5	75.002	0	1.024	5.05375
4/7/2017 5:30	5.095	76.431	0	1.038	5.062
4/7/2017 5:45	5.094	76.411	0	1.037	5.059
4/7/2017 6:00	4.993	74.902	0	1.023	5.0455
4/7/2017 6:15	5.069	76.033	0	1.034	5.06275
4/7/2017 6:30	5.21	78.151	0	1.054	5.0915
4/7/2017 6:45	5.188	77.827	0	1.051	5.115
4/7/2017 7:00	5.039	75.585	0	1.03	5.1265
4/7/2017 7:15	5.077	76.154	0	1.035	5.1285
4/7/2017 7:30	5.059	75.892	0	1.033	5.09075
4/7/2017 7:45	5.021	75.309	0	1.027	5.049
4/7/2017 8:00	6.059	90.891	0	1.169	5.304
4/7/2017 8:15	5.247	78.71	0	1.059	5.3465
4/7/2017 8:30	5.054	75.806	0	1.032	5.34525
4/7/2017 8:45	5.164	77.453	0	1.047	5.381
4/7/2017 9:00	5.114	76.71	0	1.04	5.14475
4/7/2017 9:15	5.042	75.628	0	1.03	5.0935
4/7/2017 9:30	5.109	76.636	0	1.04	5.10725
4/7/2017 9:45	5.351	80.263	0	1.073	5.154
4/7/2017 10:00	5.057	75.858	0	1.032	5.13975
4/7/2017 10:15	5.441	81.617	0	1.086	5.2395
4/7/2017 10:30	5.091	76.367	0	1.037	5.235
4/7/2017 10:45	4.942	74.123	0	1.016	5.13275
4/7/2017 11:00	4.978	74.67	0	1.021	5.113
4/7/2017 11:15	5.036	75.533	0	1.029	5.01175
4/7/2017 11:30	4.775	71.618	0.408	1.024	4.93275
4/7/2017 11:45	4.756	71.339	0	1.022	4.88625
4/7/2017 12:00	4.726	70.885	0	1.017	4.82325



Flow vs. Time
25
20
15
10
5
0
3/24/2017
3/25/2017
3/26/2017
3/27/2017
3/28/2017
3/30/2017
3/31/2017
4/1/2017
4/2/2017
4/3/2017
4/5/2017
4/6/2017
4/7/2017

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
Resolution	0.1	0.1	0.1	0.1	
Significant Digits	0	0	0	0	
3/27/2017 9:30	13.652	204.781	0.679	1.488	
3/27/2017 9:45	14.435	216.529	0.721	1.483	
3/27/2017 11:00	13.054	195.803	0.629	1.521	
3/27/2017 11:15	11.406	171.086	0.596	1.438	13.13675
3/27/2017 11:30	12.126	181.897	0.64	1.429	12.75525
3/27/2017 11:45	12.825	192.371	0.669	1.439	12.35275
3/27/2017 12:15	12.318	184.763	0.65	1.428	12.16875
3/27/2017 12:45	12.457	186.856	0.711	1.352	12.4315
3/27/2017 13:00	12.283	184.239	0	1.339	12.47075
3/27/2017 13:15	11.963	179.44	0	1.315	12.25525
3/27/2017 13:30	11.559	173.39	0.8	1.184	12.0655
3/27/2017 16:15	16.853	252.794	0.967	1.347	13.1645
3/27/2017 16:30	11.097	166.449	0.658	1.318	12.868
3/27/2017 16:45	12.191	182.864	0.739	1.297	12.925
3/27/2017 17:00	12.124	181.866	0	1.293	13.06625
3/27/2017 17:15	11.058	165.872	0.642	1.336	11.6175
3/27/2017 17:30	13.112	196.686	0.875	1.214	12.12125
3/27/2017 17:45	9.22	138.303	0.57	1.279	11.3785
3/27/2017 18:00	9.374	140.616	0	1.294	10.691
3/27/2017 18:15	9.599	143.982	0	1.315	10.32625
3/27/2017 20:00	12.115	181.719	0.733	1.299	10.077
3/27/2017 20:15	12.716	190.743	0.678	1.419	10.951
3/27/2017 20:30	10.059	150.891	0.62	1.282	11.12225
3/27/2017 20:45	12.541	188.109	0.758	1.3	11.85775
3/27/2017 21:00	12.358	185.368	0	1.287	11.9185
3/27/2017 21:15	11.824	177.357	0.702	1.315	11.6955
3/27/2017 21:30	13.944	209.154	0.869	1.272	12.66675
3/27/2017 21:45	13.536	203.035	0.873	1.243	12.9155
3/27/2017 22:00	22.289	334.33	1.315	1.321	15.39825
3/27/2017 22:45	20.017	300.256	1.198	1.309	17.4465
3/27/2017 23:00	23.665	354.97	1.437	1.296	19.87675
3/27/2017 23:15	22.014	330.207	1.334	1.298	21.99625
3/27/2017 23:45	15.344	230.153	0.954	1.275	20.26
3/28/2017 0:45	17.985	269.772	1.119	1.274	19.752
3/28/2017 1:00	21.055	315.822	1.252	1.314	19.0995
3/28/2017 1:15	21.934	329.015	1.349	1.284	19.0795
3/28/2017 2:15	17.055	255.823	1.047	1.286	19.50725
3/28/2017 2:30	17.177	257.65	0	1.292	19.30525
3/28/2017 3:15	24.192	362.88	1.463	1.299	20.0895
3/28/2017 3:30	24.672	370.081	1.527	1.278	20.774
3/28/2017 3:45	24.582	368.733	1.503	1.29	22.65575
3/28/2017 4:00	24.196	362.933	0	1.276	24.4105
3/28/2017 4:45	22.37	335.544	1.355	1.298	23.955
3/28/2017 5:00	22.315	334.732	0	1.296	23.36575
3/28/2017 6:15	12.341	185.116	0.726	1.324	20.3055
3/28/2017 6:30	12.952	194.277	0	1.37	17.4945
3/28/2017 6:45	11.294	169.407	0	1.246	14.7255
3/28/2017 7:00	10.506	157.592	0.672	1.25	11.77325
3/28/2017 7:30	11.209	168.129	0.67	1.31	11.49025
3/28/2017 7:45	12.931	193.971	0.784	1.298	11.485
3/28/2017 8:00	14.271	214.063	0.818	1.348	12.22925
3/28/2017 8:15	15.508	232.626	0.859	1.381	13.47975
3/28/2017 8:30	18.969	284.534	0.985	1.444	15.41975
3/28/2017 8:45	17.147	257.199	0.986	1.346	16.47375
3/28/2017 9:00	17.18	257.696	0.968	1.365	17.201
3/28/2017 9:15	21.747	326.208	1.212	1.375	18.76075
3/28/2017 9:30	21.241	318.617	1.184	1.375	19.32875
3/28/2017 9:45	19.067	286.009	1.031	1.404	19.80875
3/28/2017 10:30	11.128	166.914	0.681	1.289	18.29575
3/28/2017 10:45	10.692	160.383	0	1.254	15.532
3/28/2017 11:00	10.654	159.815	0.681	1.251	12.88525
3/28/2017 11:15	11.469	172.042	0.71	1.279	10.98575
3/28/2017 11:30	9.392	140.887	0.629	1.211	10.55175
3/28/2017 11:45	12.403	186.046	0.766	1.281	10.9795
3/28/2017 12:00	8.348	125.225	0.539	1.242	10.403
3/28/2017 12:15	8.368	125.521	0	1.244	9.62775
3/28/2017 12:30	10.064	150.962	0.637	1.259	9.79575
3/28/2017 12:45	10.548	158.219	0.666	1.261	9.332
3/28/2017 13:00	10.702	160.532	0.701	1.229	9.9205
3/28/2017 13:15	12.021	180.309	0.771	1.247	10.83375
3/28/2017 13:30	9.296	139.435	0.619	1.215	10.64175
3/28/2017 13:45	11.18	167.7	0.728	1.235	10.79975
3/28/2017 14:00	11.87	178.051	0	1.287	11.09175
3/28/2017 14:15	11.535	173.021	0.706	1.288	10.97025
3/28/2017 14:30	11.39	170.853	0.686	1.303	11.49375
3/28/2017 15:15	8.569	128.54	0.543	1.259	10.841
3/28/2017 16:15	11.355	170.332	0.731	1.245	10.71225
3/28/2017 16:30	9.108	136.613	0.615	1.204	10.1055
3/28/2017 16:45	9.29	139.353	0	1.221	9.5805
3/28/2017 17:00	9.915	148.725	0	1.277	9.917
3/28/2017 17:15	12.669	190.03	0.797	1.265	10.2455
3/28/2017 17:30	11.105	166.574	0.723	1.235	10.74475
3/28/2017 17:45	10.98	164.693	0.715	1.235	11.16725
3/28/2017 18:00	10.854	162.803	0.712	1.228	11.402
3/28/2017 18:15	10.682	160.231	0	1.215	10.90525
3/28/2017 18:45	12.879	193.181	0.815	1.259	11.34875
3/28/2017 19:00	12.381	185.713	0	1.225	11.699

Daily Flow (gpm)			
Date	Minimum	Average	Maximum
27-Mar	9.22	13.49	23.67
28-Mar	8.23	13.31	24.67
29-Mar	7.61	13.06	27.00
30-Mar	7.43	18.48	38.59
31-Mar	8.27	16.65	27.76
1-Apr	6.61	14.63	28.73
2-Apr	5.62	12.86	28.34
3-Apr	4.78	10.67	23.20
4-Apr	3.65	7.59	18.76
5-Apr	3.93	10.34	22.53
6-Apr	4.36	9.99	25.10
7-Apr	4.11	7.48	15.85

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
3/28/2017 19:15	13.629	204.433	0.873	1.248	12.39275
3/28/2017 19:30	13.037	195.561	0	1.211	12.9815
3/28/2017 19:45	10.209	153.133	0.657	1.245	12.314
3/28/2017 20:00	10.064	150.958	0.659	1.23	11.73475
3/28/2017 20:15	9.952	149.278	0	1.221	10.8155
3/28/2017 20:30	10.114	151.709	0	1.234	10.08475
3/28/2017 20:45	8.783	131.741	0.554	1.262	9.72825
3/28/2017 21:00	8.231	123.466	0	1.207	9.27
3/28/2017 21:15	12.594	188.913	0.816	1.239	9.9305
3/28/2017 21:30	12.347	185.2	0	1.222	10.48875
3/28/2017 21:45	11.643	174.65	0	1.173	11.20375
3/28/2017 22:00	12.81	192.143	0	1.253	12.3485
3/28/2017 22:15	12.647	189.712	0	1.242	12.36175
3/28/2017 22:30	11.931	178.964	0.768	1.244	12.25775
3/28/2017 22:45	10.642	159.632	0.668	1.266	12.0075
3/28/2017 23:00	9.394	140.91	0	1.161	11.1535
3/28/2017 23:15	9.713	145.692	0	1.188	10.42
3/28/2017 23:30	9.347	140.198	0	1.157	9.774
3/28/2017 23:45	9.481	142.21	0	1.169	9.48375
3/29/2017 0:00	10.27	154.046	0	1.235	9.70275
3/29/2017 0:15	10.363	155.445	0.627	1.299	9.86525
3/29/2017 0:30	9.826	147.384	0	1.252	9.985
3/29/2017 0:45	9.216	138.238	0	1.198	9.91875
3/29/2017 1:00	9.779	146.68	0	1.248	9.796
3/29/2017 1:15	10.414	156.207	0.748	1.154	9.80875
3/29/2017 1:30	12.735	191.025	0.844	1.22	10.536
3/29/2017 1:45	13.668	205.013	0.904	1.221	11.649
3/29/2017 2:00	12.75	191.251	0.877	1.189	12.39175
3/29/2017 2:15	10.586	158.783	0.725	1.193	12.43475
3/29/2017 2:30	11.726	175.888	0.819	1.177	12.1825
3/29/2017 2:45	14.674	220.109	0.959	1.232	12.434
3/29/2017 3:00	13.009	195.132	0.844	1.237	12.49875
3/29/2017 3:15	12.567	188.512	0.85	1.203	12.994
3/29/2017 3:30	12.884	193.262	0.777	1.302	13.2835
3/29/2017 3:45	12.576	188.643	0	1.28	12.759
3/29/2017 4:00	14.662	219.937	0.869	1.318	13.17225
3/29/2017 4:15	15.144	227.164	0.9	1.315	13.8165
3/29/2017 4:30	12.623	189.352	0.654	1.447	13.75125
3/29/2017 4:45	10.7	160.506	0	1.29	13.28225
3/29/2017 5:00	10.795	161.918	0	1.298	12.3155
3/29/2017 5:15	11.546	173.191	0	1.36	11.416
3/29/2017 5:30	21.989	329.832	0.86	1.76	13.7575
3/29/2017 5:45	15.475	232.12	0	1.378	14.95125
3/29/2017 7:00	8.736	131.044	0.54	1.28	14.4365
3/29/2017 7:15	14.086	211.289	0.74	1.433	15.0715
3/29/2017 7:30	18.723	280.838	0	1.748	14.255
3/29/2017 7:45	12.198	182.977	0	1.297	13.43575
3/29/2017 8:00	14.146	212.186	0.744	1.432	14.78825
3/29/2017 9:00	13.974	209.612	0.75	1.412	14.76025
3/29/2017 9:15	13.894	208.404	0.721	1.445	13.553
3/29/2017 9:30	16.388	245.823	0	1.622	14.6005
3/29/2017 9:45	14.595	218.925	0.724	1.491	14.71275
3/29/2017 10:00	13.043	195.647	0	1.379	14.48
3/29/2017 10:15	13.006	195.096	0.72	1.381	14.258
3/29/2017 10:30	13.167	197.501	0.796	1.3	13.45275
3/29/2017 10:45	13.965	209.481	0	1.354	13.29525
3/29/2017 11:00	13.952	209.277	0	1.353	13.5225
3/29/2017 11:15	13.317	199.749	0.721	1.403	13.60025
3/29/2017 11:30	13.53	202.956	0	1.419	13.691
3/29/2017 11:45	12.281	184.22	0	1.327	13.27
3/29/2017 12:00	13.318	199.766	0	1.403	13.1115
3/29/2017 12:15	12.173	182.594	0	1.319	12.8255
3/29/2017 12:30	12.756	191.342	0	1.362	12.632
3/29/2017 12:45	13.038	195.575	0	1.383	12.82125
3/29/2017 13:00	12.706	190.586	0	1.358	12.66825
3/29/2017 13:15	8.182	122.731	0.506	1.28	11.6705
3/29/2017 13:45	10.326	154.889	0.572	1.381	11.063
3/29/2017 14:00	10.79	161.854	0	1.424	10.501
3/29/2017 14:15	17.681	265.217	0.763	1.643	11.74475
3/29/2017 14:30	19.923	298.84	0.879	1.617	14.68
3/29/2017 14:45	16.096	241.447	0	1.394	16.1225
3/29/2017 15:00	7.614	114.203	0.453	1.315	15.3285
3/29/2017 15:15	8.186	122.797	0	1.383	12.95475
3/29/2017 15:30	7.998	119.977	0.493	1.282	9.9735
3/29/2017 15:45	9.556	143.347	0	1.451	8.3385
3/29/2017 16:00	7.859	117.891	0	1.267	8.39975
3/29/2017 16:15	8.084	121.254	0	1.292	8.37425
3/29/2017 16:30	12.361	185.409	0.757	1.289	9.465
3/29/2017 16:45	12.651	189.769	0	1.309	10.23875
3/29/2017 17:00	12.666	189.989	0	1.31	11.4405
3/29/2017 17:15	13.233	198.497	0	1.351	12.72775
3/29/2017 17:30	9.126	136.883	0.562	1.283	11.919
3/29/2017 17:45	10.409	156.133	0	1.405	11.3585
3/29/2017 18:00	11.335	170.02	0	1.491	11.02575
3/29/2017 18:15	12.078	181.168	0.587	1.513	10.737
3/29/2017 18:30	9.041	135.619	0	1.238	10.71575
3/29/2017 19:15	22.848	342.714	0.905	1.744	13.8255
3/29/2017 19:30	27.004	405.062	0.934	1.919	17.74275
3/29/2017 19:45	17.652	264.777	0	1.425	19.13625
3/29/2017 20:00	14.629	219.437	0	1.251	20.53325

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
3/29/2017 20:15	10.829	162.436	0.581	1.412	17.5285
3/29/2017 20:30	15.187	227.801	0.759	1.484	14.57425
3/29/2017 20:45	14.588	218.816	0.782	1.413	13.80825
3/29/2017 21:00	14.274	214.112	0.749	1.434	13.7195
3/29/2017 21:15	12.075	181.128	0.704	1.333	14.031
3/29/2017 21:30	16.091	241.361	0.83	1.451	14.257
3/29/2017 21:45	12.784	191.758	0	1.237	13.806
3/29/2017 22:00	8.996	134.935	0.534	1.316	12.4865
3/29/2017 22:15	10.434	156.503	0.657	1.264	12.07625
3/29/2017 22:30	8.681	130.214	0.56	1.243	10.22375
3/29/2017 22:45	10.812	162.177	0.66	1.291	9.73075
3/29/2017 23:00	10.692	160.374	0.656	1.286	10.15475
3/29/2017 23:15	18.057	270.851	0	1.854	12.0605
3/29/2017 23:30	20.395	305.931	0	2.02	14.989
3/29/2017 23:45	24.841	372.615	0.863	1.913	18.49625
3/30/2017 0:00	24.236	363.537	0.868	1.873	21.88225
3/30/2017 0:15	29.169	437.529	1.01	1.918	24.66025
3/30/2017 0:30	27.259	408.889	0.97	1.882	26.37625
3/30/2017 0:45	27.372	410.58	1.018	1.824	27.009
3/30/2017 1:00	27.468	412.025	0.975	1.884	27.817
3/30/2017 1:15	23.439	351.592	0.871	1.825	26.3845
3/30/2017 1:30	18.949	284.239	0.744	1.755	24.307
3/30/2017 1:45	10.771	161.571	0	1.185	20.15675
3/30/2017 2:00	12.963	194.449	0.797	1.285	16.5305
3/30/2017 2:15	12.474	187.105	0	1.251	13.78925
3/30/2017 2:30	12.432	186.477	0	1.248	12.16
3/30/2017 2:45	13.349	200.235	0	1.311	12.8045
3/30/2017 3:00	13.223	198.338	0	1.303	12.8695
3/30/2017 3:15	9.678	145.17	0.511	1.428	12.1705
3/30/2017 3:30	10.041	150.613	0	1.465	11.57275
3/30/2017 3:45	9.619	144.282	0	1.422	10.64025
3/30/2017 4:00	12.928	193.925	0.714	1.383	10.5665
3/30/2017 4:15	11.719	175.778	0.71	1.297	11.07675
3/30/2017 4:30	12.013	180.199	0.739	1.284	11.56975
3/30/2017 4:45	7.433	111.498	0.482	1.238	11.02325
3/30/2017 5:00	13.217	198.254	0.824	1.273	11.0955
3/30/2017 5:15	14.337	215.05	0.902	1.265	11.75
3/30/2017 5:30	10.176	152.642	0.634	1.273	11.29075
3/30/2017 5:45	9.613	144.197	0	1.224	11.83575
3/30/2017 6:00	12.273	184.095	0.726	1.32	11.59975
3/30/2017 6:15	15.913	238.695	0.886	1.375	11.99375
3/30/2017 6:30	19.058	285.866	1	1.433	14.21425
3/30/2017 6:45	18.681	280.214	0	1.414	16.48125
3/30/2017 7:45	14.97	224.555	0.76	1.467	17.1555
3/30/2017 8:00	12.02	180.303	0.626	1.442	16.18225
3/30/2017 8:15	14.477	217.16	0.716	1.494	15.037
3/30/2017 8:30	12.477	187.162	0.666	1.416	13.486
3/30/2017 8:45	14.274	214.116	0.81	1.358	13.312
3/30/2017 9:00	16.772	251.578	0	1.519	14.5
3/30/2017 9:15	13.232	198.474	0.758	1.349	14.18875
3/30/2017 9:30	9.436	141.533	0.603	1.25	13.4285
3/30/2017 9:45	10.854	162.806	0	1.378	12.5735
3/30/2017 10:00	13.609	204.131	0	1.613	11.78275
3/30/2017 10:15	18.002	270.036	0.824	1.578	12.97525
3/30/2017 10:30	19.669	295.033	0.921	1.552	15.5335
3/30/2017 11:15	28.496	427.441	1.237	1.636	19.944
3/30/2017 11:30	26.691	400.361	1.167	1.629	23.2145
3/30/2017 12:00	23.674	355.106	1.004	1.663	24.6325
3/30/2017 12:15	20.33	304.945	0	1.495	24.79775
3/30/2017 12:30	19.098	286.471	0.858	1.598	22.44825
3/30/2017 12:45	25.497	382.46	1.1	1.644	22.14975
3/30/2017 13:00	32.869	493.039	1.403	1.656	24.4485
3/30/2017 13:15	18.754	281.307	0.832	1.612	24.0545
3/30/2017 13:30	26.329	394.937	1.078	1.705	25.86225
3/30/2017 13:45	29.285	439.278	1.249	1.657	26.80925
3/30/2017 14:00	19.279	289.182	0.888	1.57	23.41175
3/30/2017 14:15	19.783	296.752	0.906	1.576	23.669
3/30/2017 14:30	23.749	356.238	1.012	1.657	23.024
3/30/2017 14:45	22.237	333.55	0.986	1.613	21.262
3/30/2017 15:00	18.809	282.139	0.898	1.531	21.1445
3/30/2017 15:15	36.056	540.833	1.438	1.737	25.21275
3/30/2017 15:45	24.241	363.61	1.003	1.692	25.33575
3/30/2017 16:00	29.452	441.784	1.211	1.7	27.1395
3/30/2017 16:45	28.204	423.053	1.226	1.635	29.48825
3/30/2017 17:00	26.739	401.087	1.184	1.614	27.159
3/30/2017 17:15	9.747	146.205	0.6	1.284	23.5355
3/30/2017 17:30	9.371	140.56	0.598	1.253	18.51525
3/30/2017 17:45	10.398	155.972	0.649	1.271	14.06375
3/30/2017 18:00	10.324	154.855	0	1.265	9.96
3/30/2017 18:15	12.012	180.187	0.721	1.307	10.52625
3/30/2017 18:30	10.633	159.488	0	1.201	10.84175
3/30/2017 18:45	10.207	153.103	0.615	1.303	10.794
3/30/2017 19:00	10.328	154.922	0	1.313	10.795
3/30/2017 19:15	11.883	178.251	0.681	1.348	10.76275
3/30/2017 19:30	11.9	178.501	0	1.349	11.0795
3/30/2017 19:45	9.304	139.558	0.567	1.293	10.85375
3/30/2017 20:00	9.722	145.835	0.649	1.214	10.70225
3/30/2017 21:30	18.983	284.738	1.114	1.327	12.47725
3/30/2017 21:45	14.684	220.259	0	1.111	13.17325
3/30/2017 22:00	22.716	340.734	0.834	1.84	16.52625

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
3/30/2017 22:15	20.686	310.291	0.748	1.861	19.26725
3/30/2017 22:30	35.981	539.708	1.191	1.98	23.51675
3/30/2017 22:45	32.25	483.747	0	1.833	27.90825
3/30/2017 23:00	38.593	578.902	1.459	1.803	31.8775
3/30/2017 23:15	36.506	547.588	0	1.734	35.8325
3/30/2017 23:30	38.309	574.629	0	1.794	36.4145
3/30/2017 23:45	21.925	328.871	0.792	1.862	33.83325
3/31/2017 0:00	25.898	388.465	0.976	1.807	30.6595
3/31/2017 0:15	25.23	378.447	0	1.774	27.8405
3/31/2017 0:30	26.92	403.799	1.001	1.825	24.99325
3/31/2017 0:45	27.76	416.402	0	1.865	26.452
3/31/2017 1:00	27.352	410.285	0	1.845	26.8155
3/31/2017 1:15	27.027	405.402	0	1.83	27.26475
3/31/2017 1:30	17.41	261.143	0.639	1.842	24.88725
3/31/2017 1:45	21.146	317.196	0.792	1.816	23.23375
3/31/2017 2:00	22.744	341.164	0	1.912	22.08175
3/31/2017 2:15	21.572	323.58	0	1.841	20.718
3/31/2017 2:30	21.917	328.756	0	1.862	21.84475
3/31/2017 2:45	24.608	369.12	0	2.021	22.71025
3/31/2017 3:00	21.005	315.073	0	1.807	22.2755
3/31/2017 3:15	20.717	310.758	0	1.79	22.06175
3/31/2017 3:30	20.945	314.176	0	1.804	21.81875
3/31/2017 3:45	21.106	316.589	0	1.813	20.94325
3/31/2017 4:00	21.299	319.486	0	1.825	21.01675
3/31/2017 4:15	21.326	319.885	0	1.827	21.169
3/31/2017 4:30	21.808	327.12	0	1.856	21.38475
3/31/2017 4:45	20.853	312.79	0	1.798	21.3215
3/31/2017 5:00	20.779	311.681	0	1.793	21.1915
3/31/2017 5:15	20.718	310.769	0	1.79	21.0395
3/31/2017 5:30	23.373	350.594	0	1.949	21.43075
3/31/2017 5:45	23.166	347.494	0	1.937	22.009
3/31/2017 6:00	24.082	361.229	0	1.99	22.83475
3/31/2017 6:15	23.534	353.011	0	1.958	23.53875
3/31/2017 6:30	23.02	345.306	0	1.928	23.4505
3/31/2017 6:45	22.93	343.951	0	1.923	23.3915
3/31/2017 7:00	22.558	338.374	0	1.9	23.0105
3/31/2017 7:15	24.564	368.454	0	2.019	23.268
3/31/2017 9:30	11.999	179.984	0.62	1.449	20.51275
3/31/2017 10:30	23.088	346.324	1.02	1.616	20.55225
3/31/2017 10:45	27.317	409.759	1.117	1.706	21.742
3/31/2017 11:00	24.462	366.935	0	1.58	21.7165
3/31/2017 11:15	14.921	223.812	0.728	1.508	22.447
3/31/2017 11:30	15.001	225.01	0	1.513	20.42525
3/31/2017 11:45	14.613	219.194	0	1.486	17.24925
3/31/2017 12:15	10.776	161.642	0.553	1.457	13.82775
3/31/2017 12:30	14.029	210.436	0.62	1.616	13.60475
3/31/2017 12:45	12.252	183.776	0.619	1.472	12.9175
3/31/2017 13:00	11.299	169.486	0	1.392	12.089
3/31/2017 13:15	8.857	132.862	0.463	1.438	11.60925
3/31/2017 13:30	8.265	123.982	0	1.37	10.16825
3/31/2017 13:45	16.139	242.089	0.745	1.568	11.14
3/31/2017 14:00	13.781	206.71	0	1.405	11.7605
3/31/2017 14:15	8.693	130.4	0.51	1.327	11.7195
3/31/2017 14:30	8.768	131.518	0.504	1.345	11.84525
3/31/2017 14:45	8.937	134.059	0	1.363	10.04475
3/31/2017 15:00	9.782	146.73	0	1.451	9.045
3/31/2017 15:15	9.882	148.237	0	1.462	9.34225
3/31/2017 15:30	9.962	149.427	0	1.47	9.64075
3/31/2017 15:45	15.861	237.918	0.799	1.475	11.37175
3/31/2017 16:00	15.239	228.578	0.697	1.578	12.736
3/31/2017 16:15	12.465	186.971	0.701	1.366	13.38175
3/31/2017 16:30	11.759	176.39	0.637	1.402	13.831
3/31/2017 16:45	10.943	164.144	0	1.334	12.6015
3/31/2017 17:15	12.155	182.326	0.69	1.357	11.8305
3/31/2017 17:30	12.685	190.278	0.723	1.354	11.8855
3/31/2017 17:45	9.172	137.575	0.535	1.333	11.23875
3/31/2017 18:00	12.008	180.113	0.692	1.343	11.505
3/31/2017 18:15	13.43	201.449	0	1.451	11.82375
3/31/2017 18:30	11.703	175.55	0.693	1.318	11.57825
3/31/2017 18:45	12.443	186.648	0.68	1.394	12.396
3/31/2017 19:00	10.562	158.437	0.625	1.32	12.0345
3/31/2017 19:15	13.903	208.551	0.787	1.361	12.15275
3/31/2017 19:30	9.208	138.116	0.537	1.332	11.529
3/31/2017 20:45	11.16	167.399	0.554	1.491	11.20825
3/31/2017 21:00	12.646	189.694	0.614	1.513	11.72925
3/31/2017 21:15	12.908	193.621	0.621	1.523	11.4805
3/31/2017 21:30	14.275	214.131	0.696	1.51	12.74725
3/31/2017 21:45	10.91	163.654	0.562	1.453	12.68475
3/31/2017 22:00	10.574	158.605	0.552	1.439	12.16675
3/31/2017 22:15	9.711	145.666	0.513	1.427	11.3675
3/31/2017 22:30	10.424	156.358	0	1.499	10.40475
3/31/2017 22:45	10.436	156.538	0	1.5	10.28625
3/31/2017 23:00	11.981	179.72	0.612	1.461	10.638
3/31/2017 23:15	14.391	215.859	0.725	1.474	11.808
3/31/2017 23:30	17.516	262.737	0.809	1.567	13.581
3/31/2017 23:45	14.567	218.5	0.734	1.475	14.61375
4/1/2017 0:00	14.172	212.582	0.718	1.469	15.1615
4/1/2017 0:15	16.888	253.315	0.84	1.488	15.78575
4/1/2017 0:30	13.094	196.414	0.68	1.444	14.68025
4/1/2017 0:45	12.879	193.183	0	1.427	14.25825

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
4/1/2017 1:00	14.634	219.514	0.767	1.435	14.37375
4/1/2017 1:15	13.762	206.437	0.717	1.441	13.59225
4/1/2017 1:30	14.527	217.899	0.752	1.448	13.9505
4/1/2017 1:45	14.493	217.4	0	1.446	14.354
4/1/2017 2:00	14.145	212.181	0.724	1.458	14.23175
4/1/2017 2:15	15.175	227.632	0.739	1.51	14.585
4/1/2017 2:30	12.093	181.395	0.622	1.453	13.9765
4/1/2017 2:45	11.767	176.503	0.618	1.433	13.295
4/1/2017 3:00	13.92	208.801	0.702	1.474	13.23875
4/1/2017 3:15	6.613	99.2	0.404	1.291	11.09825
4/1/2017 3:30	28.037	420.551	1.192	1.66	15.08425
4/1/2017 3:45	24.391	365.858	1.039	1.658	18.24025
4/1/2017 4:00	13.046	195.688	0.641	1.5	18.02175
4/1/2017 4:15	13.747	206.21	0.69	1.48	19.80525
4/1/2017 4:30	14.274	214.109	0.711	1.487	16.3645
4/1/2017 4:45	19.136	287.045	0.866	1.589	15.05075
4/1/2017 5:00	14.384	215.753	0.705	1.504	15.38525
4/1/2017 5:15	12.428	186.418	0	1.359	15.0555
4/1/2017 5:30	11.43	171.457	0	1.282	14.3445
4/1/2017 9:00	20.01	300.143	0.979	1.506	14.563
4/1/2017 9:15	19.502	292.527	0	1.479	15.8425
4/1/2017 9:30	15.15	227.245	0.823	1.4	16.523
4/1/2017 9:45	17.011	255.163	0.802	1.545	17.91825
4/1/2017 10:00	14.482	217.233	0.754	1.441	16.53625
4/1/2017 10:15	13.953	209.299	0	1.404	15.149
4/1/2017 10:30	13.745	206.174	0.735	1.415	14.79775
4/1/2017 10:45	16.606	249.084	0.836	1.476	14.6965
4/1/2017 11:00	15.477	232.155	0.795	1.455	14.94525
4/1/2017 11:15	15.784	236.759	0	1.475	15.403
4/1/2017 11:30	16.88	253.204	0.794	1.547	16.18675
4/1/2017 11:45	13.886	208.288	0	1.351	15.50675
4/1/2017 15:45	11.19	167.847	0.631	1.364	14.435
4/1/2017 16:00	11.577	173.657	0	1.396	13.38325
4/1/2017 16:15	25.317	379.76	1.197	1.542	15.4925
4/1/2017 17:45	18.775	281.624	0.91	1.515	16.71475
4/1/2017 18:00	15.955	239.322	0.791	1.491	17.906
4/1/2017 18:15	23.376	350.644	1.143	1.506	20.85575
4/1/2017 18:30	28.731	430.968	1.293	1.595	21.70925
4/1/2017 18:45	26.393	395.901	1.231	1.556	23.61375
4/1/2017 19:00	20.377	305.648	0	1.3	24.71925
4/1/2017 19:15	22.051	330.758	0	1.373	24.388
4/1/2017 19:30	13.627	204.405	0.823	1.3	20.612
4/1/2017 19:45	10.08	151.199	0.591	1.328	16.53375
4/1/2017 20:00	10.735	161.02	0	1.387	14.12325
4/1/2017 20:15	10.526	157.886	0.627	1.313	11.242
4/1/2017 20:30	11.626	174.389	0	1.406	10.74175
4/1/2017 20:45	10.812	162.182	0.609	1.366	10.92475
4/1/2017 21:00	10.584	158.758	0	1.346	10.887
4/1/2017 21:15	10.147	152.211	0	1.307	10.79225
4/1/2017 21:30	10.724	160.857	0	1.358	10.56675
4/1/2017 21:45	9.992	149.882	0.615	1.284	10.36175
4/1/2017 22:00	9.905	148.574	0	1.276	10.192
4/1/2017 22:15	10.075	151.132	0.491	1.509	10.174
4/1/2017 22:30	9.445	141.671	0	1.442	9.85425
4/1/2017 22:45	8.447	126.698	0	1.335	9.468
4/1/2017 23:00	8.456	126.835	0	1.336	9.10575
4/1/2017 23:15	8.403	126.044	0	1.33	8.68775
4/1/2017 23:30	11.07	166.056	0	1.611	9.094
4/1/2017 23:45	11.6	173.996	0.572	1.497	9.88225
4/2/2017 0:00	11.737	176.057	0.59	1.478	10.7025
4/2/2017 0:15	8.894	133.41	0.465	1.438	10.82525
4/2/2017 0:30	9.502	142.526	0	1.505	10.43325
4/2/2017 0:45	10.587	158.801	0	1.623	10.18
4/2/2017 1:00	10.705	160.578	0	1.636	9.922
4/2/2017 1:15	9.383	140.75	0	1.492	10.04425
4/2/2017 1:30	10.894	163.41	0.532	1.507	10.39225
4/2/2017 1:45	11.161	167.416	0	1.532	10.53575
4/2/2017 2:00	12.972	194.574	0.645	1.489	11.1025
4/2/2017 2:15	20.461	306.916	0.905	1.616	13.872
4/2/2017 2:30	18.02	270.297	0	1.479	15.6535
4/2/2017 2:45	10.703	160.543	0.547	1.461	15.539
4/2/2017 3:00	10.677	160.153	0	1.458	14.96525
4/2/2017 3:15	10.655	159.821	0	1.456	12.51375
4/2/2017 3:30	10.873	163.092	0	1.477	10.727
4/2/2017 3:45	11.229	168.434	0	1.51	10.8585
4/2/2017 4:00	10.692	160.38	0	1.46	10.86225
4/2/2017 5:15	18.868	283.016	0.857	1.585	12.9155
4/2/2017 5:30	17.853	267.789	0	1.525	14.6605
4/2/2017 5:45	13.287	199.298	0	1.242	15.175
4/2/2017 6:30	14.697	220.448	0.836	1.355	16.17625
4/2/2017 6:45	6.318	94.771	0.391	1.278	13.03875
4/2/2017 7:00	14.159	212.383	0.688	1.513	12.11525
4/2/2017 7:15	11.63	174.446	0.592	1.464	11.701
4/2/2017 7:30	12.959	194.39	0	1.579	11.2665
4/2/2017 7:45	11.335	170.02	0	1.438	12.52075
4/2/2017 8:00	12.225	183.38	0.643	1.431	12.03725
4/2/2017 10:15	5.624	84.365	0.343	1.293	10.53575
4/2/2017 11:00	11.6	173.998	0.679	1.329	10.196
4/2/2017 11:15	10.711	160.67	0	1.258	10.04
4/2/2017 11:30	11.49	172.345	0	1.321	9.85625

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
4/2/2017 11:45	11.099	166.491	0	1.289	11.225
4/2/2017 12:00	11.077	166.159	0	1.288	11.09425
4/2/2017 12:15	12.78	191.701	0	1.422	11.6115
4/2/2017 12:30	23.63	354.45	1.152	1.509	14.6465
4/2/2017 12:45	22.328	334.916	0	1.451	17.45375
4/2/2017 13:15	17.306	259.596	0.903	1.439	19.011
4/2/2017 13:30	14.017	210.255	0.742	1.425	19.32025
4/2/2017 13:45	16.963	254.448	0.872	1.455	17.6535
4/2/2017 14:00	14.254	213.806	0.759	1.419	15.635
4/2/2017 14:15	13.807	207.101	0	1.388	14.76025
4/2/2017 14:30	12.703	190.544	0.705	1.379	14.43175
4/2/2017 14:45	6.964	104.461	0.4	1.348	11.932
4/2/2017 15:00	7.055	105.818	0	1.36	10.13225
4/2/2017 15:15	11.131	166.958	0.599	1.409	9.46325
4/2/2017 15:30	12.906	193.597	0.69	1.416	9.514
4/2/2017 15:45	14.341	215.112	0.75	1.437	11.35825
4/2/2017 16:00	18.145	272.18	0.922	1.466	14.13075
4/2/2017 16:15	14.184	212.756	0.759	1.414	14.894
4/2/2017 16:30	18.083	271.249	0.887	1.503	16.18825
4/2/2017 16:45	17.122	256.823	0.837	1.506	16.8835
4/2/2017 17:00	15.053	225.794	0	1.377	16.1105
4/2/2017 17:15	7.249	108.728	0.427	1.323	14.37675
4/2/2017 17:30	12.746	191.186	0.68	1.417	13.0425
4/2/2017 17:45	9.623	144.346	0.533	1.381	11.16775
4/2/2017 18:00	21.338	320.07	1.032	1.517	12.739
4/2/2017 18:15	28.344	425.167	1.341	1.541	18.01275
4/2/2017 18:30	21.975	329.62	0.984	1.601	20.32
4/2/2017 19:00	23.161	347.422	1.07	1.567	23.7045
4/2/2017 19:15	22.416	336.243	0	1.532	23.974
4/2/2017 20:00	10.019	150.286	0.583	1.334	19.39275
4/2/2017 20:15	10.259	153.881	0.562	1.391	16.46375
4/2/2017 20:30	11.879	178.192	0.616	1.446	13.64325
4/2/2017 20:45	10.815	162.226	0.594	1.389	10.743
4/2/2017 21:00	10.202	153.031	0	1.334	10.78875
4/2/2017 21:15	7.721	115.821	0.44	1.354	10.15425
4/2/2017 21:30	7.959	119.387	0	1.383	9.17425
4/2/2017 21:45	5.743	86.146	0.323	1.367	7.90625
4/2/2017 22:00	5.873	88.088	0	1.389	6.824
4/2/2017 22:15	8.918	133.772	0.517	1.338	7.12325
4/2/2017 22:30	9.759	146.383	0	1.424	7.57325
4/2/2017 22:45	9.755	146.32	0.562	1.343	8.57625
4/2/2017 23:00	11.02	165.294	0	1.462	9.863
4/2/2017 23:15	11.153	167.298	0	1.474	10.42175
4/2/2017 23:30	13.372	200.585	0.699	1.437	11.325
4/2/2017 23:45	8.927	133.899	0.515	1.342	11.118
4/3/2017 0:00	10.938	164.064	0.602	1.387	11.0975
4/3/2017 0:15	9.165	137.471	0.532	1.336	10.6005
4/3/2017 0:30	7.645	114.679	0.462	1.301	9.16875
4/3/2017 0:45	7.907	118.601	0.479	1.297	8.91375
4/3/2017 1:00	8.221	123.309	0	1.332	8.2345
4/3/2017 1:15	7.927	118.908	0	1.299	7.925
4/3/2017 1:30	8.344	125.167	0.504	1.3	8.09975
4/3/2017 1:45	8.268	124.014	0	1.291	8.19
4/3/2017 2:00	8.685	130.274	0	1.336	8.306
4/3/2017 2:15	9.724	145.861	0	1.445	8.75525
4/3/2017 2:30	9.475	142.125	0.525	1.381	9.038
4/3/2017 2:45	4.775	71.625	0.584	0.801	8.16475
4/3/2017 3:30	4.836	72.535	0.303	1.268	7.2025
4/3/2017 3:45	7.536	113.045	0.451	1.309	6.6555
4/3/2017 4:00	7.55	113.243	0	1.311	6.17425
4/3/2017 4:15	7.192	107.877	0	1.268	6.7785
4/3/2017 4:30	8.991	134.86	0.532	1.319	7.81725
4/3/2017 4:45	10.22	153.304	0.549	1.411	8.48825
4/3/2017 5:00	8.714	130.711	0	1.263	8.77925
4/3/2017 5:15	9.784	146.759	0.561	1.349	9.42725
4/3/2017 5:30	8.884	133.255	0.523	1.324	9.4005
4/3/2017 6:00	13.32	199.802	0.735	1.384	10.1755
4/3/2017 6:15	12.604	189.06	0.602	1.531	11.148
4/3/2017 6:30	10.315	154.718	0.556	1.407	11.28075
4/3/2017 6:45	6.254	93.806	0.366	1.328	10.62325
4/3/2017 7:00	10.749	161.231	0.584	1.4	9.9805
4/3/2017 7:15	9.638	144.568	0	1.298	9.239
4/3/2017 7:30	5.973	89.588	0.347	1.336	8.1535
4/3/2017 7:45	9.099	136.486	0.516	1.358	8.86475
4/3/2017 8:00	23.196	347.934	1.14	1.501	11.9765
4/3/2017 8:15	18.82	282.301	0.947	1.476	14.272
4/3/2017 8:30	16.288	244.315	0.837	1.455	16.85075
4/3/2017 8:45	10.26	153.899	0.539	1.432	17.141
4/3/2017 9:00	17.779	266.692	0.92	1.448	15.78675
4/3/2017 9:30	10.496	157.434	0.579	1.385	13.70575
4/3/2017 9:45	10.36	155.4	0	1.373	12.22375
4/3/2017 10:00	9.593	143.888	0	1.301	12.057
4/3/2017 10:15	9.731	145.969	0	1.314	10.045
4/3/2017 10:30	9.575	143.628	0	1.3	9.81475
4/3/2017 10:45	9.812	147.176	0	1.322	9.67775
4/3/2017 11:00	9.891	148.358	0	1.329	9.75225
4/3/2017 11:15	5.132	76.975	0.327	1.254	8.6025
4/3/2017 11:30	7.212	108.177	0.655	0.982	8.01175
4/3/2017 11:45	12.186	182.796	0	1.409	8.60525
4/3/2017 12:00	7.518	112.775	0.445	1.318	8.012

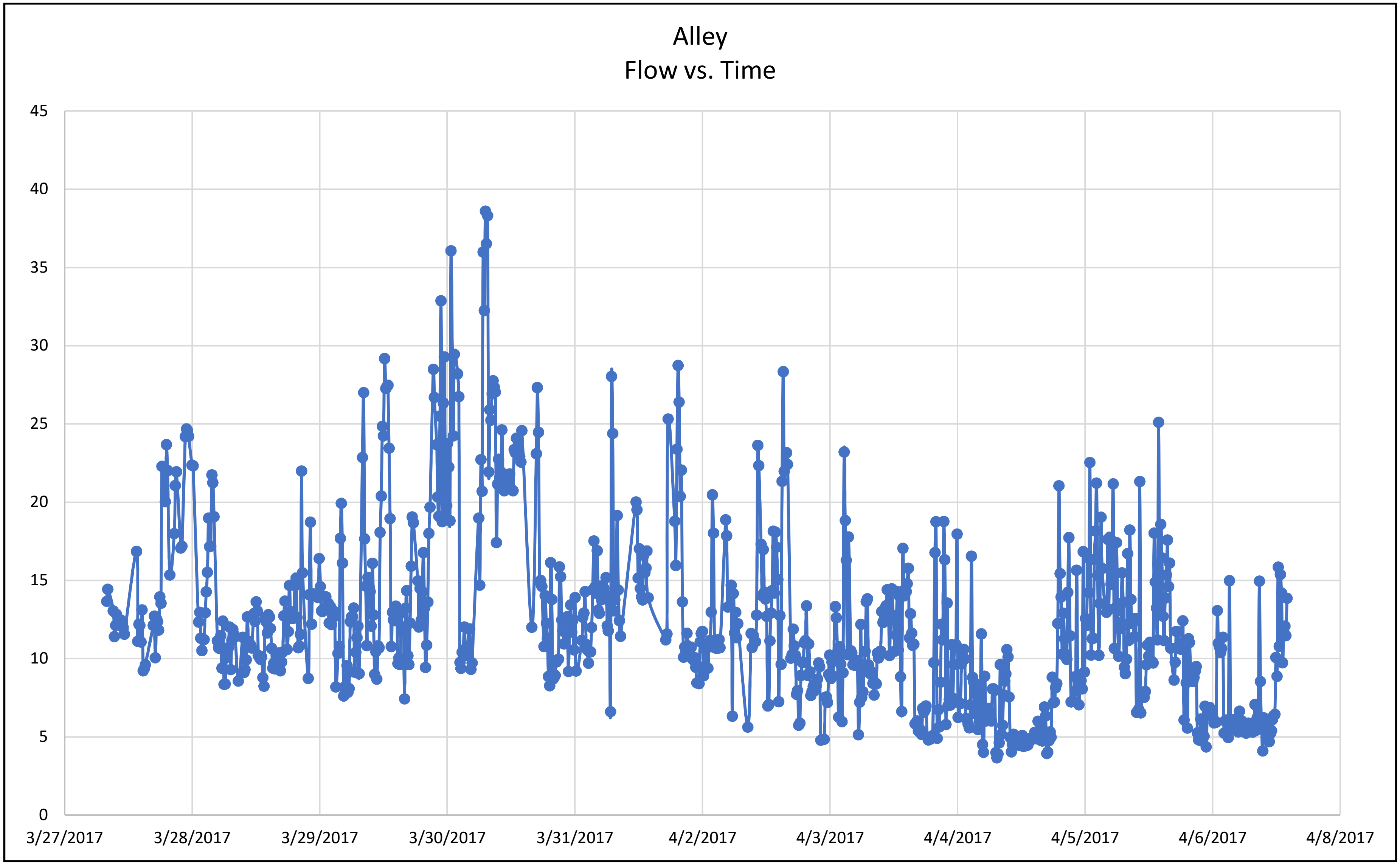
Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
4/3/2017 12:15	7.87	118.051	0	1.36	8.6965
4/3/2017 12:30	9.258	138.87	0.515	1.377	9.208
4/3/2017 12:45	10.461	156.921	0.58	1.38	8.77675
4/3/2017 13:00	13.638	204.572	0.699	1.457	10.30675
4/3/2017 13:15	13.826	207.39	0.715	1.449	11.79575
4/3/2017 13:30	9.606	144.097	0.524	1.395	11.88275
4/3/2017 13:45	9.067	136.006	0	1.34	11.53425
4/3/2017 14:00	9.183	137.752	0	1.352	10.4205
4/3/2017 14:15	8.955	134.322	0.481	1.41	9.20275
4/3/2017 14:30	8.416	126.243	0	1.351	8.90525
4/3/2017 14:45	7.669	115.028	0	1.267	8.55575
4/3/2017 15:00	8.445	126.681	0	1.354	8.37125
4/3/2017 15:15	8.381	125.719	0	1.347	8.22775
4/3/2017 15:30	10.349	155.23	0.558	1.406	8.711
4/3/2017 15:45	10.043	150.641	0	1.377	9.3045
4/3/2017 16:00	10.185	152.78	0	1.391	9.7395
4/3/2017 16:15	10.481	157.218	0	1.419	10.2645
4/3/2017 16:30	13.005	195.075	0.68	1.438	10.9285
4/3/2017 16:45	12.297	184.458	0	1.383	11.492
4/3/2017 17:00	12.459	186.89	0	1.396	12.0605
4/3/2017 17:15	13.254	198.815	0	1.457	12.75375
4/3/2017 17:30	13.378	200.674	0	1.467	12.847
4/3/2017 17:45	14.4	215.993	0	1.544	13.37275
4/3/2017 18:00	13.456	201.842	0	1.473	13.622
4/3/2017 18:15	10.186	152.795	0.544	1.417	12.855
4/3/2017 18:30	12.858	192.865	0.651	1.47	12.725
4/3/2017 18:45	14.458	216.875	0.705	1.509	12.7395
4/3/2017 19:30	10.48	157.194	0.568	1.402	11.9955
4/3/2017 19:45	11.495	172.427	0	1.495	12.32275
4/3/2017 20:00	14.274	214.107	0.707	1.492	12.67675
4/3/2017 20:15	10.553	158.302	0.544	1.451	11.7005
4/3/2017 20:30	13.959	209.388	0.708	1.469	12.57025
4/3/2017 20:45	8.841	132.615	0.48	1.401	11.90675
4/3/2017 21:00	6.616	99.234	0.373	1.365	9.99225
4/3/2017 21:15	17.04	255.601	0.779	1.579	11.614
4/3/2017 21:30	14.007	210.104	0	1.377	11.626
4/3/2017 21:45	14.434	216.517	0	1.406	13.02425
4/3/2017 22:00	14.282	214.223	0	1.396	14.94075
4/3/2017 22:15	14.789	221.84	0	1.43	14.378
4/3/2017 22:30	15.763	236.447	0	1.495	14.817
4/3/2017 22:45	11.323	169.842	0.579	1.46	14.03925
4/3/2017 23:00	12.865	192.974	0	1.596	13.685
4/3/2017 23:15	11.626	174.384	0	1.487	12.89425
4/3/2017 23:30	10.846	162.691	0	1.417	11.665
4/3/2017 23:45	10.924	163.853	0	1.424	11.56525
4/4/2017 0:00	5.838	87.573	0.337	1.342	9.8085
4/4/2017 0:15	5.794	86.917	0	1.335	8.3505
4/4/2017 0:30	6.014	90.206	0	1.37	7.1425
4/4/2017 0:45	5.381	80.711	0.317	1.324	5.75675
4/4/2017 1:00	5.537	83.052	0	1.35	5.6815
4/4/2017 1:15	5.402	81.034	0.324	1.307	5.5835
4/4/2017 1:30	5.143	77.14	0.311	1.3	5.36575
4/4/2017 1:45	6.826	102.391	0.393	1.345	5.727
4/4/2017 2:00	6.578	98.671	0	1.311	5.98725
4/4/2017 2:15	6.713	100.692	0.399	1.316	6.315
4/4/2017 2:30	6.975	104.62	0	1.351	6.773
4/4/2017 2:45	4.998	74.967	0.293	1.327	6.316
4/4/2017 3:00	4.794	71.91	0	1.289	5.87
4/4/2017 3:15	4.937	74.052	0	1.316	5.426
4/4/2017 3:30	4.864	72.954	0	1.302	4.89825
4/4/2017 3:45	4.964	74.465	0	1.321	4.88975
4/4/2017 4:00	5.066	75.991	0	1.339	4.95775
4/4/2017 4:15	9.73	145.947	0.475	1.508	6.156
4/4/2017 4:30	16.77	251.55	1.057	1.263	9.1325
4/4/2017 4:45	18.751	281.27	0	1.364	12.57925
4/4/2017 5:00	4.898	73.474	0.307	1.267	12.53725
4/4/2017 5:15	6.724	100.866	0.403	1.307	11.78575
4/4/2017 5:30	5.627	84.405	0.359	1.252	9
4/4/2017 5:45	8.495	127.42	0.508	1.31	6.436
4/4/2017 6:00	12.205	183.078	0.639	1.435	8.26275
4/4/2017 6:15	11.192	167.875	0	1.351	9.37975
4/4/2017 6:30	18.763	281.44	0.956	1.463	12.66375
4/4/2017 6:45	16.313	244.693	0	1.328	14.61825
4/4/2017 7:00	5.778	86.667	0.351	1.294	13.0115
4/4/2017 7:15	13.548	203.219	0.71	1.435	13.6005
4/4/2017 7:30	7	104.996	0.406	1.338	10.65975
4/4/2017 7:45	7.391	110.869	0	1.39	8.42925
4/4/2017 8:00	7.026	105.386	0	1.341	8.74125
4/4/2017 8:15	10.872	163.073	0.602	1.381	8.07225
4/4/2017 8:30	7.471	112.069	0.442	1.32	8.19
4/4/2017 8:45	9.636	144.547	0.548	1.356	8.75125
4/4/2017 9:00	10.697	160.453	0.597	1.374	9.669
4/4/2017 9:15	10.897	163.458	0	1.391	9.67525
4/4/2017 9:30	17.96	269.394	0.952	1.424	12.2975
4/4/2017 9:45	6.242	93.635	0.638	0.906	11.449
4/4/2017 10:15	7.119	106.791	0.655	0.973	10.5545
4/4/2017 10:30	9.665	144.979	0	1.201	10.2465
4/4/2017 10:45	10.131	151.969	0	1.24	8.28925
4/4/2017 11:00	10.591	158.869	0	1.279	9.3765
4/4/2017 11:15	9.985	149.776	0.584	1.33	10.093

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
4/4/2017 11:30	6.164	92.463	0.487	1.08	9.21775
4/4/2017 11:45	6.09	91.354	0	1.071	8.2075
4/4/2017 12:00	5.816	87.237	0	1.038	7.01375
4/4/2017 12:15	5.566	83.484	0	1.007	5.909
4/4/2017 12:30	7.05	105.75	0.639	0.984	6.1305
4/4/2017 12:45	16.539	248.078	0.969	1.328	8.74275
4/4/2017 13:00	8.79	131.853	0.584	1.218	9.48625
4/4/2017 13:15	8.494	127.405	0	1.189	10.21825
4/4/2017 13:30	6.492	97.384	0.617	0.952	10.07875
4/4/2017 13:45	7.715	115.719	0	1.072	7.87275
4/4/2017 14:00	7.973	119.592	0	1.096	7.6685
4/4/2017 14:15	5.468	82.015	0.493	0.988	6.912
4/4/2017 14:30	5.975	89.631	0.541	0.985	6.78275
4/4/2017 14:45	7.543	113.148	0	1.156	6.73975
4/4/2017 15:00	11.581	173.714	0.696	1.305	7.64175
4/4/2017 15:15	4.503	67.541	0.269	1.312	7.4005
4/4/2017 15:30	4.01	60.145	0	1.211	6.90925
4/4/2017 15:45	8.872	133.079	0.511	1.344	7.2415
4/4/2017 16:00	6.007	90.106	0.457	1.109	5.848
4/4/2017 16:15	6.068	91.025	0	1.117	6.23925
4/4/2017 16:30	6.811	102.159	0	1.209	6.9395
4/4/2017 16:45	6.588	98.822	0	1.182	6.3685
4/4/2017 17:00	6.054	90.805	0	1.115	6.38025
4/4/2017 17:15	6.012	90.183	0	1.109	6.36625
4/4/2017 17:30	8.068	121.021	0.659	1.056	6.6805
4/4/2017 17:45	8.06	120.893	0	1.055	7.0485
4/4/2017 18:00	7.977	119.66	0	1.048	7.52925
4/4/2017 18:15	3.992	59.887	0.276	1.184	7.02425
4/4/2017 18:30	3.651	54.771	0	1.113	5.92
4/4/2017 18:45	3.908	58.622	0	1.166	4.882
4/4/2017 19:00	4.612	69.183	0	1.308	4.04075
4/4/2017 19:15	9.619	144.287	0.554	1.344	5.4475
4/4/2017 19:30	5.169	77.534	0.354	1.193	5.827
4/4/2017 19:45	5.743	86.15	0	1.283	6.28575
4/4/2017 20:00	7.689	115.341	0.62	1.065	7.055
4/4/2017 20:15	8.56	128.407	0	1.147	6.79025
4/4/2017 20:30	9.02	135.294	0	1.189	7.753
4/4/2017 20:45	10.57	158.554	0.638	1.301	8.95975
4/4/2017 21:00	10.101	151.513	0	1.261	9.56275
4/4/2017 21:15	7.552	113.274	0.446	1.32	9.31075
4/4/2017 21:30	4.959	74.38	0.381	1.101	8.2955
4/4/2017 21:45	4.045	60.67	0.326	1.067	6.66425
4/4/2017 22:00	4.505	67.581	0.384	1.026	5.26525
4/4/2017 22:15	5.155	77.326	0	1.126	4.666
4/4/2017 22:30	4.525	67.882	0.362	1.072	4.5575
4/4/2017 22:45	4.96	74.402	0.408	1.051	4.78625
4/4/2017 23:00	4.684	70.259	0.45	0.945	4.831
4/4/2017 23:15	4.936	74.045	0.45	0.98	4.77625
4/4/2017 23:30	4.457	66.852	0.438	0.931	4.75925
4/4/2017 23:45	4.799	71.989	0.45	0.961	4.719
4/5/2017 0:00	4.752	71.286	0.45	0.955	4.736
4/5/2017 0:15	5.093	76.397	0	1.001	4.77525
4/5/2017 0:30	4.385	65.771	0.438	0.92	4.75725
4/5/2017 0:45	4.507	67.602	0.438	0.938	4.68425
4/5/2017 1:00	4.694	70.416	0.45	0.947	4.66975
4/5/2017 1:15	4.446	66.687	0.438	0.929	4.508
4/5/2017 1:30	4.494	67.404	0.438	0.936	4.53525
4/5/2017 1:45	4.852	72.775	0.45	0.968	4.6215
4/5/2017 2:00	4.899	73.48	0.45	0.975	4.67275
4/5/2017 2:15	4.818	72.27	0.45	0.964	4.76575
4/5/2017 2:30	4.88	73.194	0.45	0.972	4.86225
4/5/2017 2:45	4.916	73.744	0.45	0.977	4.87825
4/5/2017 3:00	5.278	79.165	0	1.026	4.973
4/5/2017 3:15	4.964	74.463	0.45	0.984	5.0095
4/5/2017 3:30	4.871	73.06	0.45	0.971	5.00725
4/5/2017 3:45	5.999	89.983	0.494	1.051	5.278
4/5/2017 4:00	5.003	75.052	0.453	0.984	5.20925
4/5/2017 4:15	5.492	82.373	0.471	1.022	5.34125
4/5/2017 4:30	4.761	71.413	0.454	0.95	5.31375
4/5/2017 4:45	4.742	71.131	0.454	0.947	4.9995
4/5/2017 5:00	4.759	71.381	0.454	0.949	4.9385
4/5/2017 5:15	6.907	103.611	0.555	1.068	5.29225
4/5/2017 5:30	6.339	95.081	0.441	1.18	5.68675
4/5/2017 5:45	3.932	58.973	0.348	1	5.48425
4/5/2017 6:00	4.021	60.317	0.322	1.071	5.29975
4/5/2017 6:15	4.752	71.275	0	1.201	4.761
4/5/2017 6:30	5.317	79.758	0	1.298	4.5055
4/5/2017 6:45	4.975	74.629	0	1.24	4.76625
4/5/2017 7:00	8.804	132.055	0.532	1.301	5.962
4/5/2017 7:15	7.186	107.796	0.547	1.109	6.5705
4/5/2017 7:30	7.222	108.325	0.55	1.108	7.04675
4/5/2017 7:45	8.148	122.213	0	1.204	7.84
4/5/2017 8:00	8.395	125.924	0.662	1.082	7.73775
4/5/2017 8:15	12.248	183.714	0.608	1.49	9.00325
4/5/2017 8:30	21.037	315.561	0.968	1.572	12.457
4/5/2017 8:45	15.434	231.517	0.699	1.589	14.2785
4/5/2017 9:00	13.934	209.011	0.666	1.53	15.66325
4/5/2017 9:15	10.289	154.328	0	1.24	15.1735
4/5/2017 9:30	12.898	193.476	0	1.45	13.13875
4/5/2017 9:45	11.269	169.029	0	1.32	12.0975

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
4/5/2017 10:00	10.284	154.267	0.55	1.414	11.185
4/5/2017 10:15	9.954	149.313	0	1.383	11.10125
4/5/2017 10:30	14.229	213.428	0.731	1.455	11.434
4/5/2017 10:45	17.737	266.054	0.87	1.503	13.051
4/5/2017 11:00	11.446	171.694	0.614	1.413	13.3415
4/5/2017 11:15	7.234	108.513	0.427	1.322	12.6615
4/5/2017 11:30	7.266	108.99	0	1.326	10.92075
4/5/2017 11:45	7.252	108.779	0	1.325	8.2995
4/5/2017 12:00	8.822	132.327	0.486	1.385	7.6435
4/5/2017 12:15	7.931	118.966	0	1.287	7.81775
4/5/2017 12:30	15.642	234.628	0.746	1.532	9.91175
4/5/2017 12:45	8.869	133.041	0.517	1.332	10.316
4/5/2017 13:00	7.041	105.608	0	1.136	9.87075
4/5/2017 13:15	8.414	126.208	0	1.284	9.9915
4/5/2017 13:30	8.599	128.984	0	1.304	8.23075
4/5/2017 13:45	8.063	120.948	0	1.247	8.02925
4/5/2017 14:00	16.832	252.477	1.048	1.274	10.477
4/5/2017 14:15	9.138	137.07	0.587	1.246	10.658
4/5/2017 14:30	12.564	188.456	0.865	1.188	11.64925
4/5/2017 14:45	12.102	181.537	0	1.157	12.659
4/5/2017 15:00	16.458	246.87	1.049	1.253	12.5655
4/5/2017 15:15	14.225	213.371	0	1.133	13.83725
4/5/2017 15:30	22.529	337.935	1.311	1.335	16.3285
4/5/2017 15:45	10.223	153.346	0.716	1.174	15.85875
4/5/2017 16:00	11.269	169.033	0.777	1.187	14.5615
4/5/2017 16:15	11.297	169.454	0.779	1.187	13.8295
4/5/2017 16:30	16.335	245.019	0.986	1.301	12.281
4/5/2017 16:45	18.15	272.248	1.13	1.274	14.26275
4/5/2017 17:00	21.217	318.26	1.267	1.311	16.74975
4/5/2017 17:15	15.32	229.805	0.972	1.257	17.7555
4/5/2017 17:30	10.201	153.011	0.73	1.157	16.222
4/5/2017 17:45	13.518	202.764	0.88	1.235	15.064
4/5/2017 18:00	19.03	285.455	1.1	1.341	14.51725
4/5/2017 18:15	15.76	236.398	0.983	1.272	14.62725
4/5/2017 19:15	12.954	194.311	0.935	1.15	15.3155
4/5/2017 19:30	17.622	264.335	1.217	1.186	16.3415
4/5/2017 19:45	13.138	197.071	0.939	1.158	14.8685
4/5/2017 20:00	17.759	266.382	1.102	1.277	15.36825
4/5/2017 20:15	14.748	221.215	0	1.123	15.81675
4/5/2017 20:30	16.955	254.329	1.065	1.266	15.65
4/5/2017 20:45	21.159	317.391	1.358	1.247	17.65525
4/5/2017 21:00	10.647	159.709	0.772	1.146	15.87725
4/5/2017 21:15	13.236	198.547	0	1.332	15.49925
4/5/2017 21:30	17.407	261.104	1.087	1.271	15.61225
4/5/2017 21:45	13.084	196.267	0.9	1.189	13.5935
4/5/2017 22:00	10.145	152.175	0.729	1.154	13.468
4/5/2017 22:15	11.902	178.53	0.868	1.142	13.1345
4/5/2017 22:30	12.285	184.269	0.854	1.18	11.854
4/5/2017 22:45	15.477	232.15	1.037	1.211	12.45225
4/5/2017 23:00	13.592	203.88	0	1.107	13.314
4/5/2017 23:15	9.453	141.796	0.716	1.112	12.70175
4/5/2017 23:30	9.041	135.614	0	1.079	11.89075
4/5/2017 23:45	9.963	149.452	0	1.153	10.51225
4/6/2017 0:00	16.714	250.71	1.062	1.256	11.29275
4/6/2017 0:15	11.15	167.254	0.794	1.161	11.717
4/6/2017 0:30	18.215	273.219	1.037	1.355	14.0105
4/6/2017 0:45	13.772	206.576	0.914	1.219	14.96275
4/6/2017 1:00	12.255	183.827	0	1.125	13.848
4/6/2017 1:15	12.313	184.688	0	1.128	14.13875
4/6/2017 1:30	11.395	170.918	0	1.07	12.43375
4/6/2017 1:45	12.565	188.472	0.867	1.186	12.132
4/6/2017 2:00	6.566	98.488	0.506	1.1	10.70975
4/6/2017 2:15	6.597	98.953	0	1.103	9.28075
4/6/2017 2:30	6.751	101.269	0	1.121	8.11975
4/6/2017 2:45	21.323	319.841	1.402	1.226	10.30925
4/6/2017 3:00	6.532	97.978	0.523	1.071	10.30075
4/6/2017 3:15	7.588	113.827	0.593	1.089	10.5485
4/6/2017 3:30	7.829	117.43	0	1.113	10.818
4/6/2017 3:45	7.51	112.644	0	1.082	7.36475
4/6/2017 4:00	7.898	118.468	0	1.12	7.70625
4/6/2017 4:15	9.618	144.272	0.698	1.145	8.21375
4/6/2017 4:30	10.866	162.991	0.769	1.166	8.973
4/6/2017 4:45	10.16	152.404	0	1.113	9.6355
4/6/2017 5:00	11.041	165.608	0	1.179	10.42125
4/6/2017 5:30	9.811	147.172	0.668	1.197	10.4695
4/6/2017 5:45	9.72	145.797	0	1.189	10.183
4/6/2017 6:00	18.024	270.354	1.097	1.294	12.149
4/6/2017 6:15	14.882	223.227	0.96	1.243	13.10925
4/6/2017 6:30	13.224	198.356	0	1.145	13.9625
4/6/2017 6:45	11.197	167.949	0.813	1.145	14.33175
4/6/2017 7:00	25.096	376.439	1.486	1.318	16.09975
4/6/2017 7:15	13.778	206.663	1.014	1.135	15.82375
4/6/2017 7:30	18.585	278.778	1.077	1.338	17.164
4/6/2017 7:45	16.438	246.566	1.119	1.198	18.47425
4/6/2017 8:00	12.702	190.532	0.878	1.185	15.37575
4/6/2017 8:15	11.154	167.303	0.829	1.127	14.71975
4/6/2017 8:30	13.87	208.05	0.987	1.162	13.541
4/6/2017 8:45	15.348	230.215	1.029	1.21	13.2685
4/6/2017 9:00	17.585	263.772	1.115	1.258	14.48925
4/6/2017 9:15	14.596	218.941	0.992	1.199	15.34975

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
4/6/2017 9:30	16.101	241.516	1.083	1.208	15.9075
4/6/2017 9:45	10.66	159.9	0.798	1.121	14.7355
4/6/2017 10:30	8.62	129.306	0.799	0.968	12.49425
4/6/2017 10:45	9.772	146.573	0	1.055	11.28825
4/6/2017 11:00	11.749	176.238	0	1.198	10.20025
4/6/2017 11:15	10.705	160.578	0	1.123	10.2115
4/6/2017 11:30	11.709	175.634	0	1.195	10.98375
4/6/2017 11:45	10.737	161.061	0	1.126	11.225
4/6/2017 12:00	10.596	158.944	0	1.116	10.93675
4/6/2017 12:15	10.863	162.941	0	1.135	10.97625
4/6/2017 12:30	12.404	186.055	0	1.243	11.15
4/6/2017 12:45	6.071	91.06	0.48	1.08	9.9835
4/6/2017 13:00	10.705	160.582	0.646	1.302	10.01075
4/6/2017 13:15	8.452	126.777	0	1.106	9.408
4/6/2017 13:30	5.556	83.34	0.432	1.092	7.696
4/6/2017 13:45	11.276	169.14	0.669	1.316	8.99725
4/6/2017 14:00	11.026	165.386	0	1.296	9.0775
4/6/2017 14:15	9.35	140.254	0	1.157	9.302
4/6/2017 14:30	9.286	139.297	0	1.151	10.2345
4/6/2017 14:45	8.532	127.98	0	1.086	9.5485
4/6/2017 15:00	8.794	131.916	0	1.109	8.9905
4/6/2017 15:15	9.199	137.984	0	1.144	8.95275
4/6/2017 15:30	9.5	142.506	0	1.169	9.00625
4/6/2017 15:45	5.255	78.828	0.387	1.134	8.187
4/6/2017 16:00	4.814	72.208	0	1.068	7.192
4/6/2017 16:15	4.783	71.74	0	1.063	6.088
4/6/2017 16:30	6.137	92.048	0.447	1.143	5.24725
4/6/2017 16:45	6.088	91.319	0	1.137	5.4555
4/6/2017 17:00	4.928	73.913	0.352	1.158	5.484
4/6/2017 17:15	5.047	75.698	0.384	1.11	5.55
4/6/2017 17:30	6.957	104.355	0.45	1.24	5.755
4/6/2017 17:45	4.357	65.351	0.289	1.218	5.32225
4/6/2017 18:00	6.493	97.388	0.469	1.149	5.7135
4/6/2017 18:15	6.559	98.388	0.482	1.136	6.0915
4/6/2017 18:30	6.878	103.176	0.485	1.169	6.07175
4/6/2017 18:45	6.75	101.243	0	1.154	6.67
4/6/2017 19:00	6.553	98.297	0.474	1.148	6.685
4/6/2017 19:15	6.234	93.517	0.453	1.145	6.60375
4/6/2017 19:30	5.891	88.359	0.368	1.271	6.357
4/6/2017 19:45	5.942	89.125	0.442	1.126	6.155
4/6/2017 20:00	5.934	89.007	0.397	1.212	6.00025
4/6/2017 20:15	13.06	195.9	0.855	1.23	7.70675
4/6/2017 20:30	10.988	164.819	0	1.092	8.981
4/6/2017 20:45	10.733	160.998	0	1.075	10.17875
4/6/2017 21:00	10.387	155.799	0	1.051	11.292
4/6/2017 21:15	10.652	159.785	0	1.069	10.69
4/6/2017 21:30	11.357	170.353	0	1.117	10.78225
4/6/2017 21:45	5.24	78.599	0.437	1.042	9.409
4/6/2017 22:00	6.008	90.127	0	1.145	8.31425
4/6/2017 22:15	6.074	91.104	0	1.153	7.16975
4/6/2017 22:30	5.268	79.017	0	1.046	5.6475
4/6/2017 22:45	4.95	74.243	0	1.002	5.575
4/6/2017 23:00	14.984	224.753	0.928	1.278	7.819
4/6/2017 23:15	5.872	88.086	0.535	0.981	7.7685
4/6/2017 23:30	5.906	88.584	0	0.985	7.928
4/6/2017 23:45	5.74	86.105	0.535	0.966	8.1255
4/7/2017 0:00	5.903	88.54	0.535	0.984	5.85525
4/7/2017 0:15	6.126	91.89	0	1.01	5.91875
4/7/2017 0:30	5.664	84.958	0.535	0.957	5.85825
4/7/2017 0:45	6.18	92.7	0	1.016	5.96825
4/7/2017 1:00	5.321	79.81	0.52	0.934	5.82275
4/7/2017 1:15	6.629	99.441	0	1.085	5.9485
4/7/2017 1:30	5.86	87.895	0.535	0.979	5.9975
4/7/2017 1:45	6.034	90.509	0	0.999	5.961
4/7/2017 2:00	5.35	80.255	0.52	0.937	5.96825
4/7/2017 2:15	5.73	85.954	0.535	0.964	5.7435
4/7/2017 2:30	5.339	80.083	0.52	0.936	5.61325
4/7/2017 2:45	5.236	78.542	0.52	0.923	5.41375
4/7/2017 3:00	5.266	78.983	0.52	0.927	5.39275
4/7/2017 3:15	5.88	88.196	0.535	0.982	5.43025
4/7/2017 4:00	5.678	85.165	0.535	0.958	5.515
4/7/2017 4:15	5.296	79.447	0.52	0.931	5.53
4/7/2017 4:30	5.661	84.919	0.535	0.956	5.62875
4/7/2017 4:45	7.061	105.921	0	1.113	5.924
4/7/2017 5:00	5.413	81.194	0.52	0.945	5.85775
4/7/2017 5:15	6.204	93.055	0	1.037	6.08475
4/7/2017 5:30	5.901	88.514	0	1.002	6.14475
4/7/2017 5:45	14.95	224.253	0.997	1.215	8.117
4/7/2017 6:00	8.542	128.127	0.642	1.119	8.89925
4/7/2017 6:15	5.595	83.931	0.551	0.929	8.747
4/7/2017 6:30	4.105	61.575	0.504	0.799	8.298
4/7/2017 6:45	6.211	93.166	0.566	0.98	6.11325
4/7/2017 7:00	5.44	81.597	0.551	0.912	5.33775
4/7/2017 7:15	5.467	82.002	0.551	0.915	5.30575
4/7/2017 7:30	5.186	77.792	0.536	0.899	5.576
4/7/2017 7:45	5.905	88.573	0.566	0.947	5.4995
4/7/2017 8:00	4.692	70.38	0.52	0.857	5.3125
4/7/2017 8:15	5.204	78.057	0.536	0.902	5.24675
4/7/2017 8:30	5.392	80.881	0.551	0.906	5.29825
4/7/2017 8:45	6.107	91.598	0.566	0.969	5.34875

Site Name	TFalls-8-in	TFalls-8-in	TFalls-8-in	TFalls-8-in	Alley S of Maiden
Isco Quantity	Flow Rate	Volume	Velocity	Level	
Label	Flow Rate	Total Flow	Velocity	Level	max hr
Units	gpm	gal	ft/s	in	gpm
4/7/2017 9:00	6.36	95.398	0	0.996	5.76575
4/7/2017 9:15	6.443	96.645	0	1.005	6.0755
4/7/2017 9:30	10.075	151.118	0.767	1.109	7.24625
4/7/2017 9:45	8.873	133.098	0.768	1.015	7.93775
4/7/2017 10:00	15.846	237.695	1.103	1.179	10.30925
4/7/2017 10:15	10.788	161.825	0.878	1.059	11.3955
4/7/2017 10:30	15.367	230.501	1.147	1.123	12.7185
4/7/2017 10:45	14.193	212.888	0	1.064	14.0485
4/7/2017 11:00	9.73	145.956	0.811	1.042	12.5195
4/7/2017 11:15	11.895	178.425	0.825	1.183	12.79625
4/7/2017 11:30	12.079	181.188	1.005	1.043	11.97425
4/7/2017 11:45	11.467	172.004	0.856	1.123	11.29275
4/7/2017 12:00	13.85	207.749	0.993	1.155	12.32275


Alley
Flow vs. Time
45
40
35
30
25
20
15
10
5
0
3/27/2017
3/28/2017
3/29/2017
3/30/2017
3/31/2017
4/2/2017
4/3/2017
4/4/2017
4/5/2017
4/6/2017
4/8/2017

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
Resolution	0.1	0.1	0.1	0.1	
Significant Digits	0	0	0	0	
3/24/2017 9:45	20.434	0.499	2.084	306.512	
3/24/2017 10:00	3.701	0.299	0.918	55.515	
3/24/2017 10:15	3.455	0.291	0.894	51.822	
3/24/2017 10:30	1.128	0.207	0.529	16.921	7.1795
3/24/2017 10:45	1.765	0.237	0.652	26.477	2.51225
3/24/2017 11:00	3.829	0.299	0.94	57.431	2.54425
3/24/2017 11:15	4.02	0.307	0.953	60.302	2.6855
3/24/2017 11:30	3.825	0.299	0.939	57.382	3.35975
3/24/2017 12:15	4.046	0.307	0.958	60.697	3.93
3/24/2017 12:30	2.04	0.246	0.7	30.602	3.48275
3/24/2017 12:45	1.707	0.237	0.638	25.606	2.9045
3/24/2017 13:00	2.423	0.264	0.749	36.346	2.554
3/24/2017 13:15	1.958	0.246	0.681	29.365	2.032
3/24/2017 13:30	2.749	0.273	0.798	41.231	2.20925
3/24/2017 13:45	3.144	0.282	0.855	47.153	2.5685
3/24/2017 14:00	2.991	0.282	0.827	44.867	2.7105
3/24/2017 14:15	2.5	0.264	0.765	37.499	2.846
3/24/2017 15:15	2.719	0.273	0.792	40.791	2.8385
3/24/2017 15:30	1.76	0.237	0.651	26.404	2.4925
3/24/2017 15:45	1.377	0.217	0.585	20.654	2.089
3/24/2017 16:00	3.052	0.282	0.839	45.784	2.227
3/24/2017 16:15	4.12	0.307	0.97	61.805	2.57725
3/24/2017 16:30	1.543	0.227	0.613	23.152	2.523
3/24/2017 16:45	0.993	0.196	0.503	14.901	2.427
3/24/2017 17:00	0.926	0.196	0.479	13.888	1.8955
3/24/2017 17:15	2.201	0.255	0.719	33.019	1.41575
3/24/2017 17:30	3.044	0.125	1.453	45.662	1.791
3/24/2017 18:15	1.634	0.225	0.641	24.507	1.95125
3/24/2017 18:30	1.306	0.206	0.584	19.587	2.04625
3/24/2017 18:45	1.205	0.206	0.554	18.079	1.79725
3/24/2017 19:00	1.265	0.206	0.572	18.97	1.3525
3/24/2017 19:15	1.389	0.216	0.591	20.834	1.29125
3/24/2017 19:30	2.637	0.26	0.803	39.551	1.624
3/24/2017 19:45	1.137	0.196	0.55	17.056	1.607
3/24/2017 20:00	1.265	0.206	0.572	18.979	1.607
3/24/2017 20:15	1.059	0.196	0.524	15.884	1.5245
3/24/2017 20:30	2.87	0.268	0.833	43.044	1.58275
3/24/2017 21:15	32.882	0.497	2.916	493.228	9.519
3/24/2017 21:30	0.917	0.186	0.493	13.762	9.432
3/24/2017 21:45	0.887	0.186	0.482	13.306	9.389
3/24/2017 22:00	0.967	0.186	0.511	14.5	8.91325
3/24/2017 22:15	0.789	0.176	0.463	11.835	0.89
3/24/2017 22:30	0.648	0.165	0.423	9.725	0.82275
3/24/2017 22:45	0.538	0.154	0.391	8.065	0.7355
3/24/2017 23:00	0.597	0.165	0.401	8.96	0.643
3/24/2017 23:15	0.724	0.176	0.437	10.865	0.62675
3/24/2017 23:30	0.666	0.165	0.431	9.997	0.63125
3/24/2017 23:45	0.757	0.176	0.451	11.362	0.686
3/25/2017 0:00	0.661	0.165	0.429	9.919	0.702
3/25/2017 0:15	0.717	0.176	0.434	10.757	0.70025
3/25/2017 1:30	1.92	0.234	0.696	28.794	1.01375
3/25/2017 1:45	0.634	0.165	0.417	9.515	0.983
3/25/2017 2:00	0.61	0.165	0.406	9.152	0.97025
3/25/2017 2:15	0.522	0.154	0.384	7.836	0.9215
3/25/2017 2:30	0.499	0.154	0.372	7.482	0.56625
3/25/2017 2:45	0.526	0.154	0.385	7.887	0.53925
3/25/2017 3:00	0.526	0.154	0.385	7.889	0.51825
3/25/2017 3:15	0.725	0.176	0.438	10.881	0.569
3/25/2017 3:30	0.643	0.165	0.421	9.639	0.605
3/25/2017 3:45	0.63	0.165	0.415	9.457	0.631
3/25/2017 4:00	0.752	0.176	0.448	11.281	0.6875
3/25/2017 4:15	0.514	0.154	0.379	7.707	0.63475
3/25/2017 4:30	1.123	0.196	0.545	16.841	0.75475
3/25/2017 5:30	1.703	0.225	0.659	25.552	1.023
3/25/2017 5:45	0.813	0.176	0.472	12.194	1.03825
3/25/2017 6:00	0.796	0.176	0.466	11.937	1.10875
3/25/2017 6:15	0.738	0.176	0.443	11.066	1.0125
3/25/2017 6:30	0.876	0.186	0.478	13.146	0.80575
3/25/2017 6:45	0.876	0.186	0.478	13.137	0.8215
3/25/2017 7:00	0.797	0.176	0.466	11.952	0.82175
3/25/2017 7:15	1.033	0.196	0.516	15.501	0.8955
3/25/2017 7:30	1.234	0.206	0.563	18.514	0.985
3/25/2017 7:45	0.929	0.186	0.497	13.935	0.99825
3/25/2017 8:45	1.316	0.206	0.588	19.746	1.128
3/25/2017 9:00	0.88	0.186	0.479	13.197	1.08975
3/25/2017 9:15	1.121	0.196	0.545	16.822	1.0615
3/25/2017 9:30	1.717	0.225	0.663	25.755	1.2585
3/25/2017 9:45	1.259	0.206	0.57	18.889	1.24425
3/25/2017 10:00	1.464	0.216	0.612	21.954	1.39025
3/25/2017 10:15	1.593	0.225	0.63	23.892	1.50825
3/25/2017 10:30	1.14	0.196	0.551	17.094	1.364
3/25/2017 10:45	1.24	0.206	0.565	18.606	1.35925
3/25/2017 11:00	5.07	0.253	1.275	76.049	2.26075
3/25/2017 11:30	42.597	0.252	5.806	638.952	12.51175
3/25/2017 11:45	2.23	0.24	0.757	33.449	12.78425
3/25/2017 12:00	3.05	0.263	0.878	45.754	13.23675
3/25/2017 12:15	1.555	0.214	0.64	23.319	12.358

Daily Flow (gpm)			
Date	Minimum	Average	Maximum
24-Mar	0.54	2.99	32.88
25-Mar	0.50	1.91	42.60
26-Mar	0.76	3.40	38.92
27-Mar	0.67	4.85	87.07
28-Mar	0.49	3.00	55.23
29-Mar	0.63	6.70	110.89
30-Mar	0.53	6.96	97.01
31-Mar	0.38	3.19	64.30
1-Apr	0.32	4.25	44.11
2-Apr	0.33	4.78	113.01
3-Apr	0.38	3.21	59.27
4-Apr	0.38	6.88	115.46
5-Apr	0.41	5.10	113.97
6-Apr	0.73	3.82	34.01
7-Apr	0.22	2.56	12.87

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
3/25/2017 12:30	1.601	0.214	0.653	24.012	2.109
3/25/2017 12:45	1.057	0.187	0.541	15.848	1.81575
3/25/2017 13:00	3.034	0.263	0.875	45.506	1.81175
3/25/2017 13:15	1.581	0.214	0.647	23.712	1.81825
3/25/2017 13:30	1.834	0.223	0.697	27.506	1.8765
3/25/2017 13:45	2.043	0.098	1.308	30.638	2.123
3/25/2017 14:30	1.522	0.213	0.635	22.837	1.745
3/25/2017 14:45	1.014	0.186	0.529	15.211	1.60325
3/25/2017 15:00	1.729	0.221	0.674	25.941	1.577
3/25/2017 15:15	1.174	0.195	0.565	17.614	1.35975
3/25/2017 15:30	1.329	0.204	0.596	19.937	1.3115
3/25/2017 15:45	1.539	0.213	0.639	23.088	1.44275
3/25/2017 16:00	1.362	0.204	0.606	20.424	1.351
3/25/2017 16:15	1.17	0.195	0.564	17.55	1.35
3/25/2017 16:30	1.728	0.221	0.673	25.922	1.44975
3/25/2017 16:45	5.086	0	1.401	76.292	2.3365
3/25/2017 17:30	1.978	0.229	0.719	29.664	2.4905
3/25/2017 17:45	1.345	0.204	0.601	20.172	2.53425
3/25/2017 18:00	1.218	0.195	0.579	18.266	2.40675
3/25/2017 18:15	1.23	0.195	0.583	18.444	1.44275
3/25/2017 18:30	1.18	0.195	0.567	17.697	1.24325
3/25/2017 18:45	1.715	0.221	0.67	25.719	1.33575
3/25/2017 19:00	1.602	0.213	0.657	24.023	1.43175
3/25/2017 19:15	1.24	0.195	0.586	18.599	1.43425
3/25/2017 19:30	1.332	0.204	0.597	19.978	1.47225
3/25/2017 19:45	1.001	0.186	0.524	15.019	1.29375
3/25/2017 20:00	3.782	0.276	0.984	56.727	1.83875
3/25/2017 21:00	2.287	0.238	0.775	34.3	2.1005
3/25/2017 21:15	1.77	0.221	0.684	26.556	2.21
3/25/2017 21:30	1.786	0.221	0.688	26.786	2.40625
3/25/2017 21:45	1.077	0.186	0.551	16.155	1.73
3/25/2017 22:00	1.031	0.186	0.535	15.46	1.416
3/25/2017 22:15	0.899	0.176	0.505	13.482	1.19825
3/25/2017 22:30	1.023	0.186	0.532	15.346	1.0075
3/25/2017 22:45	0.89	0.176	0.502	13.354	0.96075
3/25/2017 23:00	0.996	0.186	0.523	14.942	0.952
3/25/2017 23:15	1.147	0.195	0.556	17.207	1.014
3/25/2017 23:30	1.382	0.204	0.612	20.734	1.10375
3/25/2017 23:45	1.358	0.204	0.604	20.365	1.22075
3/26/2017 0:00	1.226	0.195	0.582	18.394	1.27825
3/26/2017 0:15	4.405	0.308	1.014	66.082	2.09275
3/26/2017 0:30	14.609	0	2.309	219.138	5.3995
3/26/2017 1:30	1.265	0.212	0.562	18.972	5.37625
3/26/2017 1:45	0.798	0.181	0.459	11.977	5.26925
3/26/2017 2:00	0.815	0.181	0.465	12.22	4.37175
3/26/2017 2:15	0.775	0.181	0.45	11.629	0.91325
3/26/2017 2:30	0.763	0.181	0.445	11.446	0.78775
3/26/2017 2:45	0.906	0.191	0.48	13.584	0.81475
3/26/2017 3:00	0.912	0.191	0.482	13.673	0.839
3/26/2017 3:15	0.91	0.191	0.482	13.656	0.87275
3/26/2017 3:30	0.885	0.191	0.473	13.274	0.90325
3/26/2017 3:45	0.911	0.191	0.482	13.662	0.9045
3/26/2017 4:00	0.924	0.191	0.487	13.858	0.9075
3/26/2017 4:15	0.819	0.181	0.467	12.288	0.88475
3/26/2017 4:30	0.81	0.181	0.463	12.146	0.866
3/26/2017 4:45	0.91	0.191	0.482	13.651	0.86575
3/26/2017 5:45	36.524	0.477	3.235	547.857	9.76575
3/26/2017 6:00	1.136	0.202	0.54	17.046	9.845
3/26/2017 6:15	1.064	0.202	0.517	15.953	9.9085
3/26/2017 6:30	1.105	0.202	0.53	16.576	9.95725
3/26/2017 6:45	1.126	0.202	0.537	16.894	1.10775
3/26/2017 7:00	1.493	0.221	0.61	22.394	1.197
3/26/2017 7:15	1.707	0.231	0.649	25.604	1.35775
3/26/2017 7:30	1.245	0.212	0.556	18.671	1.39275
3/26/2017 7:45	3.322	0.283	0.885	49.829	1.94175
3/26/2017 8:00	1.142	0.202	0.542	17.133	1.854
3/26/2017 8:15	1.169	0.202	0.551	17.54	1.7195
3/26/2017 8:30	1.147	0.202	0.544	17.21	1.695
3/26/2017 9:30	1.702	0.231	0.648	25.536	1.29
3/26/2017 9:45	1.754	0.231	0.661	26.31	1.443
3/26/2017 10:00	1.074	0.202	0.52	16.113	1.41925
3/26/2017 10:15	1.7	0.231	0.647	25.494	1.5575
3/26/2017 10:30	1.481	0.221	0.606	22.21	1.50225
3/26/2017 10:45	1.118	0.202	0.534	16.771	1.34325
3/26/2017 11:00	1.329	0.212	0.581	19.931	1.407
3/26/2017 11:15	2.012	0.24	0.706	30.182	1.485
3/26/2017 11:30	2.527	0.258	0.784	37.91	1.7465
3/26/2017 11:45	5.202	0	1.28	78.027	2.7675
3/26/2017 12:00	12.865	0.173	3.171	192.977	5.6515
3/26/2017 12:30	2.237	0.249	0.74	33.562	5.70775
3/26/2017 12:45	1.955	0.24	0.692	29.332	5.56475
3/26/2017 13:00	1.725	0.231	0.653	25.879	4.6955
3/26/2017 13:15	1.733	0.231	0.655	25.991	1.9125
3/26/2017 13:30	1.319	0.212	0.578	19.787	1.683
3/26/2017 13:45	1.98	0.24	0.698	29.693	1.68925
3/26/2017 14:00	2.009	0.24	0.705	30.132	1.76025
3/26/2017 14:15	1.716	0.231	0.651	25.735	1.756
3/26/2017 14:30	1.733	0.231	0.655	25.995	1.8595
3/26/2017 14:45	3.339	0.283	0.888	50.092	2.19925
3/26/2017 15:30	26.088	0.303	3.518	391.321	8.219

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
3/26/2017 15:45	1.945	0.24	0.69	29.177	8.27625
3/26/2017 16:00	2.432	0.258	0.764	36.476	8.451
3/26/2017 16:15	2.379	0.258	0.753	35.683	8.211
3/26/2017 16:30	1.916	0.24	0.683	28.745	2.168
3/26/2017 16:45	1.941	0.24	0.689	29.113	2.167
3/26/2017 17:00	1.98	0.24	0.698	29.697	2.054
3/26/2017 17:15	2.022	0.24	0.708	30.33	1.96475
3/26/2017 17:30	1.976	0.24	0.697	29.645	1.97975
3/26/2017 17:45	2.225	0.249	0.737	33.372	2.05075
3/26/2017 18:00	3.077	0.275	0.858	46.162	2.325
3/26/2017 18:15	18.03	0	2.895	270.455	6.327
3/26/2017 18:45	38.917	0.565	2.997	583.754	15.56225
3/26/2017 19:00	2.739	0.267	0.81	41.087	15.69075
3/26/2017 19:15	2.424	0.258	0.762	36.357	15.5275
3/26/2017 19:30	2.21	0.249	0.733	33.156	11.5725
3/26/2017 19:45	2.183	0.249	0.727	32.743	2.389
3/26/2017 20:00	1.479	0.221	0.606	22.183	2.074
3/26/2017 20:15	1.429	0.221	0.592	21.43	1.82525
3/26/2017 20:30	1.485	0.221	0.607	22.272	1.644
3/26/2017 20:45	1.974	0.24	0.697	29.604	1.59175
3/26/2017 21:00	3.298	0.283	0.881	49.473	2.0465
3/26/2017 21:15	1.094	0.202	0.527	16.414	1.96275
3/26/2017 21:30	1.152	0.202	0.545	17.281	1.8795
3/26/2017 22:45	1.458	0.221	0.6	21.871	1.7505
3/26/2017 23:00	0.934	0.191	0.49	14.009	1.1595
3/26/2017 23:15	0.89	0.191	0.475	13.35	1.1085
3/26/2017 23:30	0.926	0.191	0.488	13.894	1.052
3/26/2017 23:45	0.897	0.191	0.477	13.453	0.91175
3/27/2017 0:00	0.81	0.181	0.463	12.147	0.88075
3/27/2017 0:15	0.901	0.191	0.479	13.511	0.8835
3/27/2017 0:30	0.909	0.191	0.482	13.638	0.87925
3/27/2017 0:45	1.23	0.212	0.552	18.457	0.9625
3/27/2017 1:00	1.253	0.212	0.558	18.793	1.07325
3/27/2017 1:15	0.891	0.191	0.475	13.369	1.07075
3/27/2017 1:30	0.793	0.181	0.457	11.901	1.04175
3/27/2017 1:45	0.811	0.181	0.464	12.169	0.937
3/27/2017 2:00	0.914	0.191	0.483	13.712	0.85225
3/27/2017 2:15	0.953	0.191	0.497	14.288	0.86775
3/27/2017 2:30	0.884	0.191	0.473	13.256	0.8905
3/27/2017 2:45	2.949	0	1.066	44.233	1.425
3/27/2017 4:00	32.176	0.659	2.355	482.641	9.2405
3/27/2017 4:15	0.987	0.191	0.509	14.806	9.249
3/27/2017 4:30	0.96	0.191	0.5	14.406	9.268
3/27/2017 4:45	0.906	0.191	0.481	13.592	8.75725
3/27/2017 5:00	0.819	0.181	0.466	12.284	0.918
3/27/2017 5:15	0.921	0.191	0.486	13.81	0.9015
3/27/2017 5:30	0.983	0.191	0.508	14.743	0.90725
3/27/2017 5:45	1.929	0.24	0.686	28.934	1.163
3/27/2017 6:00	2.382	0.258	0.753	35.731	1.55375
3/27/2017 6:15	3.028	0.275	0.848	45.419	2.0805
3/27/2017 6:30	2.713	0.267	0.805	40.697	2.513
3/27/2017 6:45	12.602	0	2.302	189.034	5.18125
3/27/2017 7:15	2.691	0.267	0.8	40.362	5.2585
3/27/2017 7:30	2.245	0.249	0.741	33.67	5.06275
3/27/2017 7:45	3.076	0.275	0.857	46.135	5.1535
3/27/2017 8:00	2.528	0.258	0.784	37.922	2.635
3/27/2017 8:15	2.541	0.258	0.787	38.109	2.5975
3/27/2017 8:30	2.784	0.267	0.819	41.753	2.73225
3/27/2017 8:45	1.87	0.24	0.672	28.053	2.43075
3/27/2017 9:00	3.024	0.275	0.848	45.362	2.55475
3/27/2017 9:15	6.918	0.259	1.552	103.771	3.649
3/27/2017 9:45	30.029	0.327	3.682	450.435	10.46025
3/27/2017 10:00	2.474	0.258	0.773	37.107	10.61125
3/27/2017 10:15	8.933	0.497	1.184	134.001	12.0885
3/27/2017 10:30	2.972	0.286	0.816	44.587	11.102
3/27/2017 10:45	2.094	0.257	0.691	31.404	4.11825
3/27/2017 11:00	2.277	0.267	0.714	34.16	4.069
3/27/2017 11:15	2.111	0.257	0.695	31.669	2.3635
3/27/2017 11:30	1.759	0.248	0.631	26.38	2.06025
3/27/2017 11:45	1.249	0.216	0.549	18.742	1.849
3/27/2017 12:00	1.83	0.248	0.648	27.449	1.73725
3/27/2017 12:15	2.593	0.124	1.313	38.902	1.85775
3/27/2017 12:30	11.357	0	3.678	170.358	4.25725
3/27/2017 13:00	2.558	0.277	0.754	38.377	4.5845
3/27/2017 13:15	13.208	0.703	1.22	198.122	7.429
3/27/2017 13:30	9.752	0.629	1.071	146.282	9.21875
3/27/2017 13:45	2.946	0.314	0.761	44.196	7.116
3/27/2017 14:00	1.994	0.281	0.63	29.905	6.975
3/27/2017 14:15	3.66	0.335	0.843	54.897	4.588
3/27/2017 14:30	1.773	0.27	0.599	26.594	2.59325
3/27/2017 15:15	87.071	0.95	3.68	1306.06	23.6245
3/27/2017 15:30	1.605	0.258	0.577	24.07	23.52725
3/27/2017 15:45	1.308	0.246	0.52	19.62	22.93925
3/27/2017 16:00	1.293	0.246	0.516	19.39	22.81925
3/27/2017 16:15	1	0.22	0.467	15.003	1.3015
3/27/2017 16:30	1.094	0.233	0.478	16.415	1.17375
3/27/2017 16:45	1.102	0.233	0.48	16.527	1.12225
3/27/2017 17:00	0.921	0.22	0.442	13.814	1.02925
3/27/2017 17:15	0.816	0.207	0.425	12.242	0.98325
3/27/2017 17:30	1.407	0.246	0.546	21.102	1.0615

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
3/27/2017 17:45	1.324	0.246	0.524	19.867	1.117
3/27/2017 18:00	1.18	0.233	0.502	17.697	1.18175
3/27/2017 18:45	22.002	0.129	5.832	330.024	6.47825
3/27/2017 19:00	2.946	0.314	0.761	44.186	6.863
3/27/2017 19:15	2.332	0.293	0.682	34.974	7.115
3/27/2017 19:30	1.511	0.258	0.554	22.663	7.19775
3/27/2017 19:45	1	0.22	0.467	14.999	1.94725
3/27/2017 20:00	1.843	0.27	0.615	27.647	1.6715
3/27/2017 20:15	2.103	0.281	0.653	31.546	1.61425
3/27/2017 20:30	1.203	0.233	0.509	18.042	1.53725
3/27/2017 20:45	1.171	0.233	0.5	17.558	1.58
3/27/2017 21:00	0.913	0.22	0.439	13.688	1.3475
3/27/2017 21:15	0.838	0.207	0.433	12.575	1.03125
3/27/2017 21:30	0.799	0.207	0.419	11.984	0.93025
3/27/2017 21:45	0.759	0.207	0.405	11.383	0.82725
3/27/2017 22:00	3.701	0.335	0.85	55.512	1.52425
3/27/2017 23:15	40.737	0.625	2.885	611.058	11.499
3/27/2017 23:30	0.921	0.22	0.442	13.808	11.5295
3/27/2017 23:45	0.674	0.193	0.391	10.107	11.50825
3/28/2017 0:00	0.732	0.207	0.395	10.974	10.766
3/28/2017 0:15	0.66	0.193	0.386	9.903	0.74675
3/28/2017 0:30	0.74	0.207	0.398	11.094	0.7015
3/28/2017 0:45	0.731	0.207	0.394	10.959	0.71575
3/28/2017 1:00	0.629	0.193	0.374	9.434	0.69
3/28/2017 1:15	0.622	0.193	0.371	9.325	0.6805
3/28/2017 1:30	0.801	0.207	0.42	12.012	0.69575
3/28/2017 1:45	0.921	0.22	0.442	13.821	0.74325
3/28/2017 2:00	0.644	0.193	0.38	9.666	0.747
3/28/2017 2:15	0.65	0.193	0.382	9.753	0.754
3/28/2017 2:30	0.534	0.179	0.353	8.009	0.68725
3/28/2017 2:45	0.522	0.179	0.347	7.829	0.5875
3/28/2017 3:00	0.516	0.179	0.345	7.738	0.5555
3/28/2017 3:15	0.603	0.193	0.363	9.042	0.54375
3/28/2017 3:30	1.118	0.233	0.485	16.773	0.68975
3/28/2017 5:00	1.525	0.258	0.558	22.878	0.9405
3/28/2017 5:15	0.51	0.179	0.342	7.656	0.939
3/28/2017 5:30	0.488	0.179	0.332	7.314	0.91025
3/28/2017 5:45	0.51	0.179	0.342	7.648	0.75825
3/28/2017 6:00	0.974	0.22	0.459	14.613	0.6205
3/28/2017 6:15	1.079	0.233	0.473	16.185	0.76275
3/28/2017 6:30	0.947	0.22	0.45	14.204	0.8775
3/28/2017 6:45	0.829	0.207	0.429	12.432	0.95725
3/28/2017 7:00	0.897	0.22	0.434	13.462	0.938
3/28/2017 7:15	0.78	0.207	0.412	11.698	0.86325
3/28/2017 7:30	1.782	0.27	0.601	26.728	1.072
3/28/2017 8:15	13.531	0.081	5.771	202.964	4.2475
3/28/2017 8:30	1.403	0.246	0.545	21.038	4.374
3/28/2017 8:45	1.392	0.246	0.542	20.885	4.527
3/28/2017 9:00	2.382	0.293	0.692	35.723	4.677
3/28/2017 9:15	1.164	0.233	0.498	17.457	1.58525
3/28/2017 9:30	1.18	0.233	0.503	17.706	1.5295
3/28/2017 9:45	1.383	0.246	0.54	20.742	1.52725
3/28/2017 10:00	0.921	0.22	0.442	13.815	1.162
3/28/2017 10:15	1.839	0.27	0.614	27.587	1.33075
3/28/2017 10:30	1.877	0.27	0.622	28.151	1.505
3/28/2017 10:45	3.186	0.137	1.414	47.789	1.95575
3/28/2017 11:00	10.391	0	3.218	155.864	4.32325
3/28/2017 11:30	3.702	0.335	0.85	55.531	4.789
3/28/2017 11:45	1.201	0.233	0.508	18.016	4.62
3/28/2017 12:00	1.098	0.233	0.479	16.469	4.098
3/28/2017 12:15	2.017	0.281	0.635	30.252	2.0045
3/28/2017 12:30	2.596	0.304	0.715	38.939	1.728
3/28/2017 12:45	2.156	0.281	0.665	32.347	1.96675
3/28/2017 13:00	2.304	0.293	0.677	34.555	2.26825
3/28/2017 13:15	1.851	0.27	0.617	27.76	2.22675
3/28/2017 13:30	1.282	0.246	0.513	19.232	1.89825
3/28/2017 13:45	1.892	0.27	0.626	28.374	1.83225
3/28/2017 14:00	0.971	0.22	0.458	14.558	1.499
3/28/2017 14:15	7.025	0.303	1.408	105.381	2.7925
3/28/2017 15:00	2.677	0.304	0.73	40.162	3.14125
3/28/2017 15:15	1.83	0.27	0.612	27.453	3.12575
3/28/2017 15:30	2.431	0.293	0.702	36.462	3.49075
3/28/2017 15:45	1.151	0.233	0.494	17.27	2.02225
3/28/2017 16:00	1.203	0.233	0.509	18.051	1.65375
3/28/2017 16:15	0.964	0.22	0.456	14.454	1.43725
3/28/2017 16:30	1.755	0.27	0.595	26.32	1.26825
3/28/2017 16:45	2.615	0.304	0.719	39.225	1.63425
3/28/2017 17:00	3.36	0.325	0.813	50.398	2.1735
3/28/2017 17:15	3.355	0.325	0.812	50.321	2.77125
3/28/2017 17:30	3.716	0.335	0.852	55.74	3.2615
3/28/2017 17:45	3.638	0.335	0.84	54.576	3.51725
3/28/2017 18:00	14.135	0	2.125	212.029	6.211
3/28/2017 18:15	36.671	0	4.183	550.069	14.54
3/28/2017 18:30	55.229	0.662	3.436	828.436	27.41825
3/28/2017 18:45	1.312	0.246	0.521	19.682	26.83675
3/28/2017 19:00	1.599	0.258	0.576	23.981	23.70275
3/28/2017 19:15	1.384	0.246	0.54	20.762	14.881
3/28/2017 19:30	1.01	0.22	0.47	15.143	1.32625
3/28/2017 19:45	1.308	0.246	0.52	19.623	1.32525
3/28/2017 20:00	1.011	0.22	0.47	15.165	1.17825

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
3/28/2017 20:15	1.162	0.233	0.497	17.437	1.12275
3/28/2017 20:30	0.982	0.22	0.462	14.737	1.11575
3/28/2017 20:45	1.003	0.22	0.468	15.052	1.0395
3/28/2017 21:00	0.987	0.22	0.463	14.803	1.0335
3/28/2017 21:15	0.816	0.207	0.425	12.241	0.947
3/28/2017 21:30	0.669	0.193	0.39	10.035	0.86875
3/28/2017 21:45	0.773	0.207	0.41	11.596	0.81125
3/28/2017 22:00	4.959	0.365	0.978	74.389	1.80425
3/28/2017 23:15	1.34	0.246	0.528	20.095	1.93525
3/28/2017 23:30	0.813	0.207	0.424	12.199	1.97125
3/28/2017 23:45	0.798	0.207	0.419	11.968	1.9775
3/29/2017 0:00	0.78	0.207	0.412	11.698	0.93275
3/29/2017 0:15	0.755	0.207	0.403	11.322	0.7865
3/29/2017 0:30	0.777	0.207	0.411	11.649	0.7775
3/29/2017 0:45	0.756	0.207	0.404	11.344	0.767
3/29/2017 1:00	0.763	0.207	0.406	11.447	0.76275
3/29/2017 1:15	0.625	0.193	0.372	9.373	0.73025
3/29/2017 1:30	0.662	0.193	0.387	9.933	0.7015
3/29/2017 1:45	0.913	0.22	0.439	13.691	0.74075
3/29/2017 2:00	0.953	0.22	0.452	14.288	0.78825
3/29/2017 2:15	0.825	0.207	0.428	12.371	0.83825
3/29/2017 2:30	0.837	0.207	0.432	12.551	0.882
3/29/2017 2:45	0.649	0.193	0.382	9.731	0.816
3/29/2017 3:00	0.737	0.207	0.397	11.058	0.762
3/29/2017 3:15	3.103	0	1.046	46.551	1.3315
3/29/2017 4:30	1.519	0.258	0.556	22.779	1.502
3/29/2017 4:45	2.353	0.293	0.686	35.301	1.928
3/29/2017 5:00	2.4	0.293	0.696	35.996	2.34375
3/29/2017 5:15	2.422	0.293	0.7	36.333	2.1735
3/29/2017 5:30	3.225	0.325	0.791	48.375	2.6
3/29/2017 5:45	3.999	0.346	0.878	59.986	3.0115
3/29/2017 6:00	2.965	0.314	0.764	44.473	3.15275
3/29/2017 6:15	4.365	0.356	0.913	65.474	3.6385
3/29/2017 6:30	3.399	0.325	0.82	50.987	3.682
3/29/2017 6:45	3.647	0.335	0.841	54.701	3.594
3/29/2017 7:00	4.122	0.346	0.896	61.829	3.88325
3/29/2017 7:15	4.086	0.346	0.891	61.29	3.8135
3/29/2017 7:30	2.836	0.15	1.223	42.536	3.67275
3/29/2017 8:30	2.385	0.293	0.693	35.775	3.35725
3/29/2017 8:45	2.058	0.281	0.644	30.869	2.84125
3/29/2017 9:00	2.56	0.304	0.709	38.406	2.45975
3/29/2017 9:15	2.981	0.314	0.767	44.72	2.496
3/29/2017 9:30	3.017	0.314	0.773	45.257	2.654
3/29/2017 9:45	3.052	0.314	0.779	45.775	2.9025
3/29/2017 10:00	2.276	0.293	0.671	34.146	2.8315
3/29/2017 10:15	1.316	0.246	0.522	19.743	2.41525
3/29/2017 10:30	6.337	0.395	1.095	95.051	3.24525
3/29/2017 10:45	31.846	0	3.355	477.694	10.44375
3/29/2017 11:00	26.61	0.159	5.767	399.147	16.52725
3/29/2017 11:15	2.567	0.304	0.71	38.504	16.84
3/29/2017 11:30	2.377	0.293	0.691	35.66	15.85
3/29/2017 11:45	1.863	0.27	0.619	27.948	8.35425
3/29/2017 12:00	1.749	0.27	0.594	26.241	2.139
3/29/2017 12:15	1.838	0.27	0.614	27.568	1.95675
3/29/2017 12:30	3.936	0.346	0.868	59.037	2.3465
3/29/2017 12:45	2.396	0.293	0.695	35.936	2.47975
3/29/2017 13:00	1.908	0.27	0.629	28.624	2.5195
3/29/2017 13:15	0.794	0.207	0.417	11.915	2.2585
3/29/2017 13:30	2.935	0.315	0.759	44.03	2.00825
3/29/2017 13:45	12.953	0	2.091	194.29	4.6475
3/29/2017 14:00	31.509	0	3.924	472.63	12.04775
3/29/2017 14:15	110.887	0.754	5.217	1663.31	39.571
3/29/2017 14:30	3.007	0.315	0.771	45.112	39.589
3/29/2017 14:45	3.294	0.325	0.802	49.411	37.17425
3/29/2017 15:00	3.059	0.315	0.78	45.879	30.06175
3/29/2017 15:15	1.854	0.27	0.617	27.809	2.8035
3/29/2017 15:30	3.431	0.325	0.824	51.459	2.9095
3/29/2017 15:45	3.247	0.325	0.794	48.702	2.89775
3/29/2017 16:00	3.206	0.325	0.788	48.084	2.9345
3/29/2017 16:15	3.33	0.325	0.808	49.949	3.3035
3/29/2017 16:30	2.989	0.315	0.768	44.838	3.193
3/29/2017 16:45	2.294	0.293	0.674	34.41	2.95475
3/29/2017 17:00	6.199	0.12	2.444	92.986	3.703
3/29/2017 17:30	104.183	1.045	3.911	1562.75	28.91625
3/29/2017 17:45	2.344	0.293	0.684	35.163	28.755
3/29/2017 18:00	2.619	0.304	0.719	39.28	28.83625
3/29/2017 18:15	2.174	0.281	0.668	32.604	27.83
3/29/2017 18:30	2.041	0.281	0.64	30.617	2.2945
3/29/2017 18:45	2.362	0.293	0.688	35.425	2.299
3/29/2017 19:00	2.143	0.281	0.662	32.149	2.18
3/29/2017 19:15	2.13	0.281	0.659	31.946	2.169
3/29/2017 19:30	2.069	0.281	0.646	31.03	2.176
3/29/2017 19:45	1.852	0.27	0.617	27.781	2.0485
3/29/2017 20:00	2.313	0.293	0.678	34.69	2.091
3/29/2017 20:15	1.872	0.27	0.621	28.075	2.0265
3/29/2017 20:30	3.993	0	1.037	59.889	2.5075
3/29/2017 20:45	12.742	0	2.3	191.133	5.23
3/29/2017 21:00	23.188	0	3.512	347.824	10.44875
3/29/2017 21:15	36.815	0	4.93	552.222	19.1845
3/29/2017 21:30	15.564	0.64	1.454	233.459	22.07725

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
3/29/2017 21:45	1.803	0.27	0.606	27.039	19.3425
3/29/2017 22:00	2.889	0.315	0.751	43.335	14.26775
3/29/2017 22:15	2.005	0.281	0.633	30.078	5.56525
3/29/2017 22:30	1.812	0.27	0.608	27.176	2.12725
3/29/2017 22:45	1.652	0.258	0.589	24.785	2.0895
3/29/2017 23:00	1.616	0.258	0.58	24.233	1.77125
3/29/2017 23:15	1.559	0.258	0.566	23.391	1.65975
3/29/2017 23:30	1.38	0.246	0.539	20.704	1.55175
3/29/2017 23:45	1.596	0.258	0.575	23.935	1.53775
3/30/2017 0:00	1.383	0.246	0.539	20.743	1.4795
3/30/2017 0:15	1.531	0.258	0.559	22.963	1.4725
3/30/2017 0:30	1.859	0.27	0.618	27.878	1.59225
3/30/2017 0:45	1.545	0.258	0.563	23.172	1.5795
3/30/2017 1:00	2.721	0.304	0.738	40.821	1.914
3/30/2017 1:15	10.085	0	1.802	151.278	4.0525
3/30/2017 1:30	18.685	0	2.769	280.282	8.259
3/30/2017 1:45	29.538	0	3.84	443.071	15.25725
3/30/2017 2:00	40.963	0	4.887	614.446	24.81775
3/30/2017 2:15	77.872	0.885	3.573	1168.08	41.7645
3/30/2017 2:30	1.309	0.246	0.52	19.635	37.4205
3/30/2017 2:45	1.39	0.246	0.541	20.847	30.3835
3/30/2017 3:00	1.387	0.246	0.541	20.805	20.4895
3/30/2017 3:15	1.869	0.27	0.621	28.037	1.48875
3/30/2017 3:30	1.546	0.258	0.563	23.186	1.548
3/30/2017 3:45	2.085	0.281	0.649	31.279	1.72175
3/30/2017 4:00	1.83	0.27	0.612	27.455	1.8325
3/30/2017 4:15	1.513	0.258	0.555	22.696	1.7435
3/30/2017 4:30	1.815	0.27	0.608	27.224	1.81075
3/30/2017 4:45	1.352	0.246	0.531	20.279	1.6275
3/30/2017 5:00	1.4	0.246	0.544	21	1.52
3/30/2017 5:15	1.633	0.258	0.584	24.493	1.55
3/30/2017 5:30	1.841	0.27	0.614	27.61	1.5565
3/30/2017 5:45	5.334	0.216	1.471	80.009	2.552
3/30/2017 6:00	16.188	0	3.186	242.818	6.249
3/30/2017 6:15	29.395	0	4.923	440.919	13.1895
3/30/2017 6:30	3.315	0.325	0.806	49.727	13.558
3/30/2017 6:45	1.565	0.258	0.567	23.468	12.61575
3/30/2017 7:00	0.838	0.207	0.432	12.564	8.77825
3/30/2017 7:15	0.748	0.207	0.401	11.221	1.6165
3/30/2017 7:30	0.805	0.207	0.421	12.068	0.989
3/30/2017 7:45	0.911	0.22	0.439	13.668	0.8255
3/30/2017 8:00	1.191	0.233	0.505	17.87	0.91375
3/30/2017 8:15	1.738	0.27	0.591	26.067	1.16125
3/30/2017 8:30	0.958	0.22	0.454	14.377	1.1995
3/30/2017 8:45	0.664	0.193	0.388	9.965	1.13775
3/30/2017 9:00	0.534	0.179	0.353	8.014	0.9735
3/30/2017 9:15	3.965	0.346	0.872	59.482	1.53025
3/30/2017 9:30	23.096	0	2.935	346.436	7.06475
3/30/2017 10:00	3.647	0.335	0.841	54.703	7.8105
3/30/2017 10:15	1.339	0.246	0.528	20.084	8.01175
3/30/2017 10:30	1.87	0.27	0.621	28.05	7.488
3/30/2017 10:45	6.52	0.464	1.001	97.796	3.344
3/30/2017 11:00	4.156	0.359	0.877	62.343	3.47125
3/30/2017 11:15	3.867	0.349	0.853	58.004	4.10325
3/30/2017 11:30	3.11	0.327	0.769	46.648	4.41325
3/30/2017 11:45	4.73	0.316	1.046	70.957	3.96575
3/30/2017 12:00	3.566	0.336	0.827	53.483	3.81825
3/30/2017 12:15	2.771	0.305	0.746	41.568	3.54425
3/30/2017 12:30	3.324	0.326	0.806	49.866	3.59775
3/30/2017 12:45	3.905	0.247	1.084	58.581	3.3915
3/30/2017 13:00	5.069	0.078	2.87	76.039	3.76725
3/30/2017 13:30	73.776	0.512	5.138	1106.64	21.5185
3/30/2017 13:45	1.7	0.254	0.607	25.498	21.1125
3/30/2017 14:00	1.219	0.231	0.517	18.289	20.441
3/30/2017 14:15	0.862	0.207	0.44	12.933	19.38925
3/30/2017 14:30	1.264	0.231	0.529	18.964	1.26125
3/30/2017 14:45	1.969	0.265	0.651	29.533	1.3285
3/30/2017 15:00	1.69	0.254	0.604	25.352	1.44625
3/30/2017 15:15	1.083	0.219	0.494	16.24	1.5015
3/30/2017 15:30	0.718	0.195	0.406	10.766	1.365
3/30/2017 15:45	1.71	0.254	0.609	25.649	1.30025
3/30/2017 16:00	1.035	0.219	0.479	15.52	1.1365
3/30/2017 16:15	0.608	0.182	0.381	9.12	1.01775
3/30/2017 17:15	97.009	0.691	5.038	1455.13	25.0905
3/30/2017 17:30	1.092	0.219	0.497	16.384	24.936
3/30/2017 17:45	0.739	0.195	0.414	11.09	24.862
3/30/2017 18:00	0.614	0.182	0.383	9.206	24.8635
3/30/2017 18:15	0.608	0.182	0.381	9.126	0.76325
3/30/2017 18:30	23.038	0.936	1.467	345.569	6.24975
3/30/2017 18:45	1.756	0.254	0.62	26.34	6.504
3/30/2017 19:00	3.146	0.306	0.811	47.192	7.137
3/30/2017 19:15	1.511	0.243	0.578	22.664	7.36275
3/30/2017 19:30	1.922	0.265	0.641	28.828	2.08375
3/30/2017 19:45	3.421	0.315	0.84	51.312	2.5
3/30/2017 20:00	4.655	0.235	1.265	69.818	2.87725
3/30/2017 20:15	5.873	0.109	2.528	88.099	3.96775
3/30/2017 20:30	15.086	0.151	3.921	226.289	7.25875
3/30/2017 20:45	22.437	0	5.266	336.552	12.01275
3/30/2017 21:00	1.881	0.265	0.631	28.214	11.31925
3/30/2017 21:15	0.947	0.207	0.469	14.204	10.08775

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
3/30/2017 21:30	1.293	0.231	0.537	19.398	6.6395
3/30/2017 21:45	1.414	0.243	0.553	21.212	1.38375
3/30/2017 22:00	0.882	0.207	0.447	13.232	1.134
3/30/2017 22:15	2.28	0.275	0.7	34.206	1.46725
3/30/2017 22:30	1.322	0.231	0.546	19.834	1.4745
3/30/2017 22:45	0.896	0.207	0.452	13.447	1.345
3/30/2017 23:00	1.048	0.219	0.483	15.719	1.3865
3/30/2017 23:15	1.77	0.254	0.623	26.548	1.259
3/30/2017 23:30	1.543	0.243	0.586	23.138	1.31425
3/30/2017 23:45	1.303	0.231	0.54	19.552	1.416
3/31/2017 0:00	1.063	0.219	0.488	15.939	1.41975
3/31/2017 0:15	1.878	0.265	0.631	28.163	1.44675
3/31/2017 0:30	0.949	0.207	0.47	14.231	1.29825
3/31/2017 0:45	1.424	0.243	0.555	21.357	1.3285
3/31/2017 1:00	1.904	0.265	0.637	28.559	1.53875
3/31/2017 1:15	1.281	0.231	0.534	19.214	1.3895
3/31/2017 1:30	1.09	0.219	0.496	16.346	1.42475
3/31/2017 1:45	0.773	0.195	0.427	11.599	1.262
3/31/2017 2:00	3.917	0.325	0.902	58.748	1.76525
3/31/2017 3:00	10.356	0.104	3.905	155.338	4.034
3/31/2017 3:45	1.428	0.243	0.556	21.416	4.1185
3/31/2017 4:00	0.943	0.207	0.468	14.152	4.161
3/31/2017 4:15	1.445	0.243	0.561	21.681	3.543
3/31/2017 4:30	1.141	0.219	0.512	17.117	1.23925
3/31/2017 4:45	0.9	0.207	0.453	13.493	1.10725
3/31/2017 5:00	0.748	0.195	0.418	11.225	1.0585
3/31/2017 5:15	0.783	0.195	0.431	11.747	0.893
3/31/2017 5:30	1.06	0.219	0.487	15.893	0.87275
3/31/2017 5:45	0.846	0.207	0.435	12.686	0.85925
3/31/2017 6:00	1.138	0.219	0.511	17.071	0.95675
3/31/2017 6:15	1.03	0.219	0.478	15.447	1.0185
3/31/2017 6:30	0.765	0.195	0.424	11.469	0.94475
3/31/2017 6:45	0.5	0.168	0.351	7.496	0.85825
3/31/2017 7:00	0.378	0.154	0.309	5.666	0.66825
3/31/2017 7:15	4.084	0	1.544	61.267	1.43175
3/31/2017 8:00	64.301	0.418	5.404	964.516	17.31575
3/31/2017 8:15	0.951	0.207	0.47	14.259	17.4285
3/31/2017 8:30	1.03	0.219	0.478	15.446	17.5915
3/31/2017 8:45	1.29	0.231	0.537	19.353	16.893
3/31/2017 9:00	0.897	0.207	0.452	13.456	1.042
3/31/2017 9:15	1.081	0.219	0.493	16.21	1.0745
3/31/2017 9:30	1.662	0.254	0.598	24.927	1.2325
3/31/2017 9:45	0.956	0.207	0.472	14.346	1.149
3/31/2017 10:00	0.752	0.195	0.419	11.276	1.11275
3/31/2017 10:15	0.861	0.207	0.44	12.916	1.05775
3/31/2017 10:30	2.805	0.296	0.767	42.072	1.3435
3/31/2017 10:45	1.484	0.243	0.571	22.266	1.4755
3/31/2017 11:00	2.61	0.061	2.155	39.145	1.94
3/31/2017 11:15	8.454	0.085	3.917	126.809	3.83825
3/31/2017 11:30	13.195	0	5.458	197.923	6.43575
3/31/2017 11:45	1.784	0.254	0.627	26.764	6.51075
3/31/2017 12:00	1.139	0.219	0.511	17.09	6.143
3/31/2017 12:15	1.098	0.219	0.499	16.475	4.304
3/31/2017 12:30	1.131	0.219	0.509	16.964	1.288
3/31/2017 12:45	2.823	0.296	0.77	42.339	1.54775
3/31/2017 13:00	1.94	0.265	0.645	29.097	1.748
3/31/2017 13:15	1.41	0.243	0.551	21.152	1.826
3/31/2017 13:30	1.226	0.231	0.519	18.394	1.84975
3/31/2017 13:45	0.914	0.207	0.458	13.716	1.3725
3/31/2017 14:00	0.907	0.207	0.456	13.611	1.11425
3/31/2017 15:00	3.156	0.306	0.812	47.346	1.55075
3/31/2017 15:15	1.932	0.265	0.643	28.976	1.72725
3/31/2017 15:30	2.913	0.296	0.787	43.696	2.227
3/31/2017 15:45	2.146	0.275	0.672	32.193	2.53675
3/31/2017 16:00	2.521	0.286	0.731	37.819	2.378
3/31/2017 16:15	3.199	0.306	0.82	47.985	2.69475
3/31/2017 16:30	2.592	0.286	0.745	38.884	2.6145
3/31/2017 16:45	1.967	0.265	0.651	29.509	2.56975
3/31/2017 17:00	2.603	0.286	0.747	39.038	2.59025
3/31/2017 17:15	2.226	0.275	0.689	33.392	2.347
3/31/2017 17:30	2.007	0.265	0.66	30.101	2.20075
3/31/2017 17:45	5.216	0.206	1.494	78.234	3.013
3/31/2017 18:00	16.006	0	3.263	240.09	6.36375
3/31/2017 18:15	28.444	0	4.968	426.665	12.91825
3/31/2017 18:30	3.117	0.306	0.806	46.755	13.19575
3/31/2017 18:45	1.888	0.265	0.633	28.319	12.36375
3/31/2017 19:00	3.165	0.306	0.814	47.478	9.1535
3/31/2017 19:15	2.51	0.286	0.729	37.651	2.67
3/31/2017 19:30	1.883	0.265	0.632	28.241	2.3615
3/31/2017 19:45	0.928	0.207	0.463	13.926	2.1215
3/31/2017 20:00	0.936	0.207	0.465	14.043	1.56425
3/31/2017 20:15	0.89	0.207	0.45	13.355	1.15925
3/31/2017 20:30	1.082	0.219	0.494	16.224	0.959
3/31/2017 20:45	1.069	0.219	0.49	16.03	0.99425
3/31/2017 21:00	0.759	0.195	0.422	11.388	0.95
3/31/2017 21:15	1.295	0.231	0.538	19.43	1.05125
3/31/2017 21:30	4.602	0.344	0.969	69.024	1.93125
3/31/2017 22:30	3.035	0.306	0.791	45.532	2.42275
3/31/2017 22:45	0.482	0.168	0.343	7.223	2.3535
3/31/2017 23:00	0.465	0.168	0.335	6.972	2.146

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
3/31/2017 23:15	0.601	0.182	0.377	9.01	1.14575
3/31/2017 23:30	0.547	0.182	0.354	8.204	0.52375
3/31/2017 23:45	0.465	0.168	0.335	6.968	0.5195
4/1/2017 0:00	0.706	0.195	0.401	10.583	0.57975
4/1/2017 0:15	0.62	0.182	0.386	9.3	0.5845
4/1/2017 0:30	0.768	0.195	0.425	11.519	0.63975
4/1/2017 0:45	0.505	0.168	0.354	7.57	0.64975
4/1/2017 1:00	0.459	0.168	0.332	6.888	0.588
4/1/2017 1:15	0.556	0.182	0.359	8.346	0.572
4/1/2017 1:30	0.448	0.168	0.326	6.714	0.492
4/1/2017 1:45	0.357	0.154	0.298	5.354	0.455
4/1/2017 2:00	0.332	0.154	0.283	4.975	0.42325
4/1/2017 2:15	0.344	0.154	0.29	5.159	0.37025
4/1/2017 2:30	0.323	0.154	0.278	4.839	0.339
4/1/2017 2:45	0.487	0.168	0.346	7.309	0.3715
4/1/2017 3:00	1.523	0.243	0.581	22.849	0.66925
4/1/2017 4:30	29.23	0.396	3.15	438.452	7.89075
4/1/2017 4:45	0.554	0.182	0.358	8.309	7.9485
4/1/2017 5:00	0.425	0.168	0.315	6.376	7.933
4/1/2017 5:15	0.368	0.154	0.304	5.527	7.64425
4/1/2017 5:30	0.562	0.182	0.361	8.424	0.47725
4/1/2017 5:45	0.425	0.168	0.315	6.371	0.445
4/1/2017 6:00	1.027	0.219	0.477	15.41	0.5955
4/1/2017 6:15	0.457	0.168	0.331	6.857	0.61775
4/1/2017 6:30	0.564	0.182	0.362	8.461	0.61825
4/1/2017 6:45	0.629	0.182	0.389	9.43	0.66925
4/1/2017 7:00	1.332	0.231	0.548	19.979	0.7455
4/1/2017 7:15	1.412	0.243	0.552	21.178	0.98425
4/1/2017 7:30	0.865	0.207	0.442	12.979	1.0595
4/1/2017 7:45	0.866	0.207	0.442	12.987	1.11875
4/1/2017 8:00	5.976	0.297	1.279	89.636	2.27975
4/1/2017 8:45	28.451	0.166	5.88	426.768	9.0395
4/1/2017 9:00	0.945	0.207	0.469	14.18	9.0595
4/1/2017 9:15	0.759	0.195	0.422	11.387	9.03275
4/1/2017 9:30	1.761	0.254	0.621	26.416	7.979
4/1/2017 9:45	1.442	0.243	0.56	21.633	1.22675
4/1/2017 10:00	1.875	0.265	0.63	28.125	1.45925
4/1/2017 10:15	2.167	0.275	0.677	32.508	1.81125
4/1/2017 10:30	1.294	0.231	0.538	19.412	1.6945
4/1/2017 10:45	1.5	0.243	0.575	22.499	1.709
4/1/2017 11:00	1.094	0.219	0.497	16.406	1.51375
4/1/2017 11:15	1.041	0.219	0.481	15.611	1.23225
4/1/2017 11:30	2.193	0.275	0.682	32.899	1.457
4/1/2017 11:45	4.586	0.344	0.966	68.795	2.2285
4/1/2017 12:00	20.741	0	2.731	311.115	7.14025
4/1/2017 12:30	31.656	0.438	3.103	474.837	14.794
4/1/2017 12:45	1.305	0.231	0.541	19.57	14.572
4/1/2017 13:00	1.251	0.231	0.526	18.771	13.73825
4/1/2017 13:15	1.099	0.219	0.499	16.481	8.82775
4/1/2017 13:30	2.797	0.296	0.766	41.961	1.613
4/1/2017 13:45	1.029	0.219	0.477	15.432	1.544
4/1/2017 14:00	2.278	0.275	0.7	34.176	1.80075
4/1/2017 14:15	1.059	0.219	0.487	15.885	1.79075
4/1/2017 14:30	2.497	0.286	0.726	37.457	1.71575
4/1/2017 14:45	3.08	0.306	0.799	46.194	2.2285
4/1/2017 15:00	1.786	0.254	0.627	26.786	2.1055
4/1/2017 15:15	0.911	0.207	0.457	13.666	2.0685
4/1/2017 15:30	4.574	0.344	0.965	68.617	2.58775
4/1/2017 15:45	14.986	0	2.176	224.785	5.56425
4/1/2017 16:00	34.976	0	3.968	524.639	13.86175
4/1/2017 16:30	1.746	0.254	0.618	26.189	14.0705
4/1/2017 16:45	1.437	0.243	0.559	21.557	13.28625
4/1/2017 17:00	1.105	0.219	0.501	16.58	9.816
4/1/2017 17:15	1.982	0.265	0.654	29.73	1.5675
4/1/2017 17:30	1.907	0.265	0.637	28.604	1.60775
4/1/2017 17:45	2.19	0.275	0.681	32.857	1.796
4/1/2017 18:00	1.682	0.254	0.602	25.226	1.94025
4/1/2017 18:15	1.224	0.231	0.518	18.357	1.75075
4/1/2017 18:30	0.861	0.207	0.44	12.912	1.48925
4/1/2017 18:45	1.28	0.231	0.534	19.196	1.26175
4/1/2017 19:00	2.835	0.296	0.773	42.52	1.55
4/1/2017 19:15	2.012	0.265	0.661	30.181	1.747
4/1/2017 19:30	10.418	0	2.027	156.265	4.13625
4/1/2017 19:45	21.233	0	3.344	318.492	9.1245
4/1/2017 20:00	33.524	0	4.664	502.856	16.79675
4/1/2017 20:15	44.107	0	5.745	661.602	27.3205
4/1/2017 20:30	1.528	0.243	0.582	22.927	25.098
4/1/2017 20:45	0.94	0.207	0.467	14.099	20.02475
4/1/2017 21:00	1.084	0.219	0.494	16.263	11.91475
4/1/2017 21:15	0.859	0.207	0.439	12.879	1.10275
4/1/2017 21:30	0.88	0.207	0.447	13.207	0.94075
4/1/2017 21:45	1.675	0.254	0.601	25.131	1.1245
4/1/2017 22:00	0.936	0.207	0.466	14.043	1.0875
4/1/2017 22:15	1.277	0.231	0.533	19.157	1.192
4/1/2017 22:30	0.89	0.207	0.45	13.352	1.1945
4/1/2017 22:45	0.927	0.207	0.462	13.899	1.0075
4/1/2017 23:00	0.706	0.195	0.402	10.592	0.95
4/1/2017 23:15	0.617	0.182	0.384	9.257	0.785
4/1/2017 23:30	0.458	0.168	0.331	6.867	0.677
4/1/2017 23:45	0.428	0.168	0.317	6.415	0.55225

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
4/2/2017 0:00	0.442	0.168	0.324	6.626	0.48625
4/2/2017 0:15	0.46	0.168	0.332	6.898	0.447
4/2/2017 0:30	0.458	0.168	0.331	6.866	0.447
4/2/2017 0:45	0.356	0.154	0.297	5.339	0.429
4/2/2017 1:00	0.494	0.168	0.349	7.411	0.442
4/2/2017 1:15	4.627	0.344	0.972	69.404	1.48375
4/2/2017 2:45	72.148	0.899	3.344	1082.22	19.40625
4/2/2017 3:00	0.502	0.168	0.352	7.527	19.44275
4/2/2017 3:15	0.333	0.154	0.284	4.993	19.4025
4/2/2017 3:30	0.327	0.154	0.281	4.912	18.3275
4/2/2017 3:45	0.349	0.154	0.293	5.236	0.37775
4/2/2017 4:00	0.467	0.168	0.336	7.001	0.369
4/2/2017 4:15	0.477	0.168	0.34	7.148	0.405
4/2/2017 4:30	0.376	0.154	0.308	5.635	0.41725
4/2/2017 4:45	0.448	0.168	0.327	6.719	0.442
4/2/2017 5:00	0.474	0.168	0.339	7.106	0.44375
4/2/2017 5:15	0.368	0.154	0.304	5.526	0.4165
4/2/2017 5:30	0.379	0.154	0.31	5.681	0.41725
4/2/2017 5:45	0.488	0.168	0.346	7.317	0.42725
4/2/2017 6:00	0.924	0.207	0.461	13.857	0.53975
4/2/2017 6:15	0.628	0.182	0.389	9.421	0.60475
4/2/2017 6:30	0.579	0.182	0.368	8.685	0.65475
4/2/2017 6:45	0.695	0.195	0.397	10.423	0.7065
4/2/2017 7:00	6.096	0	1.731	91.436	1.9995
4/2/2017 7:15	15.331	0	3.299	229.96	5.67525
4/2/2017 7:45	113.01	0.835	4.898	1695.15	33.783
4/2/2017 8:00	1.768	0.254	0.623	26.522	34.05125
4/2/2017 8:15	1.482	0.243	0.57	22.234	32.89775
4/2/2017 8:30	1.448	0.243	0.562	21.727	29.427
4/2/2017 8:45	1.427	0.243	0.556	21.4	1.53125
4/2/2017 9:00	3.19	0.306	0.818	47.846	1.88675
4/2/2017 9:15	1.732	0.254	0.615	25.983	1.94925
4/2/2017 9:30	1.124	0.219	0.507	16.861	1.86825
4/2/2017 9:45	2.269	0.275	0.698	34.04	2.07875
4/2/2017 10:00	1.528	0.243	0.582	22.919	1.66325
4/2/2017 10:15	1.99	0.265	0.656	29.852	1.72775
4/2/2017 10:30	2.589	0.286	0.744	38.828	2.094
4/2/2017 11:30	42.755	0.635	2.95	641.33	12.2155
4/2/2017 11:45	1.042	0.219	0.481	15.627	12.094
4/2/2017 12:00	0.873	0.207	0.444	13.101	11.81475
4/2/2017 12:15	0.933	0.207	0.464	13.995	11.40075
4/2/2017 12:30	0.924	0.207	0.462	13.866	0.943
4/2/2017 12:45	2.281	0.275	0.7	34.215	1.25275
4/2/2017 13:00	0.762	0.195	0.423	11.436	1.225
4/2/2017 13:15	1.476	0.243	0.569	22.147	1.36075
4/2/2017 13:30	0.869	0.207	0.443	13.034	1.347
4/2/2017 13:45	2.82	0.296	0.77	42.299	1.48175
4/2/2017 14:00	0.787	0.195	0.432	11.805	1.488
4/2/2017 14:15	1.904	0.265	0.637	28.554	1.595
4/2/2017 14:30	1.051	0.219	0.484	15.759	1.6405
4/2/2017 14:45	9.297	0	2.134	139.456	3.25975
4/2/2017 15:45	1.66	0.254	0.597	24.902	3.478
4/2/2017 16:00	0.744	0.195	0.416	11.162	3.188
4/2/2017 16:15	0.938	0.207	0.466	14.065	3.15975
4/2/2017 16:30	1.487	0.243	0.571	22.299	1.20725
4/2/2017 16:45	1.444	0.243	0.56	21.66	1.15325
4/2/2017 17:00	1.047	0.219	0.483	15.707	1.229
4/2/2017 17:15	0.889	0.207	0.45	13.333	1.21675
4/2/2017 17:30	0.937	0.207	0.466	14.061	1.07925
4/2/2017 17:45	0.76	0.195	0.422	11.403	0.90825
4/2/2017 18:00	0.848	0.207	0.435	12.717	0.8585
4/2/2017 18:15	1.237	0.231	0.522	18.554	0.9455
4/2/2017 18:30	1.026	0.219	0.476	15.385	0.96775
4/2/2017 18:45	1.771	0.254	0.624	26.572	1.2205
4/2/2017 19:00	3.849	0.325	0.891	57.731	1.97075
4/2/2017 19:15	13.172	0	2.068	197.584	4.9545
4/2/2017 19:30	26.077	0	3.343	391.161	11.21725
4/2/2017 20:15	4.103	0.334	0.913	61.545	11.80025
4/2/2017 20:30	3.809	0.325	0.885	57.136	11.79025
4/2/2017 20:45	1.784	0.254	0.627	26.754	8.94325
4/2/2017 21:00	2.273	0.275	0.699	34.095	2.99225
4/2/2017 21:15	1.411	0.243	0.552	21.172	2.31925
4/2/2017 21:30	1.134	0.219	0.51	17.015	1.6505
4/2/2017 21:45	1.257	0.231	0.527	18.856	1.51875
4/2/2017 22:00	2.273	0.275	0.699	34.1	1.51875
4/2/2017 22:15	1.247	0.231	0.524	18.699	1.47775
4/2/2017 22:30	0.847	0.207	0.435	12.706	1.406
4/2/2017 22:45	0.914	0.207	0.458	13.714	1.32025
4/2/2017 23:00	0.953	0.207	0.471	14.295	0.99025
4/2/2017 23:15	0.859	0.207	0.439	12.878	0.89325
4/2/2017 23:30	0.841	0.207	0.433	12.62	0.89175
4/2/2017 23:45	0.747	0.195	0.417	11.202	0.85
4/3/2017 0:00	2.412	0.286	0.709	36.175	1.21475
4/3/2017 0:15	1.047	0.219	0.483	15.712	1.26175
4/3/2017 0:30	0.754	0.195	0.42	11.308	1.24
4/3/2017 0:45	0.604	0.182	0.379	9.064	1.20425
4/3/2017 1:00	0.566	0.182	0.363	8.488	0.74275
4/3/2017 1:15	0.716	0.195	0.405	10.741	0.66
4/3/2017 1:30	0.704	0.195	0.401	10.554	0.6475
4/3/2017 1:45	1.646	0.254	0.594	24.683	0.908

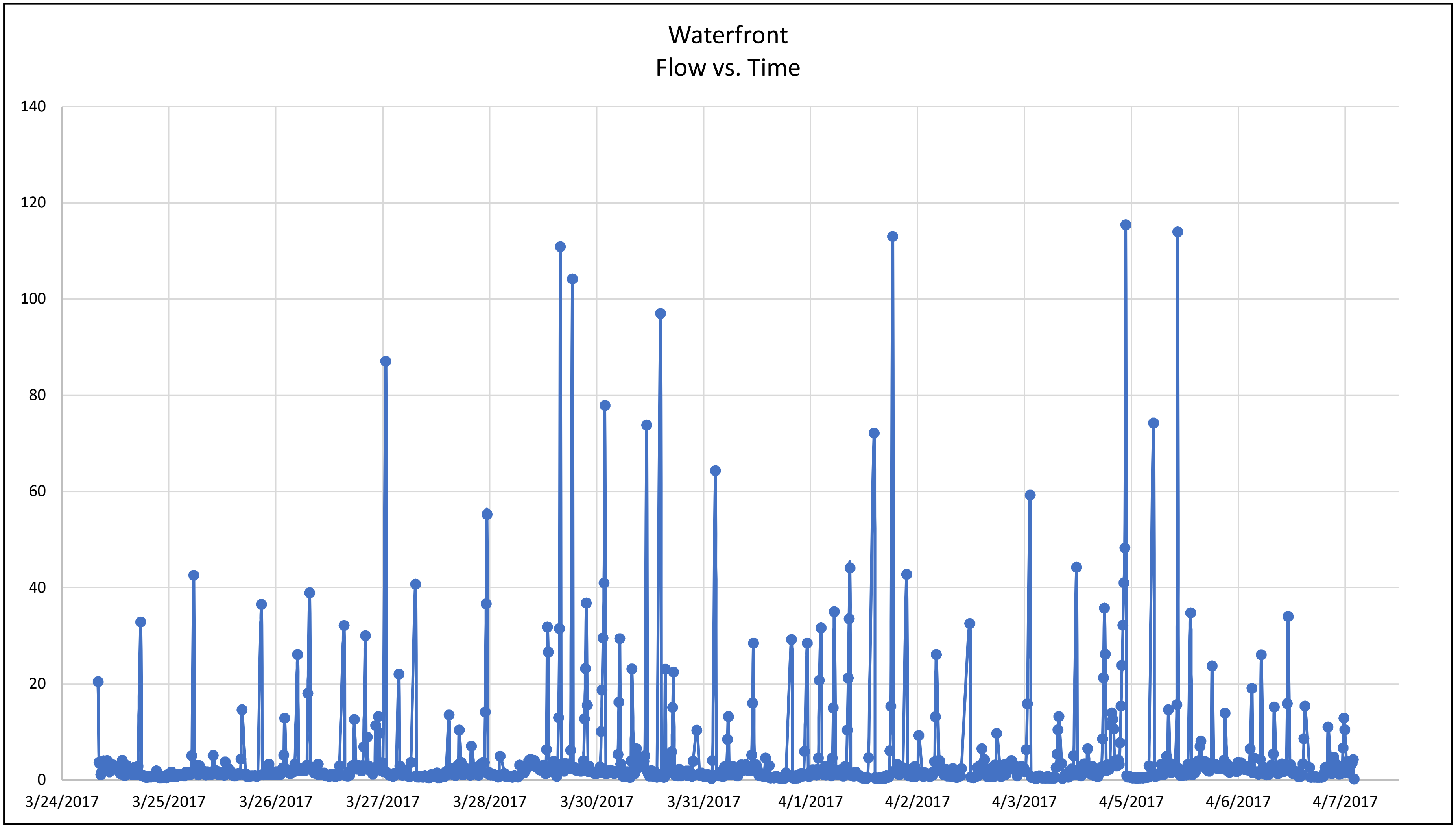
Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
4/3/2017 2:00	0.878	0.207	0.446	13.177	0.986
4/3/2017 2:15	2.426	0.286	0.712	36.39	1.4135
4/3/2017 4:30	32.531	0.46	3.055	487.966	9.37025
4/3/2017 4:45	0.604	0.182	0.379	9.06	9.10975
4/3/2017 5:00	0.619	0.182	0.385	9.291	9.045
4/3/2017 5:15	0.601	0.182	0.378	9.019	8.58875
4/3/2017 5:30	0.503	0.168	0.353	7.544	0.58175
4/3/2017 5:45	0.583	0.182	0.37	8.745	0.5765
4/3/2017 6:00	0.711	0.195	0.404	10.663	0.5995
4/3/2017 6:15	0.746	0.195	0.417	11.188	0.63575
4/3/2017 6:30	2.606	0.286	0.747	39.088	1.1615
4/3/2017 6:45	0.902	0.207	0.454	13.526	1.24125
4/3/2017 7:00	2.232	0.275	0.69	33.485	1.6215
4/3/2017 7:15	3.035	0.306	0.791	45.523	2.19375
4/3/2017 7:30	2.844	0.296	0.774	42.656	2.25325
4/3/2017 7:45	6.537	0	1.363	98.058	3.662
4/3/2017 8:30	4.242	0.334	0.934	63.634	4.1645
4/3/2017 8:45	2.424	0.286	0.712	36.357	4.01175
4/3/2017 9:00	1.13	0.219	0.508	16.945	3.58325
4/3/2017 9:15	0.719	0.195	0.407	10.792	2.12875
4/3/2017 9:30	0.735	0.195	0.412	11.018	1.252
4/3/2017 9:45	0.712	0.195	0.404	10.685	0.824
4/3/2017 10:00	1.494	0.243	0.573	22.405	0.915
4/3/2017 10:15	2.217	0.275	0.687	33.253	1.2895
4/3/2017 10:30	2.594	0.286	0.745	38.906	1.75425
4/3/2017 10:45	1.758	0.254	0.621	26.374	2.01575
4/3/2017 11:00	0.757	0.195	0.421	11.359	1.8315
4/3/2017 11:15	3.093	0.306	0.801	46.402	2.0505
4/3/2017 11:30	2.209	0.275	0.685	33.135	1.95425
4/3/2017 11:45	9.696	0	1.877	145.444	3.93875
4/3/2017 12:45	1.986	0.265	0.655	29.789	4.246
4/3/2017 13:00	0.748	0.195	0.418	11.221	3.65975
4/3/2017 13:15	0.919	0.207	0.46	13.79	3.33725
4/3/2017 13:30	3.139	0.306	0.809	47.091	1.698
4/3/2017 13:45	3.171	0.306	0.815	47.559	1.99425
4/3/2017 14:00	3.125	0.306	0.807	46.878	2.5885
4/3/2017 14:15	1.229	0.231	0.519	18.431	2.666
4/3/2017 14:30	3.357	0.315	0.829	50.348	2.7205
4/3/2017 14:45	3.222	0.306	0.824	48.335	2.73325
4/3/2017 15:00	2.883	0.296	0.781	43.24	2.67275
4/3/2017 15:15	3.413	0.315	0.838	51.197	3.21875
4/3/2017 15:30	3.379	0.315	0.833	50.687	3.22425
4/3/2017 15:45	4.064	0.099	2.08	60.966	3.43475
4/3/2017 16:30	3.13	0.306	0.808	46.949	3.4965
4/3/2017 16:45	2.767	0.296	0.76	41.505	3.335
4/3/2017 17:00	1.761	0.254	0.621	26.414	2.9305
4/3/2017 17:15	0.873	0.207	0.444	13.094	2.13275
4/3/2017 17:30	2.589	0.286	0.744	38.831	1.9975
4/3/2017 17:45	2.253	0.275	0.694	33.788	1.869
4/3/2017 18:00	2.718	0.296	0.751	40.775	2.10825
4/3/2017 18:15	2.191	0.275	0.682	32.869	2.43775
4/3/2017 18:30	2.888	0.296	0.782	43.317	2.5125
4/3/2017 18:45	2.566	0.286	0.74	38.489	2.59075
4/3/2017 19:00	2.562	0.286	0.739	38.424	2.55175
4/3/2017 19:15	1.774	0.254	0.625	26.616	2.4475
4/3/2017 19:30	1.888	0.265	0.633	28.325	2.1975
4/3/2017 19:45	6.352	0	1.442	95.283	3.144
4/3/2017 20:00	15.876	0	2.72	238.146	6.4725
4/3/2017 20:45	59.268	0.377	5.486	889.015	20.846
4/3/2017 21:00	0.748	0.195	0.418	11.225	20.561
4/3/2017 21:15	0.493	0.168	0.348	7.388	19.09625
4/3/2017 21:30	0.606	0.182	0.38	9.093	15.27875
4/3/2017 21:45	0.5	0.168	0.352	7.507	0.58675
4/3/2017 22:00	0.475	0.168	0.34	7.129	0.5185
4/3/2017 22:15	0.379	0.154	0.31	5.689	0.49
4/3/2017 22:30	0.386	0.154	0.313	5.788	0.435
4/3/2017 22:45	0.857	0.207	0.439	12.857	0.52425
4/3/2017 23:00	0.701	0.195	0.4	10.511	0.58075
4/3/2017 23:15	0.876	0.207	0.445	13.143	0.705
4/3/2017 23:30	0.632	0.182	0.39	9.473	0.7665
4/3/2017 23:45	0.463	0.168	0.334	6.938	0.668
4/4/2017 0:00	0.485	0.168	0.344	7.275	0.614
4/4/2017 0:15	0.441	0.168	0.323	6.618	0.50525
4/4/2017 0:30	0.453	0.168	0.329	6.793	0.4605
4/4/2017 0:45	0.459	0.168	0.332	6.883	0.4595
4/4/2017 1:00	0.458	0.168	0.331	6.867	0.45275
4/4/2017 1:15	0.434	0.168	0.32	6.503	0.451
4/4/2017 1:30	0.753	0.195	0.419	11.292	0.526
4/4/2017 1:45	0.479	0.168	0.341	7.18	0.531
4/4/2017 2:00	0.477	0.168	0.341	7.161	0.53575
4/4/2017 2:15	0.459	0.168	0.332	6.884	0.542
4/4/2017 2:30	0.443	0.168	0.324	6.648	0.4645
4/4/2017 2:45	0.433	0.168	0.319	6.492	0.453
4/4/2017 3:00	0.455	0.168	0.33	6.831	0.4475
4/4/2017 3:15	0.434	0.168	0.32	6.516	0.44125
4/4/2017 3:30	0.55	0.182	0.356	8.249	0.468
4/4/2017 3:45	2.59	0	1.011	38.845	1.00725
4/4/2017 4:00	5.406	0	1.671	81.096	2.245
4/4/2017 4:15	10.454	0	2.642	156.817	4.75
4/4/2017 4:30	13.226	0	3.12	198.389	7.919

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
4/4/2017 5:15	3.459	0.315	0.846	51.891	8.13625
4/4/2017 5:30	0.38	0.154	0.31	5.699	6.87975
4/4/2017 5:45	0.496	0.168	0.35	7.443	4.39025
4/4/2017 6:00	0.842	0.207	0.433	12.628	1.29425
4/4/2017 6:15	1.276	0.231	0.533	19.142	0.7485
4/4/2017 6:30	0.884	0.207	0.448	13.266	0.8745
4/4/2017 6:45	1.22	0.231	0.517	18.297	1.0555
4/4/2017 7:00	0.616	0.182	0.384	9.244	0.999
4/4/2017 7:15	1.78	0.254	0.626	26.705	1.125
4/4/2017 7:30	1.047	0.219	0.483	15.708	1.16575
4/4/2017 7:45	1.542	0.243	0.586	23.123	1.24625
4/4/2017 8:00	2.298	0.275	0.704	34.466	1.66675
4/4/2017 8:15	1.053	0.219	0.485	15.788	1.485
4/4/2017 8:30	5.047	0	1.401	75.708	2.485
4/4/2017 9:15	44.221	0.523	3.473	663.31	13.15475
4/4/2017 9:30	1.282	0.231	0.534	19.233	12.90075
4/4/2017 9:45	1.023	0.219	0.475	15.339	12.89325
4/4/2017 10:00	1.41	0.243	0.551	21.152	11.984
4/4/2017 10:15	1.076	0.219	0.492	16.147	1.19775
4/4/2017 10:30	0.877	0.207	0.445	13.15	1.0965
4/4/2017 10:45	2.024	0.265	0.663	30.361	1.34675
4/4/2017 11:00	3.092	0.306	0.801	46.376	1.76725
4/4/2017 11:15	3.363	0.315	0.83	50.439	2.339
4/4/2017 11:30	2.911	0.296	0.787	43.671	2.8475
4/4/2017 11:45	3.375	0.315	0.832	50.622	3.18525
4/4/2017 12:00	3.211	0.306	0.822	48.164	3.215
4/4/2017 12:15	6.543	0.118	2.569	98.143	4.01
4/4/2017 13:00	1.265	0.231	0.529	18.97	3.5985
4/4/2017 13:15	2.581	0.286	0.743	38.716	3.4
4/4/2017 13:30	2.871	0.296	0.779	43.067	3.315
4/4/2017 13:45	1.877	0.265	0.631	28.162	2.1485
4/4/2017 14:00	0.916	0.207	0.459	13.737	2.06125
4/4/2017 14:15	1.26	0.231	0.528	18.901	1.731
4/4/2017 14:30	0.878	0.207	0.446	13.169	1.23275
4/4/2017 14:45	2.067	0.128	1.102	30.998	1.28025
4/4/2017 15:00	0.681	0.193	0.394	10.212	1.2215
4/4/2017 15:15	1.503	0.241	0.579	22.545	1.28225
4/4/2017 15:30	1.458	0.241	0.567	21.865	1.42725
4/4/2017 15:45	2.152	0.273	0.677	32.284	1.4485
4/4/2017 16:00	2.719	0.293	0.755	40.789	1.958
4/4/2017 16:15	8.572	0	1.65	128.585	3.72525
4/4/2017 16:30	21.24	0	3.108	318.594	8.67075
4/4/2017 16:45	35.76	0	4.533	536.401	17.07275
4/4/2017 17:00	26.17	0.151	5.922	392.544	22.9355
4/4/2017 17:15	1.962	0.262	0.653	29.431	21.283
4/4/2017 17:30	3.164	0.303	0.818	47.463	16.764
4/4/2017 17:45	2.738	0.293	0.759	41.075	8.5085
4/4/2017 18:00	2.162	0.273	0.679	32.424	2.5065
4/4/2017 18:15	3.087	0.303	0.805	46.303	2.78775
4/4/2017 18:30	11.423	0.728	1.079	171.352	4.8525
4/4/2017 18:45	13.978	0	1.238	209.666	7.6625
4/4/2017 19:00	12.658	0	1.157	189.874	10.2865
4/4/2017 19:15	10.585	0	1.025	158.772	12.161
4/4/2017 19:30	4.06	0.349	0.881	60.9	10.32025
4/4/2017 19:45	3.069	0.317	0.778	46.041	7.593
4/4/2017 20:00	2.903	0.317	0.749	43.547	5.15425
4/4/2017 20:15	3.124	0.317	0.787	46.864	3.289
4/4/2017 20:30	4.221	0.349	0.905	63.311	3.32925
4/4/2017 20:45	3.277	0.328	0.795	49.157	3.38125
4/4/2017 21:00	7.773	0	1.429	116.588	4.59875
4/4/2017 21:15	15.367	0	2.288	230.508	7.6595
4/4/2017 21:30	23.881	0	3.12	358.221	12.5745
4/4/2017 21:45	32.208	0	3.868	483.117	19.80725
4/4/2017 22:00	41.026	0	4.62	615.386	28.1205
4/4/2017 22:15	48.285	0	5.222	724.278	36.35
4/4/2017 22:30	115.456	0.969	4.458	1731.84	59.24375
4/4/2017 22:45	0.951	0.222	0.449	14.269	51.4295
4/4/2017 23:00	0.631	0.195	0.372	9.47	41.33075
4/4/2017 23:15	0.741	0.209	0.396	11.116	29.44475
4/4/2017 23:30	0.757	0.209	0.401	11.35	0.77
4/4/2017 23:45	0.631	0.195	0.372	9.463	0.69
4/5/2017 0:00	0.523	0.18	0.346	7.85	0.663
4/5/2017 0:15	0.474	0.18	0.324	7.112	0.59625
4/5/2017 0:30	0.478	0.18	0.326	7.174	0.5265
4/5/2017 0:45	0.53	0.18	0.349	7.951	0.50125
4/5/2017 1:00	0.477	0.18	0.325	7.16	0.48975
4/5/2017 1:15	0.407	0.165	0.31	6.108	0.473
4/5/2017 1:30	0.411	0.165	0.312	6.166	0.45625
4/5/2017 1:45	0.475	0.18	0.324	7.128	0.4425
4/5/2017 2:00	0.475	0.18	0.324	7.129	0.442
4/5/2017 2:15	0.463	0.18	0.319	6.946	0.456
4/5/2017 2:30	0.458	0.18	0.316	6.869	0.46775
4/5/2017 2:45	0.5	0.18	0.335	7.494	0.474
4/5/2017 3:00	0.465	0.18	0.32	6.978	0.4715
4/5/2017 3:15	0.473	0.18	0.323	7.089	0.474
4/5/2017 3:30	0.527	0.18	0.347	7.9	0.49125
4/5/2017 3:45	0.491	0.18	0.331	7.364	0.489
4/5/2017 4:00	0.492	0.18	0.332	7.374	0.49575
4/5/2017 4:15	0.635	0.195	0.374	9.521	0.53625
4/5/2017 4:30	0.596	0.195	0.358	8.94	0.5535

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
4/5/2017 4:45	2.985	0.317	0.763	44.768	1.177
4/5/2017 6:00	74.23	0.468	5.527	1113.46	19.6115
4/5/2017 6:15	1.22	0.235	0.511	18.297	19.75775
4/5/2017 6:30	0.744	0.209	0.397	11.157	19.79475
4/5/2017 6:45	1.108	0.235	0.479	16.624	19.3255
4/5/2017 7:00	1.001	0.222	0.465	15.02	1.01825
4/5/2017 7:15	0.979	0.222	0.458	14.682	0.958
4/5/2017 7:30	1.344	0.248	0.526	20.166	1.108
4/5/2017 7:45	1.601	0.26	0.573	24.018	1.23125
4/5/2017 8:00	3.239	0.328	0.788	48.587	1.79075
4/5/2017 8:15	1.142	0.235	0.488	17.126	1.8315
4/5/2017 8:30	1.118	0.235	0.481	16.764	1.775
4/5/2017 8:45	1.159	0.235	0.493	17.385	1.6645
4/5/2017 9:00	2.738	0.306	0.737	41.068	1.53925
4/5/2017 9:15	3.313	0.328	0.801	49.699	2.082
4/5/2017 9:30	4.985	0.369	0.975	74.769	3.04875
4/5/2017 9:45	4.079	0.349	0.884	61.184	3.77875
4/5/2017 10:00	14.631	0.746	1.256	219.459	6.752
4/5/2017 10:30	3.422	0.328	0.818	51.334	6.77925
4/5/2017 10:45	1.547	0.26	0.56	23.198	5.91975
4/5/2017 11:00	2.364	0.295	0.684	35.455	5.491
4/5/2017 11:15	3.041	0.317	0.773	45.61	2.5935
4/5/2017 11:30	2.908	0.317	0.75	43.62	2.465
4/5/2017 11:45	2.634	0.306	0.718	39.507	2.73675
4/5/2017 12:15	15.679	0.145	4.14	235.178	6.0655
4/5/2017 12:30	113.973	0.871	4.777	1709.59	33.7985
4/5/2017 12:45	2.427	0.295	0.697	36.405	33.67825
4/5/2017 13:00	1.156	0.235	0.493	17.342	33.30875
4/5/2017 13:15	0.926	0.222	0.441	13.891	29.6205
4/5/2017 13:30	1.026	0.222	0.472	15.388	1.38375
4/5/2017 13:45	0.954	0.222	0.45	14.31	1.0155
4/5/2017 14:00	1.102	0.235	0.477	16.534	1.002
4/5/2017 14:15	2.035	0.284	0.635	30.521	1.27925
4/5/2017 14:30	1.518	0.26	0.553	22.771	1.40225
4/5/2017 14:45	1.025	0.222	0.472	15.37	1.42
4/5/2017 15:00	2.592	0.306	0.71	38.881	1.7925
4/5/2017 15:15	3.266	0.176	1.211	48.988	2.10025
4/5/2017 16:00	34.765	0.379	3.682	521.478	10.412
4/5/2017 16:15	2.306	0.293	0.677	34.595	10.73225
4/5/2017 16:30	1.13	0.233	0.488	16.949	10.36675
4/5/2017 16:45	1.74	0.27	0.591	26.107	9.98525
4/5/2017 17:00	2.271	0.293	0.67	34.066	1.86175
4/5/2017 17:15	1.596	0.258	0.575	23.944	1.68425
4/5/2017 17:30	2.899	0.315	0.752	43.483	2.1265
4/5/2017 17:45	3.418	0.325	0.822	51.265	2.546
4/5/2017 18:00	3.999	0.346	0.877	59.979	2.978
4/5/2017 18:15	4.041	0.346	0.883	60.618	3.58925
4/5/2017 18:30	6.977	0.278	1.487	104.66	4.60875
4/5/2017 18:45	8.102	0.093	3.553	121.527	5.77975
4/5/2017 19:15	3.266	0.325	0.797	48.996	5.5965
4/5/2017 19:30	2.896	0.315	0.752	43.435	5.31025
4/5/2017 19:45	3.926	0.346	0.866	58.893	4.5475
4/5/2017 20:00	2.899	0.315	0.752	43.484	3.24675
4/5/2017 20:15	2.285	0.293	0.673	34.278	3.0015
4/5/2017 20:30	2.315	0.293	0.678	34.723	2.85625
4/5/2017 20:45	1.888	0.27	0.625	28.315	2.34675
4/5/2017 21:00	1.857	0.27	0.618	27.859	2.08625
4/5/2017 21:15	3.387	0.325	0.817	50.807	2.36175
4/5/2017 21:30	3.28	0.325	0.8	49.197	2.603
4/5/2017 21:45	23.744	0	3.126	356.161	8.067
4/5/2017 22:15	3.012	0.315	0.772	45.178	8.35575
4/5/2017 22:30	3.312	0.325	0.805	49.684	8.337
4/5/2017 22:45	2.74	0.304	0.741	41.099	8.202
4/5/2017 23:00	2.454	0.293	0.706	36.81	2.8795
4/5/2017 23:15	2.701	0.304	0.734	40.51	2.80175
4/5/2017 23:30	2.347	0.293	0.685	35.204	2.5605
4/5/2017 23:45	2.335	0.293	0.682	35.021	2.45925
4/6/2017 0:00	2.46	0.293	0.707	36.906	2.46075
4/6/2017 0:15	2.744	0.304	0.742	41.168	2.4715
4/6/2017 0:30	2.347	0.293	0.685	35.206	2.4715
4/6/2017 0:45	2.72	0.304	0.738	40.797	2.56775
4/6/2017 1:00	4.166	0.198	1.316	62.496	2.99425
4/6/2017 1:15	13.919	0	3.039	208.781	5.788
4/6/2017 1:45	3.369	0.325	0.814	50.533	6.0435
4/6/2017 2:00	1.872	0.27	0.621	28.077	5.8315
4/6/2017 2:15	1.737	0.27	0.591	26.055	5.22425
4/6/2017 2:30	1.623	0.258	0.582	24.349	2.15025
4/6/2017 2:45	1.825	0.27	0.611	27.379	1.76425
4/6/2017 3:00	2.133	0.281	0.659	31.991	1.8295
4/6/2017 3:15	2.672	0.304	0.729	40.076	2.06325
4/6/2017 3:30	2.431	0.293	0.701	36.461	2.26525
4/6/2017 3:45	2.354	0.293	0.686	35.306	2.3975
4/6/2017 4:00	1.899	0.27	0.627	28.486	2.339
4/6/2017 4:15	1.746	0.27	0.593	26.184	2.1075
4/6/2017 4:30	1.784	0.27	0.601	26.753	1.94575
4/6/2017 4:45	3.69	0.101	1.93	55.354	2.27975
4/6/2017 5:30	3.639	0.336	0.84	54.587	2.71475
4/6/2017 5:45	2.652	0.304	0.725	39.774	2.94125
4/6/2017 6:00	2.899	0.315	0.752	43.482	3.22
4/6/2017 6:15	2.565	0.304	0.709	38.479	2.93875

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
4/6/2017 6:30	2.179	0.281	0.669	32.689	2.57375
4/6/2017 6:45	2.692	0.304	0.733	40.376	2.58375
4/6/2017 7:00	2.892	0.315	0.751	43.38	2.582
4/6/2017 7:15	2.091	0.281	0.651	31.364	2.4635
4/6/2017 7:30	2.38	0.293	0.691	35.7	2.51375
4/6/2017 7:45	2.892	0.315	0.751	43.387	2.56375
4/6/2017 8:00	6.51	0.137	2.306	97.643	3.46825
4/6/2017 8:30	19.072	0.227	3.453	286.076	7.7135
4/6/2017 8:45	1.514	0.258	0.555	22.708	7.497
4/6/2017 9:00	4.566	0.356	0.941	68.491	7.9155
4/6/2017 9:15	1.627	0.258	0.582	24.4	6.69475
4/6/2017 9:30	1.587	0.258	0.573	23.808	2.3235
4/6/2017 9:45	1.756	0.27	0.595	26.34	2.384
4/6/2017 10:00	1.611	0.258	0.579	24.164	1.64525
4/6/2017 10:15	1.213	0.233	0.512	18.195	1.54175
4/6/2017 10:30	1.428	0.246	0.551	21.419	1.502
4/6/2017 10:45	4.277	0.311	0.986	64.148	2.13225
4/6/2017 11:00	26.027	0	3.446	390.4	8.23625
4/6/2017 11:30	2.8	0.306	0.749	41.993	8.633
4/6/2017 11:45	1.385	0.239	0.55	20.77	8.62225
4/6/2017 12:00	1.357	0.239	0.543	20.351	7.89225
4/6/2017 12:15	2.08	0.273	0.661	31.199	1.9055
4/6/2017 12:30	1.1	0.227	0.489	16.506	1.4805
4/6/2017 12:45	1.138	0.227	0.5	17.064	1.41875
4/6/2017 13:00	1.176	0.227	0.511	17.645	1.3735
4/6/2017 13:15	1.491	0.251	0.56	22.372	1.22625
4/6/2017 13:30	2.85	0.306	0.758	42.755	1.66375
4/6/2017 13:45	3.136	0.316	0.791	47.035	2.16325
4/6/2017 14:00	2.825	0.306	0.754	42.373	2.5755
4/6/2017 14:15	5.423	0.164	1.795	81.351	3.5585
4/6/2017 14:30	15.196	0	3.704	227.933	6.645
4/6/2017 15:00	2.825	0.306	0.754	42.377	6.56725
4/6/2017 15:15	2.635	0.295	0.736	39.526	6.51975
4/6/2017 15:30	1.326	0.239	0.535	19.892	5.4955
4/6/2017 15:45	1.536	0.251	0.571	23.035	2.0805
4/6/2017 16:00	1.695	0.262	0.592	25.421	1.798
4/6/2017 16:15	1.708	0.262	0.595	25.624	1.56625
4/6/2017 16:30	3.341	0.316	0.826	50.111	2.07
4/6/2017 16:45	2.514	0.295	0.713	37.705	2.3145
4/6/2017 17:00	1.761	0.262	0.608	26.42	2.331
4/6/2017 17:15	2.867	0.306	0.761	42.998	2.62075
4/6/2017 17:30	3.229	0.316	0.807	48.439	2.59275
4/6/2017 17:45	2.877	0.306	0.763	43.152	2.6835
4/6/2017 18:00	15.925	0	2.464	238.872	6.2245
4/6/2017 18:15	34.01	0	4.237	510.146	14.01025
4/6/2017 18:45	2.888	0.306	0.765	43.315	13.925
4/6/2017 19:00	3.182	0.316	0.799	47.724	14.00125
4/6/2017 19:15	1.796	0.262	0.616	26.942	10.469
4/6/2017 19:30	1.371	0.239	0.547	20.562	2.30925
4/6/2017 19:45	1.467	0.251	0.554	22.008	1.954
4/6/2017 20:00	1.379	0.239	0.549	20.681	1.50325
4/6/2017 20:15	1.803	0.262	0.618	27.048	1.505
4/6/2017 20:30	1.507	0.251	0.564	22.612	1.539
4/6/2017 20:45	1.333	0.239	0.536	19.988	1.5055
4/6/2017 21:00	0.731	0.201	0.402	10.964	1.3435
4/6/2017 21:15	1.116	0.227	0.493	16.745	1.17175
4/6/2017 21:30	0.748	0.201	0.408	11.214	0.982
4/6/2017 21:45	1.11	0.227	0.491	16.652	0.92625
4/6/2017 22:00	1.094	0.227	0.487	16.406	1.017
4/6/2017 22:15	3.347	0.316	0.827	50.202	1.57475
4/6/2017 22:30	8.608	0	1.573	129.116	3.53975
4/6/2017 22:45	15.388	0	2.35	230.826	7.10925
4/7/2017 0:00	2.585	0.295	0.727	38.769	7.482
4/7/2017 0:15	0.618	0.188	0.376	9.268	6.79975
4/7/2017 0:30	0.626	0.188	0.379	9.384	4.80425
4/7/2017 0:45	0.92	0.214	0.45	13.807	1.18725
4/7/2017 1:00	0.634	0.188	0.383	9.504	0.6995
4/7/2017 1:15	0.617	0.188	0.376	9.258	0.69925
4/7/2017 1:30	0.743	0.201	0.407	11.145	0.7285
4/7/2017 1:45	0.612	0.188	0.374	9.177	0.6515
4/7/2017 2:00	0.59	0.188	0.365	8.847	0.6405
4/7/2017 2:15	0.597	0.188	0.368	8.962	0.6355
4/7/2017 2:30	0.622	0.188	0.378	9.334	0.60525
4/7/2017 2:45	0.593	0.188	0.366	8.898	0.6005
4/7/2017 3:00	0.658	0.188	0.393	9.868	0.6175
4/7/2017 3:15	0.611	0.188	0.373	9.16	0.621
4/7/2017 3:30	0.638	0.188	0.384	9.566	0.625
4/7/2017 3:45	0.785	0.201	0.422	11.779	0.673
4/7/2017 4:00	1.473	0.251	0.556	22.097	0.87675
4/7/2017 4:15	2.583	0.295	0.727	38.752	1.36975
4/7/2017 4:30	2.671	0.295	0.743	40.066	1.878
4/7/2017 4:45	2.383	0.284	0.705	35.74	2.2775
4/7/2017 5:00	11.024	0	2.005	165.367	4.66525
4/7/2017 5:45	2.981	0.306	0.782	44.711	4.76475
4/7/2017 6:00	1.293	0.239	0.526	19.398	4.42025
4/7/2017 6:15	2.089	0.273	0.663	31.333	4.34675
4/7/2017 6:30	4.772	0.355	0.971	71.583	2.78375
4/7/2017 6:45	3.631	0.326	0.855	54.466	2.94625
4/7/2017 7:00	1.841	0.262	0.626	27.616	3.08325
4/7/2017 7:15	2.083	0.273	0.662	31.244	3.08175

Site Name	TFalls-12in	TFalls-12in	TFalls-12in	TFalls-12in-Waters Edge	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
4/7/2017 7:30	2.002	0.273	0.644	30.037	2.38925
4/7/2017 7:45	2.89	0.306	0.766	43.354	2.204
4/7/2017 8:00	1.276	0.239	0.521	19.134	2.06275
4/7/2017 8:15	1.557	0.251	0.577	23.359	1.93125
4/7/2017 8:30	1.322	0.239	0.534	19.829	1.76125
4/7/2017 8:45	1.969	0.273	0.637	29.539	1.531
4/7/2017 9:00	6.65	0.248	1.557	99.743	2.8745
4/7/2017 9:15	12.87	0.691	1.212	193.05	5.70275
4/7/2017 9:30	10.455	0.616	1.138	156.825	7.986
4/7/2017 10:00	3.86	0.359	0.836	57.903	8.45875
4/7/2017 10:15	2.849	0.325	0.728	42.728	7.5085
4/7/2017 10:30	1.46	0.263	0.535	21.906	4.656
4/7/2017 10:45	3.079	0.336	0.749	46.191	2.812
4/7/2017 11:00	3.162	0.336	0.763	47.424	2.6375
4/7/2017 11:15	3.278	0.336	0.781	49.168	2.74475
4/7/2017 11:30	3.534	0.348	0.804	53.016	3.26325
4/7/2017 11:45	4.238	0.37	0.872	63.571	3.553
4/7/2017 12:00	0.221	0.14	0.23	3.316	2.81775


Waterfront
Flow vs. Time
140
120
100
80
60
40
20
0
3/24/2017
3/25/2017
3/26/2017
3/27/2017
3/28/2017
3/30/2017
3/31/2017
4/1/2017
4/2/2017
4/3/2017
4/5/2017
4/6/2017
4/7/2017

Site Name	Thompson	Thompson	Thompson	Thompson Falls-8 inch Maiden-Mill	
Isco Quantity	Flow Rate	Velocity	Level	Volume	
Label	Flow Rate	Velocity	Level	Total Flow	max hr
Units	gpm	ft/s	in	gal	gpm
Resolution	0.1	0.1	0.1	0.1	
Significant Digits	0	0	0	0	
3/24/2017 11:00	18.48	0.718	2.976	216.752	
3/24/2017 11:15	55.042	0.867	3.375	591.35	
3/24/2017 11:30	39.81	0.637	3.361	597.152	
3/24/2017 11:45	37.463	0.63	3.238	561.939	37.69875
3/24/2017 12:00	36.953	0.623	3.233	554.289	42.317
3/24/2017 12:15	41.008	0.667	3.321	615.114	38.8085
3/24/2017 12:30	43.571	0.702	3.343	653.572	39.74875
3/24/2017 12:45	41.613	0.671	3.342	624.188	40.78625
3/24/2017 13:00	41.979	0.679	3.335	629.681	42.04275
3/24/2017 13:15	41.363	0.654	3.394	620.449	42.1315
3/24/2017 13:30	43.686	0.685	3.414	655.293	42.16025
3/24/2017 13:45	42.092	0.67	3.376	631.381	42.28
3/24/2017 14:00	42.287	0.668	3.394	634.303	42.357
3/24/2017 14:15	39.617	0.64	3.338	594.251	41.9205
3/24/2017 14:30	41.731	0.666	3.37	625.965	41.43175
3/24/2017 14:45	43.479	0.686	3.398	652.183	41.7785
3/24/2017 15:00	46.29	0.687	3.561	694.35	42.77925
3/24/2017 15:15	42.28	0.653	3.453	634.205	43.445
3/24/2017 15:30	38.862	0.627	3.343	582.933	42.72775
3/24/2017 15:45	43.82	0.686	3.417	657.303	42.813
3/24/2017 16:00	42.34	0.658	3.436	635.105	41.8255
3/24/2017 16:15	47.597	0.706	3.561	713.948	43.15475
3/24/2017 16:30	40.721	0.674	3.278	610.817	43.6195
3/24/2017 16:45	40.747	0.67	3.294	611.204	42.85125
3/24/2017 17:00	43.981	0.696	3.389	659.709	43.2615
3/24/2017 17:15	43.546	0.706	3.33	653.184	42.24875
3/24/2017 17:30	42.376	0.674	3.375	635.636	42.6625
3/24/2017 17:45	39.673	0.654	3.286	595.1	42.394
3/24/2017 18:00	42.045	0.688	3.304	630.67	41.91
3/24/2017 18:15	42.533	0.711	3.253	637.988	41.65675
3/24/2017 18:30	38.252	0.651	3.209	573.78	40.62575
3/24/2017 18:45	39.999	0.668	3.254	599.991	40.70725
3/24/2017 19:00	40.754	0.688	3.228	611.311	40.3845
3/24/2017 19:15	38.49	0.635	3.284	577.352	39.37375
3/24/2017 19:30	38.551	0.632	3.3	578.267	39.4485
3/24/2017 19:45	38.311	0.63	3.294	574.663	39.0265
3/24/2017 20:00	38.176	0.634	3.27	572.64	38.382
3/24/2017 20:15	41.229	0.689	3.255	618.435	39.06675
3/24/2017 20:30	47.832	0.773	3.336	717.484	41.387
3/24/2017 20:45	38.265	0.661	3.175	573.972	41.3755
3/24/2017 21:00	37.755	0.661	3.142	566.321	41.27025
3/24/2017 21:15	37.799	0.643	3.21	566.988	40.41275
3/24/2017 21:30	38.339	0.65	3.219	575.086	38.0395
3/24/2017 21:45	44.002	0.732	3.264	660.026	39.47375
3/24/2017 22:00	42.314	0.693	3.303	634.714	40.6135
3/24/2017 22:15	37.513	0.63	3.243	562.699	40.542
3/24/2017 22:30	36.822	0.659	3.09	552.325	40.16275
3/24/2017 22:45	34.441	0.625	3.058	516.608	37.7725
3/24/2017 23:00	32.926	0.62	2.978	493.892	35.4255
3/24/2017 23:15	33.79	0.615	3.052	506.856	34.49475
3/24/2017 23:30	34.307	0.601	3.142	514.607	33.866
3/24/2017 23:45	36.988	0.641	3.168	554.821	34.50275
3/25/2017 0:00	33.46	0.594	3.11	501.901	34.63625
3/25/2017 0:15	32.416	0.578	3.101	486.242	34.29275
3/25/2017 0:30	36.023	0.643	3.098	540.347	34.72175
3/25/2017 0:45	43.535	0.774	3.106	653.03	36.3585
3/25/2017 1:00	32.712	0.575	3.131	490.675	36.1715
3/25/2017 1:15	32.476	0.564	3.161	487.147	36.1865
3/25/2017 1:30	33.492	0.583	3.155	502.386	35.55375
3/25/2017 1:45	38.405	0.625	3.319	576.076	34.27125
3/25/2017 2:00	34.572	0.577	3.256	518.579	34.73625
3/25/2017 2:15	35.021	0.639	3.046	525.313	35.3725
3/25/2017 2:30	34.451	0.622	3.073	516.763	35.61225
3/25/2017 2:45	34.637	0.61	3.127	519.549	34.67025
3/25/2017 3:00	35.984	0.641	3.104	539.755	35.02325
3/25/2017 3:15	33.744	0.609	3.073	506.158	34.704
3/25/2017 3:30	34.411	0.623	3.064	516.169	34.694
3/25/2017 3:45	35.087	0.628	3.091	526.305	34.8065
3/25/2017 4:00	37.427	0.656	3.139	561.403	35.16725
3/25/2017 4:15	36.599	0.642	3.14	548.991	35.881
3/25/2017 4:30	32.169	0.596	3.012	482.535	35.3205
3/25/2017 4:45	30.549	0.564	3.02	458.24	34.186
3/25/2017 5:00	29.553	0.559	2.968	443.293	32.2175
3/25/2017 5:15	42.55	0.708	3.265	638.251	33.70525
3/25/2017 5:30	39.726	0.678	3.204	595.893	35.5945
3/25/2017 5:45	35.129	0.611	3.158	526.94	36.7395
3/25/2017 6:00	38.718	0.664	3.193	580.771	39.03075
3/25/2017 6:15	39.603	0.679	3.19	594.045	38.294
3/25/2017 6:30	47.263	0.78	3.285	708.945	40.17825
3/25/2017 6:45	37.053	0.63	3.211	555.792	40.65925
3/25/2017 7:00	36.429	0.625	3.189	546.44	40.087
3/25/2017 7:15	34.89	0.612	3.136	523.349	38.90875
3/25/2017 7:30	41.473	0.7	3.23	622.097	37.46125
3/25/2017 7:45	41.163	0.667	3.332	617.438	38.48875
3/25/2017 8:00	43.286	0.702	3.329	649.292	40.203
3/25/2017 8:15	41.633	0.705	3.223	624.49	41.88875

Daily Flow (gpm)			
Date	Minimum	Average	Maximum
24-Mar	18.48	40.27	55.04
25-Mar	29.40	37.68	47.26
26-Mar	24.37	31.78	49.35
27-Mar	19.08	29.76	63.62
28-Mar	15.47	28.48	40.66
29-Mar	19.06	29.81	43.23
30-Mar	19.63	29.84	44.91
31-Mar	17.12	31.08	54.98
1-Apr	18.79	29.81	43.64
2-Apr	16.29	28.11	40.37
3-Apr	14.33	27.10	48.48
4-Apr	15.31	26.70	40.56
5-Apr	14.26	32.67	71.57
6-Apr	20.53	33.52	52.70
7-Apr	18.25	33.49	80.13

3/25/2017 8:30	40.804	0.69	3.224	612.056	41.7215
3/25/2017 8:45	37.802	0.651	3.182	567.024	40.88125
3/25/2017 9:00	41.95	0.703	3.248	629.247	40.54725
3/25/2017 9:15	43.249	0.731	3.225	648.739	40.95125
3/25/2017 9:30	39.366	0.673	3.198	590.488	40.59175
3/25/2017 9:45	40.937	0.688	3.241	614.052	41.3755
3/25/2017 10:00	42.448	0.69	3.323	636.717	41.5
3/25/2017 10:15	38.229	0.645	3.23	573.435	40.245
3/25/2017 10:30	45.494	0.742	3.315	682.414	41.777
3/25/2017 10:45	38.095	0.661	3.163	571.432	41.0665
3/25/2017 11:00	40.164	0.686	3.203	602.464	40.4955
3/25/2017 11:15	42.867	0.724	3.229	643.008	41.655
3/25/2017 11:30	39.871	0.693	3.159	598.06	40.24925
3/25/2017 11:45	32.484	0.592	3.052	487.266	38.8465
3/25/2017 12:00	43.456	0.727	3.251	651.837	39.6695
3/25/2017 12:15	42.583	0.728	3.198	638.746	39.5985
3/25/2017 12:30	34.371	0.628	3.044	515.558	38.2235
3/25/2017 12:45	37.746	0.668	3.116	566.183	39.539
3/25/2017 13:00	37.551	0.662	3.127	563.272	38.06275
3/25/2017 13:15	40.843	0.701	3.191	612.643	37.62775
3/25/2017 13:30	39.198	0.69	3.13	587.963	38.8345
3/25/2017 13:45	35.526	0.658	3.014	532.887	38.2795
3/25/2017 14:00	44.135	0.747	3.224	662.032	39.9255
3/25/2017 14:15	42.138	0.723	3.19	632.066	40.24925
3/25/2017 14:30	40.584	0.685	3.23	608.755	40.59575
3/25/2017 14:45	43.374	0.712	3.297	650.617	42.55775
3/25/2017 15:00	41.977	0.695	3.276	629.649	42.01825
3/25/2017 15:15	35.999	0.652	3.065	539.983	40.4835
3/25/2017 15:30	37.958	0.655	3.176	569.367	39.827
3/25/2017 15:45	37.299	0.634	3.213	559.478	38.30825
3/25/2017 16:00	39.413	0.66	3.249	591.197	37.66725
3/25/2017 16:15	37.317	0.63	3.228	559.759	37.99675
3/25/2017 16:30	40.371	0.664	3.292	605.563	38.6
3/25/2017 16:45	43.162	0.697	3.338	647.426	40.06575
3/25/2017 17:00	42.786	0.697	3.319	641.79	40.909
3/25/2017 17:15	38.207	0.65	3.209	573.102	41.1315
3/25/2017 17:30	41.799	0.682	3.313	626.991	41.4885
3/25/2017 17:45	40.733	0.692	3.214	611.002	40.88125
3/25/2017 18:00	39.33	0.66	3.244	589.953	40.01725
3/25/2017 18:15	35.929	0.627	3.149	538.94	39.44775
3/25/2017 18:30	39.48	0.686	3.16	592.193	38.868
3/25/2017 18:45	34.862	0.607	3.156	522.937	37.40025
3/25/2017 19:00	38.306	0.663	3.169	574.591	37.14425
3/25/2017 19:15	34.208	0.608	3.106	513.122	36.714
3/25/2017 19:30	43.754	0.727	3.269	656.313	37.7825
3/25/2017 19:45	44.276	0.728	3.293	664.136	40.136
3/25/2017 20:00	36.331	0.647	3.102	544.958	39.64225
3/25/2017 20:15	34.391	0.651	2.964	515.858	39.688
3/25/2017 20:30	37.845	0.694	3.035	567.676	38.21075
3/25/2017 20:45	36.467	0.67	3.03	547.005	36.2585
3/25/2017 21:00	35.104	0.651	3.011	526.554	35.95175
3/25/2017 21:15	35.446	0.66	3.002	531.694	36.2155
3/25/2017 21:30	35.777	0.661	3.021	536.657	35.6985
3/25/2017 21:45	32.806	0.624	2.955	492.083	34.78325
3/25/2017 22:00	32.95	0.62	2.979	494.255	34.24475
3/25/2017 22:15	33.499	0.636	2.959	502.489	33.758
3/25/2017 22:30	33.492	0.634	2.965	502.387	33.18675
3/25/2017 22:45	32.591	0.619	2.958	488.868	33.133
3/25/2017 23:00	31.658	0.618	2.899	474.864	32.81
3/25/2017 23:15	30.067	0.582	2.917	450.998	31.952
3/25/2017 23:30	29.404	0.571	2.911	441.067	30.93
3/25/2017 23:45	31.556	0.608	2.925	473.347	30.67125
3/26/2017 0:00	31.658	0.618	2.898	474.875	30.67125
3/26/2017 0:15	30.307	0.608	2.841	454.6	30.73125
3/26/2017 0:30	31.14	0.623	2.847	467.095	31.16525
3/26/2017 0:45	28.149	0.572	2.813	422.238	30.3135
3/26/2017 1:00	30.514	0.602	2.875	457.711	30.0275
3/26/2017 1:15	31.763	0.63	2.864	476.445	30.3915
3/26/2017 1:30	30.295	0.613	2.822	454.432	30.18025
3/26/2017 1:45	33.866	0.656	2.915	507.992	31.6095
3/26/2017 2:00	27.991	0.579	2.778	419.866	30.97875
3/26/2017 2:15	26.871	0.559	2.766	403.062	29.75575
3/26/2017 2:30	28.112	0.575	2.801	421.68	29.21
3/26/2017 2:45	27.9	0.574	2.79	418.497	27.7185
3/26/2017 3:00	27.262	0.56	2.793	408.927	27.53625
3/26/2017 3:15	26.373	0.547	2.771	395.601	27.41175
3/26/2017 3:30	27.69	0.569	2.79	415.344	27.30625
3/26/2017 3:45	30.67	0.612	2.853	460.043	27.99875
3/26/2017 4:00	30.742	0.612	2.858	461.136	28.86875
3/26/2017 4:15	30.146	0.605	2.841	452.195	29.812
3/26/2017 4:30	28.597	0.591	2.781	428.954	30.03875
3/26/2017 4:45	27.941	0.572	2.798	419.117	29.3565
3/26/2017 5:00	29.242	0.601	2.792	438.624	28.9815
3/26/2017 5:15	30.247	0.607	2.842	453.706	29.00675
3/26/2017 5:30	31.092	0.631	2.818	466.378	29.6305
3/26/2017 5:45	29.198	0.593	2.814	437.963	29.94475
3/26/2017 6:00	30.119	0.606	2.833	451.784	30.164
3/26/2017 6:15	42.572	0.764	3.084	638.578	33.24525
3/26/2017 6:30	36.072	0.693	2.933	541.083	34.49025
3/26/2017 6:45	34.668	0.663	2.944	520.016	35.85775
3/26/2017 7:00	29.702	0.607	2.803	445.528	35.7535
3/26/2017 7:15	29.711	0.605	2.812	445.66	32.53825
3/26/2017 7:30	28.009	0.557	2.861	420.139	30.5225
3/26/2017 7:45	35.995	0.68	2.969	539.93	30.85425

3/26/2017 8:00	39.605	0.726	3.037	594.078	33.33
3/26/2017 8:15	29.428	0.596	2.822	441.422	33.25925
3/26/2017 8:30	30.377	0.608	2.847	455.653	33.85125
3/26/2017 8:45	35.605	0.653	3.036	534.072	33.75375
3/26/2017 9:00	35.332	0.646	3.043	529.983	32.6855
3/26/2017 9:15	36.509	0.66	3.068	547.635	34.45575
3/26/2017 9:30	37.079	0.708	2.948	556.191	36.13125
3/26/2017 9:45	31.006	0.625	2.832	465.085	34.9815
3/26/2017 10:00	32.426	0.64	2.876	486.386	34.255
3/26/2017 10:15	30.856	0.626	2.819	462.835	32.84175
3/26/2017 10:30	35.827	0.685	2.944	537.404	32.52875
3/26/2017 10:45	32.912	0.657	2.853	493.686	33.00525
3/26/2017 11:00	34.451	0.673	2.899	516.758	33.5115
3/26/2017 11:15	32.703	0.659	2.83	490.552	33.97325
3/26/2017 11:30	34.423	0.677	2.883	516.346	33.62225
3/26/2017 11:45	35.633	0.677	2.957	534.492	34.3025
3/26/2017 12:00	33.297	0.666	2.846	499.46	34.014
3/26/2017 12:15	34.492	0.674	2.898	517.374	34.46125
3/26/2017 12:30	34.687	0.674	2.909	520.304	34.52725
3/26/2017 12:45	33.773	0.665	2.88	506.598	34.06225
3/26/2017 13:00	33.435	0.657	2.885	501.528	34.09675
3/26/2017 13:15	39.197	0.663	3.224	587.951	35.273
3/26/2017 13:30	32.542	0.626	2.931	488.136	34.73675
3/26/2017 13:45	31.262	0.61	2.9	468.936	34.109
3/26/2017 14:00	33.085	0.631	2.949	496.273	34.0215
3/26/2017 14:15	34.47	0.667	2.919	517.055	32.83975
3/26/2017 14:30	32.203	0.649	2.831	483.043	32.755
3/26/2017 14:45	35.065	0.68	2.913	525.972	33.70575
3/26/2017 15:00	49.351	0.832	3.232	740.271	37.77225
3/26/2017 15:15	43.568	0.795	3.047	653.518	40.04675
3/26/2017 15:30	29.925	0.618	2.781	448.869	39.47725
3/26/2017 15:45	31.121	0.645	2.773	466.822	38.49125
3/26/2017 16:00	38.148	0.731	2.94	572.227	35.6905
3/26/2017 16:15	28.64	0.608	2.724	429.607	31.9585
3/26/2017 16:30	25.836	0.555	2.704	387.535	30.93625
3/26/2017 16:45	33.949	0.679	2.848	509.24	31.64325
3/26/2017 17:00	34.992	0.679	2.911	524.874	30.85425
3/26/2017 17:15	29.193	0.609	2.761	437.898	30.9925
3/26/2017 17:30	29.388	0.626	2.72	440.817	31.8805
3/26/2017 17:45	31.377	0.652	2.768	470.658	31.2375
3/26/2017 18:00	35.773	0.675	2.972	536.597	31.43275
3/26/2017 18:15	28.247	0.568	2.838	423.7	31.19625
3/26/2017 18:30	41.126	0.747	3.059	616.889	34.13075
3/26/2017 18:45	35.221	0.673	2.945	528.311	35.09175
3/26/2017 19:00	33.611	0.654	2.904	504.172	34.55125
3/26/2017 19:15	31.308	0.617	2.878	469.615	35.3165
3/26/2017 19:30	28.997	0.597	2.789	434.954	32.28425
3/26/2017 19:45	27.461	0.569	2.775	411.916	30.34425
3/26/2017 20:00	29.681	0.591	2.857	445.211	29.36175
3/26/2017 20:15	28.881	0.601	2.766	433.218	28.755
3/26/2017 20:30	28.414	0.587	2.78	426.212	28.60925
3/26/2017 20:45	30.591	0.607	2.863	458.87	29.39175
3/26/2017 21:00	31.285	0.631	2.83	469.27	29.79275
3/26/2017 21:15	28.645	0.6	2.754	429.68	29.73375
3/26/2017 21:30	28.283	0.603	2.717	424.245	29.701
3/26/2017 21:45	34.771	0.701	2.831	521.56	30.746
3/26/2017 22:00	29.945	0.626	2.757	449.172	30.411
3/26/2017 22:15	29.078	0.627	2.696	436.168	30.51925
3/26/2017 22:30	27.203	0.57	2.753	408.05	30.24925
3/26/2017 22:45	28.331	0.592	2.757	424.969	28.63925
3/26/2017 23:00	25.726	0.547	2.724	385.894	27.5845
3/26/2017 23:15	24.566	0.527	2.707	368.495	26.4565
3/26/2017 23:30	24.374	0.517	2.726	365.604	25.74925
3/26/2017 23:45	27.333	0.56	2.797	410	25.49975
3/27/2017 0:00	22.252	0.491	2.651	333.786	24.63125
3/27/2017 0:15	25.737	0.551	2.708	386.056	24.924
3/27/2017 0:30	24.274	0.532	2.664	364.113	24.899
3/27/2017 0:45	24.065	0.529	2.655	360.972	24.082
3/27/2017 1:00	27.647	0.59	2.714	414.706	25.43075
3/27/2017 1:15	24.538	0.531	2.687	368.07	25.131
3/27/2017 1:30	22.083	0.484	2.663	331.247	24.58325
3/27/2017 1:45	24.304	0.533	2.663	364.561	24.643
3/27/2017 2:00	24.365	0.523	2.702	365.481	23.8225
3/27/2017 2:15	22.225	0.483	2.678	333.372	23.24425
3/27/2017 2:30	21.234	0.474	2.629	318.517	23.032
3/27/2017 2:45	23.278	0.509	2.666	349.168	22.7755
3/27/2017 3:00	22.943	0.503	2.663	344.147	22.42
3/27/2017 3:15	23.199	0.503	2.683	347.978	22.6635
3/27/2017 3:30	21.765	0.486	2.626	326.469	22.79625
3/27/2017 3:45	21.983	0.489	2.634	329.75	22.4725
3/27/2017 4:00	22.385	0.492	2.657	335.775	22.333
3/27/2017 4:15	23.046	0.502	2.674	345.694	22.29475
3/27/2017 4:30	23.834	0.525	2.654	357.513	22.812
3/27/2017 4:45	21.26	0.486	2.582	318.896	22.63125
3/27/2017 5:00	22.035	0.507	2.572	330.529	22.54375
3/27/2017 5:15	32.605	0.712	2.671	489.069	24.9335
3/27/2017 5:30	27.727	0.601	2.683	415.907	25.90675
3/27/2017 5:45	26.789	0.582	2.681	401.835	27.289
3/27/2017 6:00	26.58	0.608	2.582	398.703	28.42525
3/27/2017 6:15	27.402	0.598	2.673	411.024	27.1245
3/27/2017 6:30	28.307	0.608	2.702	424.604	27.2695
3/27/2017 6:45	27.602	0.598	2.685	414.037	27.47275
3/27/2017 7:00	31.451	0.656	2.762	471.772	28.6905
3/27/2017 7:15	37.274	0.736	2.874	559.108	31.1585

3/27/2017 7:30	38.445	0.764	2.861	576.68	33.693
3/27/2017 7:45	38.54	0.737	2.942	578.103	36.4275
3/27/2017 8:00	40.747	0.784	2.929	611.209	38.7515
3/27/2017 8:15	37.473	0.743	2.867	562.102	38.80125
3/27/2017 8:30	36.315	0.715	2.88	544.72	38.26875
3/27/2017 8:45	36.256	0.703	2.912	543.847	37.69775
3/27/2017 9:00	39.267	0.741	2.971	589.004	37.32775
3/27/2017 9:15	43.951	0.774	3.129	659.258	38.94725
3/27/2017 9:30	35.645	0.719	2.83	534.669	38.77975
3/27/2017 9:45	42.831	0.785	3.036	642.472	40.4235
3/27/2017 10:00	31.097	0.656	2.738	466.451	38.381
3/27/2017 10:15	35.539	0.715	2.836	533.09	36.278
3/27/2017 10:30	39.95	0.779	2.902	599.252	37.35425
3/27/2017 10:45	35.539	0.702	2.873	533.091	35.53125
3/27/2017 11:00	29.497	0.632	2.706	442.454	35.13125
3/27/2017 11:15	36.791	0.739	2.84	551.87	35.44425
3/27/2017 11:30	33.089	0.682	2.786	496.329	33.729
3/27/2017 11:45	29.941	0.64	2.713	449.113	32.3295
3/27/2017 12:00	34.772	0.695	2.849	521.577	33.64825
3/27/2017 12:15	33.724	0.696	2.782	505.86	32.8815
3/27/2017 12:30	27.678	0.609	2.655	415.163	31.52875
3/27/2017 12:45	35.059	0.712	2.817	525.891	32.80825
3/27/2017 13:00	27.554	0.616	2.626	413.313	31.00375
3/27/2017 13:15	45.252	0.816	3.074	678.785	33.88575
3/27/2017 13:30	29.715	0.627	2.737	445.719	34.395
3/27/2017 13:45	30.674	0.65	2.728	460.116	33.29875
3/27/2017 14:00	32.997	0.704	2.715	494.957	34.6595
3/27/2017 14:15	63.617	0.951	3.541	954.26	39.25075
3/27/2017 14:30	44.01	0.771	3.142	660.146	42.8245
3/27/2017 14:45	39.696	0.73	3.031	595.446	45.08
3/27/2017 15:00	31.932	0.654	2.798	478.974	44.81375
3/27/2017 15:15	39.095	0.722	3.021	586.424	38.68325
3/27/2017 15:30	41.329	0.753	3.051	619.942	38.013
3/27/2017 15:45	33.174	0.648	2.897	497.609	36.3825
3/27/2017 16:00	33.213	0.653	2.884	498.202	36.70275
3/27/2017 16:15	30.964	0.63	2.812	464.464	34.67
3/27/2017 16:30	32.668	0.661	2.824	490.019	32.50475
3/27/2017 16:45	26.321	0.567	2.697	394.811	30.7915
3/27/2017 17:00	30.77	0.642	2.762	461.548	30.18075
3/27/2017 17:15	34.469	0.681	2.875	517.03	31.057
3/27/2017 17:30	29.296	0.62	2.733	439.436	30.214
3/27/2017 17:45	29.925	0.629	2.747	448.881	31.115
3/27/2017 18:00	24.157	0.524	2.682	362.352	29.46175
3/27/2017 18:15	24.182	0.541	2.624	362.733	26.89
3/27/2017 18:30	26.646	0.566	2.723	399.694	26.2275
3/27/2017 18:45	27.553	0.588	2.716	413.299	25.6345
3/27/2017 19:00	29.621	0.61	2.787	444.318	27.0005
3/27/2017 19:15	29.052	0.606	2.763	435.778	28.218
3/27/2017 19:30	28.317	0.616	2.678	424.754	28.63575
3/27/2017 19:45	25.328	0.564	2.632	379.921	28.0795
3/27/2017 20:00	27.449	0.6	2.668	411.737	27.5365
3/27/2017 20:15	36.169	0.718	2.864	542.531	29.31575
3/27/2017 20:30	24.977	0.555	2.635	374.654	28.48075
3/27/2017 20:45	27.893	0.605	2.683	418.393	29.122
3/27/2017 21:00	29.759	0.656	2.652	446.389	29.6995
3/27/2017 21:15	24.849	0.561	2.606	372.734	26.8695
3/27/2017 21:30	22.667	0.52	2.574	340.008	26.292
3/27/2017 21:45	25.543	0.571	2.626	383.145	25.7045
3/27/2017 22:00	22.801	0.519	2.592	342.01	23.965
3/27/2017 22:15	21.221	0.497	2.538	318.318	23.058
3/27/2017 22:30	22.391	0.517	2.562	335.863	22.989
3/27/2017 22:45	19.081	0.443	2.553	286.212	21.3735
3/27/2017 23:00	20.113	0.478	2.509	301.695	20.7015
3/27/2017 23:15	21.426	0.509	2.511	321.391	20.75275
3/27/2017 23:30	23.195	0.55	2.514	347.918	20.95375
3/27/2017 23:45	19.198	0.467	2.47	287.97	20.983
3/28/2017 0:00	20.314	0.49	2.482	304.716	21.03325
3/28/2017 0:15	21.198	0.502	2.517	317.963	20.97625
3/28/2017 0:30	20.551	0.484	2.526	308.265	20.31525
3/28/2017 0:45	19.71	0	2.451	295.644	20.44325
3/28/2017 1:00	21.854	0.52	2.508	327.804	20.82825
3/28/2017 1:15	23.604	0.545	2.565	354.055	21.42975
3/28/2017 1:30	20.063	0.48	2.499	300.95	21.30775
3/28/2017 1:45	20.908	0.501	2.495	313.624	21.60725
3/28/2017 2:00	17.728	0.436	2.451	265.926	20.57575
3/28/2017 2:15	18.789	0.464	2.444	281.829	19.372
3/28/2017 2:30	19.04	0.457	2.492	285.593	19.11625
3/28/2017 2:45	18.226	0.444	2.468	273.392	18.44575
3/28/2017 3:00	25.029	0.585	2.541	375.43	20.271
3/28/2017 3:15	19.083	0.466	2.463	286.24	20.3445
3/28/2017 3:30	20.237	0.483	2.502	303.557	20.64375
3/28/2017 3:45	20.003	0.494	2.44	300.045	21.088
3/28/2017 4:00	20.336	0	2.47	305.038	19.91475
3/28/2017 4:15	15.469	0.373	2.484	232.032	19.01125
3/28/2017 4:30	21.613	0.523	2.479	324.2	19.35525
3/28/2017 4:45	19.228	0.47	2.461	288.421	19.1615
3/28/2017 5:00	25.129	0.601	2.498	376.941	20.35975
3/28/2017 5:15	29.271	0.631	2.694	439.061	23.81025
3/28/2017 5:30	23.482	0.545	2.554	352.236	24.2775
3/28/2017 5:45	28.61	0.638	2.63	429.148	26.623
3/28/2017 6:00	23.048	0.543	2.526	345.726	26.10275
3/28/2017 6:15	26.018	0.592	2.593	390.267	25.2895
3/28/2017 6:30	29.295	0.671	2.578	439.423	26.74275
3/28/2017 6:45	24.234	0.569	2.532	363.512	25.64875

3/28/2017 7:00	24.701	0.579	2.537	370.52	26.062
3/28/2017 7:15	29.772	0.653	2.662	446.581	27.0005
3/28/2017 7:30	30.556	0.682	2.627	458.335	27.31575
3/28/2017 7:45	29.755	0.653	2.659	446.322	28.696
3/28/2017 8:00	29.849	0.666	2.629	447.729	29.983
3/28/2017 8:15	33.634	0.703	2.757	504.517	30.9485
3/28/2017 8:30	30.9	0.675	2.671	463.502	31.0345
3/28/2017 8:45	31.578	0.66	2.757	473.664	31.49025
3/28/2017 9:00	34.217	0.715	2.759	513.255	32.58225
3/28/2017 9:15	32.427	0.697	2.701	486.398	32.2805
3/28/2017 9:30	36.792	0.678	3.024	551.887	33.7535
3/28/2017 9:45	39.371	0.733	3.001	590.564	35.70175
3/28/2017 10:00	37.014	0.708	2.942	555.212	36.401
3/28/2017 10:15	39.926	0.73	3.042	598.891	38.27575
3/28/2017 10:30	39.645	0.72	3.058	594.669	38.989
3/28/2017 10:45	35.368	0.698	2.877	530.519	37.98825
3/28/2017 11:00	40.655	0.754	3.012	609.827	38.8985
3/28/2017 11:15	32.717	0.662	2.823	490.748	37.09625
3/28/2017 11:30	35.933	0.696	2.916	538.99	36.16825
3/28/2017 11:45	36.527	0.705	2.925	547.907	36.458
3/28/2017 12:00	34.021	0.673	2.871	510.311	34.7995
3/28/2017 12:15	33.016	0.658	2.853	495.237	34.87425
3/28/2017 12:30	30.404	0.626	2.788	456.059	33.492
3/28/2017 12:45	33.121	0.67	2.823	496.811	32.6405
3/28/2017 13:00	37.656	0.744	2.872	564.834	33.54925
3/28/2017 13:15	30.34	0.628	2.777	455.097	32.88025
3/28/2017 13:30	33.719	0.698	2.776	505.783	33.709
3/28/2017 13:45	36.606	0.737	2.833	549.093	34.58025
3/28/2017 14:00	31.099	0.65	2.756	466.483	32.941
3/28/2017 14:15	30.376	0.629	2.775	455.641	32.95
3/28/2017 14:30	30.092	0.632	2.746	451.378	32.04325
3/28/2017 14:45	28.851	0.615	2.717	432.765	30.1045
3/28/2017 15:00	32.465	0.691	2.721	486.968	30.446
3/28/2017 15:15	32.506	0.652	2.841	487.586	30.9785
3/28/2017 15:30	35.688	0.694	2.907	535.316	32.3775
3/28/2017 15:45	29.697	0.619	2.762	445.461	32.589
3/28/2017 16:00	30.715	0.645	2.747	460.725	32.1515
3/28/2017 16:15	29.413	0.614	2.759	441.197	31.37825
3/28/2017 16:30	24.619	0.542	2.655	369.288	28.611
3/28/2017 16:45	31.241	0.657	2.745	468.616	28.997
3/28/2017 17:00	34.776	0.704	2.823	521.637	30.01225
3/28/2017 17:15	25.453	0.547	2.703	381.802	29.02225
3/28/2017 17:30	27.051	0.597	2.651	405.768	29.63025
3/28/2017 17:45	29.906	0.626	2.755	448.586	29.2965
3/28/2017 18:00	28.797	0.611	2.727	431.956	27.80175
3/28/2017 18:15	26.479	0.601	2.595	397.181	28.05825
3/28/2017 18:30	32.671	0.664	2.815	490.067	29.46325
3/28/2017 18:45	30.892	0.644	2.763	463.376	29.70975
3/28/2017 19:00	28.684	0.617	2.7	430.259	29.6815
3/28/2017 19:15	30.15	0.649	2.699	452.257	30.59925
3/28/2017 19:30	31.11	0.66	2.727	466.652	30.209
3/28/2017 19:45	31.371	0.659	2.747	470.57	30.32875
3/28/2017 20:00	29.823	0.645	2.689	447.343	30.6135
3/28/2017 20:15	27.575	0.612	2.64	413.63	29.96975
3/28/2017 20:30	26.843	0.61	2.595	402.649	28.903
3/28/2017 20:45	29.962	0.686	2.579	449.426	28.55075
3/28/2017 21:00	26.777	0.602	2.613	401.652	27.78925
3/28/2017 21:15	23.453	0.536	2.584	351.79	26.75875
3/28/2017 21:30	30.257	0.644	2.721	453.85	27.61225
3/28/2017 21:45	26.936	0.595	2.646	404.042	26.85575
3/28/2017 22:00	24.801	0.564	2.593	372.011	26.36175
3/28/2017 22:15	29.665	0.647	2.673	444.975	27.91475
3/28/2017 22:30	27.678	0.608	2.658	415.167	27.27
3/28/2017 22:45	29.279	0.628	2.706	439.185	27.85575
3/28/2017 23:00	26.147	0.583	2.631	392.203	28.19225
3/28/2017 23:15	30.646	0.692	2.605	459.692	28.4375
3/28/2017 23:30	30.283	0.697	2.571	454.248	29.08875
3/28/2017 23:45	27.145	0.605	2.631	407.181	28.55525
3/29/2017 0:00	33.712	0.746	2.644	505.677	30.4465
3/29/2017 0:15	27.605	0.61	2.648	414.082	29.68625
3/29/2017 0:30	24.913	0.575	2.565	373.688	28.34375
3/29/2017 0:45	24.084	0.556	2.564	361.259	27.5785
3/29/2017 1:00	26.96	0.617	2.58	404.398	25.8905
3/29/2017 1:15	25.117	0.574	2.583	376.748	25.2685
3/29/2017 1:30	26.892	0.62	2.566	403.377	25.76325
3/29/2017 1:45	24.179	0.555	2.576	362.686	25.787
3/29/2017 2:00	19.058	0.449	2.526	285.867	23.8115
3/29/2017 2:15	20.063	0.468	2.545	300.943	22.548
3/29/2017 2:30	20.881	0.49	2.534	313.21	21.04525
3/29/2017 2:45	23.851	0.551	2.563	357.758	20.96325
3/29/2017 3:00	23.251	0.529	2.59	348.765	22.0115
3/29/2017 3:15	22.991	0.533	2.556	344.872	22.7435
3/29/2017 3:30	24.673	0.573	2.554	370.092	23.6915
3/29/2017 3:45	27.631	0.646	2.542	414.472	24.6365
3/29/2017 4:00	23.882	0.554	2.556	358.224	24.79425
3/29/2017 4:15	23.403	0.539	2.568	351.047	24.89725
3/29/2017 4:30	24.613	0.564	2.578	369.188	24.88225
3/29/2017 4:45	26.398	0.604	2.58	395.966	24.574
3/29/2017 5:00	22.838	0.528	2.56	342.564	24.313
3/29/2017 5:15	24.655	0.564	2.582	369.823	24.626
3/29/2017 5:30	28.574	0.642	2.616	428.609	25.61625
3/29/2017 5:45	35.066	0.721	2.791	525.994	27.78325
3/29/2017 6:00	32.823	0.698	2.722	492.348	30.2795
3/29/2017 6:15	29.962	0.662	2.647	449.427	31.60625

3/29/2017 6:30	23.036	0.552	2.497	345.537	30.22175
3/29/2017 6:45	27.017	0.62	2.576	405.25	28.2095
3/29/2017 7:00	31.717	0.683	2.698	475.762	27.933
3/29/2017 7:15	32.743	0.704	2.7	491.141	28.62825
3/29/2017 7:30	27.872	0.634	2.591	418.085	29.83725
3/29/2017 7:45	25.718	0.612	2.51	385.773	29.5125
3/29/2017 8:00	26.577	0.626	2.526	398.655	28.2275
3/29/2017 8:15	27.52	0.635	2.566	412.794	26.92175
3/29/2017 8:30	24.517	0.584	2.507	367.756	26.083
3/29/2017 8:45	30.032	0.673	2.619	450.487	27.1615
3/29/2017 9:00	24.046	0.573	2.505	360.695	26.52875
3/29/2017 9:15	27.615	0.625	2.6	414.222	26.5525
3/29/2017 9:30	35.203	0.731	2.771	528.044	29.224
3/29/2017 9:45	39.967	0.789	2.875	599.51	31.70775
3/29/2017 10:00	38.459	0.769	2.847	576.883	35.311
3/29/2017 10:15	40.08	0.705	3.131	601.207	38.42725
3/29/2017 10:30	38.852	0.697	3.086	582.776	39.3395
3/29/2017 10:45	40.055	0.704	3.135	600.827	39.3615
3/29/2017 11:00	40.216	0.708	3.129	603.241	39.80075
3/29/2017 11:15	31.914	0.625	2.893	478.71	37.75925
3/29/2017 11:30	35.291	0.658	2.998	529.365	36.869
3/29/2017 11:45	36.073	0.666	3.02	541.093	35.8735
3/29/2017 12:00	33.898	0.647	2.946	508.477	34.294
3/29/2017 12:15	33.54	0.634	2.969	503.094	34.7005
3/29/2017 12:30	39.46	0.699	3.115	591.903	35.74275
3/29/2017 12:45	34.116	0.638	2.993	511.735	35.2535
3/29/2017 13:00	32.693	0.637	2.903	490.39	34.95225
3/29/2017 13:15	26.729	0.552	2.781	400.931	33.2495
3/29/2017 13:30	30.356	0.591	2.904	455.338	30.9735
3/29/2017 13:45	30.021	0.6	2.848	450.317	29.94975
3/29/2017 14:00	29.588	0.598	2.825	443.815	29.1735
3/29/2017 14:15	38.605	0.702	3.056	579.07	32.1425
3/29/2017 14:30	28.751	0.607	2.736	431.268	31.74125
3/29/2017 14:45	24.32	0.505	2.771	364.805	30.316
3/29/2017 15:00	29.528	0.588	2.857	442.925	30.301
3/29/2017 15:15	28.122	0.565	2.836	421.837	27.68025
3/29/2017 15:30	39.958	0.678	3.218	599.372	30.482
3/29/2017 15:45	29.241	0.548	2.987	438.622	31.71225
3/29/2017 16:00	30.935	0.573	3.013	464.023	32.064
3/29/2017 16:15	33.38	0.595	3.1	500.702	33.3785
3/29/2017 16:30	26.471	0.499	2.975	397.063	30.00675
3/29/2017 16:45	27.276	0.507	3.004	409.138	29.5155
3/29/2017 17:00	38.75	0.656	3.223	581.253	31.46925
3/29/2017 17:15	33.706	0.613	3.053	505.583	31.55075
3/29/2017 17:30	28.691	0.524	3.044	430.372	32.10575
3/29/2017 17:45	32.079	0.571	3.102	481.187	33.3065
3/29/2017 18:00	34.41	0.599	3.156	516.146	32.2215
3/29/2017 18:15	34.746	0.622	3.092	521.195	32.4815
3/29/2017 18:30	35.482	0.653	3.029	532.227	34.17925
3/29/2017 18:45	42.503	0.687	3.335	637.546	36.78525
3/29/2017 19:00	32.801	0.61	3.006	492.009	36.383
3/29/2017 19:15	43.227	0.712	3.291	648.398	38.50325
3/29/2017 19:30	29.577	0.546	3.022	443.659	37.027
3/29/2017 19:45	28.453	0.53	3	426.794	33.5145
3/29/2017 20:00	35.736	0.637	3.102	536.035	34.24825
3/29/2017 20:15	32.517	0.587	3.071	487.759	31.57075
3/29/2017 20:30	28.381	0.537	2.965	425.711	31.27175
3/29/2017 20:45	26.046	0.5	2.934	390.69	30.67
3/29/2017 21:00	23.664	0.462	2.901	354.962	27.652
3/29/2017 21:15	30.393	0.576	2.964	455.889	27.121
3/29/2017 21:30	25.732	0.496	2.924	385.977	26.45875
3/29/2017 21:45	24.249	0.469	2.917	363.735	26.0095
3/29/2017 22:00	27.759	0.541	2.903	416.386	27.03325
3/29/2017 22:15	24.282	0.479	2.878	364.228	25.5055
3/29/2017 22:30	28.837	0.543	2.976	432.551	26.28175
3/29/2017 22:45	25.442	0.486	2.947	381.623	26.58
3/29/2017 23:00	29.372	0.543	3.017	440.576	26.98325
3/29/2017 23:15	30.369	0.56	3.023	455.528	28.505
3/29/2017 23:30	27.984	0.529	2.967	419.753	28.29175
3/29/2017 23:45	26.586	0.506	2.954	398.792	28.57775
3/30/2017 0:00	26.367	0.509	2.921	395.51	27.8265
3/30/2017 0:15	24.715	0.483	2.895	370.724	26.413
3/30/2017 0:30	21.59	0.425	2.88	323.849	24.8145
3/30/2017 0:45	21.681	0.428	2.875	325.218	23.58825
3/30/2017 1:00	23.968	0.469	2.895	359.527	22.9885
3/30/2017 1:15	22.584	0.443	2.888	338.766	22.45575
3/30/2017 1:30	23.718	0.461	2.908	355.775	22.98775
3/30/2017 1:45	20.701	0.411	2.863	310.51	22.74275
3/30/2017 2:00	20.052	0.403	2.835	300.782	21.76375
3/30/2017 2:15	19.631	0	2.791	294.466	21.0255
3/30/2017 2:30	23.458	0.459	2.891	351.872	20.9605
3/30/2017 2:45	24.264	0.489	2.832	363.967	21.85125
3/30/2017 3:00	23.902	0.473	2.871	358.528	22.81375
3/30/2017 3:15	23.031	0.457	2.862	345.471	23.66375
3/30/2017 3:30	20.437	0.404	2.872	306.549	22.9085
3/30/2017 3:45	22.124	0.442	2.848	331.857	22.3735
3/30/2017 4:00	20.24	0.413	2.804	303.603	21.458
3/30/2017 4:15	19.931	0.404	2.817	298.97	20.683
3/30/2017 4:30	25.866	0.532	2.79	387.992	22.04025
3/30/2017 4:45	25.373	0.512	2.83	380.602	22.8525
3/30/2017 5:00	20.937	0.428	2.804	314.061	23.02675
3/30/2017 5:15	27.401	0.525	2.939	411.01	24.89425
3/30/2017 5:30	36.303	0.642	3.12	544.547	27.5035
3/30/2017 5:45	33.224	0.603	3.059	498.367	29.46625

3/30/2017 6:00	27.71	0.522	2.977	415.654	31.1595
3/30/2017 6:15	35.207	0.621	3.124	528.102	33.111
3/30/2017 6:30	31.267	0.582	3.004	469.006	31.852
3/30/2017 6:45	27.392	0.519	2.962	410.887	30.394
3/30/2017 7:00	28.898	0.549	2.958	433.468	30.691
3/30/2017 7:15	30.556	0.56	3.038	458.338	29.52825
3/30/2017 7:30	32.01	0.573	3.091	480.157	29.714
3/30/2017 7:45	31.172	0.583	2.991	467.576	30.659
3/30/2017 8:00	34.601	0.63	3.053	519.008	32.08475
3/30/2017 8:15	38.19	0.656	3.187	572.844	33.99325
3/30/2017 8:30	34.921	0.627	3.083	523.822	34.721
3/30/2017 8:45	30.584	0.566	3.016	458.757	34.574
3/30/2017 9:00	30.716	0.557	3.059	460.743	33.60275
3/30/2017 9:15	41.066	0.69	3.239	615.989	34.32175
3/30/2017 9:30	33.67	0.6	3.102	505.055	34.009
3/30/2017 9:45	34.495	0.603	3.147	517.424	34.98675
3/30/2017 10:00	41.161	0.683	3.272	617.422	37.598
3/30/2017 10:15	44.912	0.722	3.349	673.678	38.5595
3/30/2017 10:30	39.594	0.67	3.223	593.905	40.0405
3/30/2017 10:45	31.078	0.555	3.095	466.171	39.18625
3/30/2017 11:00	29.314	0.535	3.046	439.717	36.2245
3/30/2017 11:15	39.186	0.658	3.241	587.792	34.793
3/30/2017 11:30	38.798	0.667	3.185	581.963	34.594
3/30/2017 11:45	33.938	0.603	3.109	509.069	35.309
3/30/2017 12:00	35.369	0.615	3.157	530.542	36.82275
3/30/2017 12:15	31.616	0.573	3.061	474.239	34.93025
3/30/2017 12:30	33.643	0.603	3.088	504.649	33.6415
3/30/2017 12:45	36.47	0.644	3.122	547.052	34.2745
3/30/2017 13:00	33.926	0.594	3.144	508.892	33.91375
3/30/2017 13:15	35.343	0.612	3.17	530.148	34.8455
3/30/2017 13:30	33.017	0.586	3.109	495.253	34.689
3/30/2017 13:45	29.519	0.536	3.056	442.789	32.95125
3/30/2017 14:00	31.324	0.566	3.069	469.854	32.30075
3/30/2017 14:15	31.851	0.559	3.136	477.769	31.42775
3/30/2017 14:30	31.141	0.563	3.069	467.118	30.95875
3/30/2017 14:45	39.705	0.682	3.188	595.577	33.50525
3/30/2017 15:00	35.331	0.611	3.17	529.963	34.507
3/30/2017 15:15	30.539	0.552	3.07	458.083	34.179
3/30/2017 15:30	40.178	0.668	3.268	602.674	36.43825
3/30/2017 15:45	33.517	0.6	3.09	502.76	34.89125
3/30/2017 16:00	31.089	0.556	3.094	466.338	33.83075
3/30/2017 16:15	32.672	0.59	3.073	490.081	34.364
3/30/2017 16:30	29.604	0.558	2.974	444.058	31.7205
3/30/2017 16:45	31.685	0.57	3.081	475.27	31.2625
3/30/2017 17:00	32.565	0.581	3.1	488.475	31.6315
3/30/2017 17:15	31.744	0.601	2.965	476.161	31.3995
3/30/2017 17:30	37.087	0.643	3.164	556.301	33.27025
3/30/2017 17:45	35.43	0.627	3.118	531.45	34.2065
3/30/2017 18:00	37.51	0.673	3.085	562.648	35.44275
3/30/2017 18:15	29.44	0.543	3.024	441.606	34.86675
3/30/2017 18:30	31.052	0.558	3.084	465.786	33.358
3/30/2017 18:45	36.03	0.659	3.042	540.446	33.508
3/30/2017 19:00	31.175	0.585	2.985	467.631	31.92425
3/30/2017 19:15	28.084	0.518	3.024	421.257	31.58525
3/30/2017 19:30	28.012	0.53	2.965	420.184	30.82525
3/30/2017 19:45	33.104	0.606	3.039	496.554	30.09375
3/30/2017 20:00	30.844	0.571	3.015	462.667	30.011
3/30/2017 20:15	29.765	0.555	3	446.472	30.43125
3/30/2017 20:30	27.752	0.535	2.927	416.283	30.36625
3/30/2017 20:45	28.455	0.523	3.032	426.832	29.204
3/30/2017 21:00	27.363	0.525	2.936	410.444	28.33375
3/30/2017 21:15	24.042	0.468	2.905	360.635	26.903
3/30/2017 21:30	25.167	0.496	2.877	377.51	26.25675
3/30/2017 21:45	29.344	0.546	3.001	440.164	26.479
3/30/2017 22:00	27.173	0.526	2.919	407.592	26.4315
3/30/2017 22:15	20.411	0.414	2.82	306.158	25.52375
3/30/2017 22:30	21.739	0.429	2.873	326.09	24.66675
3/30/2017 22:45	21.157	0.436	2.784	317.358	22.62
3/30/2017 23:00	24.5	0.478	2.898	367.498	21.95175
3/30/2017 23:15	26.704	0.509	2.952	400.558	23.525
3/30/2017 23:30	27.127	0.523	2.926	406.898	24.872
3/30/2017 23:45	22.665	0.459	2.822	339.981	25.249
3/31/2017 0:00	21.399	0.444	2.77	320.982	24.47375
3/31/2017 0:15	23.118	0.473	2.801	346.767	23.57725
3/31/2017 0:30	19.485	0.408	2.753	292.281	21.66675
3/31/2017 0:45	21.237	0.442	2.767	318.555	21.30975
3/31/2017 1:00	21.566	0.457	2.728	323.495	21.3515
3/31/2017 1:15	18.294	0.391	2.71	274.412	20.1455
3/31/2017 1:30	18.685	0.402	2.7	280.275	19.9455
3/31/2017 1:45	18.556	0.395	2.721	278.339	19.27525
3/31/2017 2:00	19.302	0.408	2.732	289.53	18.70925
3/31/2017 2:15	17.115	0.368	2.7	256.718	18.4145
3/31/2017 2:30	19.617	0.422	2.698	294.253	18.6475
3/31/2017 2:45	20.317	0.426	2.749	304.751	19.08775
3/31/2017 3:00	21.538	0.461	2.709	323.072	19.64675
3/31/2017 3:15	25.275	0.502	2.863	379.129	21.68675
3/31/2017 3:30	19.014	0.401	2.741	285.214	21.536
3/31/2017 3:45	24.046	0.507	2.738	360.687	22.46825
3/31/2017 4:00	20.341	0.424	2.763	305.11	22.169
3/31/2017 4:15	24.117	0.488	2.824	361.751	21.8795
3/31/2017 4:30	17.878	0.377	2.737	268.166	21.5955
3/31/2017 4:45	17.213	0	2.662	258.193	19.88725
3/31/2017 5:00	31.815	0.602	2.966	477.225	22.75575
3/31/2017 5:15	27.247	0.521	2.942	408.705	23.53825

3/31/2017 5:30	29.37	0.536	3.046	440.547	26.41125
3/31/2017 5:45	34.469	0.608	3.126	517.036	30.72525
3/31/2017 6:00	29.59	0.557	2.978	443.855	30.169
3/31/2017 6:15	38.635	0.66	3.2	579.529	33.016
3/31/2017 6:30	25.884	0.51	2.878	388.257	32.1445
3/31/2017 6:45	28.167	0.543	2.924	422.498	30.569
3/31/2017 7:00	33.596	0.604	3.082	503.941	31.5705
3/31/2017 7:15	27.635	0.521	2.974	414.521	28.8205
3/31/2017 7:30	32.031	0.586	3.04	480.471	30.35725
3/31/2017 7:45	32.501	0.601	3.017	487.515	31.44075
3/31/2017 8:00	31.624	0.583	3.025	474.353	30.94775
3/31/2017 8:15	29.363	0.552	2.982	440.441	31.37975
3/31/2017 8:30	32.855	0.583	3.11	492.818	31.58575
3/31/2017 8:45	33.909	0.595	3.138	508.634	31.93775
3/31/2017 9:00	37.518	0.653	3.156	562.77	33.41125
3/31/2017 9:15	35.3	0.631	3.094	529.506	34.8955
3/31/2017 9:30	42.53	0.71	3.256	637.948	37.31425
3/31/2017 9:45	36.196	0.637	3.132	542.945	37.886
3/31/2017 10:00	37.341	0.663	3.111	560.109	37.84175
3/31/2017 10:15	36.164	0.645	3.1	542.455	38.05775
3/31/2017 10:30	35.763	0.659	3.026	536.452	36.366
3/31/2017 10:45	38.302	0.67	3.145	574.53	36.8925
3/31/2017 11:00	41.144	0.707	3.188	617.165	37.84325
3/31/2017 11:15	34.626	0.642	3.012	519.384	37.45875
3/31/2017 11:30	47.423	0.796	3.244	711.344	40.37375
3/31/2017 11:45	32.723	0.598	3.043	490.841	38.979
3/31/2017 12:00	33.987	0.601	3.118	509.799	37.18975
3/31/2017 12:15	28.997	0.544	2.984	434.959	35.7825
3/31/2017 12:30	38.118	0.648	3.211	571.764	33.45625
3/31/2017 12:45	40.433	0.682	3.233	606.488	35.38375
3/31/2017 13:00	30.362	0.566	2.997	455.429	34.4775
3/31/2017 13:15	33.285	0.598	3.082	499.278	35.5495
3/31/2017 13:30	35.271	0.633	3.086	529.065	34.83775
3/31/2017 13:45	42.882	0.705	3.293	643.234	35.45
3/31/2017 14:00	36.288	0.637	3.137	544.315	36.9315
3/31/2017 14:15	33.998	0.6	3.126	509.976	37.10975
3/31/2017 14:30	40.668	0.681	3.249	610.013	38.459
3/31/2017 14:45	36.629	0.652	3.104	549.442	36.89575
3/31/2017 15:00	38.635	0.657	3.211	579.528	37.4825
3/31/2017 15:15	54.978	0.827	3.525	824.669	42.7275
3/31/2017 15:30	37.633	0.649	3.177	564.498	41.96875
3/31/2017 15:45	28.666	0.545	2.956	429.989	39.978
3/31/2017 16:00	31.278	0.572	3.04	469.17	38.13875
3/31/2017 16:15	28.144	0.525	3	422.167	31.43025
3/31/2017 16:30	33.755	0.607	3.082	506.324	30.46075
3/31/2017 16:45	37.202	0.645	3.167	558.028	32.59475
3/31/2017 17:00	32.911	0.605	3.032	493.669	33.003
3/31/2017 17:15	30.419	0.569	2.993	456.289	33.57175
3/31/2017 17:30	35.745	0.632	3.119	536.169	34.06925
3/31/2017 17:45	29.981	0.554	3.019	449.712	32.264
3/31/2017 18:00	33.895	0.612	3.07	508.43	32.51
3/31/2017 18:15	31.759	0.586	3.021	476.382	32.845
3/31/2017 18:30	35.017	0.616	3.131	525.248	32.663
3/31/2017 18:45	32.925	0.605	3.032	493.868	33.399
3/31/2017 19:00	31.078	0.574	3.02	466.171	32.69475
3/31/2017 19:15	32.744	0.601	3.034	491.154	32.941
3/31/2017 19:30	34.448	0.607	3.127	516.717	32.79875
3/31/2017 19:45	35.202	0.633	3.082	528.024	33.368
3/31/2017 20:00	41.895	0.704	3.242	628.429	36.07225
3/31/2017 20:15	32.55	0.605	3.007	488.246	36.02375
3/31/2017 20:30	26.235	0.495	2.974	393.521	33.9705
3/31/2017 20:45	27.074	0.519	2.939	406.104	31.9385
3/31/2017 21:00	29.232	0.55	2.979	438.481	28.77275
3/31/2017 21:15	35.804	0.643	3.084	537.065	29.58625
3/31/2017 21:30	29.298	0.553	2.973	439.473	30.352
3/31/2017 21:45	28.152	0.518	3.03	422.28	30.6215
3/31/2017 22:00	26.923	0.504	2.99	403.849	30.04425
3/31/2017 22:15	29.588	0.551	3.003	443.824	28.49025
3/31/2017 22:30	31.699	0.573	3.069	475.486	29.0905
3/31/2017 22:45	33.114	0.609	3.029	496.712	30.331
3/31/2017 23:00	33.622	0.607	3.071	504.326	32.00575
3/31/2017 23:15	37.573	0.685	3.051	563.593	34.002
3/31/2017 23:30	32.785	0.596	3.055	491.776	34.2735
3/31/2017 23:45	29.439	0.542	3.029	441.579	33.35475
4/1/2017 0:00	29.849	0.553	3.012	447.73	32.4115
4/1/2017 0:15	29.148	0.543	2.999	437.221	30.30525
4/1/2017 0:30	29.203	0.546	2.993	438.049	29.40975
4/1/2017 0:45	27.866	0.516	3.016	417.995	29.0165
4/1/2017 1:00	31.325	0.57	3.052	469.869	29.3855
4/1/2017 1:15	24.582	0.479	2.903	368.734	28.244
4/1/2017 1:30	21.721	0.422	2.909	325.818	26.3735
4/1/2017 1:45	24.385	0.478	2.891	365.769	25.50325
4/1/2017 2:00	24.506	0.48	2.891	367.597	23.7985
4/1/2017 2:15	24.926	0.49	2.884	373.888	23.8845
4/1/2017 2:30	19.573	0.386	2.875	293.592	23.3475
4/1/2017 2:45	22.36	0.443	2.869	335.399	22.84125
4/1/2017 3:00	29.983	0.581	2.914	449.739	24.2105
4/1/2017 3:15	26.335	0.505	2.938	395.025	24.56275
4/1/2017 3:30	21.774	0.433	2.858	326.607	25.113
4/1/2017 3:45	26.172	0.502	2.937	392.584	26.066
4/1/2017 4:00	25.76	0.491	2.952	386.393	25.01025
4/1/2017 4:15	21.156	0.4	2.967	317.333	23.7155
4/1/2017 4:30	24.003	0.455	2.964	360.052	24.27275
4/1/2017 4:45	27.064	0.488	3.074	405.955	24.49575

4/1/2017 5:00	29.153	0.557	2.944	437.299	25.344
4/1/2017 5:15	27.815	0.515	3.013	417.223	27.00875
4/1/2017 5:30	24.654	0.477	2.918	369.804	27.1715
4/1/2017 5:45	30.264	0.57	2.978	453.956	27.9715
4/1/2017 6:00	28.626	0.536	2.989	429.394	27.83975
4/1/2017 6:15	39.866	0.737	3.018	597.992	30.8525
4/1/2017 6:30	29.709	0.566	2.95	445.641	32.11625
4/1/2017 6:45	26.895	0.512	2.954	403.429	31.274
4/1/2017 7:00	21.334	0.435	2.806	320.015	29.451
4/1/2017 7:15	27.443	0.517	2.974	411.641	26.34525
4/1/2017 7:30	27.988	0.506	3.069	419.823	25.915
4/1/2017 7:45	29.628	0.535	3.069	444.426	26.59825
4/1/2017 8:00	28.247	0.531	2.979	423.703	28.3265
4/1/2017 8:15	29.808	0.551	3.017	447.117	28.91775
4/1/2017 8:30	33.989	0.607	3.095	509.83	30.418
4/1/2017 8:45	39.949	0.684	3.195	599.23	32.99825
4/1/2017 9:00	34.192	0.619	3.065	512.882	34.4845
4/1/2017 9:15	31.725	0.597	2.978	475.872	34.96375
4/1/2017 9:30	29.058	0.544	2.991	435.867	33.731
4/1/2017 9:45	33.181	0.606	3.046	497.711	32.039
4/1/2017 10:00	34.24	0.626	3.044	513.606	32.051
4/1/2017 10:15	33.153	0.605	3.049	497.3	32.408
4/1/2017 10:30	35.987	0.628	3.149	539.798	34.14025
4/1/2017 10:45	32.752	0.591	3.071	491.275	34.033
4/1/2017 11:00	31.84	0.587	3.026	477.601	33.433
4/1/2017 11:15	34.181	0.618	3.067	512.72	33.69
4/1/2017 11:30	30.696	0.576	2.985	460.434	32.36725
4/1/2017 11:45	31.788	0.567	3.101	476.819	32.12625
4/1/2017 12:00	30.017	0.532	3.114	450.251	31.6705
4/1/2017 12:15	30.275	0.546	3.072	454.124	30.694
4/1/2017 12:30	31.353	0.559	3.102	470.29	30.85825
4/1/2017 12:45	34.891	0.599	3.188	523.364	31.634
4/1/2017 13:00	36.907	0.638	3.172	553.601	33.3565
4/1/2017 13:15	39.789	0.659	3.275	596.837	35.735
4/1/2017 13:30	30.874	0.56	3.061	463.104	35.61525
4/1/2017 13:45	36.276	0.614	3.222	544.139	35.9615
4/1/2017 14:00	26.159	0.48	3.036	392.381	33.2745
4/1/2017 14:15	32.824	0.605	3.026	492.357	31.53325
4/1/2017 14:30	34.562	0.613	3.113	518.436	32.45525
4/1/2017 14:45	31.605	0.574	3.058	474.079	31.2875
4/1/2017 15:00	30.007	0.546	3.052	450.103	32.2495
4/1/2017 15:15	30.411	0.553	3.054	456.171	31.64625
4/1/2017 15:30	29.896	0.554	3.012	448.445	30.47975
4/1/2017 15:45	34.896	0.61	3.146	523.443	31.3025
4/1/2017 16:00	35.671	0.628	3.13	535.072	32.7185
4/1/2017 16:15	32.128	0.582	3.065	481.927	33.14775
4/1/2017 16:30	31.022	0.586	2.97	465.329	33.42925
4/1/2017 16:45	35.21	0.626	3.108	528.153	33.50775
4/1/2017 17:00	36.653	0.632	3.178	549.793	33.75325
4/1/2017 17:15	32.167	0.606	2.976	482.509	33.763
4/1/2017 17:30	36.321	0.637	3.139	544.818	35.08775
4/1/2017 17:45	29.661	0.546	3.028	444.913	33.7005
4/1/2017 18:00	32.315	0.575	3.103	484.727	32.616
4/1/2017 18:15	34.623	0.603	3.157	519.338	33.23
4/1/2017 18:30	31.561	0.57	3.07	473.414	32.04
4/1/2017 18:45	32.815	0.583	3.106	492.224	32.8285
4/1/2017 19:00	32.382	0.572	3.121	485.73	32.84525
4/1/2017 19:15	34.147	0.586	3.19	512.201	32.72625
4/1/2017 19:30	32.018	0.584	3.05	480.274	32.8405
4/1/2017 19:45	33.756	0.599	3.112	506.344	33.07575
4/1/2017 20:00	36.368	0.637	3.143	545.519	34.07225
4/1/2017 20:15	28.551	0.533	2.997	428.271	32.67325
4/1/2017 20:30	28.104	0.529	2.978	421.56	31.69475
4/1/2017 20:45	28.232	0.524	3.009	423.473	30.31375
4/1/2017 21:00	28.785	0.548	2.952	431.769	28.418
4/1/2017 21:15	28.714	0.55	2.938	430.706	28.45875
4/1/2017 21:30	24.643	0.477	2.916	369.652	27.5935
4/1/2017 21:45	24.583	0.488	2.863	368.752	26.68125
4/1/2017 22:00	43.641	0.83	2.955	654.617	30.39525
4/1/2017 22:15	28.798	0.553	2.934	431.969	30.41625
4/1/2017 22:30	21.825	0.438	2.838	327.37	29.71175
4/1/2017 22:45	23.337	0.454	2.906	350.062	29.40025
4/1/2017 23:00	22.15	0.433	2.896	332.257	24.0275
4/1/2017 23:15	18.787	0.391	2.767	281.8	21.52475
4/1/2017 23:30	19.528	0.4	2.8	292.916	20.9505
4/1/2017 23:45	23.078	0.452	2.892	346.166	20.88575
4/2/2017 0:00	20.682	0.423	2.801	310.226	20.51875
4/2/2017 0:15	21.003	0	2.833	315.049	21.07275
4/2/2017 0:30	21.324	0	2.864	319.855	21.52175
4/2/2017 0:45	19.532	0	2.686	292.986	20.63525
4/2/2017 1:00	25.094	0.503	2.843	376.414	21.73825
4/2/2017 1:15	21.625	0.423	2.894	324.369	21.89375
4/2/2017 1:30	20.03	0.399	2.855	300.452	21.57025
4/2/2017 1:45	24.641	0.493	2.849	369.618	22.8475
4/2/2017 2:00	27.153	0.546	2.836	407.298	23.36225
4/2/2017 2:15	24.647	0.477	2.919	369.7	24.11775
4/2/2017 2:30	25.032	0.473	2.971	375.481	25.36825
4/2/2017 2:45	21.692	0.422	2.907	325.375	24.631
4/2/2017 3:00	19.523	0.394	2.83	292.852	22.7235
4/2/2017 3:15	25.213	0.511	2.821	378.198	22.865
4/2/2017 3:30	21.198	0.428	2.827	317.97	21.9065
4/2/2017 3:45	21.706	0	2.877	325.593	21.91
4/2/2017 4:00	24.191	0.49	2.823	362.867	23.077
4/2/2017 4:15	23.667	0.476	2.838	355.004	22.6905

4/2/2017 4:30	25.662	0.501	2.898	384.932	23.8065
4/2/2017 4:45	23.209	0.463	2.853	348.133	24.18225
4/2/2017 5:00	21.93	0.44	2.839	328.944	23.617
4/2/2017 5:15	25.406	0.499	2.884	381.09	24.05175
4/2/2017 5:30	24.082	0.474	2.881	361.231	23.65675
4/2/2017 5:45	24.228	0.458	2.968	363.421	23.9115
4/2/2017 6:00	30.976	0.608	2.888	464.637	26.173
4/2/2017 6:15	25.88	0.5	2.922	388.201	26.2915
4/2/2017 6:30	27.483	0.543	2.874	412.239	27.14175
4/2/2017 6:45	32.879	0.618	2.98	493.185	29.3045
4/2/2017 7:00	29.761	0.552	3.009	446.42	29.00075
4/2/2017 7:15	40.372	0.704	3.152	605.575	32.62375
4/2/2017 7:30	35.065	0.622	3.113	525.981	34.51925
4/2/2017 7:45	38.876	0.667	3.192	583.141	36.0185
4/2/2017 8:00	37.168	0.64	3.183	557.514	37.87025
4/2/2017 8:15	27.646	0.512	3.014	414.694	34.68875
4/2/2017 8:30	28.782	0.544	2.968	431.732	33.118
4/2/2017 8:45	27.347	0.522	2.948	410.204	30.23575
4/2/2017 9:00	38.722	0.688	3.109	580.831	30.62425
4/2/2017 9:15	38.487	0.659	3.195	577.3	33.3345
4/2/2017 9:30	35.121	0.618	3.129	526.812	34.91925
4/2/2017 9:45	34.669	0.62	3.094	520.029	36.74975
4/2/2017 10:00	32.962	0.593	3.08	494.425	35.30975
4/2/2017 10:15	34.104	0.593	3.161	511.563	34.214
4/2/2017 10:30	31.061	0.569	3.038	465.919	33.199
4/2/2017 10:45	36.864	0.651	3.121	552.966	33.74775
4/2/2017 11:00	29.732	0.572	2.929	445.974	32.94025
4/2/2017 11:15	33.613	0.613	3.047	504.2	32.8175
4/2/2017 11:30	35.153	0.628	3.094	527.301	33.8405
4/2/2017 11:45	32.891	0.578	3.134	493.369	32.84725
4/2/2017 12:00	30.594	0.568	3.007	458.914	33.06275
4/2/2017 12:15	32.549	0.589	3.067	488.234	32.79675
4/2/2017 12:30	30.641	0.569	3.008	459.608	31.66875
4/2/2017 12:45	29.469	0.558	2.965	442.038	30.81325
4/2/2017 13:00	30.107	0.555	3.023	451.605	30.6915
4/2/2017 13:15	38.857	0.664	3.202	582.852	32.2685
4/2/2017 13:30	27.855	0.526	2.971	417.819	31.572
4/2/2017 13:45	31.943	0.58	3.058	479.139	32.1905
4/2/2017 14:00	32.485	0.589	3.06	487.278	32.785
4/2/2017 14:15	29.904	0.557	3.001	448.562	30.54675
4/2/2017 14:30	36.721	0.631	3.186	550.809	32.76325
4/2/2017 14:45	25.082	0.48	2.941	376.229	31.048
4/2/2017 15:00	30.883	0.569	3.024	463.245	30.6475
4/2/2017 15:15	33.05	0.585	3.118	495.757	31.434
4/2/2017 15:30	39.086	0.665	3.212	586.296	32.02525
4/2/2017 15:45	23.803	0.449	2.975	357.051	31.7055
4/2/2017 16:00	36.946	0.63	3.205	554.187	33.22125
4/2/2017 16:15	24.279	0.457	2.98	364.191	31.0285
4/2/2017 16:30	29.638	0.556	2.984	444.577	28.6665
4/2/2017 16:45	22.084	0.435	2.88	331.266	28.23675
4/2/2017 17:00	29.979	0.541	3.07	449.68	26.495
4/2/2017 17:15	30.282	0.543	3.086	454.227	27.99575
4/2/2017 17:30	27.9	0.518	3.009	418.505	27.56125
4/2/2017 17:45	29.225	0.536	3.036	438.371	29.3465
4/2/2017 18:00	22.508	0.433	2.932	337.614	27.47875
4/2/2017 18:15	35.542	0.623	3.138	533.135	28.79375
4/2/2017 18:30	27.77	0.505	3.053	416.552	28.76125
4/2/2017 18:45	27.303	0.5	3.038	409.539	28.28075
4/2/2017 19:00	17.795	0.343	2.923	266.92	27.1025
4/2/2017 19:15	26.95	0.509	2.971	404.254	24.9545
4/2/2017 19:30	35.059	0.605	3.178	525.888	26.77675
4/2/2017 19:45	30.802	0.556	3.071	462.034	27.6515
4/2/2017 20:00	22.466	0.443	2.878	336.985	28.81925
4/2/2017 20:15	31.716	0.566	3.097	475.736	30.01075
4/2/2017 20:30	27.134	0.511	2.976	407.013	28.0295
4/2/2017 20:45	35.167	0.626	3.102	527.509	29.12075
4/2/2017 21:00	30.386	0.571	2.981	455.795	31.10075
4/2/2017 21:15	30.629	0.562	3.036	459.439	30.829
4/2/2017 21:30	28.652	0.532	3.007	429.786	31.2085
4/2/2017 21:45	21.247	0.418	2.882	318.702	27.7285
4/2/2017 22:00	23.552	0.428	3.059	353.277	26.02
4/2/2017 22:15	22.84	0.441	2.921	342.597	24.07275
4/2/2017 22:30	21.551	0.421	2.898	323.269	22.2975
4/2/2017 22:45	21.931	0.405	3.022	328.968	22.4685
4/2/2017 23:00	17.947	0.336	2.988	269.211	21.06725
4/2/2017 23:15	22.38	0.404	3.072	335.707	20.95225
4/2/2017 23:30	19.432	0.384	2.874	291.487	20.4225
4/2/2017 23:45	16.291	0.323	2.867	244.364	19.0125
4/3/2017 0:00	19.026	0.364	2.942	285.395	19.28225
4/3/2017 0:15	18.939	0	2.932	284.088	18.422
4/3/2017 0:30	22.937	0.431	2.984	344.062	19.29825
4/3/2017 0:45	21.679	0.406	2.987	325.184	20.64525
4/3/2017 1:00	21.327	0	2.951	319.902	21.2205
4/3/2017 1:15	19.341	0.373	2.922	290.111	21.321
4/3/2017 1:30	23.117	0.417	3.073	346.752	21.366
4/3/2017 1:45	21.013	0.368	3.141	315.192	21.1995
4/3/2017 2:00	16.724	0.307	3.034	250.86	20.04875
4/3/2017 2:15	16.272	0.297	3.048	244.083	19.2815
4/3/2017 2:30	20.157	0.36	3.097	302.361	18.5415
4/3/2017 2:45	19.733	0	3.048	295.997	18.2215
4/3/2017 3:00	19.823	0	3.059	297.343	18.99625
4/3/2017 3:15	18.266	0.326	3.095	273.996	19.49475
4/3/2017 3:30	20.123	0.362	3.08	301.844	19.48625
4/3/2017 3:45	20.942	0.357	3.203	314.134	19.7885

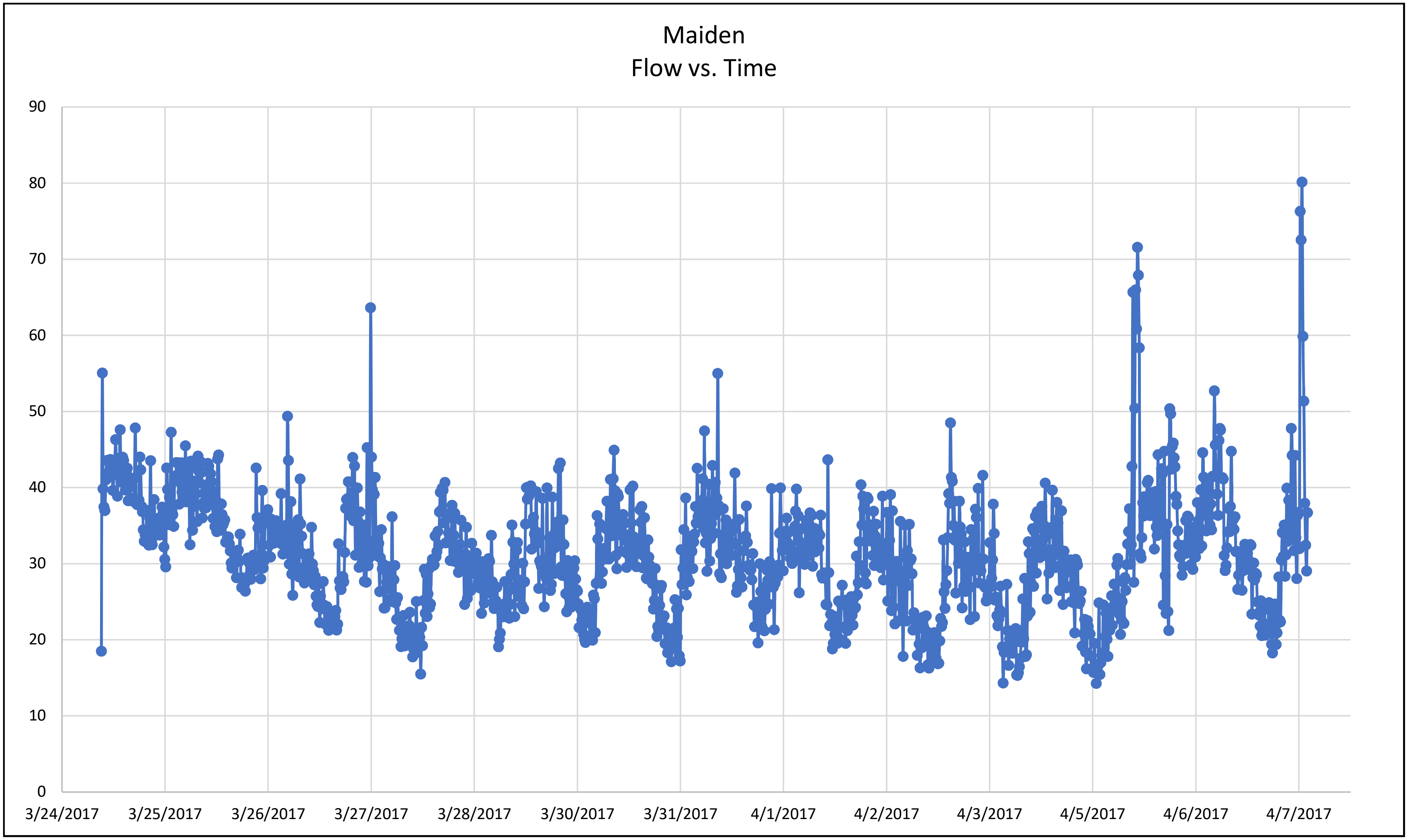
4/3/2017 4:00	18.741	0.335	3.093	281.11	19.518
4/3/2017 4:15	17.557	0	2.947	263.359	19.34075
4/3/2017 4:30	19.744	0.328	3.27	296.159	19.246
4/3/2017 4:45	16.847	0	2.906	252.703	18.22225
4/3/2017 5:00	16.883	0.357	2.733	253.248	17.75775
4/3/2017 5:15	19.852	0.421	2.729	297.784	18.3315
4/3/2017 5:30	22.781	0.455	2.848	341.709	19.09075
4/3/2017 5:45	21.744	0.437	2.837	326.161	20.315
4/3/2017 6:00	22.265	0.438	2.882	333.972	21.6605
4/3/2017 6:15	33.13	0.605	3.044	496.948	24.98
4/3/2017 6:30	26.283	0.504	2.938	394.25	25.8555
4/3/2017 6:45	24.12	0.483	2.843	361.806	26.4495
4/3/2017 7:00	27.24	0.515	2.97	408.606	27.69325
4/3/2017 7:15	29.088	0.587	2.828	436.313	26.68275
4/3/2017 7:30	33.414	0.606	3.06	501.206	28.4655
4/3/2017 7:45	39.203	0.669	3.204	588.043	32.23625
4/3/2017 8:00	37.94	0.661	3.154	569.096	34.91125
4/3/2017 8:15	48.484	0.756	3.429	727.255	39.76025
4/3/2017 8:30	41.339	0.685	3.273	620.083	41.7415
4/3/2017 8:45	40.816	0.67	3.297	612.239	42.14475
4/3/2017 9:00	34.997	0.616	3.13	524.959	41.409
4/3/2017 9:15	38.214	0.656	3.191	573.217	38.8415
4/3/2017 9:30	33.1	0.592	3.092	496.494	36.78175
4/3/2017 9:45	26.143	0.488	2.995	392.145	33.1135
4/3/2017 10:00	33.854	0.603	3.103	507.807	32.82775
4/3/2017 10:15	34.649	0.614	3.112	519.738	31.9365
4/3/2017 10:30	30.033	0.56	2.999	450.492	31.16975
4/3/2017 10:45	38.191	0.65	3.211	572.86	34.18175
4/3/2017 11:00	34.799	0.639	3.032	521.98	34.418
4/3/2017 11:15	33.853	0.602	3.105	507.79	34.219
4/3/2017 11:30	24.193	0.484	2.849	362.892	32.759
4/3/2017 11:45	31.021	0.588	2.961	465.316	30.9665
4/3/2017 12:00	27.004	0.508	2.978	405.066	29.01775
4/3/2017 12:15	32.832	0.587	3.095	492.476	28.7625
4/3/2017 12:30	26.332	0.501	2.956	394.974	29.29725
4/3/2017 12:45	27.328	0.509	3.001	409.926	28.374
4/3/2017 13:00	30.831	0.577	2.989	462.469	29.33075
4/3/2017 13:15	27.071	0.521	2.931	406.061	27.8905
4/3/2017 13:30	26.855	0.518	2.925	402.832	28.02125
4/3/2017 13:45	22.648	0.448	2.869	339.723	26.85125
4/3/2017 14:00	34.471	0.609	3.121	517.063	27.76125
4/3/2017 14:15	29.257	0.546	2.998	438.854	28.30775
4/3/2017 14:30	29.047	0.531	3.041	435.708	28.85575
4/3/2017 14:45	33.313	0.598	3.086	499.7	31.522
4/3/2017 15:00	23.037	0.459	2.855	345.55	28.6635
4/3/2017 15:15	37.16	0.633	3.206	557.405	30.63925
4/3/2017 15:30	36.074	0.624	3.171	541.115	32.396
4/3/2017 15:45	30.138	0.558	3.014	452.074	31.60225
4/3/2017 16:00	39.893	0.673	3.233	598.389	35.81625
4/3/2017 16:15	27.444	0.517	2.975	411.655	33.38725
4/3/2017 16:30	29.683	0.544	3.037	445.244	31.7895
4/3/2017 16:45	29.039	0.544	2.988	435.587	31.51475
4/3/2017 17:00	30.684	0.563	3.034	460.258	29.2125
4/3/2017 17:15	41.595	0.692	3.265	623.929	32.75025
4/3/2017 17:30	30.578	0.576	2.975	458.668	32.974
4/3/2017 17:45	27.048	0.508	2.984	405.716	32.47625
4/3/2017 18:00	26.863	0.518	2.924	402.951	31.521
4/3/2017 18:15	25.083	0.496	2.873	376.252	27.393
4/3/2017 18:30	27.231	0.511	2.984	408.472	26.55625
4/3/2017 18:45	25.839	0.481	3.003	387.591	26.254
4/3/2017 19:00	25.289	0.488	2.922	379.34	25.8605
4/3/2017 19:15	32.746	0.587	3.088	491.195	27.77625
4/3/2017 19:30	26.972	0.524	2.91	404.576	27.7115
4/3/2017 19:45	28.098	0.524	2.999	421.47	28.27625
4/3/2017 20:00	30.509	0.563	3.022	457.628	29.58125
4/3/2017 20:15	37.809	0.634	3.244	567.129	30.847
4/3/2017 20:30	33.952	0.611	3.077	509.273	32.592
4/3/2017 20:45	25.216	0.482	2.944	378.244	31.8715
4/3/2017 21:00	25.595	0.489	2.947	383.929	30.643
4/3/2017 21:15	23.167	0.454	2.891	347.511	26.9825
4/3/2017 21:30	21.836	0.441	2.827	327.533	23.9535
4/3/2017 21:45	22.706	0.45	2.869	340.589	23.326
4/3/2017 22:00	23.912	0.473	2.873	358.68	22.90525
4/3/2017 22:15	27.038	0.53	2.89	405.564	23.873
4/3/2017 22:30	23.536	0.459	2.9	353.04	24.298
4/3/2017 22:45	19.057	0.385	2.828	285.862	23.38575
4/3/2017 23:00	14.325	0.3	2.755	214.872	20.989
4/3/2017 23:15	18.344	0.381	2.77	275.161	18.8155
4/3/2017 23:30	18.594	0	2.797	278.907	17.58
4/3/2017 23:45	18.455	0.39	2.733	276.831	17.4295
4/4/2017 0:00	27.268	0.567	2.766	409.027	20.66525
4/4/2017 0:15	21.201	0.432	2.807	318.015	21.3795
4/4/2017 0:30	16.631	0.339	2.81	249.472	20.88875
4/4/2017 0:45	20.13	0.371	3.024	301.951	21.3075
4/4/2017 1:00	20.15	0	3.026	302.255	19.528
4/4/2017 1:15	18.821	0.394	2.755	282.319	18.933
4/4/2017 1:30	18.232	0.368	2.829	273.473	19.33325
4/4/2017 1:45	19.417	0.379	2.899	291.25	19.155
4/4/2017 2:00	19.602	0.382	2.902	294.034	19.018
4/4/2017 2:15	20.208	0.398	2.88	303.127	19.36475
4/4/2017 2:30	21.464	0	3.011	321.964	20.17275
4/4/2017 2:45	15.371	0.3	2.9	230.56	19.16125
4/4/2017 3:00	15.314	0	2.892	229.712	18.08925
4/4/2017 3:15	15.671	0	2.942	235.06	16.955

4/4/2017 3:30	16.452	0.318	2.923	246.785	15.702
4/4/2017 3:45	17.542	0.343	2.894	263.132	16.24475
4/4/2017 4:00	19.672	0.378	2.932	295.074	17.33425
4/4/2017 4:15	21.237	0	3.103	318.552	18.72575
4/4/2017 4:30	25.346	0.505	2.854	380.192	20.94925
4/4/2017 4:45	20.126	0.404	2.838	301.891	21.59525
4/4/2017 5:00	28.073	0.476	3.219	421.097	23.6955
4/4/2017 5:15	17.789	0.371	2.761	266.842	22.8335
4/4/2017 5:30	18.023	0.37	2.793	270.348	21.00275
4/4/2017 5:45	23.107	0.45	2.906	346.609	21.748
4/4/2017 6:00	32.881	0.635	2.923	493.219	22.95
4/4/2017 6:15	31.311	0.577	3.025	469.67	26.3305
4/4/2017 6:30	23.61	0.462	2.895	354.151	27.72725
4/4/2017 6:45	27.463	0.514	2.99	411.95	28.81625
4/4/2017 7:00	29.623	0.55	3.01	444.346	28.00175
4/4/2017 7:15	34.593	0.64	3.018	518.901	28.82225
4/4/2017 7:30	27.003	0.504	2.998	405.045	29.6705
4/4/2017 7:45	34.233	0.601	3.136	513.492	31.363
4/4/2017 8:00	36.201	0.622	3.185	543.016	33.0075
4/4/2017 8:15	28.748	0.543	2.969	431.227	31.54625
4/4/2017 8:30	36.818	0.633	3.186	552.267	34
4/4/2017 8:45	33.096	0.594	3.086	496.446	33.71575
4/4/2017 9:00	33.041	0.619	2.99	495.621	32.92575
4/4/2017 9:15	30.787	0.577	2.989	461.799	33.4355
4/4/2017 9:30	31.948	0.58	3.06	479.218	32.218
4/4/2017 9:45	37.527	0.636	3.222	562.905	33.32575
4/4/2017 10:00	35.145	0.617	3.137	527.179	33.85175
4/4/2017 10:15	32.051	0.594	3.014	480.765	34.16775
4/4/2017 10:30	34.975	0.619	3.117	524.628	34.9245
4/4/2017 10:45	40.563	0.692	3.202	608.452	35.6835
4/4/2017 11:00	33.536	0.603	3.079	503.047	35.28125
4/4/2017 11:15	25.347	0.501	2.871	380.205	33.60525
4/4/2017 11:30	30.914	0.569	3.029	463.709	32.59
4/4/2017 11:45	28.741	0.544	2.965	431.113	29.6345
4/4/2017 12:00	34.337	0.606	3.123	515.052	29.83475
4/4/2017 12:15	34.715	0.609	3.137	520.731	32.17675
4/4/2017 12:30	34.3	0.569	3.271	514.504	33.02325
4/4/2017 12:45	39.65	0.667	3.236	594.751	35.7505
4/4/2017 13:00	29.773	0.551	3.017	446.59	34.6095
4/4/2017 13:15	31.899	0.592	3.009	478.484	33.9055
4/4/2017 13:30	29.461	0.549	3	441.919	32.69575
4/4/2017 13:45	35.66	0.632	3.114	534.904	31.69825
4/4/2017 14:00	38.052	0.643	3.227	570.781	33.768
4/4/2017 14:15	35.338	0.606	3.193	530.065	34.62775
4/4/2017 14:30	31.178	0.596	2.943	467.663	35.057
4/4/2017 14:45	26.474	0.508	2.934	397.104	32.7605
4/4/2017 15:00	31.76	0.579	3.048	476.403	31.1875
4/4/2017 15:15	36.927	0.641	3.162	553.912	31.58475
4/4/2017 15:30	29.564	0.547	3.015	443.466	31.18125
4/4/2017 15:45	24.639	0.493	2.846	369.588	30.7225
4/4/2017 16:00	31.632	0.57	3.075	474.484	30.6905
4/4/2017 16:15	28.698	0.526	3.036	430.473	28.63325
4/4/2017 16:30	29.238	0.533	3.05	438.568	28.55175
4/4/2017 16:45	26.812	0.498	3.008	402.178	29.095
4/4/2017 17:00	30.458	0.564	3.015	456.871	28.8015
4/4/2017 17:15	29.589	0.544	3.03	443.833	29.02425
4/4/2017 17:30	29.558	0.554	2.986	443.375	29.10425
4/4/2017 17:45	30.505	0.592	2.91	457.575	30.0275
4/4/2017 18:00	24.982	0.474	2.962	374.728	28.6585
4/4/2017 18:15	29.061	0.552	2.956	435.921	28.5265
4/4/2017 18:30	27.194	0.523	2.931	407.907	27.9355
4/4/2017 18:45	24.826	0.474	2.945	372.395	26.51575
4/4/2017 19:00	20.905	0.419	2.84	313.568	25.4965
4/4/2017 19:15	30.545	0.596	2.9	458.17	25.8675
4/4/2017 19:30	30.316	0.54	3.1	454.746	26.648
4/4/2017 19:45	29.801	0.549	3.024	447.022	27.89175
4/4/2017 20:00	26.136	0.493	2.971	392.034	29.1995
4/4/2017 20:15	24.761	0.472	2.952	371.42	27.7535
4/4/2017 20:30	25.118	0.44	3.142	376.768	26.454
4/4/2017 20:45	26.334	0.457	3.164	395.006	25.58725
4/4/2017 21:00	19.143	0.343	3.092	287.148	23.839
4/4/2017 21:15	19.16	0.394	2.788	287.402	22.43875
4/4/2017 21:30	20.774	0.426	2.795	311.604	21.35275
4/4/2017 21:45	22.66	0.461	2.812	339.905	20.43425
4/4/2017 22:00	18.369	0.377	2.793	275.538	20.24075
4/4/2017 22:15	16.167	0.331	2.797	242.503	19.4925
4/4/2017 22:30	22.514	0.432	2.936	337.71	19.9275
4/4/2017 22:45	21.702	0.368	3.221	325.524	19.688
4/4/2017 23:00	20.937	0	3.136	314.054	20.33
4/4/2017 23:15	20.763	0	3.116	311.438	21.479
4/4/2017 23:30	17.827	0.316	3.114	267.406	20.30725
4/4/2017 23:45	16.133	0.266	3.287	241.989	18.915
4/5/2017 0:00	16.223	0	3.301	243.349	17.7365
4/5/2017 0:15	15.708	0	3.222	235.619	16.47275
4/5/2017 0:30	19.517	0.317	3.323	292.755	16.89525
4/5/2017 0:45	15.719	0.256	3.315	235.788	16.79175
4/5/2017 1:00	14.264	0.236	3.282	213.957	16.302
4/5/2017 1:15	16.585	0.274	3.278	248.771	16.52125
4/5/2017 1:30	16.539	0.275	3.264	248.081	15.77675
4/5/2017 1:45	24.856	0.494	2.859	372.844	18.061
4/5/2017 2:00	15.437	0.344	2.633	231.559	18.35425
4/5/2017 2:15	17.001	0	2.825	255.02	18.45825
4/5/2017 2:30	17.909	0.351	2.887	268.642	18.80075
4/5/2017 2:45	18.192	0	2.921	272.877	17.13475

4/5/2017 3:00	24.572	0.542	2.65	368.581	19.4185
4/5/2017 3:15	17.742	0.378	2.718	266.128	19.60375
4/5/2017 3:30	20.386	0.41	2.838	305.792	20.223
4/5/2017 3:45	23.49	0.468	2.857	352.355	21.5475
4/5/2017 4:00	20.06	0.408	2.811	300.906	20.4195
4/5/2017 4:15	17.803	0.366	2.788	267.04	20.43475
4/5/2017 4:30	23.235	0.48	2.779	348.523	21.147
4/5/2017 4:45	21.217	0.437	2.785	318.258	20.57875
4/5/2017 5:00	21.995	0.428	2.908	329.927	21.0625
4/5/2017 5:15	25.785	0.503	2.9	386.78	23.058
4/5/2017 5:30	21.885	0.432	2.876	328.269	22.7205
4/5/2017 5:45	24.356	0.473	2.912	365.34	23.50525
4/5/2017 6:00	27.296	0.528	2.917	409.435	24.8305
4/5/2017 6:15	25.598	0.488	2.948	383.97	24.78375
4/5/2017 6:30	25.783	0.489	2.961	386.745	25.75825
4/5/2017 6:45	29.805	0.555	3.002	447.075	27.1205
4/5/2017 7:00	30.679	0.57	3.006	460.187	27.96625
4/5/2017 7:15	25.256	0.486	2.928	378.838	27.88075
4/5/2017 7:30	23.302	0.45	2.922	349.536	27.2605
4/5/2017 7:45	20.695	0.409	2.874	310.419	24.983
4/5/2017 8:00	22.621	0.443	2.894	339.321	22.9685
4/5/2017 8:15	25.028	0.477	2.952	375.427	22.9115
4/5/2017 8:30	27.595	0.523	2.962	413.927	23.98475
4/5/2017 8:45	22.132	0.436	2.877	331.973	24.344
4/5/2017 9:00	28.162	0.53	2.977	422.432	25.72925
4/5/2017 9:15	26.497	0.502	2.964	397.452	26.0965
4/5/2017 9:30	29.857	0.581	2.906	447.85	26.662
4/5/2017 9:45	32.586	0.569	3.148	488.793	29.2755
4/5/2017 10:00	34.185	0.601	3.134	512.774	30.78125
4/5/2017 10:15	37.204	0.589	3.389	558.057	33.458
4/5/2017 10:30	29.933	0.529	3.123	448.993	33.477
4/5/2017 10:45	32.491	0.577	3.109	487.359	33.45325
4/5/2017 11:00	42.783	0.706	3.285	641.748	35.60275
4/5/2017 11:15	65.684	0.899	3.789	985.261	42.72275
4/5/2017 11:30	27.56	0.518	2.979	413.401	42.1295
4/5/2017 11:45	50.43	0.764	3.504	756.454	46.61425
4/5/2017 12:00	65.977	0.899	3.8	989.652	52.41275
4/5/2017 12:15	60.864	0.867	3.674	912.956	51.20775
4/5/2017 12:30	71.57	0.954	3.867	1073.55	62.21025
4/5/2017 12:45	67.904	0.918	3.824	1018.56	66.57875
4/5/2017 13:00	58.35	0.836	3.658	875.244	64.672
4/5/2017 13:15	31.313	0.553	3.123	469.701	57.28425
4/5/2017 13:30	30.744	0.562	3.043	461.155	47.07775
4/5/2017 13:45	33.415	0.589	3.129	501.225	38.4555
4/5/2017 14:00	37.982	0.639	3.238	569.724	33.3635
4/5/2017 14:15	36.259	0.64	3.124	543.89	34.6
4/5/2017 14:30	38.816	0.652	3.243	582.237	36.618
4/5/2017 14:45	36.633	0.626	3.198	549.5	37.4225
4/5/2017 15:00	38.297	0.652	3.207	574.449	37.50125
4/5/2017 15:15	40.629	0.67	3.288	609.442	38.59375
4/5/2017 15:30	40.949	0.667	3.319	614.241	39.127
4/5/2017 15:45	37.106	0.637	3.187	556.594	39.24525
4/5/2017 16:00	36.309	0.637	3.136	544.637	38.74825
4/5/2017 16:15	38.305	0.653	3.207	574.573	38.16725
4/5/2017 16:30	37.393	0.64	3.197	560.898	37.27825
4/5/2017 16:45	39.343	0.672	3.2	590.14	37.8375
4/5/2017 17:00	36.924	0.628	3.211	553.863	37.99125
4/5/2017 17:15	31.898	0.563	3.124	478.47	36.3895
4/5/2017 17:30	39.455	0.655	3.27	591.83	36.905
4/5/2017 17:45	34.809	0.599	3.184	522.13	35.7715
4/5/2017 18:00	33.695	0.585	3.162	505.429	34.96425
4/5/2017 18:15	44.301	0.749	3.224	664.513	38.065
4/5/2017 18:30	34.872	0.598	3.193	523.086	36.91925
4/5/2017 18:45	35.57	0.605	3.209	533.549	37.1095
4/5/2017 19:00	35.851	0.619	3.176	537.768	37.6485
4/5/2017 19:15	42.466	0.683	3.35	636.983	37.18975
4/5/2017 19:30	41.81	0.676	3.337	627.148	38.92425
4/5/2017 19:45	24.534	0.494	2.833	368.015	36.16525
4/5/2017 20:00	44.771	0.705	3.402	671.565	38.39525
4/5/2017 20:15	28.415	0.528	3.007	426.218	34.8825
4/5/2017 20:30	23.445	0.444	2.964	351.676	30.29125
4/5/2017 20:45	35.121	0.599	3.206	526.82	32.938
4/5/2017 21:00	23.706	0.454	2.938	355.586	27.67175
4/5/2017 21:15	21.192	0.42	2.867	317.883	25.866
4/5/2017 21:30	50.358	0.761	3.511	755.377	32.59425
4/5/2017 21:45	49.699	0.754	3.5	745.48	36.23875
4/5/2017 22:00	42.425	0.681	3.355	636.377	40.9185
4/5/2017 22:15	45.424	0.719	3.391	681.366	46.9765
4/5/2017 22:30	45.832	0.727	3.385	687.479	45.845
4/5/2017 22:45	43.917	0.699	3.377	658.761	44.3995
4/5/2017 23:00	42.712	0.69	3.338	640.679	44.47125
4/5/2017 23:15	38.835	0.663	3.201	582.528	42.824
4/5/2017 23:30	37.791	0.635	3.242	566.861	40.81375
4/5/2017 23:45	34.302	0.616	3.084	514.524	38.41
4/6/2017 0:00	32.478	0.573	3.125	487.163	35.8515
4/6/2017 0:15	31.073	0.555	3.096	466.096	33.911
4/6/2017 0:30	30.828	0.553	3.084	462.427	32.17025
4/6/2017 0:45	31.276	0.564	3.076	469.139	31.41375
4/6/2017 1:00	28.47	0.51	3.09	427.049	30.41175
4/6/2017 1:15	29.61	0.535	3.069	444.149	30.046
4/6/2017 1:30	32.395	0.579	3.095	485.932	30.43775
4/6/2017 1:45	32.317	0.581	3.081	484.749	30.698
4/6/2017 2:00	35.665	0.628	3.129	534.982	32.49675
4/6/2017 2:15	31.37	0.562	3.088	470.55	32.93675

4/6/2017 2:30	36.246	0.624	3.183	543.697	33.8995
4/6/2017 2:45	36.066	0.623	3.174	540.985	34.83675
4/6/2017 3:00	32.526	0.572	3.134	487.89	34.052
4/6/2017 3:15	32.871	0.577	3.137	493.059	34.42725
4/6/2017 3:30	29.864	0.535	3.089	447.965	32.83175
4/6/2017 3:45	34.772	0.626	3.079	521.574	32.50825
4/6/2017 4:00	29.246	0.522	3.098	438.692	31.68825
4/6/2017 4:15	34.415	0.601	3.147	516.221	32.07425
4/6/2017 4:30	31.472	0.556	3.12	472.086	32.47625
4/6/2017 4:45	30.862	0.547	3.115	462.926	31.49875
4/6/2017 5:00	32.853	0.57	3.164	492.799	32.4005
4/6/2017 5:15	38.011	0.639	3.24	570.163	33.2995
4/6/2017 5:30	35.603	0.63	3.116	534.045	34.33225
4/6/2017 5:45	31.983	0.582	3.052	479.74	34.6125
4/6/2017 6:00	34.624	0.606	3.143	519.356	35.05525
4/6/2017 6:15	39.714	0.665	3.25	595.709	35.481
4/6/2017 6:30	32.326	0.574	3.111	484.891	34.66175
4/6/2017 6:45	44.577	0.709	3.376	668.651	37.81025
4/6/2017 7:00	41.346	0.673	3.32	620.188	39.49075
4/6/2017 7:15	36.371	0.637	3.143	545.567	38.655
4/6/2017 7:30	37.493	0.627	3.251	562.391	39.94675
4/6/2017 7:45	34.298	0.589	3.187	514.477	37.377
4/6/2017 8:00	39.174	0.647	3.282	587.613	36.834
4/6/2017 8:15	40.323	0.658	3.313	604.838	37.822
4/6/2017 8:30	36.212	0.622	3.189	543.183	37.50175
4/6/2017 8:45	35.035	0.608	3.163	525.53	37.686
4/6/2017 9:00	37.848	0.616	3.317	567.716	37.3545
4/6/2017 9:15	34.44	0.595	3.175	516.606	35.88375
4/6/2017 9:30	41.469	0.686	3.28	622.032	37.198
4/6/2017 9:45	41.443	0.679	3.303	621.643	38.8
4/6/2017 10:00	52.697	0.791	3.528	790.461	42.51225
4/6/2017 10:15	45.614	0.714	3.417	684.215	45.30575
4/6/2017 10:30	41.659	0.67	3.351	624.885	45.35325
4/6/2017 10:45	39.131	0.663	3.219	586.961	44.77525
4/6/2017 11:00	36.339	0.622	3.197	545.081	40.68575
4/6/2017 11:15	46.181	0.722	3.423	692.713	40.8275
4/6/2017 11:30	47.762	0.748	3.419	716.425	42.35325
4/6/2017 11:45	47.561	0.738	3.442	713.408	44.46075
4/6/2017 12:00	41.306	0.676	3.306	619.594	45.7025
4/6/2017 12:15	41.295	0.673	3.315	619.429	44.481
4/6/2017 12:30	41.129	0.667	3.328	616.94	42.82275
4/6/2017 12:45	31.081	0.55	3.119	466.216	38.70275
4/6/2017 13:00	29.089	0.523	3.082	436.33	35.6485
4/6/2017 13:15	29.78	0.539	3.065	446.701	32.76975
4/6/2017 13:30	32.065	0.559	3.153	480.981	30.50375
4/6/2017 13:45	34.18	0.593	3.165	512.698	31.2785
4/6/2017 14:00	37.219	0.633	3.212	558.283	33.311
4/6/2017 14:15	34.186	0.592	3.168	512.788	34.4125
4/6/2017 14:30	37.515	0.644	3.189	562.729	35.775
4/6/2017 14:45	44.745	0.744	3.265	671.168	38.41625
4/6/2017 15:00	34.8	0.582	3.25	521.997	37.8115
4/6/2017 15:15	35.749	0.606	3.219	536.229	38.20225
4/6/2017 15:30	34.487	0.593	3.184	517.303	37.44525
4/6/2017 15:45	36.164	0.602	3.265	542.456	35.3
4/6/2017 16:00	31.589	0.548	3.162	473.842	34.49725
4/6/2017 16:15	31.596	0.545	3.178	473.935	33.459
4/6/2017 16:30	26.609	0.486	3.047	399.14	31.4895
4/6/2017 16:45	28.496	0.506	3.108	427.447	29.5725
4/6/2017 17:00	31.505	0.555	3.127	472.573	29.5515
4/6/2017 17:15	31.545	0.563	3.096	473.175	29.53875
4/6/2017 17:30	29.938	0.542	3.064	449.071	30.371
4/6/2017 17:45	26.505	0.491	3.013	397.57	29.87325
4/6/2017 18:00	29.061	0.522	3.084	435.918	29.26225
4/6/2017 18:15	31.516	0.558	3.117	472.737	29.255
4/6/2017 18:30	32.554	0.576	3.12	488.315	29.909
4/6/2017 18:45	29.194	0.526	3.075	437.903	30.58125
4/6/2017 19:00	29.909	0.535	3.093	448.63	30.79325
4/6/2017 19:15	31.333	0.56	3.096	470.002	30.7475
4/6/2017 19:30	30.446	0.554	3.055	456.695	30.2205
4/6/2017 19:45	29.553	0.529	3.091	443.29	30.31025
4/6/2017 20:00	32.515	0.56	3.181	487.732	30.96175
4/6/2017 20:15	32.393	0.588	3.059	485.897	31.22675
4/6/2017 20:30	23.371	0.444	2.957	350.566	29.458
4/6/2017 20:45	28.141	0.499	3.112	422.117	29.105
4/6/2017 21:00	30.086	0.533	3.117	451.296	28.49775
4/6/2017 21:15	27.883	0.515	3.021	418.244	27.37025
4/6/2017 21:30	28.73	0.52	3.067	430.949	28.71
4/6/2017 21:45	28.554	0.521	3.048	428.305	28.81325
4/6/2017 22:00	24.966	0.473	2.964	374.489	27.53325
4/6/2017 22:15	23.485	0.437	3.001	352.274	26.43375
4/6/2017 22:30	23.208	0.449	2.917	348.124	25.05325
4/6/2017 22:45	21.801	0.423	2.91	327.021	23.365
4/6/2017 23:00	25.106	0.484	2.926	376.583	23.4
4/6/2017 23:15	20.525	0.402	2.891	307.869	22.66
4/6/2017 23:30	21.112	0.408	2.918	316.673	22.136
4/6/2017 23:45	24.057	0.46	2.946	360.856	22.7
4/7/2017 0:00	23.933	0.464	2.915	358.996	22.40675
4/7/2017 0:15	20.59	0.401	2.901	308.845	22.423
4/7/2017 0:30	22.009	0.419	2.952	330.135	22.64725
4/7/2017 0:45	21.888	0.429	2.888	328.314	22.105
4/7/2017 1:00	22.033	0.427	2.917	330.492	21.63
4/7/2017 1:15	24.865	0.481	2.916	372.976	22.69875
4/7/2017 1:30	21.496	0.418	2.907	322.444	22.5705
4/7/2017 1:45	23.894	0.463	2.917	358.41	23.072

4/7/2017 2:00	19.383	0.376	2.91	290.741	22.4095
4/7/2017 2:15	18.251	0.356	2.901	273.759	20.756
4/7/2017 2:30	23.947	0.451	2.976	359.208	21.36875
4/7/2017 2:45	24.167	0	2.996	362.504	21.437
4/7/2017 3:00	24.679	0.462	2.988	370.19	22.761
4/7/2017 3:15	19.374	0.354	3.043	290.613	23.04175
4/7/2017 3:30	20.89	0.38	3.057	313.357	22.2775
4/7/2017 3:45	22.198	0.404	3.053	332.969	21.78525
4/7/2017 4:00	28.236	0.507	3.084	423.542	22.6745
4/7/2017 4:15	22.539	0.409	3.059	338.078	23.46575
4/7/2017 4:30	22.353	0.398	3.104	335.296	23.8315
4/7/2017 4:45	30.465	0.512	3.242	456.976	25.89825
4/7/2017 5:00	34.085	0.595	3.148	511.282	27.3605
4/7/2017 5:15	30.951	0.542	3.143	464.27	29.4635
4/7/2017 5:30	35.06	0.606	3.171	525.907	32.64025
4/7/2017 5:45	28.339	0.516	3.051	425.085	32.10875
4/7/2017 6:00	31.162	0.558	3.092	467.431	31.378
4/7/2017 6:15	39.916	0.664	3.267	598.734	33.61925
4/7/2017 6:30	32.938	0.572	3.16	494.066	33.08875
4/7/2017 6:45	38.313	0.637	3.267	574.697	35.58225
4/7/2017 7:00	34.127	0.597	3.145	511.909	36.3235
4/7/2017 7:15	33.754	0.608	3.076	506.306	34.783
4/7/2017 7:30	47.768	0.75	3.411	716.524	38.4905
4/7/2017 7:45	44.203	0.717	3.328	663.04	39.963
4/7/2017 8:00	34.653	0.594	3.194	519.794	40.0945
4/7/2017 8:15	31.687	0.585	3.02	475.311	39.57775
4/7/2017 8:30	44.23	0.721	3.317	663.454	38.69325
4/7/2017 8:45	33.419	0.582	3.154	501.279	35.99725
4/7/2017 9:00	28.024	0.541	2.923	420.363	34.34
4/7/2017 9:15	36.363	0.636	3.143	545.438	35.509
4/7/2017 9:30	36.711	0.641	3.15	550.66	33.62925
4/7/2017 9:45	31.986	0.586	3.039	479.793	33.271
4/7/2017 10:00	76.297	0.969	4.016	1144.45	45.33925
4/7/2017 10:15	72.54	0.941	3.949	1088.1	54.3835
4/7/2017 10:30	80.133	1.032	3.973	1202	65.239
4/7/2017 10:45	59.851	0.868	3.623	897.771	72.20525
4/7/2017 11:00	51.343	0.796	3.442	770.138	65.96675
4/7/2017 11:15	37.935	0.647	3.204	569.021	57.3155
4/7/2017 11:30	32.413	0.574	3.115	486.19	45.3855
4/7/2017 11:45	29.015	0.542	2.995	435.219	37.6765
4/7/2017 12:00	36.694	0.642	3.145	550.412	34.01425


Maiden
Flow vs. Time
90
80
70
60
50
40
30
20
10
0
3/24/2017
3/25/2017
3/26/2017
3/27/2017
3/28/2017
3/30/2017
3/31/2017
4/1/2017
4/2/2017
4/3/2017
4/5/2017
4/6/2017
4/7/2017

Waterfront Meter Location #1

Waterfront Meter Location #2

Waterfront Meter Location #3

Waterfront Meter Location #4

Waterfront Meter Location #5

Maiden Meter Location #1

Maiden Meter Location #2

Main Lift Station #1

Main Lift Station #2

Solid Rock Estates Pond from MH w/I & I

Solid Rock Estates Pond from MH w/I & I

Solid Rock Estates MH w/I & I

APPENDIX L

Pump Records & Calculations

Date		Pump1	Pump2	Pump1Run	Pump2Run	TotalRun	Run/day	Pump 1 Vol (gal)	Pump 2 Vol (gal)	Total Vol (gal)	Daily Flow
							Flowrate				
							OLD PUMPS	150	150	verify with system curve	
							NEW PUMPS	200	200	verify with drawdown	
1/2/2014	8:30	12073	11910							0	
1/3/2014	9:00	12075	11913	2	3	5	5.0	18000	27000	45,000	45000
1/6/2014		12080	11919	5	6	11	3.7	45000	54000	99,000	33000
1/10/2014		12088	11927	8	8	16	4.0	72000	72000	144,000	36000
1/13/2014		12095	11935	7	8	15	5.0	63000	72000	135,000	45000
1/15/2014		12099	11939	4	4	8	4.0	36000	36000	72,000	36000
1/17/2014		12103	11943	4	4	8	4.0	36000	36000	72,000	36000
1/21/2014		12109	11950	6	7	13	3.3	54000	63000	117,000	29250
1/22/2014		12111	11952	2	2	4	4.0	18000	18000	36,000	36000
1/24/2014		12115	11956	4	4	8	4.0	36000	36000	72,000	36000
1/27/2014		12120	11962	5	6	11	3.7	45000	54000	99,000	33000
1/29/2014		12124	11966	4	4	8	4.0	36000	36000	72,000	36000
1/31/2014		12128	11970	4	4	8	4.0	36000	36000	72,000	36000
2/4/2014		12135	11975	7	5	12	3.0	63000	45000	108,000	27000
2/5/2014		12136	11980	1	5	6	6.0	9000	45000	54,000	54000
2/7/2014		12141	11984	5	4	9	4.5	45000	36000	81,000	40500
2/10/2014		12147	11991	6	7	13	4.3	54000	63000	117,000	39000
2/12/2014		12152	11997	5	6	11	5.5	45000	54000	99,000	49500
2/14/2014		12159	12004	7	7	14	7.0	63000	63000	126,000	63000
2/18/2014		12169	12016	10	12	22	5.5	90000	108000	198,000	49500
2/26/2014		12190	12038	21	22	43	5.4	189000	198000	387,000	48375
2/28/2014		12195	12043	5	5	10	5.0	45000	45000	90,000	45000
3/5/2014		12210	12059	15	16	31	6.2	135000	144000	279,000	55800
3/7/2014		12222	12074	12	15	27	13.5	108000	135000	243,000	121500
3/10/2014		12238	12090	16	16	32	10.7	144000	144000	288,000	96000
3/12/2014		12248	12101	10	11	21	10.5	90000	99000	189,000	94500
3/13/2014		12252	12106	4	5	9	9.0	36000	45000	81,000	81000
3/14/2014		12257	12111	5	5	10	10.0	45000	45000	90,000	90000
3/17/2014		12268	12123	11	12	23	7.7	99000	108000	207,000	69000
3/19/2014		12275	12131	7	8	15	7.5	63000	72000	135,000	67500
3/21/2014		12282	12139	7	8	15	7.5	63000	72000	135,000	67500
3/24/2014		12292	12150	10	11	21	7.0	90000	99000	189,000	63000
3/26/2014		12298	12157	6	7	13	6.5	54000	63000	117,000	58500
3/28/2014		12304	12164	6	7	13	6.5	54000	63000	117,000	58500
3/31/2014		12317	12172	13	8	21	7.0	117000	72000	189,000	63000
4/2/2014		12316	12178	-1	6	5	2.5	-9000	54000	45,000	22500
4/4/2014		12321	12183	5	5	10	5.0	45000	45000	90,000	45000
4/7/2014		12327	12190	6	7	13	4.3	54000	63000	117,000	39000
4/9/2014		12331	12194	4	4	8	4.0	36000	36000	72,000	36000
4/11/2014		12336	12199	5	5	10	5.0	45000	45000	90,000	45000
4/15/2014		12345	12210	9	11	20	5.0	81000	99000	180,000	45000
4/16/2014		12348	12213	3	3	6	6.0	27000	27000	54,000	54000
4/18/2014		12354	12220	6	7	13	6.5	54000	63000	117,000	58500
4/21/2014		12361	12228	7	8	15	5.0	63000	72000	135,000	45000
4/23/2014		12366	12233	5	5	10	5.0	45000	45000	90,000	45000
4/25/2014		12370	12239	4	6	10	5.0	36000	54000	90,000	45000
4/28/2014		12379	12249	9	10	19	6.3	81000	90000	171,000	57000
5/2/2014		12387	12260	8	11	19	4.8	72000	99000	171,000	42750
5/5/2014		12393	12268	6	8	14	4.7	54000	72000	126,000	42000
5/7/2014		12397	12273	4	5	9	4.5	36000	45000	81,000	40500
5/9/2014		12401	12278	4	5	9	4.5	36000	45000	81,000	40500
5/12/2014		12408	12285	7	7	14	4.7	63000	63000	126,000	42000
5/14/2014		12412	12290	4	5	9	4.5	36000	45000	81,000	40500
5/16/2014		12415	12295	3	5	8	4.0	27000	45000	72,000	36000
5/19/2014		12421	12304	6	9	15	5.0	54000	81000	135,000	45000
5/21/2014		12424	12309	3	5	8	4.0	27000	45000	72,000	36000
5/23/2014		12427	12314	3	5	8	4.0	27000	45000	72,000	36000
5/27/2014		12434	12324	7	10	17	4.3	63000	90000	153,000	38250
5/28/2014		12436	12326	2	2	4	4.0	18000	18000	36,000	36000
5/30/2014		12439	12331	3	5	8	4.0	27000	45000	72,000	36000
7/2/2014		12507	12439	68	108	176	5.3	612000	972000	1,584,000	48000
7/3/2014		12509	12441	2	2	4	4.0	18000	18000	36,000	36000
7/7/2014		12519	12453	10	12	22	5.5	90000	108000	198,000	49500
7/9/2014		12524	12458	5	5	10	5.0	45000	45000	90,000	45000
7/11/2014		12529	12464	5	6	11	5.5	45000	54000	99,000	49500
7/14/2014		12536	12473	7	9	16	5.3	63000	81000	144,000	48000
7/16/2014		12541	12479	5	6	11	5.5	45000	54000	99,000	49500
7/18/2014		12547	12485	6	6	12	6.0	54000	54000	108,000	54000
7/21/2014		12554	12494	7	9	16	5.3	63000	81000	144,000	48000
7/23/2014		12559	12499	5	5	10	5.0	45000	45000	90,000	45000
7/25/2014		12563	12505	4	6	10	5.0	36000	54000	90,000	45000
7/28/2014		12570	12514	7	9	16	5.3	63000	81000	144,000	48000
7/30/2014		12575	12519	5	5	10	5.0	45000	45000	90,000	45000
8/1/2014		12580	12526	5	7	12	6.0	45000	63000	108,000	54000
8/4/2014		12589	12538	9	12	21	7.0	81000	108000	189,000	63000
8/6/2014		12594	12542	5	4	9	4.5	45000	36000	81,000	40500
8/8/2014		12600	12549	6	7	13	6.5	54000	63000	117,000	58500
8/11/2014		12607	12558	7	9	16	5.3	63000	81000	144,000	48000
8/13/2014		12613	12565	6	7	13	6.5	54000	63000	117,000	58500
8/15/2014		12618	12571	5	6	11	5.5	45000	54000	99,000	49500
8/18/2014		12627	12581	9	10	19	6.3	81000	90000	171,000	57000
8/20/2014		12633	12588	6	7	13	6.5	54000	63000	117,000	58500
8/22/2014		12639	12595	6	7	13	6.5	54000	63000	117,000	58500
8/25/2014		12647	12604	8	9	17	5.7	72000	81000	153,000	51000
8/26/2014		12650	12607	3	3	6	6.0	27000	27000	54,000	54000
8/27/2014		12653	12610	3	3	6	6.0	27000	27000	54,000	54000
8/29/2014		12659	12618	6	8	14	7.0	54000	72000	126,000	63000
9/1/2014		12668	12628	9	10	19	6.3	81000	90000	171,000	57000
9/2/2014		12671	12631	3	3	6	6.0	27000	27000	54,000	54000

						Flowrate				
						OLD PUMPS	150	150	verify with system curve	
						NEW PUMPS	200	200	verify with drawdown	
Date	Pump1	Pump2	Pump1Run	Pump2Run	TotalRun	Run/day	Pump 1 Vol (gal)	Pump 2 Vol (gal)	Total Vol (gal)	Daily Flow
9/3/2014	12675	12634	4	3	7	7.0	36000	27000	63,000	63000
9/5/2014	12679	12640	4	6	10	5.0	36000	54000	90,000	45000
9/8/2014	12689	12651	10	11	21	7.0	90000	99000	189,000	63000
9/11/2014	12698	12661	9	10	19	6.3	81000	90000	171,000	57000
9/12/2014	12701	12665	3	4	7	7.0	27000	36000	63,000	63000
9/15/2014	12710	12675	9	10	19	6.3	81000	90000	171,000	57000
9/17/2014	12717	12682	7	7	14	7.0	63000	63000	126,000	63000
9/19/2014	12724	12690	7	8	15	7.5	63000	72000	135,000	67500
9/22/2014	12734	12701	10	11	21	7.0	90000	99000	189,000	63000
9/24/2014	12741	12709	7	8	15	7.5	63000	72000	135,000	67500
9/26/2014	12748	12717	7	8	15	7.5	63000	72000	135,000	67500
9/29/2014	12759	12728	11	11	22	7.3	99000	99000	198,000	66000
10/3/2014	12772	12742	13	14	27	6.8	117000	126000	243,000	60750
10/6/2014	12781	12753	9	11	20	6.7	81000	99000	180,000	60000
10/8/2014	12788	12761	7	8	15	7.5	63000	72000	135,000	67500
10/9/2014	12791	12765	3	4	7	7.0	27000	36000	63,000	63000
10/10/2014	12794	12768	3	3	6	6.0	27000	27000	54,000	54000
10/14/2014	12812	12787	18	19	37	9.3	162000	171000	333,000	83250
10/15/2014	12815	12789	3	2	5	5.0	27000	18000	45,000	45000
10/16/2014	12819	12794	4	5	9	9.0	36000	45000	81,000	81000
10/17/2014	12822	12797	3	3	6	6.0	27000	27000	54,000	54000
10/20/2014	12834	12810	12	13	25	8.3	108000	117000	225,000	75000
10/22/2014	12841	12819	7	9	16	8.0	63000	81000	144,000	72000
10/24/2014	12851	12828	10	9	19	9.5	90000	81000	171,000	85500
10/27/2014	12862	12840	11	12	23	7.7	99000	108000	207,000	69000
10/29/2014	12870	12849	8	9	17	8.5	72000	81000	153,000	76500
10/31/2014	12878	12858	8	9	17	8.5	72000	81000	153,000	76500
11/3/2014	12891	12871	13	13	26	8.7	117000	117000	234,000	78000
11/5/2014	12899	12881	8	10	18	9.0	72000	90000	162,000	81000
11/7/2014	12908	12889	9	8	17	8.5	81000	72000	153,000	76500
11/10/2014	12921	12902	13	13	26	8.7	117000	117000	234,000	78000
11/12/2014	12929	12910	8	8	16	8.0	72000	72000	144,000	72000
11/14/2014	12930	12918	1	8	9	4.5	9000	72000	81,000	40500
11/17/2014	12946	12924	16	6	22	7.3	144000	54000	198,000	66000
11/21/2014	12956	12939	10	15	25	6.3	90000	135000	225,000	56250
11/22/2014	12959	12943	3	4	7	7.0	27000	36000	63,000	63000
11/24/2014	12970	12954	11	11	22	11.0	99000	99000	198,000	99000
11/26/2014	12977	12962	7	8	15	7.5	63000	72000	135,000	67500
12/1/2014	12995	12982	18	20	38	7.6	162000	180000	342,000	68400
12/3/2014	13002	12988	7	6	13	6.5	63000	54000	117,000	58500
12/5/2014	13008	12995	6	7	13	6.5	54000	63000	117,000	58500
12/8/2014	13018	13005	10	10	20	6.7	90000	90000	180,000	60000
12/11/2014	13028	13015	10	10	20	6.7	90000	90000	180,000	60000
12/12/2014	13031	13019	3	4	7	7.0	27000	36000	63,000	63000
12/15/2014	13040	13029	9	10	19	6.3	81000	90000	171,000	57000
12/17/2014	13046	13035	6	6	12	6.0	54000	54000	108,000	54000
12/18/2014	13050	13038	4	3	7	7.0	36000	27000	63,000	63000
12/19/2014	13053	13042	3	4	7	7.0	27000	36000	63,000	63000
12/22/2014	13063	13053	10	11	21	7.0	90000	99000	189,000	63000
12/23/2014	13067	13056	4	3	7	7.0	36000	27000	63,000	63000
12/24/2014	13070	13061	3	5	8	8.0	27000	45000	72,000	72000
12/29/2014	13081	13077	11	16	27	5.4	99000	144000	243,000	48600
12/30/2014	13092	13084	11	7	18	18.0	99000	63000	162,000	162000
1/2/2015	10.51	10.47					0	0		
1/5/2015	20.49	21.2	9.98	10.73	20.71	6.9	89820	96570	186,390	62130
1/6/2015	25.4	26.21	4.91	5.01	9.92	9.9	44190	45090	89,280	89280
1/9/2015	35.09	36.52	9.69	10.31	20	6.7	87210	92790	180,000	60000
1/12/2015	44.24	46.34	9.15	9.82	18.97	6.3	82350	88380	170,730	56910
1/14/2015	50.58	53.3	6.34	6.96	13.3	6.7	57060	62640	119,700	59850
1/16/2015	58.56	62.02	7.98	8.72	16.7	8.4	71820	78480	150,300	75150
1/20/2015	72.14	76.08	13.58	14.06	27.64	6.9	122220	126540	248,760	62190
1/23/2015	81.3	85.58	9.16	9.5	18.66	6.2	82440	85500	167,940	55980
1/26/2015	91.35	96.02	10.05	10.44	20.49	6.8	90450	93960	184,410	61470
1/28/2015	98.07	104.06	6.72	8.04	14.76	7.4	60480	72360	132,840	66420
2/2/2015	113	119	14.93	14.94	29.87	6.0	134370	134460	268,830	53766
2/5/2015	120	126	7	7	14	4.7	63000	63000	126,000	42000
2/7/2015	127	133	7	7	14	7.0	63000	63000	126,000	63000
2/10/2015	139	147	12	14	26	8.7	108000	126000	234,000	78000
2/12/2015	147	156	8	9	17	8.5	72000	81000	153,000	76500
2/14/2015	154	164	7	8	15	7.5	63000	72000	135,000	67500
2/17/2015	167	178	13	14	27	9.0	117000	126000	243,000	81000
2/18/2015	170	182	3	4	7	7.0	27000	36000	63,000	63000
2/20/2015	176	188	6	6	12	6.0	54000	54000	108,000	54000
2/23/2015	184	197	8	9	17	5.7	72000	81000	153,000	51000
2/25/2015	190	203	6	6	12	6.0	54000	54000	108,000	54000
2/27/2015	195	209	5	6	11	5.5	45000	54000	99,000	49500
3/2/2015	204	218	9	9	18	6.0	81000	81000	162,000	54000
3/4/2015	209	224	5	6	11	5.5	45000	54000	99,000	49500
3/6/2015	215	231	6	7	13	6.5	54000	63000	117,000	58500
3/9/2015	224	241	9	10	19	6.3	81000	90000	171,000	57000
3/11/2015	266	242	42	1	43	21.5	378000	9000	387,000	193500
3/12/2015	269	245	3	3	6	6.0	27000	27000	54,000	54000
3/13/2015	272	245	3	0	3	3.0	27000	0	27,000	27000
3/16/2015	282	259	10	14	24	8.0	90000	126000	216,000	72000
3/17/2015	285	262	3	3	6	6.0	27000	27000	54,000	54000
3/18/2015	288	264	3	2	5	5.0	27000	18000	45,000	45000
3/19/2015	291	267	3	3	6	6.0	27000	27000	54,000	54000
3/20/2015	294	271	3	4	7	7.0	27000	36000	63,000	63000
3/23/2015	303	281	9	10	19	6.3	81000	90000	171,000	57000

Flowrate			
OLD PUMPS	150	150	verify with system curve
NEW PUMPS	200	200	verify with drawdown

Date	Pump1	Pump2	Pump1Run	Pump2Run	TotalRun	Run/day	Pump 1 Vol (gal)	Pump 2 Vol (gal)	Total Vol (gal)	Daily Flow
3/24/2015	306	285	3	4	7	7.0	27000	36000	63,000	63000
3/25/2015	310	289	4	4	8	8.0	36000	36000	72,000	72000
3/26/2015	313	293	3	4	7	7.0	27000	36000	63,000	63000
3/27/2015	316	296	3	3	6	6.0	27000	27000	54,000	54000
3/30/2015	326	308	10	12	22	7.3	90000	108000	198,000	66000
3/31/2015	330	311	4	3	7	7.0	36000	27000	63,000	63000
4/1/2015	333	315	3	4	7	7.0	27000	36000	63,000	63000
4/2/2015	336	319	3	4	7	7.0	27000	36000	63,000	63000
4/3/2015	339	322	3	3	6	6.0	27000	27000	54,000	54000
4/6/2015	349	334	10	12	22	7.3	90000	108000	198,000	66000
4/7/2015	353	337	4	3	7	7.0	36000	27000	63,000	63000
4/8/2015	356	341	3	4	7	7.0	27000	36000	63,000	63000
4/9/2015	359	344	3	3	6	6.0	27000	27000	54,000	54000
4/10/2015	363	347	4	3	7	7.0	36000	27000	63,000	63000
4/13/2015	373	359	10	12	22	7.3	90000	108000	198,000	66000
4/14/2015	376	362	3	3	6	6.0	27000	27000	54,000	54000
4/15/2015	379	366	3	4	7	7.0	27000	36000	63,000	63000
4/16/2015	383	370	4	4	8	8.0	36000	36000	72,000	72000
4/17/2015	386	374	3	4	7	7.0	27000	36000	63,000	63000
4/20/2015	396	385	10	11	21	7.0	90000	99000	189,000	63000
4/21/2015	398	389	2	4	6	6.0	18000	36000	54,000	54000
4/22/2015	402	393	4	4	8	8.0	36000	36000	72,000	72000
4/23/2015	405	397	3	4	7	7.0	27000	36000	63,000	63000
4/24/2015	409	400	4	3	7	7.0	36000	27000	63,000	63000
4/27/2015	419	411	10	11	21	7.0	90000	99000	189,000	63000
4/28/2015	422	415	3	4	7	7.0	27000	36000	63,000	63000
4/29/2015	425	418	3	3	6	6.0	27000	27000	54,000	54000
4/30/2015	428	422	3	4	7	7.0	27000	36000	63,000	63000
5/1/2015	431	426	3	4	7	7.0	27000	36000	63,000	63000
5/4/2015	440	437	9	11	20	6.7	81000	99000	180,000	60000
5/5/2015	443	440	3	3	6	6.0	27000	27000	54,000	54000
5/6/2015	446	444	3	4	7	7.0	27000	36000	63,000	63000
5/7/2015	449	447	3	3	6	6.0	27000	27000	54,000	54000
5/8/2015	453	451	4	4	8	8.0	36000	36000	72,000	72000
5/11/2015	463	463	10	12	22	7.3	90000	108000	198,000	66000
5/12/2015	466	467	3	4	7	7.0	27000	36000	63,000	63000
5/13/2015	469	471	3	4	7	7.0	27000	36000	63,000	63000
5/14/2015	473	475	4	4	8	8.0	36000	36000	72,000	72000
5/15/2015	476	478	3	3	6	6.0	27000	27000	54,000	54000
5/18/2015	487	491	11	13	24	8.0	99000	117000	216,000	72000
5/19/2015	490	495	3	4	7	7.0	27000	36000	63,000	63000
5/20/2015	494	499	4	4	8	8.0	36000	36000	72,000	72000
5/21/2015	497	503	3	4	7	7.0	27000	36000	63,000	63000
5/22/2015	501	507	4	4	8	8.0	36000	36000	72,000	72000
5/26/2015	517	524	16	17	33	8.2	144000	153000	297,000	74250
5/27/2015	520	529	3	5	8	8.0	27000	45000	72,000	72000
5/28/2015	524	533	4	4	8	8.0	36000	36000	72,000	72000
5/29/2015	528	537	4	4	8	8.0	36000	36000	72,000	72000
6/1/2015	539	551	11	14	25	8.3	99000	126000	225,000	75000
6/2/2015	543	557	4	6	10	10.0	36000	54000	90,000	90000
6/3/2015	546	561	3	4	7	7.0	27000	36000	63,000	63000
6/4/2015	550	565	4	4	8	8.0	36000	36000	72,000	72000
6/5/2015	553	569	3	4	7	7.0	27000	36000	63,000	63000
6/8/2015	565	582	12	13	25	8.3	108000	117000	225,000	75000
6/9/2015	568	587	3	5	8	8.0	27000	45000	72,000	72000
6/10/2015	572	591	4	4	8	8.0	36000	36000	72,000	72000
6/11/2015	576	596	4	5	9	9.0	36000	45000	81,000	81000
6/12/2015	580	600	4	4	8	8.0	36000	36000	72,000	72000
6/15/2015	591	613	11	13	24	8.0	99000	117000	216,000	72000
6/16/2015	595	617	4	4	8	8.0	36000	36000	72,000	72000
6/17/2015	599	621	4	4	8	8.0	36000	36000	72,000	72000
6/18/2015	601	625	2	4	6	6.0	18000	36000	54,000	54000
6/19/2015	606	630	5	5	10	10.0	45000	45000	90,000	90000
6/22/2015	616	641	10	11	21	7.0	90000	99000	189,000	63000
6/23/2015	619	645	3	4	7	7.0	27000	36000	63,000	63000
6/24/2015	622	648	3	3	6	6.0	27000	27000	54,000	54000
6/25/2015	626	652	4	4	8	8.0	36000	36000	72,000	72000
6/26/2015	629	656	3	4	7	7.0	27000	36000	63,000	63000
6/29/2015	640	668	11	12	23	7.7	99000	108000	207,000	69000
6/30/2015	644	672	4	4	8	8.0	36000	36000	72,000	72000
7/1/2015	647	676	3	4	7	7.0	27000	36000	63,000	63000
7/2/2015	650	680	3	4	7	7.0	27000	36000	63,000	63000
7/3/2015	654	684	4	4	8	8.0	36000	36000	72,000	72000
7/6/2015	663	694	9	10	19	6.3	81000	90000	171,000	57000
7/7/2015	667	698	4	4	8	8.0	36000	36000	72,000	72000
7/8/2015	669	701	2	3	5	5.0	18000	27000	45,000	45000
7/9/2015	673	705	4	4	8	8.0	36000	36000	72,000	72000
7/10/2015	677	709	4	4	8	8.0	36000	36000	72,000	72000
7/13/2015	687	721	10	12	22	7.3	90000	108000	198,000	66000
7/14/2015	691	725	4	4	8	8.0	36000	36000	72,000	72000
7/15/2015	695	729	4	4	8	8.0	36000	36000	72,000	72000
7/16/2015	698	732	3	3	6	6.0	27000	27000	54,000	54000
7/17/2015	700	735	2	3	5	5.0	18000	27000	45,000	45000
7/20/2015	709	745	9	10	19	6.3	81000	90000	171,000	57000
7/21/2015	712	749	3	4	7	7.0	27000	36000	63,000	63000
7/22/2015	714	752	2	3	5	5.0	18000	27000	45,000	45000
7/23/2015	717	755	3	3	6	6.0	27000	27000	54,000	54000
7/24/2015	720	758	3	3	6	6.0	27000	27000	54,000	54000
7/27/2015	728	767	8	9	17	5.7	72000	81000	153,000	51000

Flowrate			
OLD PUMPS	150	150	verify with system curve
NEW PUMPS	200	200	verify with drawdown

Date	Pump1	Pump2	Pump1Run	Pump2Run	TotalRun	Run/day	Pump 1 Vol (gal)	Pump 2 Vol (gal)	Total Vol (gal)	Daily Flow
7/28/2015	730	770	2	3	5	5.0	18000	27000	45,000	45000
7/29/2015	733	772	3	2	5	5.0	27000	18000	45,000	45000
7/30/2015	735	775	2	3	5	5.0	18000	27000	45,000	45000
7/31/2015	738	778	3	3	6	6.0	27000	27000	54,000	54000
8/3/2015	745	786	7	8	15	5.0	63000	72000	135,000	45000
8/4/2015	747	788	2	2	4	4.0	18000	18000	36,000	36000
8/5/2015	749	791	2	3	5	5.0	18000	27000	45,000	45000
8/6/2015	751	794	2	3	5	5.0	18000	27000	45,000	45000
8/7/2015	754	797	3	3	6	6.0	27000	27000	54,000	54000
8/10/2015	761	806	7	9	16	5.3	63000	81000	144,000	48000
8/11/2015	764	810	3	4	7	7.0	27000	36000	63,000	63000
8/12/2015	767	814	3	4	7	7.0	27000	36000	63,000	63000
8/13/2015	770	817	3	3	6	6.0	27000	27000	54,000	54000
8/14/2015	773	821	3	4	7	7.0	27000	36000	63,000	63000
8/17/2015	781	830	8	9	17	5.7	72000	81000	153,000	51000
8/19/2015	786	837	5	7	12	6.0	45000	63000	108,000	54000
8/20/2015	789	841	3	4	7	7.0	27000	36000	63,000	63000
8/21/2015	792	844	3	3	6	6.0	27000	27000	54,000	54000
8/24/2015	799	852	7	8	15	5.0	63000	72000	135,000	45000
8/25/2015	802	855	3	3	6	6.0	27000	27000	54,000	54000
8/26/2015	805	859	3	4	7	7.0	27000	36000	63,000	63000
8/27/2015	808	862	3	3	6	6.0	27000	27000	54,000	54000
8/28/2015	810	866	2	4	6	6.0	18000	36000	54,000	54000
8/31/2015	818	874	8	8	16	5.3	72000	72000	144,000	48000
9/1/2015	821	877	3	3	6	6.0	27000	27000	54,000	54000
9/2/2015	823	880	2	3	5	5.0	18000	27000	45,000	45000
9/3/2015	826	883	3	3	6	6.0	27000	27000	54,000	54000
9/4/2015	829	886	3	3	6	6.0	27000	27000	54,000	54000
9/8/2015	842	901	13	15	28	7.0	117000	135000	252,000	63000
9/9/2015	845	905	3	4	7	7.0	27000	36000	63,000	63000
9/10/2015	849	908	4	3	7	7.0	36000	27000	63,000	63000
9/11/2015	852	912	3	4	7	7.0	27000	36000	63,000	63000
9/14/2015	862	922	10	10	20	6.7	90000	90000	180,000	60000
9/15/2015	864	925	2	3	5	5.0	18000	27000	45,000	45000
9/16/2015	867	928	3	3	6	6.0	27000	27000	54,000	54000
9/17/2015	869	931	2	3	5	5.0	18000	27000	45,000	45000
9/18/2015	872	934	3	3	6	6.0	27000	27000	54,000	54000
9/21/2015	880	943	8	9	17	5.7	72000	81000	153,000	51000
9/22/2015	883	946	3	3	6	6.0	27000	27000	54,000	54000
9/23/2015	886	949	3	3	6	6.0	27000	27000	54,000	54000
9/24/2015	889	952	3	3	6	6.0	27000	27000	54,000	54000
9/25/2015	892	956	3	4	7	7.0	27000	36000	63,000	63000
9/28/2015	901	966	9	10	19	6.3	81000	90000	171,000	57000
9/29/2015	904	969	3	3	6	6.0	27000	27000	54,000	54000
9/30/2015	907	973	3	4	7	7.0	27000	36000	63,000	63000
10/1/2015	911	977	4	4	8	8.0	36000	36000	72,000	72000
10/2/2015	914	981	3	4	7	7.0	27000	36000	63,000	63000
10/5/2015	923	991	9	10	19	6.3	81000	90000	171,000	57000
10/6/2015	927	995	4	4	8	8.0	36000	36000	72,000	72000
10/7/2015	930	999	3	4	7	7.0	27000	36000	63,000	63000
10/8/2015	933	1002	3	3	6	6.0	27000	27000	54,000	54000
10/9/2015	935	1004	2	2	4	4.0	18000	18000	36,000	36000
10/13/2015	946	1016	11	12	23	5.8	99000	108000	207,000	51750
10/14/2015	948	1019	2	3	5	5.0	18000	27000	45,000	45000
10/15/2015	951	1022	3	3	6	6.0	27000	27000	54,000	54000
10/16/2015	954	1025	3	3	6	6.0	27000	27000	54,000	54000
10/19/2015	963	1035	9	10	19	6.3	81000	90000	171,000	57000
10/20/2015	967	1039	4	4	8	8.0	36000	36000	72,000	72000
10/21/2015	970	1042	3	3	6	6.0	27000	27000	54,000	54000
10/22/2015	973	1046	3	4	7	7.0	27000	36000	63,000	63000
10/23/2015	976	1049	3	3	6	6.0	27000	27000	54,000	54000
10/26/2015	984	1058	8	9	17	5.7	72000	81000	153,000	51000
10/27/2015	987	1062	3	4	7	7.0	27000	36000	63,000	63000
10/28/2015	990	1064	3	2	5	5.0	27000	18000	45,000	45000
10/29/2015	993	1067	3	3	6	6.0	27000	27000	54,000	54000
10/30/2015	996	1071	3	4	7	7.0	27000	36000	63,000	63000
11/2/2015	1005	1081	9	10	19	6.3	81000	90000	171,000	57000
11/3/2015	1008	1084	3	3	6	6.0	27000	27000	54,000	54000
11/4/2015	1010	1086	2	2	4	4.0	18000	18000	36,000	36000
11/5/2015	1013	1089	3	3	6	6.0	27000	27000	54,000	54000
11/6/2015	1015	1092	2	3	5	5.0	18000	27000	45,000	45000
11/9/2015	1022	1099	7	7	14	4.7	63000	63000	126,000	42000
11/12/2015	1030	1108	8	9	17	5.7	72000	81000	153,000	51000
11/13/2015	1033	1111	3	3	6	6.0	27000	27000	54,000	54000
11/16/2015	1041	1120	8	9	17	5.7	72000	81000	153,000	51000
11/17/2015	1044	1123	3	3	6	6.0	27000	27000	54,000	54000
11/18/2015	1046	1126	2	3	5	5.0	18000	27000	45,000	45000
11/19/2015	1048	1128	2	2	4	4.0	18000	18000	36,000	36000
11/20/2015	1050	1130	2	2	4	4.0	18000	18000	36,000	36000
11/23/2015	14142	14213					0	0		
11/24/2015	14144	14216	2	3	5	5.0	18000	27000	45,000	45000
11/25/2015	14146	14218	2	2	4	4.0	18000	18000	36,000	36000
11/27/2015	14151	14223	5	5	10	5.0	45000	45000	90,000	45000
11/30/2015	14158	14231	7	8	15	5.0	63000	72000	135,000	45000
12/1/2015	14161	14233	3	2	5	5.0	27000	18000	45,000	45000
12/2/2015	14163	14236	2	3	5	5.0	18000	27000	45,000	45000
12/3/2015	14166	14238	3	2	5	5.0	27000	18000	45,000	45000
12/4/2015	14168	14241	2	3	5	5.0	18000	27000	45,000	45000
12/7/2015	14176	14249	8	8	16	5.3	72000	72000	144,000	48000

						Flowrate				
						OLD PUMPS	150	150	verify with system curve	
						NEW PUMPS	200	200	verify with drawdown	
							Pump 1	Pump 2	Total	
Date	Pump1	Pump2	Pump1Run	Pump2Run	TotalRun	Run/day	Vol (gal)	Vol (gal)	Vol (gal)	Daily Flow
12/8/2015	14179	14253	3	4	7	7.0	27000	36000	63,000	63000
12/9/2015	14182	14256	3	3	6	6.0	27000	27000	54,000	54000
12/10/2015	14185	14260	3	4	7	7.0	27000	36000	63,000	63000
12/11/2015	14188	14262	3	2	5	5.0	27000	18000	45,000	45000
12/14/2015	14195	14270	7	8	15	5.0	63000	72000	135,000	45000
12/15/2015	14197	14272	2	2	4	4.0	18000	18000	36,000	36000
12/16/2015	14199	14275	2	3	5	5.0	18000	27000	45,000	45000
12/17/2015	14201	14277	2	2	4	4.0	18000	18000	36,000	36000
12/18/2015	14204	14280	3	3	6	6.0	27000	27000	54,000	54000
12/21/2015	14211	14287	7	7	14	4.7	63000	63000	126,000	42000
12/22/2015	14213	14290	2	3	5	5.0	18000	27000	45,000	45000
12/23/2015	14216	14293	3	3	6	6.0	27000	27000	54,000	54000
12/27/2015	14228	14308	12	15	27	6.8	108000	135000	243,000	60750
12/28/2015	14231	14309	3	1	4	4.0	27000	9000	36,000	36000
12/29/2015	14233	14312	2	3	5	5.0	18000	27000	45,000	45000
12/30/2015	14236	14315	3	3	6	6.0	27000	27000	54,000	54000
1/4/2016	14245.6	14324.3	9.6	9.3	18.9	3.8	86400	83700	170,100	34020
1/5/2016	14248	14327	2.4	2.7	5.1	5.1	21600	24300	45,900	45900
1/6/2016	14250	14330	2	3	5	5.0	18000	27000	45,000	45000
1/8/2016	14255	14336	5	6	11	5.5	45000	54000	99,000	49500
1/11/2016	14263	14344	8	8	16	5.3	72000	72000	144,000	48000
1/12/2016	14266	14347	3	3	6	6.0	27000	27000	54,000	54000
1/13/2016	14268	14350	2	3	5	5.0	18000	27000	45,000	45000
1/14/2016	14271	14352	3	2	5	5.0	27000	18000	45,000	45000
1/15/2016	14273	14355	2	3	5	5.0	18000	27000	45,000	45000
1/19/2016	14283	14366	10	11	21	5.3	90000	99000	189,000	47250
1/20/2016	14286	14369	3	3	6	6.0	27000	27000	54,000	54000
1/21/2016	14288	14372	2	3	5	5.0	18000	27000	45,000	45000
1/22/2016	14291	14374	3	2	5	5.0	27000	18000	45,000	45000
1/25/2016	14300	14385	9	11	20	6.7	81000	99000	180,000	60000
1/26/2016	14303	14388	3	3	6	6.0	27000	27000	54,000	54000
1/27/2016	14306	14391	3	3	6	6.0	27000	27000	54,000	54000
1/28/2016	14309	14394	3	3	6	6.0	27000	27000	54,000	54000
1/29/2016	14312	14397	3	3	6	6.0	27000	27000	54,000	54000
2/1/2016	14319	14405	7	8	15	5.0	63000	72000	135,000	45000
2/2/2016	14321	14407	2	2	4	4.0	18000	18000	36,000	36000
2/3/2016	14324	14410	3	3	6	6.0	27000	27000	54,000	54000
2/4/2016	14331	14413	7	3	10	10.0	63000	27000	90,000	90000
2/5/2016	14334	14416	3	3	6	6.0	27000	27000	54,000	54000
2/8/2016	14340	14422	6	6	12	4.0	54000	54000	108,000	36000
2/9/2016	14342	14424	2	2	4	4.0	18000	18000	36,000	36000
2/10/2016	14344	14426	2	2	4	4.0	18000	18000	36,000	36000
2/11/2016	14346	14429	2	3	5	5.0	18000	27000	45,000	45000
2/12/2016	14349	14431	3	2	5	5.0	27000	18000	45,000	45000
2/15/2016	14359	14442	10	11	21	7.0	90000	99000	189,000	63000
2/16/2016	14361	14444	2	2	4	4.0	18000	18000	36,000	36000
2/17/2016	14363	14447	2	3	5	5.0	18000	27000	45,000	45000
2/19/2016	14366	14450	3	3	6	3.0	27000	27000	54,000	27000
2/22/2016	14372	14457	6	7	13	4.3	54000	63000	117,000	39000
2/23/2016	14375	14459	3	2	5	5.0	27000	18000	45,000	45000
2/24/2016	14377	14462	2	3	5	5.0	18000	27000	45,000	45000
2/25/2016	14380	14464	3	2	5	5.0	27000	18000	45,000	45000
2/26/2016	14382	14467	2	3	5	5.0	18000	27000	45,000	45000
2/29/2016	14389	14474	7	7	14	4.7	63000	63000	126,000	42000
3/1/2016	14391.4	14476.9	2.4	2.9	5.3	5.3	21600	26100	47,700	47700
3/2/2016	14392.7	14479.5	1.3	2.6	3.9	3.9	11700	23400	35,100	35100
3/3/2016	14396	14481.8	3.3	2.3	5.6	5.6	29700	20700	50,400	50400
3/4/2016	14398.4	14484.3	2.4	2.5	4.9	4.9	21600	22500	44,100	44100
3/7/2016	14405.3	14491.6	6.9	7.3	14.2	4.7	62100	65700	127,800	42600
3/8/2016	14407	14494	1.7	2.4	4.1	4.1	15300	21600	36,900	36900
3/9/2016	14409	14496	2	2	4	4.0	18000	18000	36,000	36000
3/10/2016	14412	14499	3	3	6	6.0	27000	27000	54,000	54000
3/11/2016	14415	14502	3	3	6	6.0	27000	27000	54,000	54000
3/14/2016	14424	14511	9	9	18	6.0	81000	81000	162,000	54000
3/15/2016	14427	14514	3	3	6	6.0	27000	27000	54,000	54000
3/16/2016	14429	14517	2	3	5	5.0	18000	27000	45,000	45000
3/17/2016	14436	14519	7	2	9	9.0	63000	18000	81,000	81000
3/18/2016	14439	14523	3	4	7	7.0	27000	36000	63,000	63000
3/21/2016	14445	14534	6	11	17	5.7	54000	99000	153,000	51000
3/24/2016	14456.3	14551.8	11.3	17.8	29.1	9.7	101700	160200	261,900	87300
3/25/2016	14461.8	14552	5.5	0.2	5.7	5.7	49500	1800	51,300	51300
3/26/2016	14462.3	14553.8	0.5	1.8	2.3	2.3	4500	16200	20,700	20700
3/27/2016	14465.8	14557.7	3.5	3.9	7.4	7.4	31500	35100	66,600	66600
3/28/2016	14468.5	14560.7	2.7	3	5.7	5.7	24300	27000	51,300	51300
3/29/2016	14471.2	14563.9	2.7	3.2	5.9	5.9	24300	28800	53,100	53100
3/30/2016	14474.1	14566.8	2.9	2.9	5.8	5.8	26100	26100	52,200	52200
3/31/2016	14476.9	14570.1	2.8	3.3	6.1	6.1	25200	29700	54,900	54900
4/1/2016	14479.4	14572.9	2.5	2.8	5.3	5.3	22500	25200	47,700	47700
4/2/2016	14482	14576.1	2.6	3.2	5.8	5.8	23400	28800	52,200	52200
4/3/2016	14484.6	14579.2	2.6	3.1	5.7	5.7	23400	27900	51,300	51300
4/4/2016	14487.4	14582	2.8	2.8	5.6	5.6	25200	25200	50,400	50400
4/5/2016	14490.7	14585.1	3.3	3.1	6.4	6.4	29700	27900	57,600	57600
4/6/2016	14491	14587.6	0.3	2.5	2.8	2.8	2700	22500	25,200	25200
4/7/2016	14494.6	14590.5	3.6	2.9	6.5	6.5	32400	26100	58,500	58500
4/8/2016	14497.3	14593.9	2.7	3.4	6.1	6.1	24300	30600	54,900	54900
4/9/2016	14500.1	14596.9	2.8	3	5.8	5.8	25200	27000	52,200	52200
4/10/2016	14503.3	14600.7	3.2	3.8	7	7.0	28800	34200	63,000	63000
4/11/2016	14506.1	14603.9	2.8	3.2	6	6.0	25200	28800	54,000	54000
4/12/2016	14509.1	14607.4	3	3.5	6.5	6.5	27000	31500	58,500	58500

Flowrate		
OLD PUMPS	150	150 verify with system curve
NEW PUMPS	200	200 verify with drawdown

Date	Pump1	Pump2	Pump1Run	Pump2Run	TotalRun	Run/day	Pump 1 Vol (gal)	Pump 2 Vol (gal)	Total Vol (gal)	Daily Flow
4/13/2016	14512.8	14611.9	3.7	4.5	8.2	8.2	33300	40500	73,800	73800
4/14/2016	14516	14614.7	3.2	2.8	6	6.0	28800	25200	54,000	54000
4/15/2016	14520.1	14619.5	4.1	4.8	8.9	8.9	36900	43200	80,100	80100
4/16/2016	14523.1	14623.2	3	3.7	6.7	6.7	27000	33300	60,300	60300
4/17/2016	14525.6	14626.5	2.5	3.3	5.8	5.8	22500	29700	52,200	52200
4/18/2016	14528.5	14629.6	2.9	3.1	6	6.0	26100	27900	54,000	54000
4/19/2016	14531.6	14633.4	3.1	3.8	6.9	6.9	27900	34200	62,100	62100
4/20/2016	14534.5	14637.9	2.9	4.5	7.4	7.4	26100	40500	66,600	66600
4/21/2016	14537.9	14640.8	3.4	2.9	6.3	6.3	30600	26100	56,700	56700
4/22/2016	14541	14644.7	3.1	3.9	7	7.0	27900	35100	63,000	63000
4/23/2016	14544.3	14648.6	3.3	3.9	7.2	7.2	29700	35100	64,800	64800
4/24/2016	14548.2	14653.6	3.9	5	8.9	8.9	35100	45000	80,100	80100
4/25/2016	14552.2	14658.2	4	4.6	8.6	8.6	36000	41400	77,400	77400
4/26/2016	14555.5	14661.9	3.3	3.7	7	7.0	29700	33300	63,000	63000
4/27/2016	14558.3	14665.6	2.8	3.7	6.5	6.5	25200	33300	58,500	58500
4/28/2016	14561.6	14669.4	3.3	3.8	7.1	7.1	29700	34200	63,900	63900
4/29/2016	14564.6	14673.3	3	3.9	6.9	6.9	27000	35100	62,100	62100
4/30/2016	14567.9	14677.5	3.3	4.2	7.5	7.5	29700	37800	67,500	67500
5/1/2016	14570.6	14680.4	2.7	2.9	5.6	5.6	24300	26100	50,400	50400
5/2/2016	14572.9	14683.3	2.3	2.9	5.2	5.2	20700	26100	46,800	46800
5/3/2016	14577.3	14684.8	4.4	1.5	5.9	5.9	39600	13500	53,100	53100
5/4/2016	14581.4	14688.7	4.1	3.9	8	8.0	36900	35100	72,000	72000
5/5/2016	14584.5	14692.8	3.1	4.1	7.2	7.2	27900	36900	64,800	64800
5/6/2016	14588.1	14696.9	3.6	4.1	7.7	7.7	32400	36900	69,300	69300
5/7/2016	14591.7	14698.2	3.6	1.3	4.9	4.9	32400	11700	44,100	44100
5/8/2016	14596.7	14701.9	5	3.7	8.7	8.7	45000	33300	78,300	78300
5/9/2016	14601.2		4.5		4.5	4.5	40500	0	40,500	40500
5/10/2016	14605.7		4.5	0	4.5	4.5	40500	0	40,500	40500
5/11/2016	14609.7		4	0	4	4.0	36000	0	36,000	36000
5/12/2016	14614		4.3	0	4.3	4.3	38700	0	38,700	38700
5/13/2016	14617.4		3.4	0	3.4	3.4	30600	0	30,600	30600
5/14/2016	14621.5		4.1	0	4.1	4.1	36900	0	36,900	36900
5/15/2016	14625		3.5	0	3.5	3.5	31500	0	31,500	31500
5/16/2016	14628		3	0	3	3.0	27000	0	27,000	27000
5/17/2016	14631		3	0	3	3.0	27000	0	27,000	27000
5/18/2016	14638.3		7.3	0	7.3	7.3	65700	0	65,700	65700
5/19/2016	14640.5		2.2	0	2.2	2.2	19800	0	19,800	19800
5/20/2016	14643.8	14709.8	3.3		3.3	3.3	29700	0	29,700	29700
5/21/2016	14646.6	14713.4	2.8	3.6	6.4	6.4	25200	32400	57,600	57600
5/22/2016	14650.1	14717.2	3.5	3.8	7.3	7.3	31500	34200	65,700	65700
5/23/2016	14652.6	14720	2.5	2.8	5.3	5.3	22500	25200	47,700	47700
5/24/2016	14656	14725	3.4	5	8.4	8.4	30600	45000	75,600	75600
5/25/2016	14659	14725	3	0	3	3.0	27000	0	27,000	27000
5/26/2016	14662.3	14732.7	3.3	7.7	11	11.0	29700	69300	99,000	99000
5/27/2016	14665.6	14736.5	3.3	3.8	7.1	7.1	29700	34200	63,900	63900
5/28/2016	14668.5	14740.2	2.9	3.7	6.6	6.6	26100	33300	59,400	59400
5/29/2016	14671.5	14744.4	3	4.2	7.2	7.2	27000	37800	64,800	64800
5/30/2016	14674.7	14748	3.2	3.6	6.8	6.8	28800	32400	61,200	61200
5/31/2016	14678	14751.9	3.3	3.9	7.2	7.2	29700	35100	64,800	64800
6/1/2016	14681.7	14756.2	3.7	4.3	8	8.0	33300	38700	72,000	72000
6/2/2016	14684.3	14759.9	2.6	3.7	6.3	6.3	23400	33300	56,700	56700
6/3/2016	14688.3	14764	4	4.1	8.1	8.1	36000	36900	72,900	72900
6/4/2016	14692.1	14768.1	3.8	4.1	7.9	7.9	34200	36900	71,100	71100
6/5/2016	14695.7	14772.6	3.6	4.5	8.1	8.1	32400	40500	72,900	72900
6/6/2016	14701.6	14774.2	5.9	1.6	7.5	7.5	53100	14400	67,500	67500
6/7/2016	14709.6		8		8	8.0	72000	0	72,000	72000
6/8/2016	14717.3		7.7	0	7.7	7.7	69300	0	69,300	69300
6/10/2016	14724.7		7.4	0	7.4	3.7	66600	0	66,600	33300
6/11/2016	14732.1		7.4	0	7.4	7.4	66600	0	66,600	66600
6/12/2016	14747		14.9	0	14.9	14.9	134100	0	134,100	134100
6/13/2016	14767.8		20.8	0	20.8	20.8	187200	0	187,200	187200
6/14/2016	14775.5		7.7	0	7.7	7.7	69300	0	69,300	69300
6/15/2016	14784.2		8.7	0	8.7	8.7	78300	0	78,300	78300
6/16/2016	14792.5		8.3	0	8.3	8.3	74700	0	74,700	74700
6/17/2016	14800.8		8.3	0	8.3	8.3	74700	0	74,700	74700
6/18/2016	14808		7.2	0	7.2	7.2	64800	0	64,800	64800
6/19/2016	14816.8		8.8	0	8.8	8.8	79200	0	79,200	79200
6/20/2016	14822.9		6.1	0	6.1	6.1	54900	0	54,900	54900
6/21/2016	14830.1		7.2	0	7.2	7.2	64800	0	64,800	64800
6/22/2016	14837.6		7.5	0	7.5	7.5	67500	0	67,500	67500
6/23/2016	14844.8		7.2	0	7.2	7.2	64800	0	64,800	64800
6/24/2016	14852.5		7.7	0	7.7	7.7	69300	0	69,300	69300
6/25/2016	14861.3		8.8	0	8.8	8.8	79200	0	79,200	79200
6/26/2016	14868.4		7.1	0	7.1	7.1	63900	0	63,900	63900
6/27/2016	14876.2		7.8	0	7.8	7.8	70200	0	70,200	70200
6/28/2016	14883.7		7.5	0	7.5	7.5	67500	0	67,500	67500
6/29/2016	14892.9		9.2	0	9.2	9.2	82800	0	82,800	82800
6/30/2016	14901.2		8.3	0	8.3	8.3	74700	0	74,700	74700
8/1/2016	15012.6		111.4	0	111.4	3.5	1336800	0	1,336,800	41775
8/2/2016	15015.2		2.6	0	2.6	2.6	31200	0	31,200	31200
8/3/2016	15017.1		1.9	0	1.9	1.9	22800	0	22,800	22800
8/4/2016	15020		2.9	0	2.9	2.9	34800	0	34,800	34800
8/5/2016	15022.2		2.2	0	2.2	2.2	26400	0	26,400	26400
8/6/2016	15024.2		2	0	2	2.0	24000	0	24,000	24000
8/7/2016	15026.3		2.1	0	2.1	2.1	25200	0	25,200	25200
8/8/2016	15028.3		2	0	2	2.0	24000	0	24,000	24000
8/9/2016	15031.4		3.1	0	3.1	3.1	37200	0	37,200	37200
8/10/2016	15034.2		2.8	0	2.8	2.8	33600	0	33,600	33600
8/11/2016	15036.6		2.4	0	2.4	2.4	28800	0	28,800	28800

Flowrate			
OLD PUMPS	150	150	verify with system curve
NEW PUMPS	200	200	verify with drawdown

Date	Pump1	Pump2	Pump1Run	Pump2Run	TotalRun	Run/day	Pump 1 Vol (gal)	Pump 2 Vol (gal)	Total Vol (gal)	Daily Flow
8/12/2016	15039.2		2.6	0	2.6	2.6	31200	0	31,200	31200
8/13/2016	15042.3		3.1	0	3.1	3.1	37200	0	37,200	37200
8/14/2016	15044.5		2.2	0	2.2	2.2	26400	0	26,400	26400
8/15/2016	15047.4		2.9	0	2.9	2.9	34800	0	34,800	34800
8/16/2016	15050.4		3	0	3	3.0	36000	0	36,000	36000
8/17/2016	15053.6		3.2	0	3.2	3.2	38400	0	38,400	38400
8/18/2016	15056.4		2.8	0	2.8	2.8	33600	0	33,600	33600
8/19/2016	15059.2		2.8	0	2.8	2.8	33600	0	33,600	33600
8/20/2016	15062		2.8	0	2.8	2.8	33600	0	33,600	33600
8/21/2016	15064.5		2.5	0	2.5	2.5	30000	0	30,000	30000
8/22/2016	15067.8		3.3	0	3.3	3.3	39600	0	39,600	39600
8/23/2016	15070		2.2	0	2.2	2.2	26400	0	26,400	26400
8/24/2016	15072.8		2.8	0	2.8	2.8	33600	0	33,600	33600
8/25/2016	15076.1		3.3	0	3.3	3.3	39600	0	39,600	39600
8/26/2016	15078.4		2.3	0	2.3	2.3	27600	0	27,600	27600
8/27/2016	15081.2		2.8	0	2.8	2.8	33600	0	33,600	33600
8/28/2016	15084.5		3.3	0	3.3	3.3	39600	0	39,600	39600
8/29/2016	15087.6		3.1	0	3.1	3.1	37200	0	37,200	37200
8/30/2016	15090.6		3	0	3	3.0	36000	0	36,000	36000
8/31/2016	15093.3		2.7	0	2.7	2.7	32400	0	32,400	32400
9/1/2016	15096.1		2.8	0	2.8	2.8	33600	0	33,600	33600
9/2/2016	15099		2.9	0	2.9	2.9	34800	0	34,800	34800
9/3/2016	15102.5		3.5	0	3.5	3.5	42000	0	42,000	42000
9/4/2016	15105.3		2.8	0	2.8	2.8	33600	0	33,600	33600
9/5/2016	15108.4		3.1	0	3.1	3.1	37200	0	37,200	37200
9/6/2016	15111.2		2.8	0	2.8	2.8	33600	0	33,600	33600
9/7/2016	15114.3		3.1	0	3.1	3.1	37200	0	37,200	37200
9/8/2016	15117.3		3	0	3	3.0	36000	0	36,000	36000
9/9/2016	15120		2.7	0	2.7	2.7	32400	0	32,400	32400
9/10/2016	15122.6		2.6	0	2.6	2.6	31200	0	31,200	31200
9/11/2016	15124.9		2.3	0	2.3	2.3	27600	0	27,600	27600
9/12/2016	15127.4		2.5	0	2.5	2.5	30000	0	30,000	30000
9/13/2016	15129.8		2.4	0	2.4	2.4	28800	0	28,800	28800
9/14/2016	15132.6		2.8	0	2.8	2.8	33600	0	33,600	33600
9/15/2016	15134.8		2.2	0	2.2	2.2	26400	0	26,400	26400
9/16/2016	15137.4		2.6	0	2.6	2.6	31200	0	31,200	31200
9/17/2016	15139.7		2.3	0	2.3	2.3	27600	0	27,600	27600
9/18/2016	15142.4		2.7	0	2.7	2.7	32400	0	32,400	32400
9/19/2016	15145		2.6	0	2.6	2.6	31200	0	31,200	31200
9/20/2016	15148		3	0	3	3.0	36000	0	36,000	36000
9/21/2016	15150.5	14774.3	2.5		2.5	2.5	30000	0	30,000	30000
9/22/2016	15152	14775.5	1.5	1.2	2.7	2.7	18000	14400	32,400	32400
9/23/2016	15153.4	14776.7	1.4	1.2	2.6	2.6	16800	14400	31,200	31200
9/24/2016	15154.6	14777.8	1.2	1.1	2.3	2.3	14400	13200	27,600	27600
9/25/2016	15155.7	14778.7	1.1	0.9	2	2.0	13200	10800	24,000	24000
9/26/2016	15156.9	14779.6	1.2	0.9	2.1	2.1	14400	10800	25,200	25200
9/27/2016	15157.9	14780.3	1	0.7	1.7	1.7	12000	8400	20,400	20400
9/28/2016	15159.3	14781.1	1.4	0.8	2.2	2.2	16800	9600	26,400	26400
9/29/2016	15160.8	14782.4	1.5	1.3	2.8	2.8	18000	15600	33,600	33600
9/30/2016	15162	14783.6	1.2	1.2	2.4	2.4	14400	14400	28,800	28800
10/1/2016	15163.3	14784.6	1.3	1	2.3	2.3	15600	12000	27,600	27600
10/2/2016	15164.5	14785.2	1.2	0.6	1.8	1.8	14400	7200	21,600	21600
10/3/2016	15166.2	14786.8	1.7	1.6	3.3	3.3	20400	19200	39,600	39600
10/4/2016	15167.2	14787.9	1	1.1	2.1	2.1	12000	13200	25,200	25200
10/5/2016	15168.3	14788.7	1.1	0.8	1.9	1.9	13200	9600	22,800	22800
10/6/2016	15169.4	14789.6	1.1	0.9	2	2.0	13200	10800	24,000	24000
10/7/2016	15170.4	14790.6	1	1	2	2.0	12000	12000	24,000	24000
10/8/2016	15171.6	14791.4	1.2	0.8	2	2.0	14400	9600	24,000	24000
10/9/2016	15172.8	14792.6	1.2	1.2	2.4	2.4	14400	14400	28,800	28800
10/10/2016	15174.8	14794.1	2	1.5	3.5	3.5	24000	18000	42,000	42000
10/11/2016	15176.6	14795.7	1.8	1.6	3.4	3.4	21600	19200	40,800	40800
10/12/2016	15177.8	14796.5	1.2	0.8	2	2.0	14400	9600	24,000	24000
10/13/2016	15179	14797.5	1.2	1	2.2	2.2	14400	12000	26,400	26400
10/14/2016	15180.5	14798.7	1.5	1.2	2.7	2.7	18000	14400	32,400	32400
10/15/2016	15181.7	14799.9	1.2	1.2	2.4	2.4	14400	14400	28,800	28800
10/16/2016	15183.2	14801.2	1.5	1.3	2.8	2.8	18000	15600	33,600	33600
10/17/2016	15184.4	14802.2	1.2	1	2.2	2.2	14400	12000	26,400	26400
10/18/2016	15185.6	14803.2	1.2	1	2.2	2.2	14400	12000	26,400	26400
10/19/2016	15186.8	14804.2	1.2	1	2.2	2.2	14400	12000	26,400	26400
10/20/2016	15187.8	14805.2	1	1	2	2.0	12000	12000	24,000	24000
10/21/2016	15189.5	14806.4	1.7	1.2	2.9	2.9	20400	14400	34,800	34800
10/22/2016	15191	14807.8	1.5	1.4	2.9	2.9	18000	16800	34,800	34800
10/23/2016	15192	14808.6	1	0.8	1.8	1.8	12000	9600	21,600	21600
10/24/2016	15193	14809.5	1	0.9	1.9	1.9	12000	10800	22,800	22800
10/25/2016	15194.2	14810.7	1.2	1.2	2.4	2.4	14400	14400	28,800	28800
10/26/2016	15195.8	14811.8	1.6	1.1	2.7	2.7	19200	13200	32,400	32400
10/27/2016	15203.3	14813	7.5	1.2	8.7	8.7	90000	14400	104,400	104400
10/28/2016	15204.8	14814	1.5	1	2.5	2.5	18000	12000	30,000	30000
10/29/2016	15206.3	14815.3	1.5	1.3	2.8	2.8	18000	15600	33,600	33600
10/30/2016	15207.5	14816.6	1.2	1.3	2.5	2.5	14400	15600	30,000	30000
10/31/2016	15209.1	14817.8	1.6	1.2	2.8	2.8	19200	14400	33,600	33600
1/1/2017	15271.5	14870.1	62.4	52.3	114.7	1.9	748800	627600	1,376,400	22200
1/2/2017	15272.3	14870.3	0.8	0.2	1	1.0	9600	2400	12,000	12000
1/3/2017	15273.3	14871.1	1	0.8	1.8	1.8	12000	9600	21,600	21600
1/4/2017	15274.3	14872.3	1	1.2	2.2	2.2	12000	14400	26,400	26400
1/5/2017	15275.3	14873.3	1	1	2	2.0	12000	12000	24,000	24000
1/6/2017	15276.3	14874	1	0.7	1.7	1.7	12000	8400	20,400	20400
1/7/2017	15277.3	14874.8	1	0.8	1.8	1.8	12000	9600	21,600	21600
1/8/2017	15278.1	14875.8	0.8	1	1.8	1.8	9600	12000	21,600	21600

						Flowrate				
						OLD PUMPS	150	150	verify with system curve	
						NEW PUMPS	200	200	verify with drawdown	
							Pump 1	Pump 2	Total	
Date	Pump1	Pump2	Pump1Run	Pump2Run	TotalRun	Run/day	Vol (gal)	Vol (gal)	Vol (gal)	Daily Flow
1/9/2017	15278.9	14876.3	0.8	0.5	1.3	1.3	9600	6000	15,600	15600
1/10/2017	15279.8	14877.1	0.9	0.8	1.7	1.7	10800	9600	20,400	20400
1/11/2017	15280.9	14877.8	1.1	0.7	1.8	1.8	13200	8400	21,600	21600
1/12/2017	15282.1	14878.8	1.2	1	2.2	2.2	14400	12000	26,400	26400
1/13/2017	15283.1	14879.8	1	1	2	2.0	12000	12000	24,000	24000
1/14/2017	15284.3	14880.8	1.2	1	2.2	2.2	14400	12000	26,400	26400
1/15/2017	15285.6	14881.7	1.3	0.9	2.2	2.2	15600	10800	26,400	26400
1/16/2017	15286.4	14882.6	0.8	0.9	1.7	1.7	9600	10800	20,400	20400
1/17/2017	15287.5	14883.4	1.1	0.8	1.9	1.9	13200	9600	22,800	22800
1/18/2017	15288.7	14884.5	1.2	1.1	2.3	2.3	14400	13200	27,600	27600
1/19/2017	15290.1	14885.7	1.4	1.2	2.6	2.6	16800	14400	31,200	31200
1/20/2017	15291.8	14886.9	1.7	1.2	2.9	2.9	20400	14400	34,800	34800
1/21/2017	15293	14888	1.2	1.1	2.3	2.3	14400	13200	27,600	27600
1/23/2017	15294	14889.3	1	1.3	2.3	1.1	12000	15600	27,600	13800
1/24/2017	15295.7	14890.4	1.7	1.1	2.8	2.8	20400	13200	33,600	33600
1/25/2017	15296.7	14891.2	1	0.8	1.8	1.8	12000	9600	21,600	21600
1/26/2017	15297.7	14891.9	1	0.7	1.7	1.7	12000	8400	20,400	20400
1/27/2017	15298.7	14892.8	1	0.9	1.9	1.9	12000	10800	22,800	22800
1/28/2017	15299.6	14893.6	0.9	0.8	1.7	1.7	10800	9600	20,400	20400
1/29/2017	15300.6	14894.3	1	0.7	1.7	1.7	12000	8400	20,400	20400
1/30/2017	15301.4	14895.2	0.8	0.9	1.7	1.7	9600	10800	20,400	20400
1/31/2017	15302.4	14895.9	1	0.7	1.7	1.7	12000	8400	20,400	20400
2/1/2017	15303.4	14896.7	1	0.8	1.8	1.8	12000	9600	21,600	21600
2/2/2017	15304.3	14897.6	0.9	0.9	1.8	1.8	10800	10800	21,600	21600
2/3/2017	15305.5	14898.5	1.2	0.9	2.1	2.1	14400	10800	25,200	25200
2/4/2017	15306.3	14899.3	0.8	0.8	1.6	1.6	9600	9600	19,200	19200
2/5/2017	15307.7	14900.3	1.4	1	2.4	2.4	16800	12000	28,800	28800
2/6/2017	15309.3	14901.6	1.6	1.3	2.9	2.9	19200	15600	34,800	34800
2/8/2017	15311.9	14903.7	2.6	2.1	4.7	2.4	31200	25200	56,400	28200
2/9/2017	15312.9	14904.7	1	1	2	2.0	12000	12000	24,000	24000
2/10/2017	15315.2	14906.4	2.3	1.7	4	4.0	27600	20400	48,000	48000
2/11/2017	15316.3	14907.3	1.1	0.9	2	2.0	13200	10800	24,000	24000
2/12/2017	15317.1	14908.1	0.8	0.8	1.6	1.6	9600	9600	19,200	19200
2/13/2017	15318	14908.8	0.9	0.7	1.6	1.6	10800	8400	19,200	19200
2/14/2017	15319	14909.7	1	0.9	1.9	1.9	12000	10800	22,800	22800
2/15/2017	15320.1	14910.6	1.1	0.9	2	2.0	13200	10800	24,000	24000
2/16/2017	15321.1	14911.3	1	0.7	1.7	1.7	12000	8400	20,400	20400
2/17/2017	15322.7	14912.3	1.6	1	2.6	2.6	19200	12000	31,200	31200
2/18/2017	15323.8	14913.3	1.1	1	2.1	2.1	13200	12000	25,200	25200
2/19/2017	15324.9	14914.7	1.1	1.4	2.5	2.5	13200	16800	30,000	30000
2/20/2017	15326.2	14915.5	1.3	0.8	2.1	2.1	15600	9600	25,200	25200
2/21/2017	15327	14916.6	0.8	1.1	1.9	1.9	9600	13200	22,800	22800
2/22/2017	15329.3	14918	2.3	1.4	3.7	3.7	27600	16800	44,400	44400
2/23/2017	15330.8	14919.4	1.5	1.4	2.9	2.9	18000	16800	34,800	34800
2/24/2017	15331.9	14920.2	1.1	0.8	1.9	1.9	13200	9600	22,800	22800
2/25/2017	15333.2	14921	1.3	0.8	2.1	2.1	15600	9600	25,200	25200
2/26/2017	15334.3	14922.1	1.1	1.1	2.2	2.2	13200	13200	26,400	26400
2/27/2017	15335.1	14922.8	0.8	0.7	1.5	1.5	9600	8400	18,000	18000
2/28/2017	15336.8	14924.2	1.7	1.4	3.1	3.1	20400	16800	37,200	37200
3/1/2017	15338.4	14925.3	1.6	1.1	2.7	2.7	19200	13200	32,400	32400
3/2/2017	15340.5	14927.2	2.1	1.9	4	4.0	25200	22800	48,000	48000
3/3/2017	15341.9	14928.3	1.4	1.1	2.5	2.5	16800	13200	30,000	30000
3/4/2017	15343.1	14929.4	1.2	1.1	2.3	2.3	14400	13200	27,600	27600
3/5/2017	15344.7	14930.5	1.6	1.1	2.7	2.7	19200	13200	32,400	32400
3/6/2017	15345.7	14931.6	1	1.1	2.1	2.1	12000	13200	25,200	25200
3/7/2017	15347	14932.6	1.3	1	2.3	2.3	15600	12000	27,600	27600
3/8/2017	15348	14933.5	1	0.9	1.9	1.9	12000	10800	22,800	22800
3/9/2017	15349.4	14934.5	1.4	1	2.4	2.4	16800	12000	28,800	28800
3/10/2017	15351.4	14936.1	2	1.6	3.6	3.6	24000	19200	43,200	43200
3/11/2017	15353.7	14937.9	2.3	1.8	4.1	4.1	27600	21600	49,200	49200
3/12/2017	15356.5	14940.1	2.8	2.2	5	5.0	33600	26400	60,000	60000
3/13/2017	15359.3	14942.6	2.8	2.5	5.3	5.3	33600	30000	63,600	63600
3/14/2017	15362.8	14945.4	3.5	2.8	6.3	6.3	42000	33600	75,600	75600
3/15/2017	15367.7	14949.2	4.9	3.8	8.7	8.7	58800	45600	104,400	104400
3/16/2017	15372.2	14952.7	4.5	3.5	8	8.0	54000	42000	96,000	96000
3/17/2017	15376.3	14955.9	4.1	3.2	7.3	7.3	49200	38400	87,600	87600
3/18/2017	15380.3	14958.7	4	2.8	6.8	6.8	48000	33600	81,600	81600
3/19/2017	15385.5	14962.9	5.2	4.2	9.4	9.4	62400	50400	112,800	112800
3/20/2017	15389.2	14966.1	3.7	3.2	6.9	6.9	44400	38400	82,800	82800
3/21/2017	15392.4	14968.7	3.2	2.6	5.8	5.8	38400	31200	69,600	69600
3/22/2017	15398.1		5.7	0	5.7	5.7	68400	0	68,400	68400
3/23/2017	15404		5.9	0	5.9	5.9	70800	0	70,800	70800
3/24/2017	15408		4	0	4	4.0	48000	0	48,000	48000
3/25/2017	15413		5	0	5	5.0	60000	0	60,000	60000
3/26/2017	15417.1		4.1	0	4.1	4.1	49200	0	49,200	49200
3/27/2017	15421.1		4	0	4	4.0	48000	0	48,000	48000
3/28/2017	15425		3.9	0	3.9	3.9	46800	0	46,800	46800
3/29/2017	15428.5		3.5	0	3.5	3.5	42000	0	42,000	42000
3/30/2017	15431.9		3.4	0	3.4	3.4	40800	0	40,800	40800
3/31/2017	15435.2		3.3	0	3.3	3.3	39600	0	39,600	39600
4/1/2017	15438.5		3.3	0	3.3	3.3	39600	0	39,600	39600
4/2/2017	15441.4		2.9	0	2.9	2.9	34800	0	34,800	34800
4/3/2017	15444.1		2.7	0	2.7	2.7	32400	0	32,400	32400
4/4/2017	15446.9		2.8	0	2.8	2.8	33600	0	33,600	33600
4/6/2017	15453.7		6.8	0	6.8	3.4	81600	0	81,600	40800
4/7/2017	15457.1		3.4	0	3.4	3.4	40800	0	40,800	40800
4/8/2017	15459.9		2.8	0	2.8	2.8	33600	0	33,600	33600
4/9/2017	15462.9		3	0	3	3.0	36000	0	36,000	36000
4/10/2017	15465.7		2.8	0	2.8	2.8	33600	0	33,600	33600

						Flowrate					
						OLD PUMPS	150	150	verify with system curve		
						NEW PUMPS	200	200	verify with drawdown		
							Pump 1	Pump 2	Total		
Date	Pump1	Pump2	Pump1Run	Pump2Run	TotalRun	Run/day	Vol (gal)	Vol (gal)	Vol (gal)	Daily Flow	
4/11/2017	15469		3.3	0	3.3	3.3	39600	0	39,600	39600	
4/12/2017	15471.8		2.8	0	2.8	2.8	33600	0	33,600	33600	
4/13/2017	15474.4		2.6	0	2.6	2.6	31200	0	31,200	31200	
4/14/2017	15494.7		20.3	0	20.3	20.3	243600	0	243,600	=K721/(A721-	
4/15/2017	15498.3		3.6	0	3.6	3.6	43200	0	43,200	43200	
4/16/2017	15500.5		2.2	0	2.2	2.2	26400	0	26,400	26400	
4/17/2017	15502.5		2	0	2	2.0	24000	0	24,000	24000	
4/18/2017	15504.8		2.3	0	2.3	2.3	27600	0	27,600	27600	
4/19/2017	15507.3		2.5	0	2.5	2.5	30000	0	30,000	30000	
4/21/2017	15511.8		4.5	0	4.5	2.3	54000	0	54,000	27000	
4/22/2017	15513.5		1.7	0	1.7	1.7	20400	0	20,400	20400	
4/23/2017	15515.9		2.4	0	2.4	2.4	28800	0	28,800	28800	
4/24/2017	15517.6		1.7	0	1.7	1.7	20400	0	20,400	20400	
4/25/2017	15519.3		1.7	0	1.7	1.7	20400	0	20,400	20400	
4/26/2017	15521.7		2.4	0	2.4	2.4	28800	0	28,800	28800	
4/28/2017	15525.4		3.7	0	3.7	1.8	44400	0	44,400	22200	
4/29/2017	15527.9		2.5	0	2.5	2.5	30000	0	30,000	30000	
4/30/2017	15529.5		1.6	0	1.6	1.6	19200	0	19,200	19200	
									average	50,540	
									maximum	193,500	
										3.8	
									winter	49049.4479	
									summer	51519.3493	
										50284.3986	
								8/1/16 on	average	33240.6553	

APPENDIX M

DEQ Inspection Reports

Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor
Richard H. Opper, Director

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

April 12, 2011

Carla Parks, Mayor
City of Thompson Falls
PO Box 99
Thompson Falls, MT 59873

VIOLATION LETTER
CERTIFIED MAIL 7009 2820 0000 5739 1250

RE: Compliance Evaluation Inspection Report for City of Thompson Falls and MPDES Permit Authorization MTG580035

Dear Mayor Parks:

The Department of Environmental Quality (Department) issues permits for discharges of wastewater from domestic wastewater treatment facilities under the Montana Pollutant Discharge Elimination System (MPDES) permit program. The Department conducts routine inspections of facilities to determine compliance with permit conditions. As a representative of the Department, I conducted a compliance evaluation inspection (CEI) of the City of Thompson Falls (City) Wastewater Treatment Plant (WWTP) and MPDES permit authorization MTG580035 located in Thompson Falls, Montana on March 18, 2011.

Enclosed is the comprehensive compliance inspection report. Based on factual information obtained during the inspection, the Department documented the following conditions:

- The City has reported exceedences of the monthly average concentration value for Biochemical Oxygen Demand (BOD_5) for monitoring periods ending May 31, 2007, April 30, 2009, and April 30, 2010.
- The BOD_5 sample preparation and analysis for March 2009 were not completed within the required regulatory timeframes.
- The laboratory analytical report dated July 8, 2010 did not include the holding times for BOD_5 and Carbonaceous Biological Oxygen Demand (CBOD).
- Fecal coliform sample preparation was not completed within the six (6) hour regulatory timeframe and not within the Department accepted 24 hour timeframe as documented on the August 4, 2010 laboratory analytical report.

The Department considers the above identified conditions to be items of noncompliance. The items of noncompliance identified by the Department have resulted in the City being found in violation of the following condition of MPDES permit authorization MTG580035:

- Failure to meet numeric effluent limits for monitoring periods ending May 31, 2007, April 30, 2009, and April 30, 2010 is a violation of Part I: Effluent Limitations and Monitoring Requirements, Section C: Specific Effluent Limitations.

- Failure to conduct sample analysis in accordance with test procedures approved under Part 136, Title 40 of the Code of Federal Regulations is a violation of Part II: Monitoring, Recording, and Reporting Requirements, Section B: Monitoring Procedures.

Section 75-5-605(1)(b) of the Montana Code Annotated (MCA) states it is unlawful to violate any provision set forth in a permit including but not limited to limitations and conditions of the permit. Section 17.30.1342(1) of the Administrative Rules of Montana (ARM) states the permittee shall comply with all conditions of the permit. Any noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or denial of a permit renewal application. Section 17.30.1342(4) states the permittee shall take all reasonable steps to minimize or prevent any discharge in violation of the permit which has a reasonable likelihood of adversely affecting human health or the environment. Section 17.30.1342(5) states the permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Section 17.30.1342(10)(d) of ARM states monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

The Department also identified the following during the CEI:

- The City is not performing sample analysis for pH, influent BOD_5 to determine percent removal, and Oil and Grease.
- The exceedences of BOD_5 may be attributed to the aeration system not being maintained at proper levels during the reported algae blooms.

In order to return to compliance, the City must immediately complete the following required corrective actions:

- Properly operate and maintain all facilities and systems of treatment and control and related appurtenances which are installed or used by the City to achieve compliance with the conditions of MPDES permit authorization MTG580035. Specifically, this applies to operating the aerators at a proper level to ensure numeric effluent limits for BOD_5 are in compliance. Refer to Part III: Compliance Responsibilities, Section E: Proper Operation and Maintenance for further detail.
- Review laboratory analytical reports to ensure sample analysis is completed according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations. Refer to Part II: Monitoring, Recording, and Reporting Requirements, Section B: Monitoring Procedures for further detail.

The Department also recommends the City complete the following:

- Complete sample analysis on a monthly basis for pH, influent BOD_5 to determine percent removal, and Oil and Grease.
- Maintain a log book with the duration of discharge in days per month.

By **May 13, 2011**, the Department is requesting the submittal of the following information:

- A written explanation addressing each one of the required corrective actions and recommendations.

Submit the requested information by **May 13, 2011**. Failure to comply with the conditions of the MPDES permit can result in the Department pursuing formal enforcement action. In accordance with Section 75-5-516(2), MCA, this violation notice will result in the loss of your eligibility for a 25% reduction in your annual fee.

If there are any questions, contact me at (406) 444-0420.

Sincerely,

Christopher Romankiewicz
Compliance Inspector
Water Protection Bureau
Permitting and Compliance Division
Montana Department of Environmental Quality
cromankiewicz@mt.gov

Enclosures: Inspection Report, 3560 Form, Photo Report

Montana Department of Environmental Quality
Helena, MT 59620

MPDES Compliance Inspection Report

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
1 N 2 N 3	MTG580035	11 12 2011/03/18	18 C	19 S 20	1

Remarks

Sanders County

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
67 5 69	70 2	71 N	72 N	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time /Date	Permit Effective Date
City of Thompson Falls Wastewater Treatment Plant Off Preston Avenue / Harlow Road West of Thompson Falls Thompson Falls, MT 59873	10:57 AM / 03/18/2011 Exit Time/Date 12:19 PM / 03/18/2011	April 4, 2000 Permit Expiration Date September 30, 1994

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Jerry Lacy – Public Works Director (406) 827-3557

Name, Address of Responsible Official/Title/Phone and Fax Number
Carla Parks – Mayor
City of Thompson Falls
Po Box 99, Thompson Falls, MT 59873
Thompson Falls, MT 59873
(406) 327-3557

Contacted: Yes ☒ No ☐

Other Facility Data
Decimal Degrees @ Effluent Sampling Location: N47.60174; W115.35830
Proximity of Outfall 001: N47.59523; W115.35735

SIC Code: 4952 – Sewerage Systems

Section C: Areas Evaluated During Inspection
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	S	Flow Measurement	M	Operations & Maintenance	S	CSO/SSO
M	Records/Reports	S	Self-Monitoring Program	N	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	S	Compliance Schedules	N	Pretreatment	N	Multimedia
S	Effluent/Receiving Waters	M	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

SEV Code(s) – Descriptions

A0012 – Numeric Effluent Violation
C0018 – Improper Analysis

Comments:
Minor Compliance Evaluation Inspection (CEI). Completed in accordance with MPDES program and permit requirements. Violations were discovered during the inspection.
Inspection Report and Violation Letter sent by the Department. See inspection report and letter for more detail and for further instructions and/or recommendations.

Name(s) and Signature(s) of Inspector(s)		Date
Christopher Romankiewicz C. R.	**Montana Department of Environmental Quality 1520 East Sixth Avenue Helena, Montana 59620-0901 406.444.3080/406.444.1374 (fax)**	4.7.11
Name(s) and Signature(s) of Inspector(s)	**Montana Department of Environmental Quality 1520 East Sixth Avenue Helena, Montana 59620-0901 406.444.3080/406.444.1374 (fax)**	Date
Signature of Management QA Reviewer	**Montana Department of Environmental Quality 1520 East Sixth Avenue Helena, Montana 59620-0901 406.444.3080/406.444.1374 (fax)**	Date 4/8/11

EPA Form 3560-3 (Rev. 9-94) Previous editions are obsolete.

Department of Environmental Quality
Permitting & Compliance Division
Water Protection Bureau
Helena, Montana 59620
Phone (406) 444-3080

INSPECTION REPORT

PERMIT NO OR ID NO:	MTG580035
SITE NAME:	City of Thompson Falls WWTP
COUNTY:	Sanders
GPS LOCATION:	Decimal Degrees @ Effluent Sampling Location: N47.60174; W115.35830 / Proximity of Outfall 001: N47.59523; W115.35735
SIC CODE:	4952 Sewerage Systems
INSPECTION DATE & TIME:	March 18, 2011 /Arrived: 10:57 AM /Departed: 12:19 PM
INSPECTION TYPE:	Compliance Evaluation Inspection (CEI) - Minor
INSPECTOR(S):	Christopher Romankiewicz MT DEQ WPB C&TSS
NAME OF CONTACT:	Jerry Lacy – Public Works Director
MAILING ADDRESS:	PO Box 99, Thompson Falls, MT 59873
PHONE:	(406) 827-3557
PROPOSED SAMPLES:	None

BACKGROUND: MPDES permit authorization MTG580035 became effective on April 4, 2000 and expired on September 30, 2004. MPDES permit MTG580035 is currently administratively extended.

The City of Thompson Falls (City) wastewater treatment plant (WWTP) consists of a three (3) cell aerated lagoon system. The WWTP does not have disinfection capabilities. Flow is measured using a Parshall Flume. Discharge is continuous to the Clark Fork River.

The City is presently covered under the General Discharge (GP) Permit for Domestic Sewage Treatment Lagoons. The GP has numeric effluent limits for Biochemical Oxygen Demand (BOD_5), Total Suspended Solids (TSS), pH, BOD_5 percent removal, and Oil and Grease. Additional monitoring requirements include flow, Fecal Coliform, Total Phosphorous, Total Ammonia, Nitrate + Nitrite, Total Kjeldahl Nitrogen, and Total Nitrogen. The City is required to collect instantaneous and grab samples on a monthly basis. Additionally, the City is required to record the duration of discharge in a log book; Fecal Coliform sampling is required during the months of July, August, and September; and if discharge is intermittent or seasonal, a pre-discharge sample is required to be analyzed prior to re-commencing discharge.

There are no special conditions or compliance schedules contained within the GP. The City could reduce sampling for Total Phosphorous, Total Ammonia, Nitrate + Nitrite, Total Kjeldahl Nitrogen, and Total Nitrogen after one (1) year of sampling and notifying the Department. The City submitted the request on August 23, 2002 with the Department granting the reduction in sampling on August 26, 2002.

INSPECTION: Christopher Romankiewicz (CR) of the MT DEQ WPB arrived at City Hall at 10:57 AM on March 18, 2011. CR presented credentials to Carla Parks – Mayor for the City, and Jerry Lacy – Public Works Director for the City. CR stated the purpose of the inspection was to conduct a Compliance Evaluation Inspection (CEI) for MPDES permit authorization

MTG580035 and the City's WWTP. CR stated inspection would include a review of current operations, review of MPDES permit authorization MTG580035 and associated records, conduct a facility site evaluation, and discuss preliminary findings.

Current Operations:
The City's WWTP is a three (3) cell aerated lagoon system. Cells I and II are lined with a HPDE liner and Cell III is lined with a PVC liner that is covered in soil and rip rap. All cells have aeration. There is no influent flow measurement device. Discharge is continuous and is measured using a Parshall Flume and staff gauge. There are no disinfection capabilities. Outfall 001 is approximately one (1) mile from the WWTP. The WWTP has approximately 30 days of detention time. Cell I and II have the ability to be run as a series or in parallel.

The Sanitary Sewer Collection System (SSCS) is a separate system and is comprised of PVC and clay tile pipe. The City maintains one (1) lift station. Wastewater flow is gravity to the lift station, which pumps the wastewater to the WWTP. There are approximately 120 connections consisting of local residences and businesses. SSCS connections are on the south side of Highway 200. There are no connections to the SSCS on the north side of Highway 200. Residences and businesses located on the north side of Highway 200 are on individual septic units. There are no Standard Industrial Users (SIUs) located within the SSCS service area. The City does not have a pretreatment program but does have established formal ordinances that address the dumping of Oil and Grease and hazardous chemicals. The City completes routine maintenance on the SSCS on an annual basis, which includes jetting and cleaning of all the main lines. The City does not have any records of Sanitary Sewer Overflows (SSOs), which include basement backups and/or overflowing manholes.

The City completes the following monitoring requirements: effluent flow is recorded each time the WWTP is inspected, which is approximately three (3) times per week. Monthly grab samples are collected for BOD_5 and TSS. The duration of discharge is continuous however it is only recorded during inspections. The City is not collecting and performing sample analysis for influent BOD_5, and effluent pH and Oil and Grease and not calculating BOD_5 percent removal because the Discharge Monitoring Reports (DMRs) do not include these requirements. The GP states BOD_5 percent removal is a requirement but sampling of influent is not included in Table 2: Effluent Monitoring Requirements.

The City completed upgrades to the WWTP in 1987 and 1997. In 1987, the City divided the one (1) existing cell into three (3) cells and lined Cell III with the buried PVC liner. In 1997, the City removed sludge, deepened and lined Cells I and II and installed diffuser aerators in Cells I, II, and III. Additional upgrades in 1997 included removing the storm sewer connections to the SSCS. The City is presently working on removing the remaining roof drains to the SSCS to further reduce inflow and assessing the treatment capabilities of the current WWTP. The City intends to increase the SSCS service area to the north side of the City, however, the City has not increased sewer rates and/or applied for grants and loans. The City does not add chemicals or biological treatment aids at the WWTP. The City does add biological enzymes to the SSCS to aid in the management of oil and grease. The City has four (4) certified operators.

Records Review:
Records are maintained at City Hall and include a copy of the GP, Department's Authorization Letter, Discharge Monitoring Reports (DMRs), chain of custody forms, and Laboratory Analytical Reports. DMRs are being signed by the DMR Cognizant Official. The City maintains the specified records for at least three (3) years. Chain of Custody forms include the date, time, location of sample, name of individual collecting samples, analysis requested for each sample, and the time samples were relinquished. Laboratory Analytical Reports include date of sample

collection, date of sample receipt, date and time of sample preparation, if applicable, date and time of sample analysis, initials of sample analyst, parameter analyzed and analytical result, and specify the method used for the sample analysis of each parameter. The City maintains formal records of the SSCS maintenance.

The following violations during the timeframe of January 1, 2007 to January 31, 2011 were addressed during the CEI:

2007
The City reported an exceedence for the following monitoring parameter numeric effluent limit and monitoring period ending: monthly average concentration value for BOD_5: **May 31, 2007**.

2009
The City reported an exceedence for the following monitoring parameter numeric effluent limit and monitoring period ending: monthly average concentration value for BOD_5: **April 30, 2009**.

2010
The City reported an exceedence for the following monitoring parameter numeric effluent limit and monitoring period ending: monthly average concentration value for BOD_5: **April 30, 2010**.

After review of the above referenced violations, the following was determined: the City may experience an algae bloom during the months of April and May. The City has provided a written explanation for each exceedence with additional samples for BOD_5 and Carbonaceous Biological Oxygen Demand (CBOD) being collected, at minimum, during the periods when exceedences are being reported. The written explanations indicate the City increased aeration and acquired additional samples within the month with the exception of May 2007. In May 2007, the City did not receive the laboratory report until June 6, 2007 and therefore, the City could not complete additional sampling or make operational adjustments to the WWTP. Additionally, the City discontinued discharge during the month of April 2010 until analytical results were back into compliance. Prior to discharge, the City contacted the Department and reported the exceedence and re-sampling efforts. The City is reporting the correct number of samples and exceedences on the corresponding DMR under the Number of Exceedences and Frequency of Analysis columns for the monitoring period the City reports exceedences. Finally, the City is reporting the average value as required on the DMR for additional sampling completed.

Laboratory analytical reports were collected for March, April, and May 2009 and June, July, and August 2010. Methods referenced on laboratory analytical reports are current approved test procedures under Part 136, Title 40 of the Code of Federal Regulations. BOD_5 sample holding time and analysis for March 2009 were not completed within the required regulatory timeframes. The laboratory analytical report dated July 8, 2010 did not include the sample holding times for BOD_5 and CBOD. Fecal coliform results were not provided on the July 9, 2010 laboratory analytical report. Fecal coliform sample preparation was not completed within the six (6) hour regulatory timeframe and not within the Department accepted 24 hour timeframe as stated on the August 4, 2010 laboratory analytical report.

There are no additional outstanding violations on the Quarterly Noncompliance Report dated February 7, 2011.

Facility Site Evaluation:
Influent enters the WWTP through a splitter box on the east side of the facility site. The splitter box allows for Cells I and II to be run in a series or parallel. At the time of the inspection, the City was operating Cells I and II in a series. The design of the splitter box allows for influent samples to be collected. Cells I and II were ice free with Cell III having ice around the south, west, and

north edges. All cells had approximately two (2) to four (4) feet of freeboard. All aerators appeared to be operational in each of the Cells. There is vegetation established in and around the edges of Cell III. There is an additional area on the west side of the facility site that was part of the lagoon system prior to 1987. There was no evidence of a discharge and/or use of this area. The former cell had established vegetation throughout the area. The Parshall Flume is located on the southeast corner of the facility site in a manhole. Effluent did not contain floating solids or visible foam or oil sheen. Outfall 001 is located approximately one (1) mile from the WWTP and is located underwater in the Clark Fork River.

Conclusion:
Factual findings include: the City has reported exceedences of the monthly average concentration value for BOD_5 for monitoring periods ending May 31, 2007, April 30, 2009, and April 30, 2010; BOD_5 sample holding time and analysis for March 2009 were not completed within the required regulatory timeframes; the laboratory analytical report dated July 8, 2010 did not include the sample holding times for BOD_5 and CBOD; fecal coliform sample preparation was not completed within the six (6) hour regulatory timeframe and not within the Department accepted 24 hour timeframe as documented on the August 4, 2010 laboratory analytical report.

Additional factual findings include: the City is not performing sample analysis for pH, influent BOD_5 to determine percent removal, and Oil and Grease; exceedences of BOD_5 may be attributed to the aeration system not being maintained at proper levels during the reported algae blooms; the City is not maintaining a log book with the duration of discharge.

CR departed the site at 12:19 PM.

REQUIRED CORRECTIVE ACTIONS:

- Properly operate and maintain all facilities and systems of treatment and control and related appurtenances which are installed or used by the City to achieve compliance with the conditions of MPDES permit authorization MTG580035. Specifically, this applies to operating the aerators at a proper level to ensure numeric effluent limits for BOD_5 are in compliance. Refer to Part III: Compliance Responsibilities, Section E: Proper Operation and Maintenance for further detail.
- Review laboratory analytical reports to ensure sample analysis is completed according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations. Refer to Part II: Monitoring, Recording, and Reporting Requirements, Section B: Monitoring Procedures for further detail.

RECOMMENDATIONS:

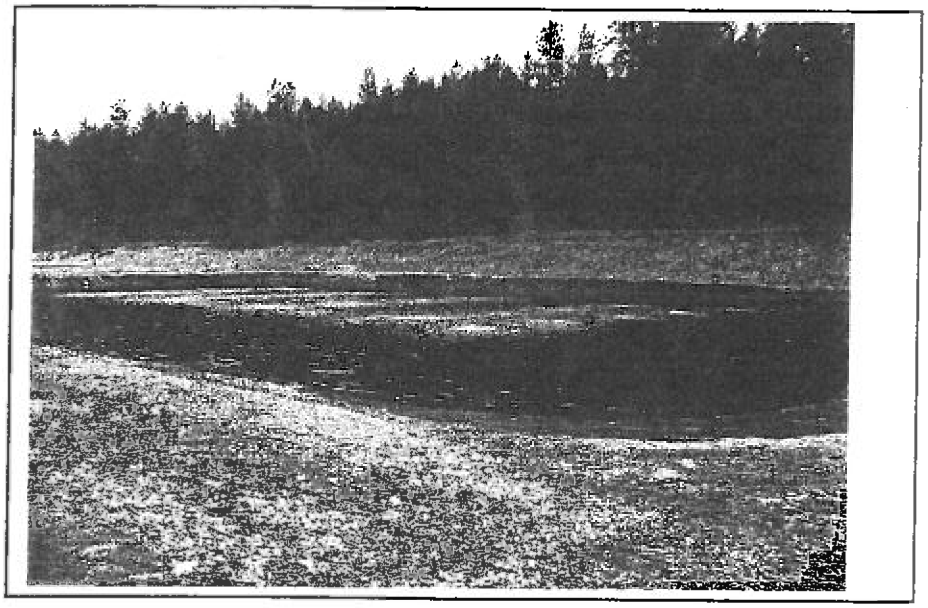
- Complete sample analysis on a monthly basis for pH, influent BOD_5 to determine percent removal, and Oil and Grease.
- Maintain a log book with the duration of discharge in days per month.

By **May 13, 2011**, the Department is requesting the submittal of the following information:

- A written explanation addressing each one of the required corrective actions and recommendations.

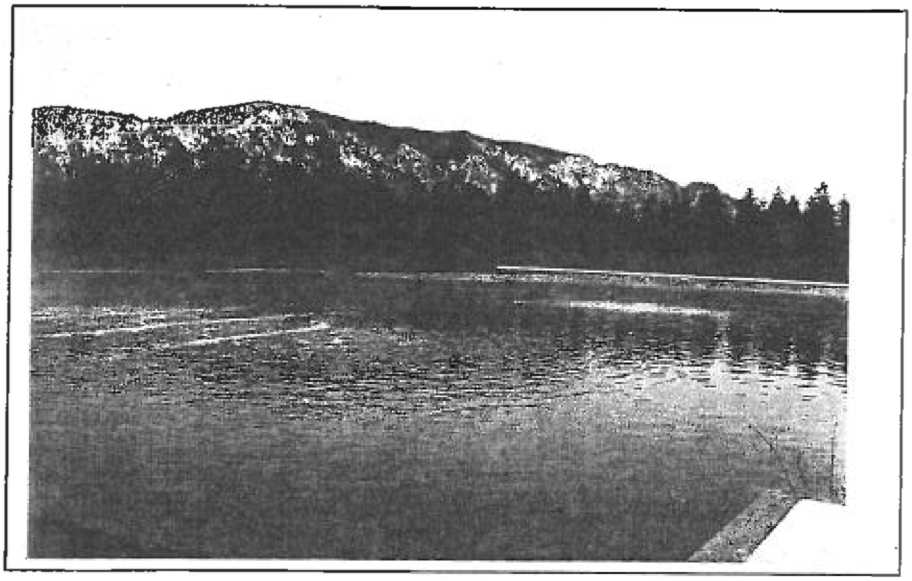
C. Z 4.12.11

Inspector's Signature Date



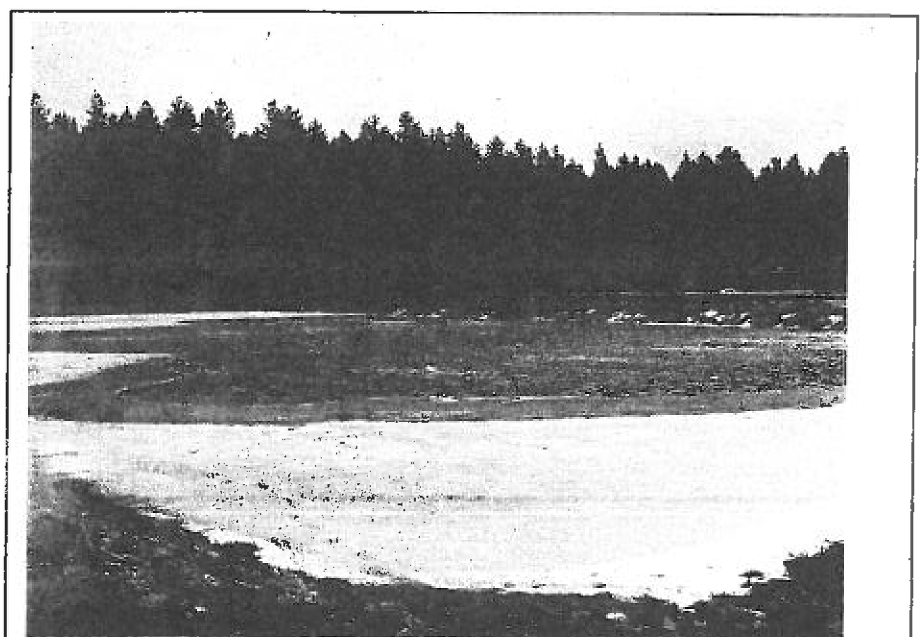
MT DEQ WATER PROTECTION BUREAU

PHOTO #: 1
PERMIT No: MTG580035
SUBJECT: City of Thompson Falls WWTP
LOCATION: Thompson Falls
COUNTY: Sanders
DATE: 03/18/2011
WEATHER: Partly Cloudy
PHOTOGRAPHER: Christopher Romankiewicz
PHOTOGRAPHER (sig.) ______________
CAMERA: CANON SX100 IS
EXPLANATION: Cell I. Photo taken looking northwest/west.



MT DEQ WATER PROTECTION BUREAU

PHOTO #: 2
PERMIT No: MTG580035
SUBJECT: City of Thompson Falls WWTP
LOCATION: Thompson Falls
COUNTY: Sanders
DATE: 03/18/2011
WEATHER: Partly Cloudy
PHOTOGRAPHER: Christopher Romankiewicz
PHOTOGRAPHER (sig.) ______________
CAMERA: CANON SX100 IS
EXPLANATION: Cell II. Photo taken looking south/southwest.

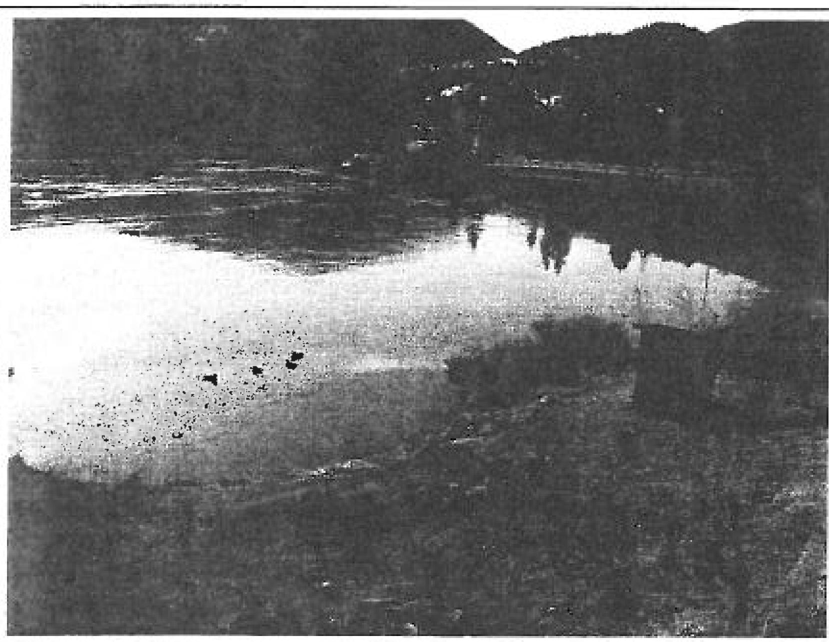


MT DEQ WATER PROTECTION BUREAU

PHOTO #: 3
PERMIT No: MTG580035
SUBJECT: City of Thompson Falls WWTP
LOCATION: Thompson Falls
COUNTY: Sanders
DATE: 03/18/2011
WEATHER: Partly Cloudy
PHOTOGRAPHER: Christopher Romankiewicz
PHOTOGRAPHER (sig.) ______________
CAMERA: CANON SX100 IS
EXPLANATION: Cell III. Photo was taken looking north/northeast.

MT DEQ WATER PROTECTION BUREAU

PHOTO #: 4
PERMIT No: MTG580035
SUBJECT: City of Thompson Falls WWTP
LOCATION: Thompson Falls
COUNTY: Sanders
DATE: 03/18/2011
WEATHER: Partly Cloudy
PHOTOGRAPHER: Christopher Romankiewicz
PHOTOGRAPHER (sig.) C.R.
CAMERA: CANON SX100 IS
EXPLANATION: Additional/historic cell located on the west side of the facility site. Photo was taken looking west.



MT DEQ WATER PROTECTION BUREAU

PHOTO #: 5
PERMIT No: MTG580035
SUBJECT: City of Thompson Falls WWTP
LOCATION: Thompson Falls
COUNTY: Sanders
DATE: 03/18/2011
WEATHER: Partly Cloudy
PHOTOGRAPHER: Christopher Romankiewicz
PHOTOGRAPHER (sig.) C.R.
CAMERA: CANON SX100 IS
EXPLANATION: Outfall 001 area. Outfall is located underwater approximately 50 feet offshore. Photo was taken looking south/southwest.

Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

P. O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • Website: www.deq.mt.gov

August 26, 2014

Honorable Carla Parks
City of Thompson Falls
P.O. Box 99
Thompson Falls, MT 59873

Re: Operation and Maintenance Inspection
Thompson Falls, MT

Dear Mayor Parks and Council Members:

The Department of Environmental Quality conducts operation and maintenance inspections on a routine basis. On August 14, 2014 I conducted an inspection of Thompson Falls' wastewater treatment system. I would like to thank Jerry Lacy for taking time to meet with me and for showing me the system and Chelsea Peterson for providing me with the wastewater system's financial information. Both were very helpful and informative.

In general, the treatment system is well operated and cared for and should meet the needs of the community well into the future. Please take a few moments to look over the attached report. I have noted several items at the end of the report which must be addressed to ensure the adequate, long-term operation of the system. One item I would like to draw your attention to is the BOD compliance issues that tends to impact the system each spring. There may be two contributing factors: 1) excessive sludge accumulation; and 2) insufficient mixing in the lagoons. Regarding sludge accumulation, if sludge levels are excessive, decomposing sludge (and duckweed) may result in a BOD load to the water column that exceeds the capacity of the aeration system for effective treatment. To assess sludge levels we recommend you contact the Montana Rural Water Systems Inc. (phone 406-454-1151) to see if they still provide sludge depth measurement services and get on their schedule. Depending on those findings a sludge removal and disposal plan could then be developed. Regarding lagoon mixing, with aerated lagoons the mixing energy is provided to the lagoon by the aeration blowers. Circular DEQ-2 (Design Standards for Wastewater Treatment Facilities) considers 5-10 Hp/MG of lagoon volume as necessary to provide adequate mixing. With only one 10-Hp blower operating much of year only 2.6 Hp/MG is provided (and only 60 to70% of the diffusers are operational at one time). We recommend that an additional blower be added to the system (primarily to serve as a backup) so that two blowers can be operated throughout the winter months and into the spring to help keep BOD levels in check. **Please indicate in writing within 60 days how the district intends to address those items that require follow-up activity. Failure to correct those system deficiencies may result in system violations.**

If you have any questions regarding this report I can be reached at (406) 444-6776.

Sincerely,

Mike Abrahamson

Mike Abrahamson, P.E.
Environmental Engineer
Technical and Financial Assistance Bureau

Encl. Inspection report

c: File
Permitting Division

LAGOON INSPECTION REPORT

State of Montana
Department of Environmental Quality

Name/Location of Facility: **City of Thompson Falls**

Inspected by: **Mike Abrahamson** Date: **8/14/14**

Operator/Contact Person: **Jerry Lacy – Director of Public Works**

Address: **P.O. Box 99, Thompson Falls, MT 59873**

Telephone: **(406) 827-3557**

Year Constructed (or Last Upgrade): **1969 – original plant; 1987 and 1997 – upgrades**

Service Area Population: **system only serves area south of the railroad tracks (~250 to 300 people)**

Design Population Equivalent: **424 (Facility serves only part of city)**

Average Flow (or Winter Water Use): **38,500 gpd (3 years of lift station records)**

Average Design Flow: **141,000 gpd (1997 upgrade)**

Number of Lagoon Cells: **3**

Lagoon Area (acres): 1 **0.56** 2 **0.56** 3 **1**

Depth of Cells: 1 **12** 2 **12** 3 **7**

Liner Type: **HDPE cells 1 and 2, PVC with soil cover cell 3**

Volume of Cells (gal): 1 **1,415,000** 2 **1,415,000** 3 **1,920,000**

Detention Time (days): 1 **36.75** 2 **36.75** 3 **50**

Total Detention Time (days): **123 (current flow)** **33.6 (design flow)**

Org Loading (#BOD/d): **84.8**

Org Loading (#BOD/ac.-d): cell 1 **N/A** total **N/A**

Receiving Water and MPDES permit #: **Clark Fork River MT-G580035**
(Indicate "ND" if non-discharging)

FOR AERATED LAGOONS

Type of aerators: **static tube aerators**

Number and HP of blowers or aerators? Operational? **2 blowers each @ 25 Hp**

Number of diffusers? Percent operational? **1 blower cannot operate all diffusers (normally operate about 60 -70% of all diffusers). Can only operate 100% of diffusers when both blowers are in service.**

Does there appear to be adequate mixing? **No odors are present. Mixing energy based on blower size appears to be adequate. Circular DEQ-2 design standards require 5-10 Hp/MG of lagoon volume be provided. With only one blower operating the mixing energy is approximately 6.6 Hp/MG.**

Is a quiescent zone provided? **Yes**

How is aeration system operated (#hours/day, etc)? **Various durations throughout the year. Both blowers are operated in the spring (~14 hours each) and then blower run times are tapered into the summer months with aerators alternating with a total aeration time of approximately 15 hours/day. Blowers shutdown 10 minutes each hour.**

Provide Schematic Diagram of Systems, attach Photographs if available:

Diagrams and photographs are attached.

A. GENERAL

1. Does facility have adequate fencing and locked gates? **Yes**
2. Does facility have adequate warning signs? **Badly faded - need repair**
3. Does facility have storage for records, O&M Manual, as-built plans, spare parts, etc.? Is plant O&M Manual available? **Yes**
4. Is operator certified? **Yes**

   Backup operator provided? **Yes – The system has a total of 3 certified operators**
5. User rate? **Residential - $38.00 per month; Commercial - $45.00 per month. City has a sewer reserve account with a current balance of approximately $113,000. Historically expenditures exceeded revenue (2010 to 2012), but changes to sewer rates in 2013 resulted in revenues exceeding expenditures and that is expected to be the case going forward.**

B. CONVEYANCE SYSTEM

1. Are lift stations well maintained? **Yes – wet well is pumped annually**
2. Are lift stations adequately sized and reliable? **Yes**
3. Do lift stations show signs of significant corrosion? **No**
4. Do combined sewer overflows or sanitary overflows occur? **No**

   #/year? ______
5. Are spare parts stocked for pumps and other mechanical equipment? **Yes – mostly electrical parts are kept on hand.**
6. Is collection system periodically inspected for infiltration and inflow, obstructions, etc.? **Yes, collection system is "jetted" annually and "trouble lines" are cleaned a few times a year. Roof drains were removed from sewer system to reduce extraneous flows.**
7. Is a confined space entry program in effect, and is confined space safety equipment available to operations staff? **Yes –the city owns a tripod/harness, fall arrestor, and gas detectors**
8. Does facility receive industrial waste? **No**

C. LAGOON MAINTENANCE AND LEAKAGE

1. Is vegetation on levees adequately controlled by mowing or other means? **In general yes. Tall vegetation and weeds are present around the inner slope of cell 3 which has a soil cover with rip-rap over a PVC liner.**
2. Is there vehicle access to levees, and are levees driveable? **Yes**
3. Are levees free of animal burrows, erosion, or other potential causes of levee/liner damage? **Yes. There are a few small trees/shrubs growing on outer dike that should be removed before they become larger and disrupt the integrity of the embankment.**
4. Are lagoon levels consistent with flows; weather and evaporation; and control structure levels? **Yes**
5. Are levees free of indicators of seepage, such as damp spots or lush vegetation at the toe of embankment? **Yes**

D. TREATMENT OPERATIONS

1. Are cells free of significant quantities of floating scum and debris? **Yes**

   (In winter, % of re-coverage?) __________
2. Are cells free of significant odors, which may indicate overloading or anaerobic conditions? **Yes**
3. What color is primary cell? **Green**
4. Are cells free of extensive coverage by duckweed or other vegetation that could adversely impact treatment? **No –cells 2 and 3 have duckweed that covers the entire surface from late spring through early fall. As the duckweed dies and decomposes nutrients, including BOD, will be released back into the water column and may be a contributing factor to the increases observed in BOD and TSS concentrations in the spring months.**
5. Are sludge levels periodically measured so that lagoon clean-out operations can be scheduled when necessary? **No – facility is approaching 20 years of service and sludge levels should be measured to assess the need for removal. In addition to regular solids accumulation, the lagoons are impacted annually with duck weed, which may accelerate the rate at which solids accumulate in lagoons as it dies and settles out. Sludge removal, depending on volume, method of removal, and the location of disposal sites can be expensive and the city may need to time to obtain the necessary funds.**
6. Is sludge accumulation a problem? **Sludge accumulation may be a contributing factor to elevated BOD and TSS concentrations in the spring months.**
7. If facility has multiple cells, are control structures, valving, and piping in-place to allow bypassing of one cell or parallel operation? In what condition are control structures? **Yes. Control valves are exercised frequently.**

8. If facility discharges, what type of flow measurement is provided? Is proper calibration an issue? **Parshall Flume. City has hired an engineer to evaluate the installation of a flow sensor and recorder to provide continuous effluent flow monitoring.**

9. Is there seasonal discharge or varying water surface levels which may indicate leakage or interaction with ground water? **No**

10. If facility discharges, is a representative sample point used for effluent sampling? **Yes**

11. If gaseous chlorine is used, are cylinders securely stored in a properly marked, safe locations? **N/A**

12. If UV system is used, is it adequately operated and maintained? **N/A**

13. Is facility in compliance with discharge permit conditions? **There have been 2 BOD violations and 1 TSS violation in the past 2.5 years, none since April 2013. Each spring (Mar-May) BOD and TSS values begin to increase resulting in an occasional minor violation as noted previously. The city has been monitoring the *E.coli* levels in the discharge to see if a disinfection system will be necessary to meet the new bacterial limits that go into effect on January 1, 2017. The discharge, on occasion, approaches the *E. coli* limits that will be imposed, but has not yet exceeded them.**

14. Is facility approaching capacity in terms of organic or hydraulic loading? **Seasonally**

15. Describe receiving stream. Ephemeral or perennial? **Perennial**

    Man made ditch?

16. Approximate number of days/year that water, other than wastewater, flows in the stream or ditch? **365 days**

ADDITIONAL COMMENTS AND OBSERVATIONS

The wastewater facility appears to be well operated and maintained. Discussions with Jerry Lacy, the Director of Public Works, indicated that the city plans to install continuous flow monitoring on the effluent and possibly a composite sampler to meet the requirements in the facility's discharge permit. Review of revenue and expenditures for the sewer system indicate that the system is now being adequately funded.

I have listed a few items that the town will need to address to ensure the continued proper operation and maintenance of the system.

1. **Since the treatment system has been in operation for nearly 20 years, we recommend that sludge measurements be taken to verify sludge depths. Sludge removal can be expensive and it may take time to obtain the necessary funds. Rural Water Systems should be contacted to see if they still provide sludge depth measurement services. If sludge levels are excessive this may be a contributing factor to the elevated BOD levels observed at the facility each spring.**

2. The interior slopes of cell 3 have tall weeds and grass. If the growth becomes too thick it can be difficult to inspect the condition of the dikes and may provide habitat for burrowing animals. In addition, there are a few small trees growing on the outer embankment that should be removed before they grow larger and the roots disrupt the integrity of the dike or liner. I have included some information on methods you may try for getting rid of weeds in the lagoon.

3. The warning signs along the perimeter fence are badly faded and need to be replaced. The signs should identify the facility and advising against trespassing. One sign should be installed along the fence line on each side of the lagoon, with at least one sign every 500 feet.

4. Safety ropes that extend down into the water should be installed at facilities with exposed liners. These liners can become very slick when wet or icy, making egress difficult if necessary. It is recommended that at a minimum a safety rope be installed near each corner of cells 1 and 2. Experience suggests that the rope be weighted in the lagoon otherwise the ropes tend to blow out of the water.

5. We recommend that the city install or at least begin to budget for the installation of a third blower to the aeration system so the facility has a dedicated standby unit. Circular DEQ-2 requires that aeration systems be designed to provide adequate oxygen and mixing with the largest unit out of service. It appears that both blowers must be operated at the same time during certain times of the year to keep the facility in compliance with its BOD limits. If one of the existing blowers were to go down during this critical operational period, the system would likely go out of compliance. A third blower would also provide worry free operation should it be determined that both existing blowers need to be operated for longer periods of time throughout the year (i.e., the winter months and into the spring) to keep BOD levels in check.

6. The city may want to consider operating the lagoons in parallel during the spring months in an attempt to improve treatment and avoid BOD and TSS violations.

September 8, 2014

Mr. Jerry Lacy
City of Thompson Falls
P.O. Box 99
Thompson Falls, MT 59873

Re: Operation and Maintenance Inspection
Thompson Falls, MT

Dear Jerry:

Here is my revised report to reflect the correct blower sizing of 25 Hp (not 10 Hp as stated in the O&M manual). While mixing appears to be adequate based on the larger blower size, it is worth noting that the operation of both blowers is required at certain times of the year to maintain BOD compliance. Therefore, we still recommend that a third blower be installed, as funds become available, so the aeration system has a standby unit available should a blower go down during this critical operational period.

If you have any other comments or questions regarding this report I can be reached at (406) 444-6776.

Sincerely,

Mike Abrahamson

Mike Abrahamson, P.E.
Environmental Engineer
Technical and Financial Assistance Bureau

Encl. Inspection report

c: File
Permitting Division

LAGOON INSPECTION REPORT

State of Montana
Department of Environmental Quality

Name/Location of Facility:	**City of Thompson Falls**
Inspected by:	**Mike Abrahamson** Date: **8/14/14**
Operator/Contact Person:	**Jerry Lacy – Director of Public Works**
Address:	**P.O. Box 99, Thompson Falls, MT 59873**
Telephone:	**(406) 827-3557**
Year Constructed (or Last Upgrade):	**1969 – original plant; 1987 and 1997 – upgrades**
Service Area Population:	**system only serves area south of the railroad tracks (~250 to 300 people)**
Design Population Equivalent:	**424 (Facility serves only part of city)**
Average Flow (or Winter Water Use):	**38,500 gpd (3 years of lift station records)**
Average Design Flow:	**141,000 gpd (1997 upgrade)**
Number of Lagoon Cells:	**3**
Lagoon Area (acres):	1 **0.56** 2 **0.56** 3 **1**
Depth of Cells:	1 **12** 2 **12** 3 **7**
Liner Type:	**HDPE cells 1 and 2, PVC with soil cover cell 3**
Volume of Cells (gal):	1 **1,415,000** 2 **1,415,000** 3 **1,920,000**
Detention Time (days):	1 **36.75** 2 **36.75** 3 **50**
Total Detention Time (days):	**123 (current flow) 33.6 (design flow)**
Org Loading (#BOD/d):	**84.8**
Org Loading (#BOD/ac.-d):	cell 1 **N/A** total **N/A**
Receiving Water and MPDES permit #: (Indicate "ND" if non-discharging)	**Clark Fork River MT-G580035**

FOR AERATED LAGOONS

Type of aerators: **static tube aerators**

Number and HP of blowers or aerators? Operational? **2 blowers each @ 470 scfm**

Number of diffusers? Percent operational? **1 blower cannot operate all diffusers (normally operate about 60 -70% of all diffusers). Can only operate 100% of diffusers when both blowers are in service.**

Does there appear to be adequate mixing? **No odors are present, however mixing energy based on blower size does not meet state design standards (Circular DEQ-2). Design standards require 5-10 Hp/MG of lagoon volume be provided. With only one blower operating much of the year only 2.6 Hp/MG is provided.**

Is a quiescent zone provided? **Yes**

How is aeration system operated (#hours/day, etc)? **Various durations throughout the year. Both blowers are operated in the spring (~14 hours each) and then blower run times are tapered into the summer months with aerators alternating with a total aeration time of approximately 15 hours/day. Blowers shutdown 10 minutes each hour.**

Provide Schematic Diagram of Systems, attach Photographs if available:

Diagrams and photographs are attached.

A. GENERAL

1. Does facility have adequate fencing and locked gates? **Yes**
2. Does facility have adequate warning signs? **Badly faded - need repair**
3. Does facility have storage for records, O&M Manual, as-built plans, spare parts, etc.? Is plant O&M Manual available? **Yes**
4. Is operator certified? **Yes**

   Backup operator provided? **Yes – The system has a total of 3 certified operators**
5. User rate? **Residential - $38.00 per month; Commercial - $45.00 per month. City has a sewer reserve account with a current balance of approximately $113,000. Historically expenditures exceeded revenue (2010 to 2012), but changes to sewer rates in 2013 resulted in revenues exceeding expenditures and that is expected to be the case going forward.**

B. CONVEYANCE SYSTEM

1. Are lift stations well maintained? **Yes – wet well is pumped annually**
2. Are lift stations adequately sized and reliable? **Yes**
3. Do lift stations show signs of significant corrosion? **No**
4. Do combined sewer overflows or sanitary overflows occur? **No**

   #/year? ______
5. Are spare parts stocked for pumps and other mechanical equipment? **Yes – mostly electrical parts are kept on hand.**
6. Is collection system periodically inspected for infiltration and inflow, obstructions, etc.? **Yes, collection system is "jetted" annually and "trouble lines" are cleaned a few times a year. Roof drains were removed from sewer system to reduce extraneous flows.**
7. Is a confined space entry program in effect, and is confined space safety equipment available to operations staff? **Yes –the city owns a tripod/harness, fall arrestor, and gas detectors**
8. Does facility receive industrial waste? **No**

C. LAGOON MAINTENANCE AND LEAKAGE

1. Is vegetation on levees adequately controlled by mowing or other means? **In general yes. Tall vegetation and weeds are present around the inner slope of cell 3 which has a soil cover with rip-rap over a PVC liner.**
2. Is there vehicle access to levees, and are levees driveable? **Yes**
3. Are levees free of animal burrows, erosion, or other potential causes of levee/liner damage? **Yes. There are a few small trees/shrubs growing on outer dike that should be removed before they become larger and disrupt the integrity of the embankment.**
4. Are lagoon levels consistent with flows; weather and evaporation; and, control structure levels? **Yes**
5. Are levees free of indicators of seepage, such as damp spots or lush vegetation at the toe of embankment? **Yes**

D. TREATMENT OPERATIONS

1. Are cells free of significant quantities of floating scum and debris? **Yes**

   (In winter, % of re-coverage?)
2. Are cells free of significant odors, which may indicate overloading or anaerobic conditions? **Yes**
3. What color is primary cell? **Green**
4. Are cells free of extensive coverage by duckweed or other vegetation that could adversely impact treatment? **No –cells 2 and 3 have duckweed that covers the entire surface from late spring through early fall. As the duckweed dies and decomposes nutrients, including BOD, will be released back into the water column and may be a contributing factor to the increases observed in BOD and TSS concentrations in the spring months.**
5. Are sludge levels periodically measured so that lagoon clean-out operations can be scheduled when necessary? **No – facility is approaching 20 years of service and sludge levels should be measured to assess the need for removal. In addition to regular solids accumulation, the lagoons are impacted annually with duck weed, which may accelerate the rate at which solids accumulate in lagoons as it dies and settles out. Sludge removal, depending on volume, method of removal, and the location of disposal sites can be expensive and the city may need to time to obtain the necessary funds.**
6. Is sludge accumulation a problem? **Sludge accumulation may be a contributing factor to elevated BOD and TSS concentrations in the spring months.**
7. If facility has multiple cells, are control structures, valving, and piping in-place to allow bypassing of one cell or parallel operation? In what condition are control structures? **Yes. Control valves are exercised frequently.**

8. If facility discharges, what type of flow measurement is provided? Is proper calibration an issue? **Parshall Flume. City has hired an engineer to evaluate the installation of a flow sensor and recorder to provide continuous effluent flow monitoring.**
9. Is there seasonal discharge or varying water surface levels which may indicate leakage or interaction with ground water? **No**
10. If facility discharges, is a representative sample point used for effluent sampling? **Yes**
11. If gaseous chlorine is used, are cylinders securely stored in a properly marked, safe locations? **N/A**
12. If UV system is used, is it adequately operated and maintained? **N/A**
13. Is facility in compliance with discharge permit conditions? **There have been 2 BOD violations and 1 TSS violation in the past 2.5 years, none since April 2013. Each spring (Mar-May) BOD and TSS values begin to increase resulting in an occasional minor violation as noted previously. The city has been monitoring the *E.coli* levels in the discharge to see if a disinfection system will be necessary to meet the new bacterial limits that go into effect on January 1, 2017. The discharge, on occasion, approaches the *E. coli* limits that will be imposed, but has not yet exceeded them.**
14. Is facility approaching capacity in terms of organic or hydraulic loading? **Seasonally**
15. Describe receiving stream. Ephemeral or perennial? **Perennial**

    Man made ditch?
16. Approximate number of days/year that water, other than wastewater, flows in the stream or ditch? **365 days**

ADDITIONAL COMMENTS AND OBSERVATIONS

The wastewater facility appears to be well operated and maintained. Discussions with Jerry Lacy, the Director of Public Works, indicated that the city plans to install continuous flow monitoring on the effluent and possibly a composite sampler to meet the requirements in the facility's discharge permit. Review of revenue and expenditures for the sewer system indicate that the system is now being adequately funded.

I have listed a few items that the town will need to address to ensure the continued proper operation and maintenance of the system.

1. **Since the treatment system has been in operation for nearly 20 years, we recommend that sludge measurements be taken to verify sludge depths. Sludge removal can be expensive and it may take time to obtain the necessary funds. Rural Water Systems should be contacted to see if they still provide sludge depth measurement services.**

2. **The interior slopes of cell 3 have tall weeds and grass. If the growth becomes too thick it can be difficult to inspect the condition of the dikes and may provide habitat for**

burrowing animals. In addition, there are a few small trees growing on the outer embankment that should be removed before they grow larger and the roots disrupt the integrity of the dike or liner. I have included some information on methods you may try for getting rid of weeds in the lagoon.

3. **The warning signs along the perimeter fence are badly faded and need to be replaced. The signs should identify the facility and advising against trespassing. One sign should be installed along the fence line on each side of the lagoon, with at least one sign every 500 feet.**

4. **Safety ropes that extend down into the water should be installed at facilities with exposed liners. These liners can become very slick when wet or icy, making egress difficult if necessary. It is recommended that at a minimum a safety rope be installed near each corner of cells 1 and 2. Experience suggests that the rope be weighted in the lagoon otherwise the ropes tend to blow out of the water.**

5. **Based on design standards for wastewater treatment facilities (circular DEQ-2) mixing in the aerated lagoons is considered to be inadequate and may be contributing to the seasonal BOD discharge violations. Circular DEQ-2 requires a <u>minimum</u> of 5 Hp/MG of lagoon volume under aeration. With only one 10-Hp blower operating most of the year this equates to only 2.6 Hp/MG, or about half of what should be provided. While this level of mixing may be adequate when wastewater temperatures are warmer, as the weather cools and the duckweed dies off insufficient mixing may stress the system leading to poorer treatment and possible violations. As you noted, operating both blowers at the same time improves treatment in the spring. This is likely not only due to supplying extra oxygen to stabilize the BOD load (which is possibly elevated from decomposing duckweed that has settled out over the winter) but the mixing energy in the lagoons has also been increased to sufficient levels to bring the oxygen, microorganisms, and BOD together for better treatment. While sludge removal (if levels are determined to be excessive) may improve treatment, it may be that an additional blower should be added to the system primarily to serve as a backup so that two blowers can be operated throughout the winter months and into the spring to keep BOD levels in check. Unfortunately this strategy will not help with operating costs.**

6. **The city may want to consider operating the lagoons in parallel during the spring months in an attempt to improve treatment and avoid BOD and TSS violations.**

LAGOON MAINTENANCE - WEEDS

Weeds must be controlled at lagoon wastewater treatment facilities. Depending on the type of plant, e.g., cattails, grasses, noxious weeds, etc., different problems will result from the proliferation of weeds along lagoon dikes. Dikes should have all plant growth cut or removed to a few inches in height. This helps operators protect the dike from erosion and aids in inspection and maintenance of the dike. Operators must prevent animals from burrowing into dikes and watch for cracks that may develop. Valves, vaults and control structures should be easy to access and maintain. Plants, holes, erosion and cracks can lead to leakage through the dikes and bottom of the cells or complete failure of the lagoon.

Excessive plant growth in the lagoon water will encourage the build up of scum mats. Scum mats are made up of floating material from the collection system, like grease and plastics, and often create offensive odors. Flies, mosquitoes and other pests can breed and multiply in scum mats and transport diseases from the lagoon to people, pets and other living creatures. Scum mats block wind and wave action, as do extensive weed populations, inhibiting mixing, aeration and treatment. Scum mats can be removed easily by periodic skimming of the floating material in the downwind corner of the lagoon cells and by raking it from the lagoon dikes.

There are several strategies in use for controlling and removing various types of weeds. Weeds can be burned, pulled, sprayed and cut, along with other noninvasive, nondestructive alternative controls, like using sheep. Safety precautions <u>must</u> be adhered to regardless of the method used.

Application of herbicides and pesticides to control plant growth at lagoons can be effective, but these rules must be followed:

- The chemical applicator must have a current certified applicator's license from the Montana Department of Agriculture, Agricultural Sciences Division at 444-5400.
- The chemicals used on the inside of the lagoon dikes must be suitable for waters used for irrigation. Please contact the Weed Specialists at the Department of Agriculture, your local USDA Soil Conservation District offices or MSU Extension Services for guidance on selecting the appropriate weed control chemicals.
- Coordinate the weed control efforts at your lagoons with those of your respective County Weed Control Districts. Often they will include the exterior banks of the lagoon dikes and the lagoon site in the district weed control program in order to coordinate eradication efforts against noxious weeds.

PLEASE DO NOT APPLY CHEMICALS TO THE LAGOON WATERS!

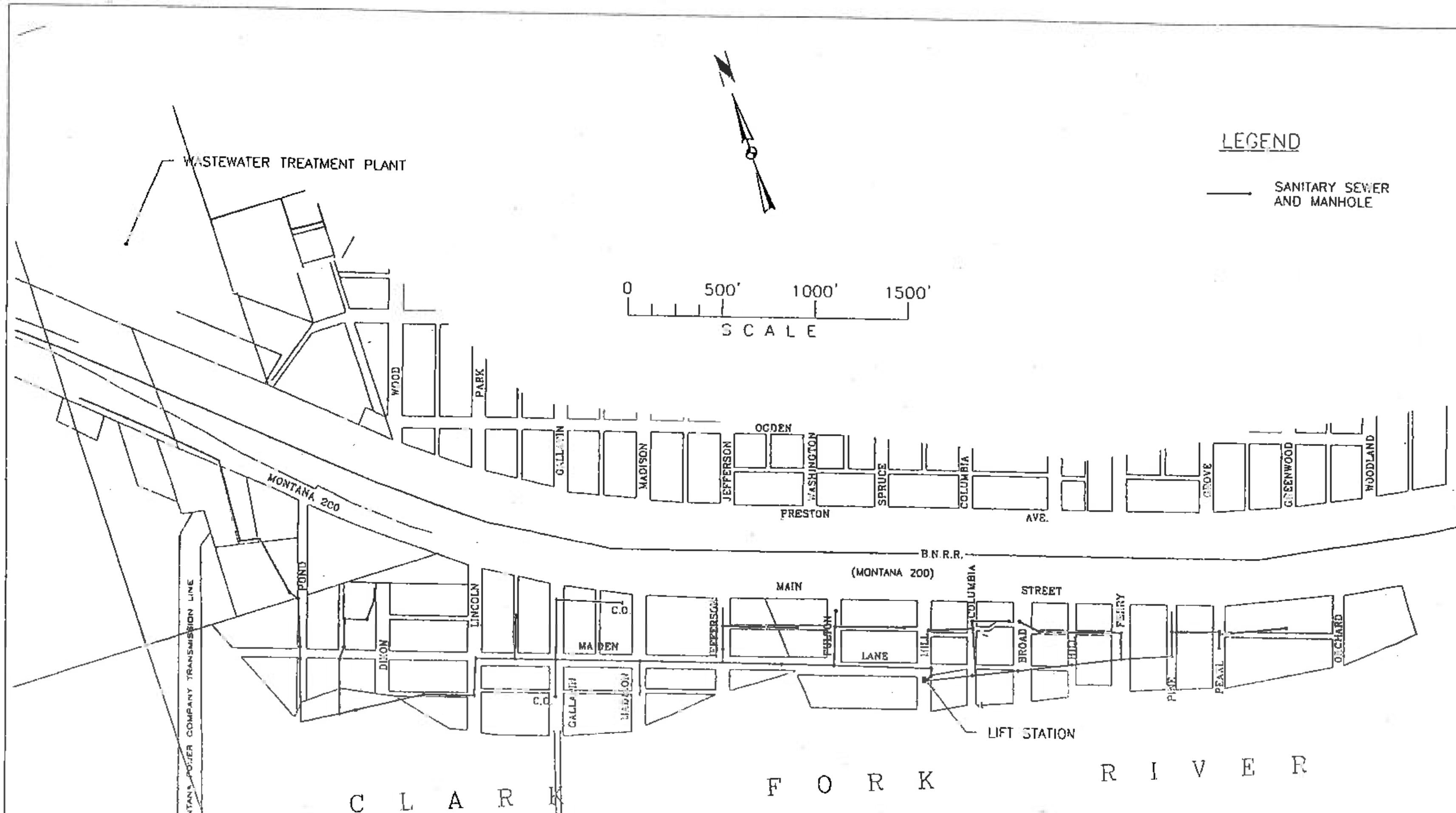


FIGURE 1

VICINITY MAP

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS
GREAT FALLS–BOZEMAN–KALISPELL MONTANA
SPOKANE WASHINGTON
LEWISTON IDAHO

214

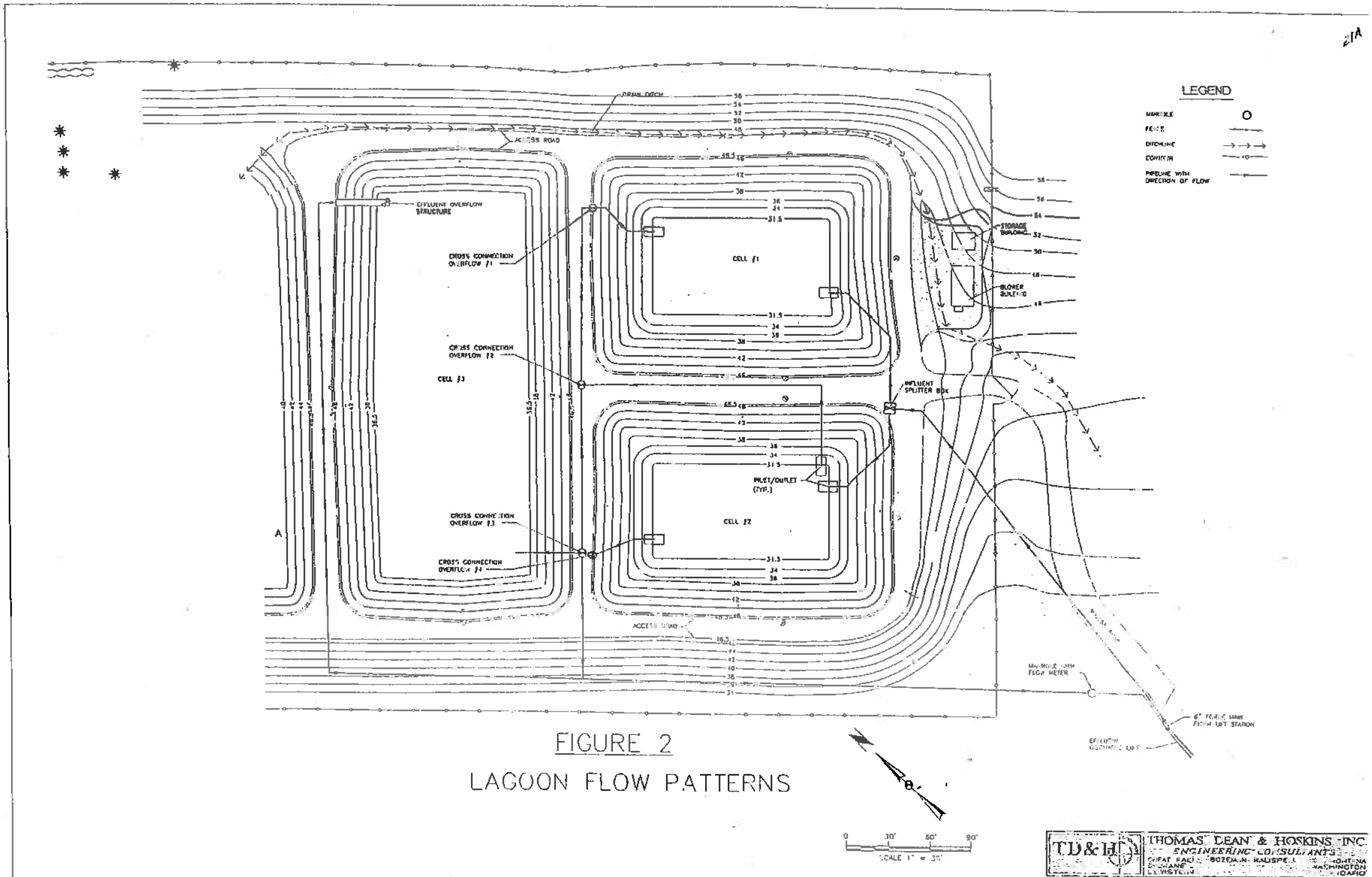
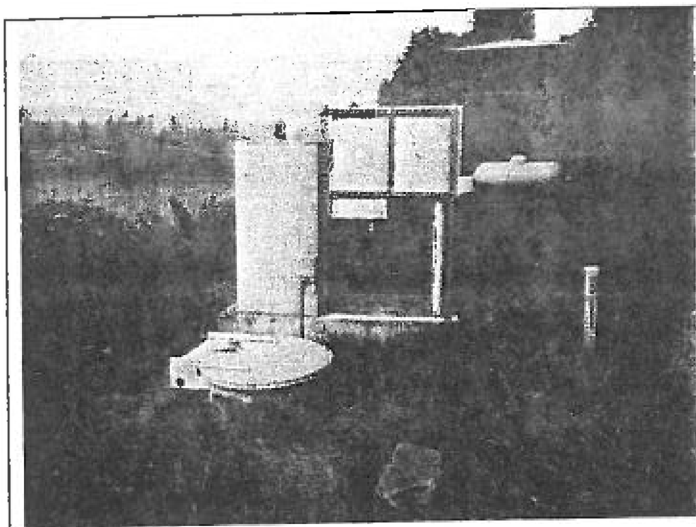


FIGURE 2

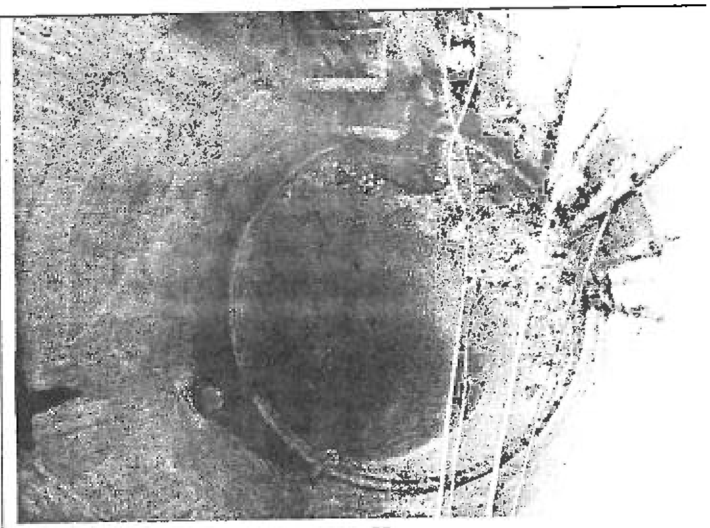
LAGOON FLOW PATTERNS

THOMAS, DEAN & HOSKINS, INC.
ENGINEERING CONSULTANTS

City of Thompson Falls 2014 O&M Inspection

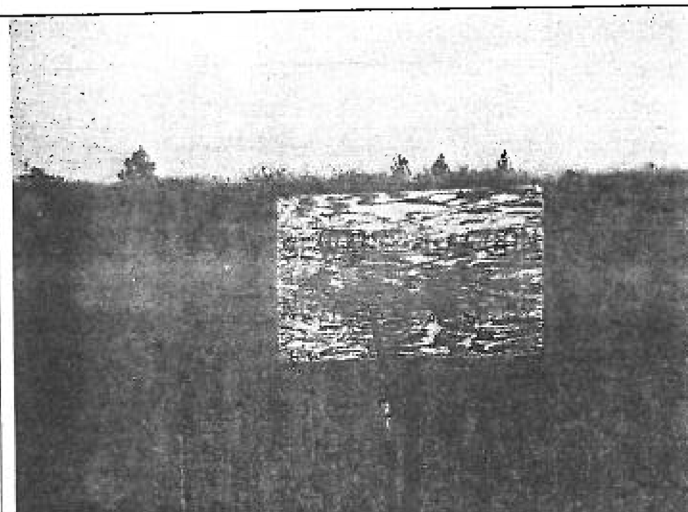


1. Dry Well Access to Lift Station

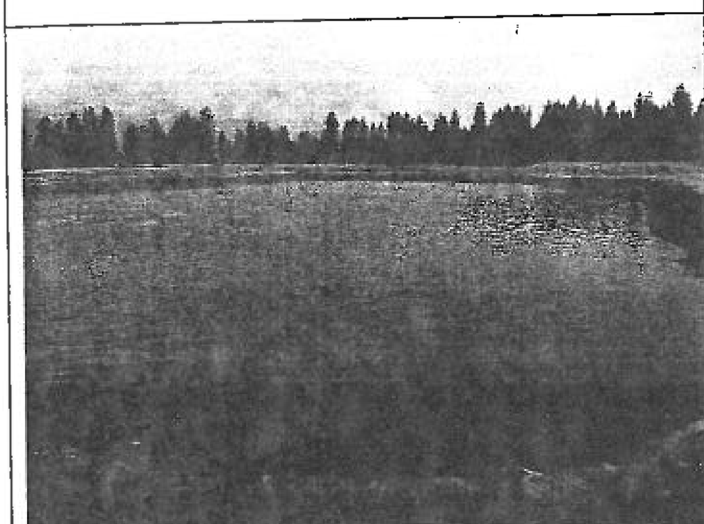


2. Lift Station Wet Well.

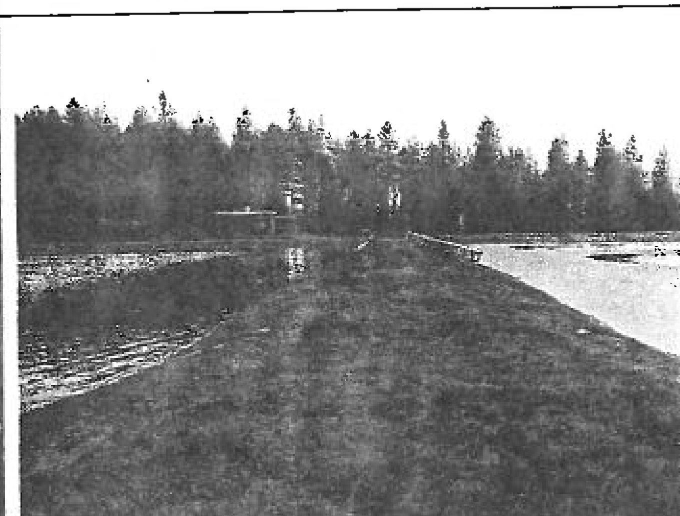
3. Lagoon Entrance Gate (Locked).



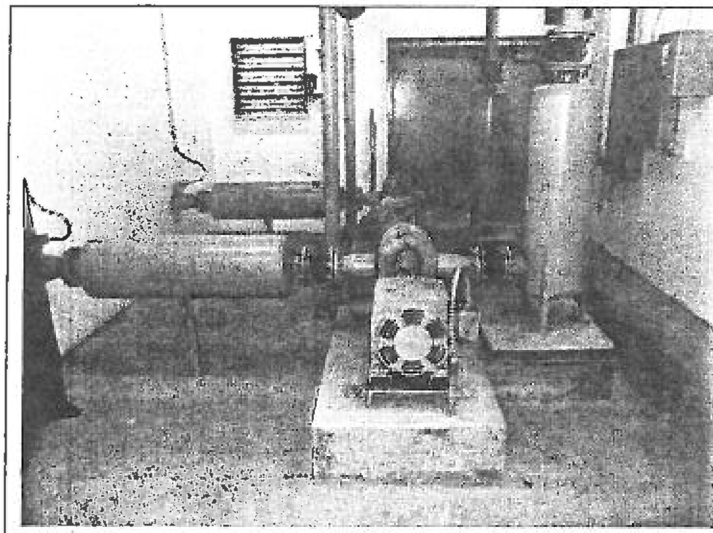
4. Lagoon Warning Sign.



5. Cell #1.



6. Interpond Dike between Cells #1 and #2.



13. Blowers.

DEQ
Montana Department
of Environmental Quality

October 28, 2015

Mayor Carla Parks
City of Thompson Falls
PO Box 99
Thompson Falls, MT 59873

RE: Compliance Evaluation Inspection Report for City of Thompson Falls, MPDES Permit MTG580035: Thompson Falls Wastewater Treatment Facility

Dear Mayor Parks:

The Department of Environmental Quality (DEQ) conducted a compliance evaluation inspection (CEI) of Thompson Falls Wastewater Treatment Facility and MPDES Permit #MTG580035 on October 13, 2015. Please refer to the enclosed inspection report for detailed information about the inspection and any recommendations.

Based on information reviewed during the inspection, I did not document any violations. I would like to thank Jerry Lacy for his cooperation and willingness to assist me during the CEI. DEQ would like to thank the city of Thompson Falls for doing their part to protect water quality.

If there are any questions, contact me at (406) 431-9577.

Sincerely,

Lisa-Kay Keen

Lisa-kay Keen
Compliance Inspector
Technical & Financial Assistance Bureau
Planning, Prevention & Assistance Division
Montana Department of Environmental Quality
Lkeen@mt.gov

Enclosures: Inspection Report, 3560 form
cc: permit #MTG580035

Montana Department of Environmental Quality

MPDES Compliance Inspection Report
WATER PROTECTION BUREAU

Section A: National Data System Coding

Transaction Code	MPDES	MM/DD/YR	Inspec. Type	Inspector	Fac Type
1 N 2 N 3	MTG580035 11	12 Oct 13, 2015	18 C	19 S	20 Municipal

Remarks

County project/Facility is located: Sanders County

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
67 3 69	70 4	71 N	72 N 73	74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) name of Facility, City and State of Facility
City of Thompson Falls
Thompson Falls Wastewater Treatment Facility
1300 Preston Avenue West

Entry Time /Date 00:00 AM/PM / MM/DD/YR: 09:00 AM 10/13/2015

Entry Time /Date 00:00 AM/PM / MM/DD/YR: 11:40 AM 10/13/2015

Permit Effective Date MM/DD/YR: Dec 14, 2012

Permit Expiration Date MM/DD/YR: Dec 31, 2017

Name(s) of Onsite Representative(s) Title of Rep Phone #/ Fax # Email
Jerry Lacy - Public Works Director
406.827.3557/tfpworks@blackfoot.net

Facility GPS: Lat/Long Dec. De
47.59487°N
-115.35706°W

Out Fall Lat/Long

Name of Responsible Official/Title of Official Address of Official City, State, Zip Phone #/ Fax #
Mayor Carla Parks
PO Box 99, Thompson Falls, 59873
406.827.3557

Contacted: Yes ☐ No ☑

SIC Code - Industry: 4952

Section C: Areas Evaluated During Inspection
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	**Permit**	S	**Flow Measurement**	S	**Operations & Maintenance**	S	**CSO/SSO**
S	**Records/Reports**	S	**Self-Monitoring Program**	N	**Sludge Handling/Disposal**	N	**Pollution Prevention**
S	**Facility Site Review**	S	**Compliance Schedules**	N	**Pretreatment**	N	**Multimedia**
N	**Effluent/Receiving Waters**	S	**Laboratory**	N	**Storm Water**		**Other:**

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

SEV Code(s) – Descriptions: No violations discovered during the inspection

Comments:
Traditional Minor

Compliance Evaluation Inspection (CEI). Completed in accordance with MPDES program and permit requirements.

No violations were discovered during the inspection.

Inspection Report and Non-Violation Letter sent by the Department. See inspection report and letter for more detail and for further instructions and/or recommendations.

Name(s) and Signature(s) of Inspector(s)	**Montana Department of Environmental Quality** **1520 East Sixth Avenue** **Helena, Montana 59620-0901** **406.444.3080/406.444.1374 (fax)**	**Date** October 27, 2015
Name(s) and Signature(s) of Inspector(s)	**Montana Department of Environmental Quality** **1520 East Sixth Avenue** **Helena, Montana 59620-0901** **406.444.3080/406.444.1374 (fax)**	**Date**
Signature of Management QA Reviewer	**Montana Department of Environmental Quality** **1520 East Sixth Avenue** **Helena, Montana 59620-0901** **406.444.3080/406.444.1374 (fax)**	**Date** Oct 28, 2015

Department of Environmental Quality
Permitting & Compliance Division
Water Protection Bureau
Helena, Montana 59620
Phone (406) 444-3080

INSPECTION REPORT

MPDES Authorization:	MTG580035
Authorization date:	December 14, 2012
Permit expiration date:	December 31, 2017
Permittee name:	City of Thompson Falls
Facility Site name:	Thompson Falls WWTF
Facility location:	1300 Preston Ave W
County:	Sanders County
GPS location:	47.59487°N; -115.35706°W
SIC code:	4952 – Sewerage System
Cognizant official:	Carla Parks - Mayor
Facility mailing address:	PO Box 99, Thompson Falls, 59873
Facility phone:	406.827.3557
Contact name:	Jerry Lacy - PWD
Contact mailing address:	PO Box 99, Thompson Falls, 59873
Contact phone:	406.827.3557
Inspection type:	Compliance Evaluation Inspection (CEI) – Traditional Minor
Inspection date & time:	October 13, 2015
Arrival Time:	09:00
Departure Time:	11:40
Inspector:	Lisa-kay Keen – MTDEQ TFAB CT&TSS
Personnel in Attendance:	Jerry Lacy - PWD
State receiving waters:	Clark Fork River
Samples Collected:	None

Inspection Results:

Entry/Introduction:

Thompson Falls Waste Water Treatment Facility (WWTF) is a 3-celled aerated lagoon system. The WWTF is authorized as a large continuous discharger with Group A Technology Based Effluent Limits (TBEL) and Water Quality Based Effluent Limits (WQBEL). The WWTF has not been approved to use 5-day carbonaceous oxygen demand ($CBOD_5$), Treatment Equivalent to Secondary (TES), or Alternative State Requirements (ASR). The WWTP does not disinfect prior to discharging out one permitted outfall, to the Clark Fork River.

Records Review:

The following records were requested for review:

- Copy of the Authorization to Discharge Under the Montana Pollutant Discharge Elimination System (MPDES) General Permit for Domestic Sewage Treatment Lagoons (General Permit) – MTG580035
- Effluent flow values for monitoring periods ending April 30, 2013, May 31, 2013, and June 30, 2013

- Evaluated records for loading calculations for biochemical oxygen demand and total suspended solids
- Analytical results for biochemical oxygen demand for monitoring periods ending April 30, 2013, May 31, 2013, and June 30, 2013
  - Evaluated records for reported concentration, loading, and percent removal values
- Analytical results for total suspended solids for monitoring periods ending April 30, 2013, May 31, 2013, and June 30, 2013
  - Evaluated records for reported concentration, loading, and percent removal values
- Analytical results for *E. coli* bacteria for monitoring periods ending April 30, 2013, May 31, 2013, and June 30, 2013
  - Evaluated records for reported geometric mean values
- Analytical results for total ammonia, nitrate + nitrite, total kjeldahl nitrogen, and total phosphorus for monitoring periods ending April 30, 2013, May 31, 2013, and June 30, 2013
  - Evaluated records for reported concentration values
- Chain of Custody and Laboratory Analytical Reports for monitoring periods ending April 30, 2013, May 31, 2013, and June 30, 2013
  - Evaluated records for proper sample relinquish methods and analytical methods
- In-house pH sampling records for monitoring periods ending April 30, 2013, May 31, 2013, and June 30, 2013
  - Evaluated records for reported minimum and maximum concentrations values
- In-house temperature sampling records for monitoring periods ending April 30, 2013, May 31, 2013, and June 30, 2013
  - Evaluated records for reported values
- Special conditions of the MPDES General Permit (effective January 1, 2017)
  - *E. coli* bacteria effluent limits
    - The WWTF did not have disinfection capabilities at the time of the inspection; however, is examining future abilities to bring *E. coli* bacteria below the required limit.
  - Influent monitoring for biochemical oxygen demand and total suspended solids
    - The WWTP has been obtaining influent samples for % removal calculations since January 24, 2014
  - Effluent flow monitoring device
    - The WWTP installed a Grayline open channel flow monitor (OFC 5.0) in November of 2014
  - The facility has submitted annual reports to the DEQ on January 28, 2014, and January 26, 2015
- Compliance schedules of the MPDES General Permit
  - Operations and Maintenance Manual
    - Created March 1999; Approved by MTDEQ on May 6, 1999
    - Monthly inspections were completed on April 3, 2013, May 20, 2013, and June 4, 2013
  - Inflow/Infiltration Study
    - The WWTF is not required to complete an I/I study as the facility design discharge is 0.088MGD
  - Sewage Sludge
    - The WWTF removed sludge from cells 1 and 2 in 1997 during an upgrade to deepen the lagoon cells. The WWTF had the sludge blanket measured in 2014; an average of 18-inches resulted.
  - Pretreatment
    - The WWTF is not required to have a pretreatment program in place; the WWTF does not receive waste from any SIUs or CIUs.

The above requested records were available for review during the inspection; no findings were identified.

Additional records review:
Outstanding violations were reviewed for the timeframe of March 1, 2011 to August 31, 2015. Parameter exceedances included:

- Biochemical oxygen demand - 30-day average exceedance during monitoring periods ending April 30, 2012 (13%), and April 30, 2013 (7%)
- Biochemical oxygen demand – 7-day average exceedance during the monitoring period ending April 30, 2013 (18%).
- The facility has no D80 or D90 violations in the past 5 years.
- The last inspection was conducted on March 18, 2011, where the facility was cited for two violations; 1 – effluent violations, 2 - failure to conduct sample analysis in accordance with test procedures approved under 40CFR Part136.

The permittee is required to meet the effluent limitations as stated in Part I, Section B of the MPDES General Permit MTG580035; however, violations were issued at the time of the exceedances, no exceedance was categorized significant, and there is no identifiable pattern or continued effluent failures.

Facility Site Evaluation:
The following areas were reviewed during the facility site evaluation:

- Influent location
  - All water from the town flows via gravity into an on-site wet well lift station. There is no measurement of influent flow. Wastewater then flows to a splitter box, where the influent sample is collected prior to entering the lagoon cells. The splitter box allows the facility to discharge into cell 1, cell 2, or both. The facility generally operates in series, with all waste water entering cell 1; at the time of the inspection the facility was operating in this manner.
- Lagoon Cells
  - Cell 1 is lined and has nine (9) static tube course aeration lines with five lines with (5) portals and four lines with (4) portals each. The aeration lines alternate; all were operational.
  - Cell 2 is lined and has nine (9) static tube course aeration lines with five lines with (5) portals and four lines with (4) portals each. The aeration lines alternate; not all lines were active at the time of the inspection; however, all are functional for facility operations control.
  - Cell 3 is lined and is partially aerated with nine (9) static tube course aeration lines. The lines decline in number of portals from west to east. There are four (4) lines with six (6) portals each, two (2) lines with five (5) portals each, two (2) lines with two (2) portals each, and one (1) line with one (1) portal. At the time of the inspection not all static tubes were running; however they all function for full aeration capacity. The east half of the cell is a quiescent zone. On the northeast corner of cell 3, there is a multi-level effluent draw structure with 2-foot, 4-foot, and 6-foot intervals. The facility typically draws effluent at the 4-foot level.
- Aeration pump house
  - The pump house contains three (3), seven (7) psi direct drive pumps. The system typically runs two pumps at a time, alternating between all three pumps. The system is set up to have the first pump kick on, with the second pump kicking on 15 minutes later for the allotted run-time. All pumps are run on timers.

- Effluent location
  - The facility has an effluent electronic flow meter, a Grayline open channel flow monitor (OFC 5.0), as the primary measurement device. Flow is measured in-line after the multi-level draw structure southeast of the lagoon cells. Effluent samples are collected from a tap in the effluent pipe within a manhole where the effluent flow meter is located.

All photos taken during the compliance evaluation inspection were lost due to equipment malfunction. There were no findings identified with the facility site evaluation.

<u>Conclusion</u>

Based on the information reviewed and obtained during the CEI, the DEQ did not document any findings and is not requesting additional information at this time.

Lisa-Kay Keen

Inspector Signature

October 27, 2015

Date

APPENDIX N

Existing MPDES Discharge Permit

Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

December 14, 2012

COPY

Ms. Carla Parks, Mayor
City of Thompson Falls
PO Box 99
Thompson Falls, MT 59873-0099

RE: MTG580035 – CORRECTED Confirmation Letter for Discharge under the Domestic Sewage Treatment Lagoons General Permit – City of Thompson Falls Wastewater Treatment Facility (WWTF)

Dear Mayor Parks:

The Department of Environmental Quality (DEQ) has reviewed your Notice of Intent (NOI) received on November 28, 2012, stating your intention to discharge under the Montana Pollution Discharge Elimination System (MPDES) *Domestic Sewage Treatment Lagoons General Permit* (GP).

This *corrected* letter confirms that the City of Thompson Falls is authorized under MTG580035 to discharge to **the Clark Fork River** at Outfall 001, located at latitude 47.59487 N, longitude -115.35706 W. This letter supersedes the confirmation letter issued December 3, 2012 (changes are shaded). The City of Thompson Falls is authorized to discharge at the above referenced location only, under the provisions of the GP.

Based on the information that you provided in the NOI form, the City of Thompson Falls WWTF will be permitted as a large continuous discharger and will be subject to the specific technology-based effluent limits (TBELs), water quality-based effluent limits (WQBELs), and other requirements under Parts II & III of the GP that are listed below. You must also comply with all other applicable parts of the GP.

MTG580000 Requirements	Applicable Requirements	Facility-Specific Requirements
Part II.A. Effluent Limits		
1. TBELs	Table 1 – TBEL Group A	See mass-based limits, below.
2. WQBELs Jan. 2017	Table 4 – Interim TRC Table 5 – Final E. Coli	No additional limits beyond group requirements.
Part II.B. Monitoring Requirements		
1. Effluent Monitoring	Table 7 – Self Monitoring for Large Continuous Dischargers	No additional monitoring beyond group requirements. One grab sample may be taken in place of effluent composite samples.
2. Upstream Monitoring	Table 9 – Upstream Monitoring	Years: **2014, 2015 & 2016**
Part III. Special Conditions/Compliance Schedule		
A.1, and.B.1 & B.2	All – due 1/1/2017	First Annual Report due **1/28/2013**
C. Operation & Maintenance (O&M) Requirements	All	No additional O&M requirements.
E. Minimizing Inflow/Infiltration	All – due 1/1/2017	No additional I/I requirements.
F. Sewage Sludge & G. Pretreatment	All	No additional requirements.

In addition to the above, the City of Thompson Falls has the following facility-specific limits:

Facility- Specific Mass-based Limits from Equation 1			
Parameter	Units	Average Monthly Limit	Average Weekly Limit
5-Day Biochemical Oxygen Demand (BOD_5)	lbs/day	22	53
Total Suspended Solids (TSS)	lbs/day	35	53

The GP becomes effective on January 1, 2013 and expires on December 31, 2017. The GP is valid only when accompanied by this confirmation letter, and both must be available on-site. The GP was sent to you earlier under separate cover – a copy of the GP and this letter should be made available to the person in charge of the operation of the wastewater treatment facilities so that person is aware of your requirements. Please take note of the revised effluent limits and monitoring requirements. The preprinted Discharge Monitoring Report (DMR) forms will be sent soon.

Please be advised that a violation of, or noncompliance with, any provision of the permit is subject to enforcement action pursuant to the Montana Water Quality Act.

If you have any questions or comments, please contact me at (406) 444-3927 or cweaver@mt.gov.

Sincerely,

Christine A. Weaver

Christine A. Weaver
Water Protection Bureau
Environmental Science Specialist

Cc: Jerry Lacy, Director of Public Works, City of Thompson Falls

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

GENERAL PERMIT

For

DOMESTIC SEWAGE TREATMENT LAGOONS

Permit No.: MTG580000

<u>AUTHORIZATION TO DISCHARGE UNDER THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES)</u>

In compliance with Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA), and the federal Water Pollution Control Act (the "Clean Water Act"), 33 U.S.C. 1251 *et. seq*., applicants issued a confirmation letter for this Domestic Sewage Treatment Lagoons General Permit, are authorized to discharge wastewater to state waters in accordance with effluent limits, monitoring requirements and other conditions set forth herein.

A copy of this General Permit and the written confirmation letter from DEQ must be kept on site at all times. The General Permit is not valid without a current letter from DEQ.

This permit shall become effective: **January 1, 2013.**

This permit and the authorization to discharge shall expire at midnight, **December 31, 2017.**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

Jenny Chambers

Jenny Chambers, Chief
Water Protection Bureau
Permitting & Compliance Division

Issuance Date: September 27, 2012

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I. COVERAGE UNDER THIS GENERAL PERMIT

A. Coverage Area

This General Permit (GP) applies to all areas of the State of Montana, except for Indian Reservations.

B. Sources Eligible for Coverage Under This General Permit

To be eligible for authorization under this GP, a facility must be a non-major facultative or aerated domestic sewage treatment lagoon, which includes Publicly-Owned Treatment Works (POTW) and Privately-Owned Treatment Works that treat domestic wastewater. The lagoon must have:

1. An average design flow less than 1.0 million gallons per day (mgd); and
2. No significant industrial contributors or indirect dischargers.

C. Sources Excluded from Coverage Under This General Permit

1. DEQ may deny a general permit application for discharge for any of the following:
   a. The specific source applying for authorization appears unable to comply with:
      - effluent limitations or other terms and conditions of the permit;
      - water quality standards established pursuant to 75-5-301, MCA; or
      - prohibition of any discharges to which the regional administrator has objected in writing.

   b. The discharge is different in degree or nature from discharges reasonably expected from sources or activities within the category described in the General Permit.

   c. An MPDES permit or authorization for the same operation has previously been denied or revoked.

   d. The discharge to be authorized under a general MPDES permit is also included within an application or is subject to review under the Major Facility Siting Act, 75-20-101, *et seq.*, MCA.

   e. The point source will be located in an area of unique ecological or recreational significance. Such determination must be based upon considerations of Montana stream classifications adopted under 75-5-301, MCA, impacts on fishery resources, local conditions at proposed discharge sites, and designations of wilderness areas under 16 USC 1132 or of wild and scenic rivers under 16 USC 1274.

2. In addition, the following sources are excluded from coverage from this GP:
   a. Discharges to Outstanding Resource Waters or discharges to those waterbodies classified as A-1 or A-Closed waters.

b. The facility is a "new or increased source" that discharges to "high quality water," as defined in the Nondegradation of Water Quality Subchapter 7.

D. Sources Covered Under the 1999 General Permit – Continuing Coverage

Facilities currently covered under the 1999-issued GP remain administratively continued until the effective date of this renewed GP, at which time the 1999-issued GP expires. DEQ will send a letter to these facilities as part of the Final Determination package. The letter will require each facility to submit one of the following to DEQ within sixty (60) days:

1. a completed Notice of Intent (NOI) form (see Attachment A), requesting continued authorization under the renewed GP and containing updated information (no fee will be required for this informational update package);
2. a letter requesting termination under the GP, with certification from the Responsible Official that the facility is non-discharging; or
3. a letter requesting termination under the GP, with submittal of the appropriate application requesting coverage under either an individual MPDES surface water or ground water discharge permit.

The 2012-issued GP will become effective approximately 90 days after the signature date for final issuance. If no response is submitted to DEQ by the effective date of this renewed GP, the facility's coverage under the Domestic Sewage Treatment Lagoon General Permit will expire and the facility will no longer have authorization to discharge. Any discharge to state waters without a current permit constitutes a violation of the Montana Water Quality Act.

Within 30 days of receipt of a facility's NOI submittal package for renewal, DEQ will make a completeness determination and will notify the facility if their NOI package is incomplete. Once a complete NOI package is received, the facility is automatically covered under the renewed GP until DEQ either:

1. Issues a confirmation letter to the facility authorizing discharge under the renewed GP, which includes criteria specific to the subcategories that the facility is assigned; or

2. Notifies the applicant that the source does not qualify for authorization under the GP.

If the source is ineligible for coverage under this GP, DEQ shall proceed, unless the application is withdrawn, to process the application through the individual MPDES permit requirements under Administrative Rules of Montana (ARM) Chapter 17 Subchapter 13. The submittal of additional fees and information will be required by DEQ prior to the issuance of an individual permit.

Coverage under a MPDES permit, including a general permit, is renewable on a five-year basis. The permittee will be required to comply with all requirements contained in this GP from the effective date until they renew, apply for individual coverage, or terminate their coverage. All dischargers authorized under this GP will have the same date of expiration, which will coincide with the expiration of the GP.

E. Existing Sources Previously Covered Under an Individual Permit Seeking Coverage Under the 2012-Issued GP

If an existing facility that is covered under an individual MPDES permit desires coverage under this GP, they must submit a complete NOI package, including the NOI fee and a termination request for their MPDES individual permit.

DEQ will make a completeness determination within 30 days of receipt of a facility's NOI submittal package and will notify the facility if their NOI package is incomplete. Once a complete NOI package is received, the facility must continue to comply with their individual MPDES permit until DEQ either:

1. Issues a confirmation letter to the facility authorizing discharge under this GP, which includes criteria specific to the subcategories that the facility is assigned. In order to comply with anti-backsliding requirements, any existing permit requirements that were imposed on the facility through the individual permit will be included, unless the limits under the GP are more stringent. Upon a facility's coverage under this GP, DEQ shall terminate the facility's individual permit; or
2. Notifies the applicant that the source does not qualify for authorization under the GP and that coverage under the individual MPDES permit will be maintained.

Coverage under a MPDES permit, including a general permit, is renewable on a five-year basis. The permittee will be required to comply with all requirements contained in this GP from the effective date until they renew, apply for individual coverage, or terminate their coverage. All dischargers authorized under this GP will have the same date of expiration, which will coincide with the expiration of the GP.

F. New Sources Seeking Coverage Under the 2012-Issued GP

A new discharger to an ephemeral waterbody may request coverage under this GP. New dischargers to waters other than ephemeral are not eligible for coverage under this GP, since they will need to be evaluated for nondegradation through an individual permit process.

If a new discharger to an ephemeral waterbody desires coverage under this GP, they must submit a complete NOI package, including the NOI fee. DEQ will make a completeness determination within 30 days of receipt of a facility's NOI submittal package and will notify the facility if their NOI package is incomplete. Once a complete NOI package is received, the facility is automatically covered under this GP until DEQ either:

1. Issues a confirmation letter to the facility authorizing discharge under this GP, which includes criteria specific to the subcategories that the facility is assigned; or
2. Notifies the applicant that the source does not qualify for authorization under the GP.

If the source is ineligible for coverage under this GP, DEQ shall proceed, unless the application is withdrawn, to process the application through the individual MPDES permit requirements under ARM, Chapter 17 Subchapter 13. The submittal of additional fees and information will be required by DEQ prior to the issuance of an individual permit.

Coverage under a MPDES permit, including a general permit, is renewable on a five-year basis. The permittee will be required to comply with all requirements contained in this GP from the effective date until they renew, apply for individual coverage, or terminate their coverage. All dischargers authorized under this GP will have the same date of expiration, which will coincide with the expiration of the GP.

G. Termination of Permit Coverage

Permittees are authorized to operate for the duration of the permit (five years or until the General Permit is again renewed) provided they pay the annual fee. Permit authorizations remain in effect, unless DEQ receives notice from the permittee that the activity will not be continued. This notice must be signed and certified in accordance with the signatory requirements in Part IV.O of this General Permit. The facility remains responsible for payment of all applicable fees. Failure to submit a termination request shall result in accrual of annual fees until such notice is received by DEQ.

In addition to the ability to request a termination, the owner or operator of a facility covered under this General Permit may request to be excluded from coverage under this General Permit by applying for and obtaining an individual MPDES permit pursuant to ARM Title 17, Chapter 30, Subchapter 13. If an individual MPDES permit is issued to the owner or operator of the facility, coverage under this General Permit is terminated on the effective date of the final individual MPDES permit.

H. Transfer of Coverage

DEQ may transfer the authorization to a new owner or operator in conformance with Part IV.R of this General Permit.

II. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

A. Effluent Limits

The limits for each facility authorized under this GP are comprised of both the appropriate Technology-based Effluent Limits (TBELs) and Water Quality-based Effluent Limits (WQBELs). These limits and the outfall location for each facility are identified in a confirmation letter sent by DEQ to the facility owner/operator.

1. TBELs:

DEQ will assign each facility to one of the following three TBEL groups and provide the associated concentration-based effluent limits:

- TBEL Group A – National Secondary Standards (NSS) (see Table 1)
- TBEL Group B – NSS/Treatment Equivalent to Secondary (TES) (see Table 2)
- TBEL Group C – NSS/Alternate State Requirements (ASR) (see Table 3)

In addition, DEQ will provide each facility with specific mass-based effluent limits. The mass-based limits will be derived from Equation 1:

Equation 1: Mass-based Load Limits

30-day average load (lb/day) [(1)]

= avg daily design flow (mgd) x 30-day avg concentration limit (mg/L) x 8.34 conversion

7-day average load (lb/day)

= avg daily design flow (mgd) x 7-day avg concentration limit (mg/L) x 8.34 conversion

Footnote: (1) If a facility's nondegradation allocated load is more restrictive (for instance the average design flow for the facility in 1993 was lower than the current design flow), then the nondegradation allocated load for that facility will supersede the mass-based 30-day limit.

a. TBEL Group A – NSS

Each facility assigned to Group A must meet the following effluent limits listed in Table 1, beginning on the effective date of the permit and lasting until the end of the permit term:

Table 1. TBEL Group A- NSS Technology-Based Effluent Limits[1]

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Rationale
5-Day Biochemical Oxygen Demand (BOD_5) [2]	mg/L	30	45	40 CFR 133.102(a)
	lbs/day	*Equation 1* [3]	*Equation 1*	
	% removal	85 [4]	NA	
Total Suspended Solids (TSS) [5]	mg/L	30	45	40 CFR 133.102(b)
	lbs/day	*Equation 1*	*Equation 1*	
	% removal	85 [4]	NA	
pH [6]	s.u.	6.0-9.0 (instantaneous)		40 CFR 133.102(c)

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. $CBOD_5$ limits contained in 40 CFR 133.102(a)(4) may replace BOD_5 limits for the term of the permit if requested by the permittee during the renewal application process and approved by DEQ.
3. The mass-based limits will be calculated from Equation 1.
4. The arithmetic mean of the values for effluent BOD_5 or TSS samples collected in a period of 30 consecutive days must not exceed 15% of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period (85% removal). Monitoring reports for this requirement will become effective **January 1, 2017** for facilities renewing the 1999-issued GP.
5. Facilities that demonstrate 'eligibility to meet TES' for TSS are instead required to meet the effluent limits in Table 2. Facilities that can demonstrate 'eligibility to meet ASR' for TSS will instead meet the effluent limits in Table 3.
6. Effluent pH must remain between 6.0 and 9.0 unless a variation occurs which is due to natural biological processes. For compliance purposes, any single analysis and/or measurement beyond this limit shall be considered a violation of the conditions of this permit.

b. TBEL Group B – NSS/TES

Each facility assigned to Group B must meet the following effluent limits listed in Table 2, beginning on the effective date of the permit and lasting until the end of the permit term:

Table 2. TBEL Group B - NSS/TES Technology-Based Effluent Limits (1)				
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Rationale
5-Day Biochemical Oxygen Demand (BOD_5) (2)	mg/L	30	45	40 CFR 133.102(a)
	lbs/day	*Equation 1* (3)	*Equation 1*	
	% removal	85 (4)	NA	
Total Suspended Solids (TSS) (5)	mg/L	45	65	40 CFR 133.105(b)
	lbs/day	*Equation 1*	*Equation 1*	
	% removal	65 (6)	NA	
pH (7)	s.u.	6.0-9.0 (instantaneous)		40 CFR 133.102(c)

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. $CBOD_5$ limits contained in 40 CFR 133.102(a)(4) may replace BOD_5 limits for the term of the permit if requested by the permittee during the renewal application process and approved by DEQ.
3. The mass-based limits will be calculated from Equation 1.
4. The arithmetic mean of the values for effluent BOD_5 samples collected in a period of 30 consecutive days shall not exceed 15% of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period (85% removal). Monitoring reports for this requirement will become effective **January 1, 2017** for facilities renewing the 1999-issued GP.
5. Facilities that can demonstrate 'eligibility to meet ASR' for TSS will instead meet the effluent limits in Table 3.
6. The arithmetic mean of the values for effluent TSS samples collected in a period of 30 consecutive days shall not exceed 35% of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period (65% removal). Monitoring reports for this requirement will become effective **January 1, 2017** for facilities renewing the 1999-issued GP.
7. Effluent pH shall remain between 6.0 and 9.0 unless a variation occurs which is due to natural biological processes. For compliance purposes, any single analysis and/or measurement beyond this limit shall be considered a violation of the conditions of this permit.

c. TBEL Group C – NSS/ASR

Each facility assigned to Group C must meet the following effluent limits listed in Table 3, beginning on the effective date of the permit and lasting until the end of the permit term:

Table 3: TBEL Group C - NSS/ASR Technology-Based Effluent Limits [(1)]

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Rationale
5-Day Biochemical Oxygen Demand (BOD_5) [(2)]	mg/L	30	45	40 CFR 133.102(a)
	lbs/day	*Equation 1* [(3)]	*Equation 1*	
	% removal	85 [(4)]	NA	
Total Suspended Solids (TSS)	mg/L	100	135	40 CFR 133.103(c), 133.105(d), and 133.105(b)
	lbs/day	*Equation 1*	*Equation 1*	
	% removal	65 [(5)]	NA	
pH [(6)]	s.u.	6.0-9.0 (instantaneous)		40 CFR 133.102(c)

Footnotes:

1. See Definitions section at end of permit for explanation of terms.
2. $CBOD_5$ limits contained in 40 CFR 133.102(a)(4) may replace BOD_5 limits for the term of the permit if requested by the permittee during the renewal application process and approved by DEQ.
3. The mass-based limits will be calculated from Equation 1.
4. The arithmetic mean of the values for effluent BOD_5 samples collected in a period of 30 consecutive days shall not exceed 15% of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period (85% removal). Monitoring reports for this requirement will become effective **January 1, 2017** for facilities renewing the 1999-issued GP.
5. The arithmetic mean of the values for effluent TSS samples collected in a period of 30 consecutive days shall not exceed 35% of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period (65% removal). Monitoring reports for this requirement will become effective **January 1, 2017** for facilities renewing the 1999-issued GP.
6. Effluent pH shall remain between 6.0 and 9.0 unless a variation occurs which is due to natural biological processes. For compliance purposes, any single analysis and/or measurement beyond this limit shall be considered a violation of the conditions of this permit.

2. WQBEL:

In addition to TBELs, each facility will also be assigned interim and final WQBELs in their confirmation letter.

a. Interim WQBELs

Beginning on the effective date of the permit and ending on midnight December 31, 2016, facilities are subject to the following interim effluent limits:

Table 4. Interim WQBEL [1]

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
Total Residual Chlorine (TRC) [2]	mg/L	0.011	--	0.019
Additional Limits				
Escherichia coli (E. coli) bacteria	cfu/100 mL	[3]	[3]	--
Ammonia, as N	mg/L	[3]	--	[3]
Nitrate + Nitrite, as N	mg/L	[3]	--	[3]
Total Nitrogen, as N (TN) [4]	mg/L	[3]	--	--
Total Phosphorus, P (TP)	mg/L	[3]	--	--
Other Parameters (WLA and other previous permit limits)	mg/L	[3]	--	[3]

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. An approved sampling method for TRC is required if chlorine is used for disinfection. Analytical results of less than 0.1 mg/L are considered in compliance with the TRC limit.
3. Any facility with an existing Wasteload Allocation (WLA) or effluent limit will be required to continue to meet these limits. The additional requirements will be specified in the confirmation letter to the facility.
4. TN is calculated as the sum of Nitrate + Nitrite as N and Total Kjeldahl Nitrogen (TKN) concentrations.

b. Final Limits

In addition to the TBELs, beginning on **January 1, 2017**, and lasting the duration of this permit, facilities are subject to the following final WQBELs:

Table 5. Final WQBEL [1]

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
E. coli bacteria - summer [2,3]	cfu/100 mL	126	252	--
E. coli bacteria - winter [3,4]	cfu/100 mL	630	1,260	--
Total Residual Chlorine (TRC) [5]	mg/L	0.011	--	0.019
Additional Limits				
Ammonia, as N	mg/L	[6]	--	[6]
Nitrate + Nitrite, as N	mg/L	[6]	--	[6]
Total Nitrogen, as N (TN) [7]	mg/L	[6]	--	--
Total Phosphorus, P (TP)	mg/L	[6]	--	--
Other Parameters (WLA and other previous permit limits)	mg/L	[6]	--	[6]

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. After **January 1, 2017**, all facilities are required to comply with this limit from April 1 through October 31 on an annual basis.
3. Report the geometric mean if more than one sample collected during the reporting period.
4. After **January 1, 2017**, all facilities are required to comply with this limit from November 1 through March 31 on an annual basis.
5. An approved sampling method for TRC is required if chlorine is used for disinfection. Analytical results of less than 0.1 mg/L are considered in compliance with the TRC limit.
6. Any facility with an existing WLA or effluent limit will be required to continue to meet these limits. The additional requirements will be specified in the confirmation letter to the facility.
7. TN is calculated as the sum of Nitrate + Nitrite as N and TKN concentrations.

B. Monitoring Requirements

1. Effluent Monitoring

The self-monitoring frequency for each facility is based on their type of designed discharge frequency. The two main types are:

A. Continuous dischargers are facilities that are designed to discharge on a continuous basis or discharge 270 continuous days or greater per calendar year (e.g., discharge for 10 months and then hold for two months during the annual turnover of the lagoon system).

B. Batch dischargers are facilities that are designed to operate with periodic, controlled, or seasonal discharges. This includes non-discharging facilities that desire coverage under the 2012-issued GP.

Discharge monitoring must take place at the last point of control before the discharge leaving the treatment system enters the receiving water. By no later than January 1, 2017, all facilities under the 2012-issued GP must ensure flow monitoring is representative of the nature and volume of the discharge.

Any facility with a Total Maximum Daily Load (TMDL) WLA or TMDL monitoring requirement will have the monitoring requirements included in the confirmation letter. A facility permitted under an individual permit will include any additional monitoring that was required.

Samples shall be collected, preserved and analyzed in accordance with approved procedures listed in 40 CFR 136. Samples must be representative of the volume and quality of the effluent, and the analysis must meet any Required Reporting Values (RRVs) listed in the most recent Circular DEQ-7 unless a different minimum level (ML) is specified.

Reporting frequency shall be monthly (or quarterly where applicable) and must be reported by the 28th of the following month. Results shall be reported on a Discharge Monitoring Report (DMR) Form (EPA 3320-1) or equivalent. When monitoring frequency is more often than once per month, the permittee will be expected to report 30-day average and maximum daily values on the DMR. If no discharge occurs during the reporting period, “no discharge” shall be reported on the DMR.

a. Continuous Discharge Monitoring:

DEQ will assign monitoring for continuous dischargers based on the size of the facility, as presented in Tables 6 & 7:

- Small Continuous: Design average flow rate for this type of facility is less than 0.1 mgd. See Table 6 for monitoring requirements.
- Large Continuous: Design average flow rate for this type of facility is between 0.1 – 1.0 mgd. See Table 7 for monitoring requirements.

Table 6: Self-Monitoring Requirements for Small Continuous Dischargers [1]				
Parameter	Unit	Monitoring Location	Sample Frequency [2]	Sample Type
Flow	mgd	Effluent	1/Week	[3]
5-Day Biochemical Oxygen Demand (BOD_5) (or $CBOD_5$ if appropriate [6])	mg/L	Influent	1/Quarter [4]	Composite
	mg/L	Effluent	1/Month	Composite [5]
	% Removal	Effluent	1/Quarter [4]	Calculated
	lb/day	Effluent	1/Month	Calculated
Total Suspended Solids (TSS)	mg/L	Influent	1/Quarter [4]	Composite
	mg/L	Effluent	1/Month	Composite [5]
	% Removal	Effluent	1/Quarter [4]	Calculated
	lb/day	Effluent	1/Month	Calculated
pH	s.u.	Effluent	1/Month	Instantaneous
Oil and Grease [7]	mg/L	Effluent	1/Year	Grab
E. coli Bacteria	cfu/100 mL	Effluent	1/Month	Grab
Total Residual Chlorine (TRC) [8]	mg/L	Effluent	3/Week	Grab
Ammonia as N	mg/L	Effluent	1/Quarter	Composite [5]
Nitrate + Nitrite as N ($NO_3 + NO_2$)	mg/L	Effluent	1/Month [9]	Composite [5]
Total Kjeldahl Nitrogen (TKN)	mg/L	Effluent	1/Month [9]	Composite [5]
Total Nitrogen as N (TN) [10]	mg/L	Effluent	1/Month [9]	Calculated
	lb/day	Effluent	1/Month [9]	Calculated
Total Phosphorus as P (TP)	mg/L	Effluent	1/Month [9]	Composite [5]
	lb/day	Effluent	1/Month [9]	Calculated
Additional Monitoring [11]				
WQBELs/WLA	As specified	Effluent	As specified	As specified

Footnotes:

1. See Definition section at end of permit for explanation of terms.
2. Monitoring only required during periods of discharge. Frequency is based on calendar week, calendar month, etc.
3. By no later than **January 1, 2017**, all facilities under the 2012-issued GP must ensure flow monitoring is representative of the nature and volume of the discharge.
4. Beginning on **January 1, 2017**, facilities will be required to monitor influent BOD_5 and TSS composite samples for reporting % removal. Influent monitoring is required only if a discharge occurs during that reporting period.
5. Effluent composite samples are 24-hour composite samples, using a minimum of four grab samples. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. This will be specified in the confirmation letter.
6. $CBOD_5$ limits and monitoring may replace BOD_5 for the term of the permit if requested by the permittee during the renewal application process and approved by DEQ.
7. Use EPA Method 1664, Revision A: N-Hexane Extractable Material (HEM), or equivalent.
8. TRC monitoring is required if chlorine is used for disinfection during the reporting period. Otherwise report "NA" on the DMR. An approved sampling method must be performed whenever chlorine is utilized for disinfection. Analytical results of less than 0.1 mg/L are considered in compliance with the chlorine limit.
9. Monitoring of nutrients, including $NO_3 + NO_2$, is required monthly for the six warmer months of May through October.
10. TN is calculated as the sum of Nitrate + Nitrite as N and TKN concentrations.
11. Any existing effluent limits or monitoring requirements specified in an existing permit will be maintained. The requirements will be specified in the acknowledgement letter issued after receipt of a complete NOI.

Table 7: Self-Monitoring Requirements for Large Continuous Dischargers [1]				
Parameter	Unit	Monitoring Location	Sample Frequency [2]	Sample Type
Flow [3]	mgd	Effluent	1/Week	[3]
5-Day Biochemical Oxygen Demand (BOD_5) (or $CBOD_5$ if appropriate) [7]	mg/L	Influent	1/Month [4]	Composite
	mg/L	Effluent	2/Month [5]	Composite [6]
	% Removal	Effluent	1/Month [4]	Calculated
	lb/day	Effluent	1/Month	Calculated
Total Suspended Solids (TSS)	mg/L	Influent	1/Month [4]	Composite
	mg/L	Effluent	2/Month [5]	Composite [6]
	% Removal	Effluent	1/Month [4]	Calculated
	lb/day	Effluent	1/Month	Calculated
pH	s.u.	Effluent	1/Week	Instantaneous
Oil and Grease [8]	mg/L	Effluent	1/Year	Grab
E. coli Bacteria	cfu/100 mL	Effluent	2/Month [5]	Grab
Total Residual Chlorine [9]	mg/L	Effluent	5/Week	Grab
Ammonia as N	mg/L	Effluent	1/Month	Composite [6]
Nitrate + Nitrite as N ($NO_3 + NO_2$)	mg/L	Effluent	1/Month [10]	Composite [6]
Total Kjeldahl Nitrogen (TKN)	mg/L	Effluent	1/Month [10]	Composite [6]
Total Nitrogen as N (TN) [11]	mg/L	Effluent	1/Month [10]	Calculated
	lb/day	Effluent	1/Month [10]	Calculated
Total Phosphorus as P (TP)	mg/L	Effluent	1/Month [10]	Composite [6]
	lb/day	Effluent	1/Month [10]	Calculated
Additional Monitoring [12]				
WQBELs/WLA	As specified	Effluent	As specified	As specified

Footnotes:

1. See Definition section at end of permit for explanation of terms.
2. Monitoring only required during periods of discharge. Frequency is based on calendar week, calendar month, etc.
3. By no later than **January 1, 2017**, all facilities under the 2012-issued GP must ensure flow monitoring is representative of the nature and volume of the discharge.
4. Beginning on **January 1, 2017**, facilities will be required to monitor influent BOD_5 and TSS composite samples for reporting %removal. Influent monitoring is required only if a discharge occurs during that reporting period.
5. Twice per month monitoring must be representative of both the first half and second half of the month. Samples must be taken at least one week apart.
6. Effluent composite samples are 24-hour composite samples, using a minimum of four grab samples. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. This will be specified in the confirmation letter.
7. $CBOD_5$ limits and monitoring may replace BOD_5 for the term of the permit if requested by the permittee during the renewal application process and approved by DEQ.
8. Use EPA Method 1664, Revision A: N-Hexane Extractable Material (HEM), or equivalent.
9. TRC monitoring is required if chlorine is used for disinfection during the reporting period. Otherwise report "NA" on the DMR. An approved sampling method must be performed whenever chlorine is utilized for disinfection. Analytical results of less than 0.1 mg/L are considered in compliance with the chlorine limit.
10. Monitoring of nutrients, including $NO_3 + NO_2$, is required monthly for the six warmer months (May - October).
11. TN is calculated as the sum of Nitrate + Nitrite as N and TKN concentrations.
12. Any existing effluent limits or monitoring requirements specified in an existing permit will be maintained. The requirements will be specified in the acknowledgement letter issued after receipt of a complete NOI.

b. Batch (Periodic, Intermittent, Controlled, Seasonal) Discharge Monitoring:

Batch facilities are designed to operate with periodic, controlled, or seasonal discharges. This includes non-discharging facilities that desire coverage under the 2012-issued GP. Table 8 presents the self-monitoring requirements for batch facilities.

DEQ requires effluent monitoring on a calendar week for TBELs and *E. coli* bacteria. The last weekly sample for these parameters must be taken on the last day of discharge. DEQ also requires influent and WQBEL monitoring for other parameters on a calendar basis, as specified in Table 8.

All of the effluent samples collected as part of the required monitoring are used to determine the averages for the reporting period. If only one sample is collected during that period then it is considered to be the average for that period. The permittee has the option of collecting additional samples and results, if appropriate.

Table 8: Self-Monitoring Requirements for Batch Dischargers [1]				
Parameter	Units	Monitoring Location	Sample Frequency [2]	Sample Type
Flow/TBELs				
Flow	mgd	Effluent	1/Day	[3]
	days	Effluent	1/Day	Calculated
5-Day Biochemical Oxygen Demand (BOD_5) (or $CBOD_5$ if appropriate) [7]	mg/L	Influent	1/Month [4]	Composite
	mg/L	Effluent	1/Week [5]	Composite [6]
	% removal	Effluent	1/Month [4]	Calculated
	lb/day	Effluent	1/Month	Calculated
Total Suspended Solids (TSS)	mg/L	Influent	1/Month [4]	Composite
	mg/L	Effluent	1/Week [5]	Composite [6]
	% removal	Effluent	1/Month [4]	Calculated
	lb/day	Effluent	1/Month	Calculated
pH	s.u.	Effluent	1/Week [5]	Instantaneous
WQBEL				
Oil and Grease [8]	mg/L	Effluent	1/Year	Grab
E. coli Bacteria	cfu/100 mL	Effluent	1/Week [5]	Grab
Total Residual Chlorine (TRC)	mg/L	Effluent	5/Week [9]	Grab
Ammonia as N	mg/L	Effluent	2/Month	Composite [6]
Nitrate + Nitrite as N ($NO_3 + NO_2$)	mg/L	Effluent	1/Month [10]	Composite [6]
Total Kjeldahl Nitrogen (TKN)	mg/L	Effluent	1/Month [10]	Composite [6]
Total Nitrogen as N (TN) [11]	mg/L	Effluent	1/Month [10]	Calculated
	lb/day	Effluent	1/Month [10]	Calculated
Total Phosphorus as P (TP)	mg/L	Effluent	1/Month [10]	Composite [6]
	lb/day	Effluent	1/Month [10]	Calculated

Footnotes:

1. See Definition section at end of permit for explanation of terms.
2. Monitoring only required during periods of discharge. Frequency is based on calendar week, calendar month, etc.
3. By no later than **January 1, 2017**, all facilities under the 2012-issued GP must ensure flow monitoring is representative of the nature and volume of the discharge.
4. Beginning on **January 1, 2017**, facilities will be required to monitor influent BOD_5 and TSS composite samples for reporting %removal. Influent monitoring is required only if a discharge occurs during that reporting period.
5. The last weekly sample for these parameters must be taken on the last day of discharge.
6. Effluent composite samples are 24-hour composite samples, using a minimum of four grab samples. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. This will be specified in the confirmation letter.
7. $CBOD_5$ limits and monitoring may replace BOD_5 for the term of the permit if requested by the permittee during the renewal application process and approved by DEQ.
8. Use EPA Method 1664, Revision A: N- HEM or equivalent.
9. TRC monitoring only required if chlorine is used to disinfect during the reporting period. If not, report "NA" on the DMR. The approved sampling method must be performed whenever chlorine is utilized for disinfection. Analytical results less than 0.1 mg/L will be considered in compliance with the chlorine limit.
10. Monitoring of nutrients, including $NO_3 + NO_2$, is required monthly for the six warmer months of May through October.
11. TN is calculated as the sum of Nitrate + Nitrite as N and TKN concentrations.

Table 8 con't: Additional Self-Monitoring Requirements for Batch Dischargers [(1)]				
Parameter	Units	Monitoring Location	Sample Frequency [(2)]	Sample Type
Additional Monitoring [(3)]				
WQBELs/WLA	As specified	Effluent	As specified	As specified

Footnotes:
1. See Definition section at end of permit for explanation of terms.
2. Monitoring only required during periods of discharge.
3. Any existing effluent limits or monitoring requirements specified in an existing permit will be maintained. The requirements will be specified in the acknowledgement letter issued after receipt of a complete NOI.

2. Upstream Monitoring

Each facility shall monitor for the following parameters at a location in the receiving water upstream from their discharge point for three years (the second, third, and fourth year of coverage) during the permit term:

Table 9: Upstream Monitoring Requirements [(1)]			
Parameter	Units	Frequency [(2)]	Type
Nitrate + Nitrite, as N	mg/L	Quarterly	Grab
Ammonia, as N	mg/L	Quarterly	Grab
Total Kjeldahl Nitrogen (TKN)	mg/L	Quarterly	Grab
Total Nitrogen, as N (TN) [(3)]	mg/L	Quarterly	Calculated
Total Phosphorus, as P (TP)	mg/L	Quarterly	Grab
pH	s.u.	Monthly	Instantaneous
Temperature	deg C	Monthly	Instantaneous

Footnote:
1. See Definition section at end of permit for explanation of terms.
2. Samples to be taken for **three years of the facility's permit coverage (second, third, and forth year of coverage)**, regardless of whether the facility is discharging.
3. TN is calculated as the sum of Nitrate + Nitrite as N and TKN concentrations.

Upstream monitoring must be conducted according to the above schedule regardless of whether or not the facility discharges during that reporting period. The reporting limit that is sufficient for upstream monitoring is equivalent to the RRV as listed in the most recent Circular DEQ-7 unless otherwise provided in the confirmation letter.

III. SPECIAL CONDITIONS/COMPLIANCE SCHEDULE

A. Compliance Schedule

1. *E. coli* Bacteria

   By no later than **January 1, 2017**, each facility shall comply with the *E. coli* bacteria effluent limits or have applied for coverage under an individual permit.

   Until the final compliance date, each facility must submit an annual report summarizing their progress towards meeting the effluent limits to DEQ. The annual report must be post-marked no later than January 28th of each year. The report must include actions taken in the previous year and planned actions for the upcoming year, including a review of the facility's current *E. coli* bacteria effluent concentrations; identification of potential options; and selection, design, and implementation of the selected option.

B. Special Conditions

1. By no later than **January 1, 2017**, each facility shall begin monitoring to demonstrate compliance with the % removal monitoring requirements (both BOD_5 and TSS) or have applied for coverage under an individual permit.

   Until the final date, each facility must submit an annual report summarizing their progress towards meeting this requirement to DEQ. The annual report must be post-marked no later than January 28th of each year. The report must include actions taken in the previous year and planned actions for the upcoming year for each parameter, including any influent monitoring improvements; evaluation of percent removal capabilities; identification of potential options; and selection, design, and implementation of the selected option.

2. By no later than **January 1, 2017**, all facilities must ensure that the facility is capable of effluent flow monitoring such that the measured flow is representative of the nature and volume of the actual flow. DEQ recommends the use of a weir, flume, and/or meter with an effluent recording device, or totalizer. Each facility must identify, in writing, their method(s) used for monitoring effluent flow, including any operating and maintenance procedures and calibration.

   Until the final date, each facility must submit an annual report summarizing their progress. The annual report must be post-marked no later than January 28th of each year. The report must include actions taken in the previous year and planned actions for the upcoming year, including identification of potential effluent monitoring options, design, and installation of the selected option.

C. Lagoon Operation and Maintenance (O&M) Requirements

A permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. A lagoon treatment system should have an O&M manual developed at the time of construction and/or upgrade. Each permitted facility is required to:

1. Maintain an up-to-date O&M manual for the domestic sewage treatment lagoon system;
2. Follow the procedures in the O&M manual;
3. Conduct inspections at least monthly to ensure the O&M procedures are being followed and are working; and
4. Maintain records of the routine inspections and any follow-up. Records from the routine inspections must be maintained for at least three (3) years, and available for an inspector upon request. At a minimum, the records shall include:
    a. Date and time of inspection;
    b. Name of the inspector(s);
    c. Weather conditions during inspection;
    d. Visual observation of lagoon conditions, including wastewater observations (water level, odor, and visible appearance) and dike condition (signs of leakage, erosion, rodents burrowing, and/or vegetation growth);
    e. Discharge flow rate, if occurring;
    f. Identification of O&M problems;
    g. Recommendations, as appropriate, to rectify identified O&M problems;
    h. A brief description of any actions taken with regards to identified problems; and
    i. Other information, as appropriate (e.g., effluent sample and measurement location).

D. <u>Seasonal Land Application of Treated Effluent</u>

O&M procedures for an irrigation system is included as part of the plan and specification approval by DEQ, and shall be incorporated into the treatment system's final O&M manual.

Land Application – Planning Requirements [Authority: ARM 17.30.1344(2)(b)]

Each facility shall develop and implement a Nutrient Management Plan (NMP) for land application systems, to prevent or minimize the generation and potential for release of pollutants to state waters. The plan shall achieve the objective to manage the quantity and quality of the land-applied effluent to optimize nutrient uptake and eliminate the risk of runoff to surface water or ground water infiltration/percolation.

Each facility shall maintain land application records for three (3) years and make them available for inspection by department personnel upon request.

E. Inflow/Infiltration

All facilities with design average discharge rates at or above 0.1 mgd are required to evaluate the influences from infiltration/inflow (I/I) to the treatment works by January 1, 2017. The evaluation shall provide an estimate of the amount and sources of I/I into the collection system and a summary of work accomplished and additional work planned.

A summary of the facility I/I review must be submitted to DEQ by no later than January 28th 2017.

F. Sewage Sludge

The use or disposal of sewage sludge must be in conformance with the Environmental Protection Agency (EPA) General Permit MTG650000 or an equivalent permit issued pursuant to 40 CFR 503. A notice of intent must be filed with the EPA and DEQ in accordance with the timeframes and procedures identified in the applicable permit. All materials required by the General Permit to be submitted to DEQ shall be signed in accordance with Part IV.O of this permit.

The permittee shall not dispose of sewage sludge such that any portion thereof enters any state water, including ground water. The permittee shall notify DEQ in writing 45 days prior to any change in sludge management at the facility.

G. Pretreatment

1. The Permittee shall not allow any user to introduce into a POTW any pollutants which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in Part III.G.2 of this permit apply to all non-domestic sources introducing pollutants into a POTW whether or not the source is subject to other national pretreatment standards or any national, state or local pretreatment requirements.

2. In addition, the following pollutants may not be introduced into a POTW:
   a. Pollutants which create a fire or explosion hazard in the POTW, including waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Celsius using the test methods specified in 40 CFR 261.21;
   b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges;
   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;
   d. Any pollutant, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;

e. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Celsius (104 degrees Fahrenheit) unless DEQ, upon request of the POTW, approves alternative temperature limits;

f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

3. Publicly-Owned Treatment Works. All POTWs must provide adequate notice to DEQ of the following:

   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to federal effluent guidelines and standards [40 CFR Subchapter N] if it were directly discharging those pollutants; and

   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

   c. For the purposes of this paragraph, adequate notice shall include information on:

      1) the quality and quantity of effluent introduced into the POTW, and

      2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

IV. STANDARD CONDITIONS

The permittee shall meet the following standard conditions of MPDES permits.

A. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under ARM 17.30.1206 for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

The Montana Water Quality Act at MCA 75-5-631 provides that in an action initiated by DEQ to collect civil penalties against a person who is found to have violated a permit condition, the person is subject to a civil penalty not to exceed $25,000. Each day of violation constitutes a separate violation.

MCA 75-5-632 provides that any person who willfully or negligently violates a prohibition or permit condition is subject, upon conviction, to criminal penalties not to exceed $25,000 per day or one year in prison, or both, for the first conviction, and $50,000 per day of violation or by imprisonment for not more than two years, or both, for subsequent convictions.

MCA 75-5-611(9)(a) also provides for administrative penalties not to exceed $10,000 for each day of violation and up to a maximum not to exceed $100,000 for any related series of violations

B. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must first apply for and obtain a new permit.

C. Need to Halt or Reduce Activity Not a Defense

It may not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

H. Duty to Provide Information

The permittee shall furnish to DEQ, within a reasonable time, any information that DEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to DEQ, upon request, copies of records required to be kept by this permit.

I. Inspection and Entry

The permittee shall allow the head of DEQ, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

- Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

- Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Montana Water Quality Act, any substances or parameters at any location.

J. Monitoring and Records—Representative Sampling

Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

K. Monitoring and Records—Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application.

L. Monitoring and Records—Records Contents

Records of monitoring information must include:

- the date, exact place, and time of sampling or measurements;
- the individual(s) who performed the sampling or measurements;
- the date(s) analyses were performed;
- the individual(s) who performed the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

M. Monitoring and Records—Test Procedures

Monitoring must be conducted according to test procedures approved under Title 40 of the Code of Federal Regulations (40 CFR) Part 136, unless other test procedures have been specified in this permit.

N. Monitoring and Records—Falsification and Tampering

The Montana Water Quality Act at MCA 75-5-633 provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $25,000, or by imprisonment for not more than six months, or by both.

O. Signatory Requirement

All applications, reports or information submitted to DEQ shall be signed and certified. (See ARM 17.30.1323.) In accordance with ARM 17.30.1323, all permit applications must be signed as follows:

- *For a corporation*: By a responsible corporate officer, which means
  - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or
  - The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- *For a partnership or sole proprietorship*: By a general partner or the proprietor, respectively.
- *For a municipality, state, federal, or other public agency*: By either a principal executive officer or ranking elected official. A principal executive office of a federal agency includes:
  - The chief executive officer of the agency; or
  - A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

Authorized representatives. All reports required by the permit and other information requested by DEQ shall be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:

- The authorization is made in writing by a person described above;
- The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters (a duly authorized representative may thus be either a named individual or an individual occupying a named position); and
- The written authorization is submitted to DEQ.

Changes to authorization. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to DEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.

Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

P. Reporting Requirements—Planned Changes

The permittee shall give notice to DEQ as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- The alteration or addition to the permitted facility may meet one of the criteria for determining whether a facility is a new source under ARM 17.30.1340(2); or
- The alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements under ARM 17.30.1343(1)(a).

Q. Reporting Requirements—Anticipated Noncompliance

The permittee shall give advance notice to DEQ of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

R. Reporting Requirements—Transfers

This permit is not transferable to any person except after notice to DEQ. DEQ may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Montana Water Quality Act. (See ARM 17.30.1360; in some cases, modification or revocation and reissuance is mandatory.)

In accordance with ARM 17.30.1360(2), this permit may be automatically transferred to a new permittee if:

- The current permittee notifies DEQ at least 30 days in advance of the proposed transfer date;
- The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;
- DEQ does not notify the existing permittee and the proposed new permittee of an intent to revoke or modify and reissue the permit. A modification may also be a minor modification under ARM 17.30.1362. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned above.

S. Reporting Requirements—Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit.

- Monitoring results must be reported on a Discharge Monitoring Report (DMR) form.
- If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.
- Calculations for all limitations that require averaging of measurements must use an arithmetic mean unless otherwise specified by DEQ in the permit.

T. Reporting Requirements—Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

U. Reporting Requirements—Twenty-four Hour Reporting

The permittee shall report any noncompliance that might endanger health or the environment. Any information must be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

- A description of the noncompliance and its cause;
- The period of noncompliance, including exact dates and times;
- The estimated time noncompliance is expected to continue if it has not been corrected; and
- Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following are included as information that must be reported within 24 hours under this provision:

- Any unanticipated bypass that exceeds any effluent limitation in the permit of this permit (see ARM 17.30.1342(7) and "Bypass" below);
- Any upset that exceeds any effluent limitation in the permit (see "Upset" below) and;
- Violation of a maximum daily discharge limitation for any of the pollutants listed by DEQ in this permit (see ARM 17.30.1344 and 40 CFR 122.44(g)).

Oral notification. The report shall be made orally to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 324-4777.

Written notification requirements. DEQ may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-3080. Written reports shall be submitted to the following address:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901

V. Reporting Requirements—Other Noncompliance

Instances of noncompliance not required to be reported within 24 hours shall be reported at the time monitoring reports are submitted. The reports shall contain the information listed above for written submissions under "Reporting Requirements—Twenty-four Hour Reporting."

W. Reporting Requirements—Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to DEQ, it shall promptly submit such facts or information.

X. Bypass

Definitions. ARM 17.30.1304(11) defines *bypass* as the intentional diversion of waste streams from any portion of a treatment facility. ARM 17.30.1304(53) defines *severe property damage* as substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent damage to natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Bypass Not Exceeding Limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions under "Notice" and "Prohibition of Bypass" below.

Notice. *Anticipated Bypass*: If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass. *Unanticipated Bypass*. The permittee shall submit notice of an unanticipated bypass as required under "Reporting Requirements—Twenty-four Hour Reporting" above.

Prohibition of Bypass. Bypass is prohibited and DEQ may take enforcement action against a permittee for a bypass, unless:

- The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

- There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
- The permittee submitted notices as required under "Notice" above.

DEQ may approve an anticipated bypass, after considering its adverse effects, if DEQ determines that it will meet these three conditions.

Y. Upset

Definition. ARM 17.30.1304(63) defines *upset* as an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements outlined below under "Conditions Necessary for Demonstration of an Upset" below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

Conditions Necessary for a Demonstration of Upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- An upset occurred and that the permittee can identify the cause(s) of the upset;
- The permitted facility was at the time being properly operated;
- The permittee submitted notice of the upset as required under "Reporting Requirements—Twenty-four Hour Reporting" above and
- The permittee complied with any remedial measures required under "Duty to Mitigate" above.

Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Z. Fees

The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, DEQ may:

- Impose additional fee assessment(s) computed at the rates established under 75-5-516(5)(a), MCA and ARM 17.30.201(9), or
- Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. DEQ may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this section. Suspensions are limited to one year, after which the permit will be terminated.

V. DEFINITIONS and ABBREVIATIONS

1. **"Act"** means the Montana Water Quality Act, Title 75, chapter 5, MCA.
2. **"Acute Toxicity"** occurs when, during an acute toxicity test, 50 percent mortality is observed for any tested species at any effluent concentration (i.e., $LC_{50} \leq 100\%$ effluent).
3. **"Arithmetic Mean" or "Arithmetic Average"** for any set of related values means the summation of the individual values divided by the number of individual values.
4. **"Average Monthly Limitation"** (AML) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
5. "**Average Weekly Limitation**" (AWL) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
6. "**BOD_5**" means the five-day measure of pollutant parameter biochemical oxygen demand.
7. **"Bypass"** means the intentional diversion of waste streams from any portion of a treatment facility.
8. **"Chronic Toxicity"** occurs when, during a chronic toxicity test, the 25% inhibition concentration (IC_{25}) for any tested species is less than or equal to the percent effluent represented by the effluent concentration in the receiving water after accounting for any allowable mixing zone.
9. **"CFR"** means the Code of Federal Regulations
10. **"cfu/100 mL"** is a measurement of pathogens, and means colony-forming units per 100 milliliters.
11. "**Composite sample**" means a sample composed of four or more discrete aliquots over a 24-hour period. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. In addition, DEQ may waive composite sampling for any outfall for which the applicant demonstrates that the use of an automatic sampler is infeasible and that the minimum of four grab samples will be a representative sample of the effluent being discharged.
12. **"Daily Discharge"** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.
13. **"department"** means the Montana Department of Environmental Quality (DEQ, or department). Established by 2-15-3501, MCA.

14. **"Director"** means the Director of the Montana Department of Environmental Quality.
15. **"Discharge"** means the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent thereof may enter into state waters, including ground water.
16. **"EPA"** means the United States Environmental Protection Agency.
17. **"Federal Clean Water Act"** means the federal legislation at 33 USC 1251, *et seq.*
18. "**Geometric mean**" means the value obtained by taking the Nth root of the product of the measured values.
19. **"Grab Sample"** means a sample which is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.
20. "**Indirect discharge**" means the introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c) or (d) of the Clean Water Act.
21. "**Industrial User**" means a source of Indirect Discharge.
22. **"Instantaneous Maximum Limit"** means the maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.
23. **"Instantaneous Measurement"**, for monitoring requirements, means a single reading, observation, or measurement.
24. "**Maximum Daily Limit**" (MDL) means the highest allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.
25. **"Minimum Level"** (ML) of quantitation means the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte, as determined by the procedure set forth at 40 CFR 136. In most cases the ML is equivalent to the Required Reporting Value (RRV) unless otherwise specified in the permit.
26. **"Mixing zone"** means a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.
27. **"Nondegradation"** means the prevention of a significant change in water quality that lowers the quality of high-quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the limits established under or determined from a permit or approval issued by DEQ prior to April 29, 1993.
28. "**Outfall**" means the place where a point source discharges effluent into the receiving water. For each outfall, there typically is at least one monitoring location. Although the monitoring location might or might not be at the actual point of discharge, samples taken at the monitoring location should be representative of the discharge.
29. **"Percent removal"** means a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the average values

of the raw wastewater influent pollutant concentrations to the facility and the average values of the effluent pollutant concentrations for a given time period.

30. "**Publicly-owned treatment works**" (POTW) means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature that is owned by a state or municipality. This definition includes: sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment; and a city, town, county, district, or other political subdivision created by or under state law that has jurisdiction over indirect discharges to and the discharges from a treatment works.
31. "**Required Reporting Values**" (RRVs) means the values listed as reporting values in department Circular DEQ-7. RRVs are the required minimum levels (see definition above) that must be achieved in reporting all monitoring results unless otherwise specified in this permit.
32. **"Regional Administrator"** means the administrator of Region VIII of EPA, which has jurisdiction over federal water pollution control activities in the state of Montana.
33. **"Severe property damage"** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
34. "**Sewage sludge**" means any solid, semi-solid or liquid residue generated during the treatment of domestic sewage and/or a combination of domestic sewage and industrial waste of a liquid nature in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the incineration of sewage sludge or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.
35. "**Significant biological treatment**" means the use of an aerobic or anaerobic biological treatment process in a treatment works to consistently achieve a monthly average of at least 65 percent removal of BOD_5.
36. **"TMDL"** means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.
37. **"TSS"** means the pollutant parameter total suspended solids.
38. **"Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

APPENDIX O

2017 Draft MPDES General Permit, Fact Sheet, & NOI

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

GENERAL PERMIT

For

DOMESTIC SEWAGE TREATMENT LAGOONS – CONTINUOUS DISCHARGERS

Permit No.: MTG581000

AUTHORIZATION TO DISCHARGE UNDER THE
MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES)

In compliance with Montana Water Quality Act, Title 75, Chapter 5**,** Montana Code Annotated (MCA), and the federal Water Pollution Control Act (the "Clean Water Act"), 33 U.S.C. 1251 *et. seq*., applicants issued an authorization letter for this General Permit for Domestic Sewage Treatment Lagoons – Continuous Dischargers are authorized to discharge wastewater to state waters in accordance with effluent limits, monitoring requirements and other conditions set forth herein.

A copy of this General Permit and the written authorization letter from DEQ must be kept on site at all times. The General Permit is not valid without a current letter from DEQ.

This permit shall become effective: **{DATE}**

This permit and the authorization to discharge shall expire at midnight, **{5 Years after Effective date}.**

FOR THE MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY

DRAFT
____

Jon Kenning, Chief
Water Protection Bureau
Water Division

Issuance Date: ______________________

DRAFT

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I. COVERAGE UNDER THIS GENERAL PERMIT

A. Coverage Area

This General Permit for continuous domestic sewage treatment lagoons applies to all areas of the State of Montana, except for within the boundaries of Indian Lands, National Parks, and excluded waterbodies listed in Part I.C.

B. Sources Eligible for Coverage Under This General Permit

To be eligible for authorization under this 2017-issued GP, the domestic sewage treatment lagoon must be:

- Classified as a minor with no pretreatment program and no categorical industrial users (CIU) or significant industrial users (SIU), and
- Designed to treat an average daily flow less than 1.0 million gallons per day.

C. Sources Ineligible for Coverage Under This General Permit

1. DEQ may deny a general permit application for discharge for any of the following:
   a. The specific source applying for authorization appears unable to comply with:
      - effluent limitations or other terms and conditions of the permit;
      - water quality standards; or
      - prohibition of any discharges to which the EPA regional administrator has objected in writing.

   b. The discharge is different in degree or nature from discharges reasonably expected from sources or activities within the category described in the General Permit.

   c. An MPDES permit or authorization for the same operation has previously been denied or revoked.

   d. The discharge to be authorized under a general MPDES permit is also included within an application or is subject to review under the Major Facility Siting Act.

   e. The point source will be located in an area of unique ecological or recreational significance. Such determination must be based upon considerations of Montana stream classifications, impacts on fishery resources, local conditions at proposed discharge sites, and designations of wilderness areas under 16 USC 1132 or of wild and scenic rivers under 16 USC 1274.

2. In addition, the following sources are excluded from coverage from this GP:
   a. Discharges to Outstanding Resource Waters or to those waterbodies classified as A-1 or A-Closed waters.

   b. The facility is a “new or increased source” that discharges to “high quality water,” as defined in the Nondegradation of Water Quality Subchapter 7.

   c. The facility is required to have a pretreatment program (see 40 CFR 403.3), or accepts discharge from users that are CIU or SIU.

d. Any facility covered under an individual MPDES permit with site-specific WQBELs cannot request coverage under this GP.

D. Requirements for Continuing Authorization under this General Permit

All authorizations under the 2013-issued GP expire on December 31, 2017, along with the expiration of the GP. For coverage under the 2017-issued General Permit permittees must submit a complete renewal application package. A complete renewal application package must include:

- A complete Notice of Intent application form (NOI-581) provided by DEQ,
- A copy of the consultation letter from the Montana Sage Grouse Habitat Conservation Program (if applicable), and
- Renewal application fee of $800 per outfall

DEQ must receive the complete application package on or before **December 31, 2017** at the following address:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901

A facility's coverage under the 2017-issued GP is effective January 1, 2017, or later, upon receiving an Authorization Letter from DEQ.

E. Requirements for New Authorizations under this General Permit

Existing facilities with coverage under an Individual MPDES permit may obtain first-time coverage under the 2017-issued GP by submitting a complete application package. The application package must include:

- A complete application form Notice of Intent (NOI-581) provided by DEQ,
- A copy of the consultation letter from the Montana Sage Grouse Habitat Conservation Program (if applicable), and
- The appropriate application fee.

A facility's coverage under the 2017-issued GP is effective January 1, 2017, or later, upon receiving an Authorization Letter from DEQ.

F. Termination of General Permit Coverage

Permittees under the 2017-issued GP may terminate coverage. The permittee must submit a Notice of Termination (NOT) form to DEQ indicating the reason why permit coverage is no longer required. The permittee remains responsible for all applicable fees including annual fees until DEQ processes and notifies the permittee that permit coverage is terminated. Failure to submit a termination request shall result in accrual of annual fees.

Replace General Permit coverage with an Individual MPDES permit

Permittees under the 2017-issued GP may apply for coverage under an Individual MPDES permit. A facility remains covered under the General Permit until the effective date of the Individual MPDES Permit. Authorization under the General Permit will terminate on the effective date of the Individual MPDES permit.

G. Transfer of Coverage

To transfer permit coverage under the General Permit to a different entity, the owner or operator must submit a complete Permit Transfer Notification form provided by DEQ and a $500 permit transfer fee. The original owner or operator is responsible for all terms and conditions of the permit until DEQ notifies the new owner.

II. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

A. Effluent Limits

Each facility's effluent limits will include (1) the appropriate Technology-based Effluent Limits (TBELs) and (2) Water Quality-based Effluent Limits (WQBELs). These limits and the outfall location for each facility will be identified in an authorization letter.

1. TBELs:

Each facility will be assigned TBELs based on the appropriate Total Suspended Solids (TSS) Group (A, B, or C) and the appropriate 5-Day Biochemical Oxygen Demand (BOD_5) subgroup (1 or 2).

Group A – Total Suspended Solids (TSS) -National Secondary Standards

Each facility assigned to TSS Group A must meet the appropriate effluent limits listed in **Table 1**, beginning on the effective date of the permit and lasting until the end of the permit term:

Table 1. Technology-based Effluent Limits Group A-
Total Suspended Solids – *National Secondary Standards* (1)

Parameter	Units	Average Monthly Limit	Average Weekly Limit
Choices for 5-day Biochemical Oxygen Demand (BOD_5) (2)			
A.1. BOD_5 - National Secondary Standards	mg/L	30	45
	lbs/day	(3)	(3)
	% removal	85 (4)	NA
A.2. BOD_5 - Treatment Equivalent to Secondary	mg/L	45	65
	lbs/day	(3)	(3)
	% removal	65 (4)	NA
Total Suspended Solids			
Total Suspended Solids	mg/L	30	45
	lbs/day	(3)	(3)
	% removal	85 (4)	NA
pH (5)	s.u.	6.0-9.0 (instantaneous)	

Footnotes:
(1) See Definitions section at end of permit for explanation of terms.
(2) $CBOD_5$ limits contained in 40 CFR 133.102(a)(4) may replace BOD_5 limits if requested by the permittee as part of the renewal application process or a modification request and approved by DEQ.
(3) Mass-based limits calculations shown below.
(4) Percent removal calculation shown below
(5) Effluent pH shall remain between 6.0 and 9.0 s.u. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.

Group B – Total Suspended Solids (TSS) - Treatment Equivalent to Secondary

Each facility assigned to TSS Group B must meet the appropriate effluent limits listed in **Table 2**, beginning on the effective date of the permit and lasting until the end of the permit term:

Table 2. Technology-based Effluent Limits Group B- Total Suspended Solids – *Treatment Equivalent to Secondary* (1)			
Parameter	Units	Average Monthly Limit	Average Weekly Limit
Choices for 5-day Biochemical Oxygen Demand (BOD_5) (2)			
B.1. BOD_5 - National Secondary Standards	mg/L	30	45
	lbs/day	(3)	(3)
	% removal	85 (4)	NA
B.2. BOD_5 - Treatment Equivalent to Secondary	mg/L	45	65
	lbs/day	(3)	(3)
	% removal	65 (4)	NA
Total Suspended Solids			
Total Suspended Solids	mg/L	45	60
	lbs/day	(3)	(3)
	% removal	65 (4)	NA
pH (5)	s.u.	6.0-9.0 (instantaneous)	

Footnotes:
(1) See Definitions section at end of permit for explanation of terms.
(2) $CBOD_5$ limits contained in 40 CFR 133.102(a)(4) may replace BOD_5 limits if requested by the permittee as part of the renewal application process or a modification request and approved by DEQ.
(3) Mass-based limits calculations shown below.
(4) Percent removal calculation shown below.
(5) Effluent pH shall remain between 6.0 and 9.0 s.u. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.

Group C – Total Suspended Solids (TSS) - Alternate State Requirements

Each facility assigned to TSS Group C must meet the appropriate effluent limits listed in **Table 3**, beginning on the effective date of the permit and lasting until the end of the permit term:

Table 3. Technology-based Effluent Limits Group C - Total Suspended Solids – *Alternate State Requirements* [(1)]

Parameter	Units	Average Monthly Limit	Average Weekly Limit
Choices for 5-day Biochemical Oxygen Demand (BOD_5) [(2)]			
C.1. BOD_5 - National Secondary Standards	mg/L	30	45
	lbs/day	[(3)]	[(3)]
	% removal	85 [(4)]	NA
C.2. BOD_5 - Treatment Equivalent to Secondary	mg/L	45	65
	lbs/day	[(3)]	[(3)]
	% removal	65 [(4)]	NA
Total Suspended Solids			
Total Suspended Solids	mg/L	100	135
	lbs/day	[(3)]	[(3)]
	% removal	NA [(4)]	NA
pH [(5)]	s.u.	6.0-9.0 (instantaneous)	

Footnotes:
(1) See Definitions section at end of permit for explanation of terms.
(2) $CBOD_5$ limits contained in 40 CFR 133.102(a)(4) may replace BOD_5 limits if requested by the permittee as part of the renewal application process or a modification request and approved by DEQ.
(3) Mass-based limits calculations shown below.
(4) BOD_5 percent removal calculation shown below. TSS mass limits are a substitute for TSS percent removal.
(5) Effluent pH shall remain between 6.0 and 9.0 s.u. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.

Mass-based Load Limits Equation

The following equations must be used by the facility for reporting on Discharge Monitoring Reports (DMRs):

Monthly load (lb/day) – *average of all loading values calculated within the month:*

= Monthly average [actual daily discharge (mgd) x actual daily concentration (mg/L) x 8.34]

Weekly load (lb/day) – *highest average weekly loading value calculated in the month:*

= Highest (average weekly [actual daily discharge (mgd) x actual daily concentration (mg/L) x 8.34])

Percent Removal Equation

The following equation is used for a facility to determine their percent removal for a given month (or other time period):

$$\textbf{\% Removal} = \frac{[\textit{Influent Concentration}]-[\textit{Effluent Concentration}]}{[\textit{Influent Concentration}]} \times 100$$

Where:

Influent Concentration = Corresponding monthly average influent concentration based on the analytical results of the reporting period.

Effluent Concentration = Corresponding monthly average effluent concentration based on the analytical results of the reporting period.

2. WQBEL:

Beginning on the effective date of the permit and lasting until the end of the permit term, each facility will be subject to WQBELs as shown below in **Table 4** and below:

Table 4. Water Quality-based Effluent Limits for Continuous Dischargers (1)

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
Total Residual Chlorine (2)	µg/L	11	--	19
E. coli bacteria - summer (3)	Number of organisms/100 mL	126	252	--
E. coli bacteria - winter (3)	Number of organisms/100 mL	630	1,260	--
Oil & Grease	mg/L	--	--	10

Footnotes:
(1) See Definitions section at end of permit for explanation of terms. WQBELs are in addition to TBELs.
(2) TRC limits apply only when a facility uses chlorine to disinfect. Samples must be analyzed within 15 minutes. Analytical results less than 100 µg/L are considered in compliance with the TRC limit.
(3) All facilities are required to comply with the summertime *E.coli* bacteria limit from April 1 through October 31 and the wintertime limit from November 1 through March 31st on an annual basis. The geometric mean must be reported if more than one sample is collected during the reporting period.

In addition to **Table 4**, all facilities must meet the following restrictions:

1. There shall be no discharge which causes a visible oil film (or to be present at concentrations at or in excess of 10 mg/L).

B. Monitoring Requirements

At a minimum, upon the effective date of this permit this permit, each facility must sample the parameters listed below in **Table 5 and Table 6** at the frequency and with type of measurement indicated. Each facility is required to monitor their discharge at the last point of control before the discharge enters the initial receiving water. All facilities must ensure flow monitoring is representative of the nature and volume of the discharge. DEQ requires monitoring to occur on a calendar basis (i.e., calendar week, calendar month, calendar quarter). When monitoring is required twice per month, the two samples must be taken at least one week apart during the calendar month. When monitoring is required more than once a week, each sample must be taken on a unique calendar day.

Samples must be representative of the volume and quality of the effluent. Samples shall be collected, preserved and analyzed in accordance with approved procedures listed in 40 CFR 136 unless otherwise specified by DEQ. Analytical results reported as less than detection must achieve the required reporting values (RRV) in Department Circular DEQ-7 unless a different reporting level (RL) is specified in the 2017-issued GP.

Reporting frequency shall be monthly, and each facility must submit the results on their DMR for each month by the 28th of the following month. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

Table 5 presents the influent monitoring requirements:

Table 5: Influent Monitoring and Reporting Requirements (1)

Parameter	Units	Sample Type	Minimum Sampling Frequency (2)	Reporting Requirements	Reporting Level (3)
5-Day Biochemical Oxygen Demand (BOD_5) (4)	mg/L	Composite	1/Month	None	2
Total Suspended Solids (TSS)	mg/L	Composite	1/Month	None	10

Footnotes:
(1) See Definitions section in the permit.
(2) The influent concentration of BOD_5 and TSS are used to calculate the percent removal. Monthly influent samples are required whenever there is a discharge for that month.
(3) Reporting Level (RL) is the minimum reporting level required for the analysis.
(4) BOD_5 unless facility has requested to sample for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$).

Table 6 presents the effluent monitoring requirements under the 2017-issued GP.

Table 6: Effluent Monitoring and Reporting Requirements [1]

Parameter	Units	Sample Type	Minimum Sampling Frequency [2]	Reporting Requirements	Reporting Level [3]
Discharge Flow Rate	mgd	Instantaneous *or* Continuous	5/Week	Daily Maximum and Monthly Average	± 10% of actual
# Days with Flow	#Days	Calculated	1/Day	Monthly Count	1
5-Day Biochemical Oxygen Demand [4]	mg/L	Grab	2/Month	Weekly Maximum and Monthly Average	2
	lb/day	Calculated	1/Month		0.1
	% Removal	Calculated	1/Month	Monthly Minimum	0.1
Total Suspended Solids	mg/L	Grab	2/Month	Weekly Maximum and Monthly Average	10
	lb/day	Calculated	1/Month		0.1
	% Removal	Calculated	1/Month	Monthly Minimum	0.1
pH	s.u.	Instantaneous	1/Week	Daily Minimum and Daily Maximum	0.1
Oil & Grease	Yes / No	Visual[5]	3/Week	Monthly	--
	mg/L	Grab	[5]	Daily Maximum	1
E. coli Bacteria [6]	Number of organisms/ 100 mL	Grab	2/Month	Daily Maximum and Geometric Mean	1
Chlorine, Total Residual [7]	µg/L	Grab	3/Week	Daily Maximum and Monthly Average	100
Ammonia, Total as N	mg/L	Grab	1/Month	Daily Maximum and Monthly Average	0.07
Nitrate + Nitrite	mg/L	Grab	1/Month	Daily Maximum and Monthly Average	0.02
Total Kjeldahl Nitrogen	mg/L	Grab	1/Month [8]	Monthly Average	0.225
Total Nitrogen	mg/L	Grab	1/Month [8]	Monthly Average	0.25
	lb/day	Calculated			0.01
Total Phosphorus	mg/L	Grab	1/Month [8]	Monthly Average	0.003
	lb/day	Calculated			0.001

Footnotes:

(1) See Definitions section in the permit.

(2) **Monitoring is required only for any calendar period where there is a discharge.** Methods for calculating mass load (lb/day) and % removal are provided in this permit. Permittees are allowed to either conduct grab or composite effluent sampling: composite samples are 24-hour composite samples using a minimum of four grab samples. *DEQ will presume the permittees will comply with the monitoring requirement by taking one grab sample unless otherwise indicated in the NOI and specified in the authorization letter.*

(3) RL = minimum reporting level. Analytical results reported as less than detection must achieve the required reporting values (RRV) in Department Circular DEQ-7 unless a different RL is specified.

(4) BOD_5 unless the facility is authorized to demonstrate compliance with carbonaceous biochemical oxygen demand ($CBOD_5$).

(5) If visual monitoring indicates the presence of oil & grease, a grab sample must be submitted for analysis and discharge must cease if the concentration is found to be > 10 mg/L.

(6) *Escherichia coli (E. coli)* bacteria. Reporting in #organisms per 100 mL (equivalent to either colony forming units (cfu) per 100 mL or most probable number (mpn) per 100 mL). Report the geometric mean if more than one sample is collected during the reporting period.

(7) Limits and monitoring required for facilities that use chlorine for disinfection. If no chlorine is used during the reporting period, monitoring is not required and “NODI CODE = 9” must be reported on DMRs. Analytical results less than 100 µg/L (0.1 mg/L) will be considered in compliance with TRC limits.

(8) DEQ’s authorization letter will indicate seasonal monitoring (or year-round nutrient monitoring for discharges impacting lakes or reservoirs).

III. SPECIAL CONDITIONS/COMPLIANCE SCHEDULE

A. Requirement to Apply for an Individual Permit

When DEQ calculates a facility has RP to exceed a water quality standard (including as discussed in Part V.E.2 of the Fact Sheet), the facility will be required to apply for an individual permit as part of their authorization letter. These facilities will continue to be covered under the 2017-issued GP as long as they submit a complete application for an individual permit by no later than December 31, 2019. DEQ will terminate the facility's authorization under the 2017-issued GP once the individual permit is effective.

B. Lagoon Operation and Maintenance Requirements

All facilities must:

1. Maintain an up-to-date O&M manual for the domestic sewage treatment lagoon system;
2. Follow the procedures in the O&M manual;
3. **Conduct inspections at least monthly** to ensure the O&M procedures are being followed and are working; and
4. Maintain records of the routine inspections and any follow-up. Records from the routine inspections must be maintained for at least three (3) years, and available for an inspector upon request. At a minimum, the records shall include:
    - Date and time of inspection;
    - Name of the inspector(s);
    - Weather conditions during inspection;
    - Visual observation of lagoon conditions, including wastewater observations (water level, odor, and visible appearance) and dike condition (signs of leakage, erosion, rodents burrowing, and/or vegetation growth);
    - Discharge flow rate, if occurring;
    - Identification of O&M problems;
    - Recommendations, as appropriate, to rectify identified O&M problems;
    - A brief description of any actions taken with regards to identified problems; and
    - Other information, as appropriate (e.g., effluent sample and measurement location).

C. Nutrient Optimization Study

Facilities that discharge to waterbodies listed as impaired for nutrients (TN, TP, or other eutrophication indicators) and facilities that have RP to exceed TN and/or TP criteria must complete a nutrient optimization study within four years of coverage under this renewed General Permit (January 1, 2022, unless the facility coverage is after January 1, 2018).

The optimization study must include:

- Evaluation of current facility operations, including advanced operational strategies, reuse, recharge, and land application;
- Selection and planning for facility-specific nutrient minimization activities; and

- Implementation of selected nutrient minimization activities.

Facilities required to undertake the nutrient optimization study are required to submit an annual progress report by January 28th of each year, and a final summary of improvements by no later than January 14, 2022.

D. Seasonal Land Application of Treated Effluent

Any authorized facilities that employ land application are required to incorporate good operating procedures for the treated effluent land application system into the facility's final O&M manual as a Land Application Nutrient Management Plan (NMP). The NMP shall be designed to minimize the potential for release of pollutants to state waters. The plan shall detail how the facility will control land-applied effluent to optimize nutrient uptake and eliminate the risk of runoff to surface water or ground water infiltration/ percolation. Each facility shall maintain land application records for three (3) years and make them available for inspection by DEQ personnel upon request.

E. Inflow/Infiltration

Each authorized facility with an average daily design flow greater than 0.1 mgd must submit an update on the status of Infiltration/Inflow (I/I). The status update must be submitted during the last year of the permit cycle and include at a minimum:

- date of the most recent I/I assessment (which may be before this permit cycle),
- work completed since the most recent I/I assessment,
- work planned to reduce I/I over the next five years, if any, and
- best estimate of the current amount and sources of I/I into the collection system.

A summary of the facility's most recent I/I review must be completed by **July 1, 2022** and submitted to DEQ by no later than **July 14, 2022**.

F. Compliance Schedule and Special Conditions Summary

Table 7 presents a summary of the Compliance Schedule and Special Conditions due dates.

Table 7: Summary of Compliance Schedule and Special Conditions Due Dates		
Action	**Scheduled Completion Date of Action[(1)]**	**Report Due Date[(2)]**
Compliance Schedule		
Individual Permit Application as Required in Facility Authorization Letter.	December 31, 2019	Annual Progress Reports by January 28th until submitted.
Special Conditions Due Date		
Operation & Maintenance Plan and records	Develop, implement, and maintain onsite	NA
Nutrient Optimization Plan		Progress Reports by January 28th annually until completed. Summary report due January 14, 2022.
Land application – Plan and records *if land application is used*	Develop and implement and maintain onsite	NA
Review I/I and provide status update	July 1, 2022	July 14, 2022

Footnotes:
(1) The actions must be completed on or before the scheduled completion dates.
(2) This notification must be received by DEQ on or before the scheduled due date.

G. Sludge Requirements

The use or disposal of sewage sludge must be in conformance with 40 CFR Part 503.

H. Pretreatment Program

Facilities that operate under the EPA Pretreatment Program or accept discharge from categorical industrial users, significant industrial users, or other users that may cause pass through or interference, cannot be covered under the 2017-issued GP.

1. The Permittee shall not allow any user to introduce into a POTW any pollutants which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in Part III.H.2 of this permit apply to all non-domestic sources introducing pollutants into a POTW whether or not the source is subject to other national pretreatment standards or any national, state or local pretreatment requirements.
2. In addition, the following pollutants may not be introduced into a POTW:
   a. Pollutants which create a fire or explosion hazard in the POTW, including waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Celsius using the test methods specified in 40 CFR 261.21;
   b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges;
   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;

d. Any pollutant, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;

e. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Celsius (104 degrees Fahrenheit) unless DEQ, upon request of the POTW, approves alternative temperature limits;

f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

3. Publicly-Owned Treatment Works. All POTWs must provide adequate notice to DEQ of the following:

   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to federal effluent guidelines and standards [40 CFR Subchapter N] if it were directly discharging those pollutants; and

   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

   c. For the purposes of this paragraph, adequate notice shall include information on:

      (1) the quality and quantity of effluent introduced into the POTW, and

      (2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

IV. STANDARD CONDITIONS

The permittee shall meet the following standard conditions of MPDES permits.

A. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under ARM 17.30.1206 for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

The Montana Water Quality Act at MCA 75-5-631 provides that in an action initiated by DEQ to collect civil penalties against a person who is found to have violated a permit condition, the person is subject to a civil penalty not to exceed $25,000. Each day of violation constitutes a separate violation.

MCA 75-5-632 provides that any person who willfully or negligently violates a prohibition or permit condition is subject, upon conviction, to criminal penalties not to exceed $25,000 per day or one year in prison, or both, for the first conviction, and $50,000 per day of violation or by imprisonment for not more than two years, or both, for subsequent convictions.

MCA 75-5-611(9)(a) also provides for administrative penalties not to exceed $10,000 for each day of violation and up to a maximum not to exceed $100,000 for any related series of violations

B. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must first apply for and obtain a new permit.

C. Need to Halt or Reduce Activity Not a Defense

It may not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

G. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

H. Duty to Provide Information

The permittee shall furnish to DEQ, within a reasonable time, any information that DEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to DEQ, upon request, copies of records required to be kept by this permit.

I. Inspection and Entry

The permittee shall allow the head of DEQ, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

- Enter upon the permittee’s premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Montana Water Quality Act, any substances or parameters at any location.

J. Monitoring and Records—Representative Sampling

Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

K. Monitoring and Records—Retention of Records

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application.

L. Monitoring and Records—Records Contents

Records of monitoring information must include:

- the date, exact place, and time of sampling or measurements;
- the individual(s) who performed the sampling or measurements;
- the date(s) analyses were performed;
- the individual(s) who performed the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

M. Monitoring and Records—Test Procedures

Monitoring must be conducted according to test procedures approved under Title 40 of the Code of Federal Regulations (40 CFR) Part 136, unless other test procedures have been specified in this permit.

N. Monitoring and Records—Falsification and Tampering

The Montana Water Quality Act at MCA 75-5-633 provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $25,000, or by imprisonment for not more than six months, or by both.

O. Signatory Requirement

All applications, reports or information submitted to DEQ shall be signed and certified. (See ARM 17.30.1323.) In accordance with ARM 17.30.1323, all permit applications must be signed as follows:

- *For a corporation*: By a responsible corporate officer, which means
  - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or
  - The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- *For a partnership or sole proprietorship*: By a general partner or the proprietor, respectively.

- *For a municipality, state, federal, or other public agency*: By either a principal executive officer or ranking elected official. A principal executive office of a federal agency includes:
  - The chief executive officer of the agency; or
  - A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

Authorized representatives. All reports required by the permit and other information requested by DEQ shall be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:

- The authorization is made in writing by a person described above;
- The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters (a duly authorized representative may thus be either a named individual or an individual occupying a named position); and
- The written authorization is submitted to DEQ.

Changes to authorization. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to DEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.

Certification. Any person signing a document under this section shall make the following certification:

> "*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*"

P. <u>Reporting Requirements—Planned Changes</u>

The permittee shall give notice to DEQ as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- The alteration or addition to the permitted facility may meet one of the criteria for determining whether a facility is a new source under ARM 17.30.1340(2); or
- The alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements under ARM 17.30.1343(1)(a).

Q. Reporting Requirements—Anticipated Noncompliance

The permittee shall give advance notice to DEQ of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

R. Reporting Requirements—Transfers

This permit is not transferable to any person except after notice to DEQ. DEQ may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Montana Water Quality Act. (See ARM 17.30.1360; in some cases, modification or revocation and reissuance is mandatory.)

In accordance with ARM 17.30.1360(2), this permit may be automatically transferred to a new permittee if:

- The current permittee notifies DEQ at least 30 days in advance of the proposed transfer date;
- The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;
- DEQ does not notify the existing permittee and the proposed new permittee of an intent to revoke or modify and reissue the permit. A modification may also be a minor modification under ARM 17.30.1362. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned above.

S. Reporting Requirements—Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit.

- Monitoring results must be reported on a Discharge Monitoring Report (DMR) form.
- If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.
- Calculations for all limitations that require averaging of measurements must use an arithmetic mean unless otherwise specified by DEQ in the permit.

T. Reporting Requirements—Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

U. Reporting Requirements—Twenty-four Hour Reporting

The permittee shall report any noncompliance that might endanger health or the environment. Any information must be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

- A description of the noncompliance and its cause;
- The period of noncompliance, including exact dates and times;
- The estimated time noncompliance is expected to continue if it has not been corrected; and
- Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following are included as information that must be reported within 24 hours under this provision:

- Any unanticipated bypass that exceeds any effluent limitation in the permit of this permit (see ARM 17.30.1342(7) and “Bypass” below);
- Any upset that exceeds any effluent limitation in the permit (see “Upset” below) and;
- Violation of a maximum daily discharge limitation for any of the pollutants listed by DEQ in this permit (see ARM 17.30.1344 and 40 CFR 122.44(g)).

Oral notification. The report shall be made orally to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 324-4777.

Written notification requirements. DEQ may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-3080. Written reports shall be submitted to the following address:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901

V. <u>Reporting Requirements—Other Noncompliance</u>

Instances of noncompliance not required to be reported within 24 hours shall be reported at the time monitoring reports are submitted. The reports shall contain the information listed above for written submissions under “Reporting Requirements—Twenty-four Hour Reporting.”

W. <u>Reporting Requirements—Other Information</u>

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to DEQ, it shall promptly submit such facts or information.

X. <u>Bypass</u>

Definitions. ARM 17.30.1304(11) defines *bypass* as the intentional diversion of waste streams from any portion of a treatment facility. ARM 17.30.1304(53) defines *severe property damage* as substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent damage to natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Bypass Not Exceeding Limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions under "Notice" and "Prohibition of Bypass" below.

Notice. *Anticipated Bypass*: If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass. *Unanticipated Bypass*. The permittee shall submit notice of an unanticipated bypass as required under "Reporting Requirements—Twenty-four Hour Reporting" above.

Prohibition of Bypass. Bypass is prohibited and DEQ may take enforcement action against a permittee for a bypass, unless:

- The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
- The permittee submitted notices as required under "Notice" above.

DEQ may approve an anticipated bypass, after considering its adverse effects, if DEQ determines that it will meet these three conditions.

Y. <u>Upset</u>

Definition. ARM 17.30.1304(63) defines *upset* as an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements outlined below under "Conditions Necessary for Demonstration of an Upset" below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

Conditions Necessary for a Demonstration of Upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- An upset occurred and that the permittee can identify the cause(s) of the upset;
- The permitted facility was at the time being properly operated;

- The permittee submitted notice of the upset as required under “Reporting Requirements—Twenty-four Hour Reporting” above and
- The permittee complied with any remedial measures required under “Duty to Mitigate” above.

Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Z. Fees

The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, DEQ may:

- Impose additional fee assessment(s) computed at the rates established under 75-5-516(5)(a), MCA and ARM 17.30.201(9), or
- Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. DEQ may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this section. Suspensions are limited to one year, after which the permit will be terminated.

V. DEFINITIONS and ABBREVIATIONS

1. **“Act”** means the Montana Water Quality Act, Title 75, chapter 5, MCA.
2. **“Acute Toxicity”** occurs when, during an acute toxicity test, 50 percent mortality is observed for any tested species at any effluent concentration (i.e., $LC_{50} \leq 100\%$ effluent).
3. **“Arithmetic Mean” or “Arithmetic Average”** for any set of related values means the summation of the individual values divided by the number of individual values.
4. **“Average Monthly Limitation”** (AML) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
5. “**Average Weekly Limitation**” (AWL) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
6. **“BOD_5”** means the five-day measure of pollutant parameter biochemical oxygen demand.
7. **"Bypass"** means the intentional diversion of waste streams from any portion of a treatment facility.
8. **“Chronic Toxicity”** occurs when, during a chronic toxicity test, the 25% inhibition concentration (IC_{25}) for any tested species is less than or equal to the percent effluent represented by the effluent concentration in the receiving water after accounting for any allowable mixing zone.
9. **“CFR”** means the Code of Federal Regulations
10. **“cfu/100 mL”** is a measurement of pathogens, and means colony-forming units per 100 milliliters.
11. “**Composite sample**” means a sample composed of four or more discrete aliquots over a 24-hour period. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. In addition, DEQ may waive composite sampling for any outfall for which the applicant demonstrates that the use of an automatic sampler is infeasible and that the minimum of four grab samples will be a representative sample of the effluent being discharged.
12. **“Daily Discharge”** means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.
13. **"department"** means the Montana Department of Environmental Quality (DEQ, or department). Established by 2-15-3501, MCA.
14. **"Director"** means the Director of the Montana Department of Environmental Quality.

15. **"Discharge"** means the injection, deposit, dumping, spilling, leaking, placing, or failing to remove any pollutant so that it or any constituent thereof may enter into state waters, including ground water.
16. **"EPA"** means the United States Environmental Protection Agency.
17. **"Federal Clean Water Act"** means the federal legislation at 33 USC 1251, *et seq*.
18. "**Geometric mean**" means the value obtained by taking the Nth root of the product of the measured values.
19. **"Grab Sample"** means a sample which is taken from a waste stream on a one-time basis without consideration of flow rate of the effluent or without consideration for time.
20. "**Indirect discharge**" means the introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c) or (d) of the Clean Water Act.
21. "**Industrial User**" means a source of Indirect Discharge.
22. **"Instantaneous Maximum Limit"** means the maximum allowable concentration of a pollutant determined from the analysis of any discrete or composite sample collected, independent of the flow rate and the duration of the sampling event.
23. **"Instantaneous Measurement"**, for monitoring requirements, means a single reading, observation, or measurement.
24. "**Maximum Daily Limit**" (MDL) means the highest allowable discharge of a pollutant during a calendar day. Expressed as units of mass, the daily discharge is cumulative mass discharged over the course of the day. Expressed as a concentration, it is the arithmetic average of all measurements taken that day.
25. **"Minimum Level"** (ML) of quantitation means the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte, as determined by the procedure set forth at 40 CFR 136. In most cases the ML is equivalent to the Required Reporting Value (RRV) unless otherwise specified in the permit.
26. **"Mixing zone"** means a limited area of a surface water body or aquifer where initial dilution of a discharge takes place and where certain water quality standards may be exceeded.
27. **"Nondegradation"** means the prevention of a significant change in water quality that lowers the quality of high-quality water for one or more parameters. Also, the prohibition of any increase in discharge that exceeds the limits established under or determined from a permit or approval issued by DEQ prior to April 29, 1993.
28. "**Outfall**" means the place where a point source discharges effluent into the receiving water. For each outfall, there typically is at least one monitoring location. Although the monitoring location might or might not be at the actual point of discharge, samples taken at the monitoring location should be representative of the discharge.
29. **"Percent removal**" means a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the average values of the raw wastewater influent pollutant concentrations to the facility and the average values of the effluent pollutant concentrations for a given time period.
30. "**Publicly-owned treatment works**" (POTW) means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial

wastes of a liquid nature that is owned by a state or municipality. This definition includes: sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment; and a city, town, county, district, or other political subdivision created by or under state law that has jurisdiction over indirect discharges to and the discharges from a treatment works.

31. "**Required Reporting Values**" (RRVs) means the values listed as reporting values in department Circular DEQ-7. RRVs are the required minimum levels (see definition above) that must be achieved in reporting all monitoring results unless otherwise specified in this permit.
32. **"Regional Administrator"** means the administrator of Region VIII of EPA, which has jurisdiction over federal water pollution control activities in the state of Montana.
33. **"Severe property damage"** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
34. "**Sewage sludge**" means any solid, semi-solid or liquid residue generated during the treatment of domestic sewage and/or a combination of domestic sewage and industrial waste of a liquid nature in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the incineration of sewage sludge or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.
35. "**Significant biological treatment**" means the use of an aerobic or anaerobic biological treatment process in a treatment works to consistently achieve a monthly average of at least 65 percent removal of BOD_5.
36. **"TMDL"** means the total maximum daily load limitation of a parameter, representing the estimated assimilative capacity for a water body before other designated uses are adversely affected. Mathematically, it is the sum of wasteload allocations for point sources, load allocations for non-point and natural background sources, and a margin of safety.
37. **"TSS"** means the pollutant parameter total suspended solids.
38. **"Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Attachment A: Summary of Facilities Permitted under 2013-Issued GP

Permit	Facility	Lagoon Type	Design Flow	Months with Discharge: Avg # Mo/Yr	Months with Discharge: Avg# Days/Mo	Receiving Water Name
BATCH						
Very Small						
MTG580026	Outlook	facultative	0.01	0	0	Plentywood Creek
MTG580022	Brady	facultative	0.01	0	0	Ephemeral Ditch
MTG580013	Lavina	facultative	0.02	0	0	Musselshell
MTG580025	Fallon	facultative	0.03	0	0	Ditch to Yellowstone River
MTG580024	Medicine Lake	facultative	0.03	1-2	25	Ditch to Medicine Lake
MTG580028	Froid	facultative	0.04	0	0	Sheep Creek
MTG580019	Fort Peck	facultative	0.05	1	22	Missouri River
MTG580034	Nashua	facultative	0.05	1	4	Milk River
MTG580033	Fromberg	aerated	0.06	2	23	Clarks Fork Yellowstone
MTG580012	Saco	facultative	0.07	2	17	Beaver Creek
MTG580002	Drummond	facultative	0.08	0	0	Clark Fork River
MTG580015	Broadus	facultative	0.10	2-3	19	Wetlands (dry oxbow Powder River)
Small						
MTG580003	Fairfield	facultative	0.11	7 --> none	31 --> 0	Ditch to Freezeout Lake
MTG580016	Geraldine	facultative	0.12	6	19	Ditch to Flat Creek
MTG580037	Wibaux	aerated	0.13	0	0	Field to Intermittent
MTG580011	Darby	facultative	0.15	2	20	West Channel Bitterroot River
MTG580017	Terry	facultative	0.17	8	11	Ditch (to Yellowstone)
MTG580008	Plentywood	facultative	0.29	2	22	Big Muddy Creek
MTG580029	Baker	facultative	0.35	1	22	Sandstone Creek
CONTINUOUS						
MTG580007	Park City	aerated	0.14	12	NA	Ditch (to Yellowstone)
MTG580035	Thompson Falls	aerated	0.14	12	NA	Clark Fork River
MTG580038	Troy	aerated	0.15	12	NA	Kootenai River
MTG580004	Montana State Hospital	facultative	0.28	12	NA	Warm Springs Creek/channel
MTG580032	Eureka	aerated	0.35	10-11	NA	Coulee to Tobacco River
MTG580020	Townsend	aerated	0.60	12	NA	Missouri River

Attachment B: Applicable Nutrient Criteria

Permit	Facility	Receiving Waterbody Name	Seasonal 14Q5 cfs	Ecoregion		CRITERIA (mg/L) TN	TP	If no Criteria, Impaired?	RP?	Conclusion
MTG580004	Montana State Hospital	Warm Springs Creek/channel (to Clark Fork River)	Unknown	#17	Middle Rockies	0.30	0.03	NA	Yes, assuming 14Q5 = 0	Requires variance request; therefore, an individual permit application will be required.
MTG580007	Park City	Vandenberg Drain Ditch (to Yellowstone River)	Unknown	#43(n)	Northwestern Great Plains	1.3	0.15	NA	Yes, assuming 14Q5 = 0	Requires variance request; therefore, an individual permit application will be required.
MTG580020	Townsend	Missouri River to Canyon Ferry Reservoir	1420	#17	Middle Rockies	NA(1)	NA(1)	Yes	NA	Downstream nutrient impairment @ Canyon Ferry - requires cap at current performance year round and conducting an optimization plan (See VII.B.# of this Fact Sheet).
MTG580032	Eureka	Coulee to Tobacco River	56.1	#15	Northern Rockies	0.28	0.025	NA	Yes	Requires variance request; therefore, an individual permit application will be required.
MTG580035	Thompson Falls	Clark Fork River	6368	#15	Northern Rockies	NA(2)	NA(2)	No	NA	No limit needed.
MTG580038	Troy	Kootenai River	3754	#15	Northern Rockies	NA(3)	NA(3)	No	NA	No limit needed.

Footnote: NA = Not applicable.
(1) The Missouri River is a large river that does not currently have criteria. Furthermore, Townsend's discharge is directly above Canyon Ferry Reservoir which does not yet have criteria.
(2) The Kootenai River from the Libby Dam to the state line is a large river that does not currently have criteria.
(3) The Clark Fork River (past the confluence with the Bitterroot River) is a large river that does not currently have criteria.

Attachment C: Evaluation of Ammonia and Nitrate+Nitrite RP

Permit	Facility	Receiving Waterbody Name	RP to Exceed **Ammonia Standard** (Acute and/or Chronic)?		RP to Exceed **Nitrate+Nitrite** Standard?		Conclusion
MTG580004	Montana State Hospital	Warm Springs Creek/channel (to Clark Fork River)	**Yes**	RP to exceed both acute & chronic standards as there is no dilution granted.	**No**	No RP.	Need individual permit application to develop limits for ammonia.
MTG580007	Park City	Vandenberg Drain Ditch (to Yellowstone River)	**Yes**	RP to exceed both acute & chronic standards as there is no dilution granted.	**Yes**	RP to exceed the human health standard as there is no dilution granted.	Need individual permit application to develop limits for ammonia and for nitrate+nitrite.
MTG580020	Townsend	Missouri River to Canyon Ferry Reservoir	**No**	No RP with Alternate MZ.	**No**	No RP with Standard MZ (RP to exceed with no MZ).	Need standard MZ request for nitrate + nitrite.
MTG580032	Eureka	Coulee to Tobacco River	**No**	No RP with Standard MZ (there is RP to exceed acute standard with Alternate MZ).	**No**	No RP with Standard MZ (RP to exceed with no MZ).	Need standard MZ request for ammonia and nitrate + nitrite.
MTG580035	Thompson Falls	Clark Fork River	**No**	No RP with Alternate MZ.	**No**	No RP.	No RP - so no WQBELs are needed.
MTG580038	Troy	Kootenai River	**No**	No RP with Alternate MZ.	**No**	No RP with Standard MZ (RP to exceed with no MZ).	Need standard MZ request for nitrate + nitrite.

Footnote: NA = Not applicable.

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MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
WATER PROTECTION BUREAU
MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM

Fact Sheet

General Permit for Domestic Sewage Treatment Lagoons– CONTINUOUS DISCHARGERS

FACILITY:	Minor Publicly- and Privately- Owned Treatment Works
PERMIT NUMBER:	MTG581000
LOCATION:	Statewide, except for *Indian Country*
CONTACT:	Applicant
RECEIVING WATER:	Statewide

I. Status of Permit

This permitting action is the renewal of the Montana Pollutant Discharge Elimination System (MPDES) *General Permit for Domestic Sewage Treatment Lagoons*. This GP has been renewed four times since it was first issued in March 1983. The most recent renewal of this GP became effective on January 1, 2013, and will expire on December 31, 2017 ("2013-issued GP").

DEQ proposes the following changes with this renewal:

1. The Domestic Lagoon GP will be divided into two GPs:
   - *Continuous Dischargers*. MTG581000 provides permit coverage for facilities that discharge for *all or part of ten or more months per year*. This fact sheet outlines the methods, facts, and conclusions to support the 2017-issued GP for continuous dischargers.
   - *Batch Dischargers*: DEQ will develop a separate fact sheet and general permit for Domestic Sewage Treatment Lagoons that hold and release as a batch discharge.
2. DEQ modified the Technology-based Effluent Limits (TBELs). The 2017-issued GP will add the option for Treatment Equivalent to Secondary (TES) limits for 5-Day Biochemical Oxygen Demand (BOD_5) for qualifying facilities. In addition, Total Suspended Solids (TSS) percent removal limits will not be required for qualifying facilities under Alternate State Requirements.
3. *Escherichia coli* (***E. coli***) bacteria limits have been changed from colony-forming units (cfu) to number of organisms per 100 mL to reflect the change in Montana's Water Quality Standards that also allows most probable number (mpn).

4. Continuous dischargers under the 2017-issued GP that have Reasonable Potential (RP) to cause or contribute to an excursion of a water quality standard will be required to apply for individual permit coverage within the first two years of the general permit term.

II. Description of Discharge and Discharging Facilities

Montana facilities eligible for coverage under the general permit for domestic sewage treatment lagoons have historically been minor facilities with an average daily design flow less than one million gallons per day (mgd). The facilities can be either facultative or aerated lagoon systems. **Attachment A** contains design criteria and receiving water information for the 25 facilities currently authorized under the 2013-issued GP as of April 2017 (all batch and continuous discharging facilities currently permitted under MTG580000, excluding Town of Columbus which has requested individual coverage). In addition, there may be additional lagoon facilities with individual MPDES permits eligible for coverage under the 2017-issued GP.

This permitting action is for the renewal of the Domestic Sewage Treatment Lagoons GP for **continuous dischargers**. The 2017-issued GP for continuous dischargers is designed to be available for coverage by those facilities discharging part or all of ten or more months per year. There are currently six (6) facilities that were permitted under the 2013-issued GP that fall under this category; they have average daily design flows that range from 0.14 mgd – 0.60 mgd.

A. Description of Facilities

All lagoon systems have different engineering designs based on requirements in existence at the time of construction and/or modification:

- *Pre-1995*: the September 1, 1981, Memorandum *Wastewater Treatment Pond Design Guidelines*, from Donald G. Willems, Administrator, Environmental Sciences Division of the Department of Health and Human Services contained requirements for facilities to meet specific design criteria listed in the 1978 Ten States Standards.
- *After 1995*: design criteria contained in the *Circular WQB-2, Montana Department of Environmental Quality, Design Standards for Wastewater Facilities* which was replaced by *Circular DEQ-2, Montana Department of Environmental Quality, Design Standards for Wastewater Facilities* in 1999 and updated several times. The most recent version was issued in 2016.

Facultative Lagoon Systems

A facultative lagoon treatment system consists of treatment ponds, usually constructed of earthen materials. Facultative lagoons are not mechanically mixed or aerated and are designed to provide long detention times. Montana has required 180 days detention for discharging facultative lagoons as part of the design requirements since the early 1980s. According to the *Principles of Design and Operations of Wastewater Treatment Pond Systems for Plant Operators, Engineers, and Managers*, EPA/600/R-11/088, August 2011, facultative lagoons provide significant pollutant reductions through passive aerobic/anaerobic treatment, as follows:

- Five-day biochemical oxygen demand (BOD_5): effluent concentrations may range from 20 – 60 mg/L although < 30 mg/L 'can usually be achieved.'
- Total suspended solids (TSS): effluent concentration range from less than 30 mg/L to greater than 150 mg/L depending on algal concentrations and design parameters.
- Ammonia removal: up to 90% removal is achievable; however this removal rate is not sustainable during colder months.

- Phosphorus removal: approximately 50% removal can be expected under high pH conditions (30% removal based on DEQ information).

Aerated Lagoon Systems and Partial Mix Systems

Aeration is provided by either mechanical surface aerators or submerged diffused aeration systems. Aerated lagoons typically are classified by the amount of mixing provided. A partial mix system provides only enough aeration to satisfy the oxygen requirements of the system and does not provide energy to keep all TSS in suspension. Complete mix systems use approximately ten times the amount of energy as partial mix systems.

According to the 2011 *Principles of Design and Operations of Wastewater Treatment Pond Systems for Plant Operators, Engineers, and Managers*, aerated lagoons provide significant pollutant reductions, as follows:

- BOD_5: effluent concentration of < 30 mg/L is typical with up to 95% removal expected (DEQ data shows ~50 mg/L BOD_5 is more typical).
- TSS: effluent concentrations typically range from 20 – 60 mg/L.
- Significant nitrification occurs during the summer if there is adequate Dissolved Oxygen.
- Phosphorus removal: 15 – 25% expected.

Other Lagoon System Operations – Land Application

MPDES permitting is not required for facilities that land-apply treated effluent *unless* the facility discharges any treated effluent to state surface water. MPDES permitting is not required for land application alone since DEQ does not consider the use of treated effluent by a properly designed and operated land application system (i.e., in accordance with Circular DEQ-2) to be a discharge.

Facilities must reduce the risk of runoff to surface water or infiltration to ground water by managing the quantity and quality of the land-applied effluent. Applying at agronomic rates in this manner will optimize plant nutrient uptake. To ensure optimal land application conditions, facilities that are otherwise required to have a MPDES permit must also comply with the land application requirements under the Special Conditions section, as discussed in Part VII.B.4 of this Fact Sheet.

B. 2013-Domestic Sewage Lagoon General Permit Effluent Limits

The 2013-issued GP included the following numeric limits on effluent quality (see **Table 1**):

Table 1: Numeric Effluent Limits for "2013-Issued GP"					
Technology-Based Effluent Limits					
Parameter	Units		Monthly Average	Weekly Average	% Removal [1]
5-day Biochemical Oxygen Demand [2]	mg/L		30	45	85%
	lb/day		*Equation 1*	*Equation 1*	--
Total suspended solids [3]	mg/L	*a. NSS*	30	45	85%
		b. TES	45	65	65%
		c. ASR	100	135	65%
	lb/day		*Equation 1*	*Equation 1*	--
pH	s.u.		6.0 – 9.0		--
Water Quality-Based Effluent Limits					
Parameter	Units		Monthly Average	Weekly Average	Maximum Daily
E. coli bacteria – summer [4,5]	cfu/100 mL		126	252	--
E. coli bacteria – winter [5,6]	cfu/100 mL		630	1,260	--
Total Residual Chlorine	µg/L		11	--	19
Other Parameters (WLA and other previous permit limits)	(7)		(7)	(7)	(7)

Footnotes:
(1) Monitoring for % removal was required beginning January 1, 2017.
(2) Carbonaceous biochemical oxygen demand ($CBOD_5$) in lieu of 5-day Biochemical Oxygen Demand (BOD_5) was permitted upon request of the permittee.
(3) Facilities' TSS limits were classified under one of the following categories:
(a) National Secondary Standards (NSS),
(b) Treatment Equivalent to Secondary (TES), or
(c) Alternate State Requirements (ASR).
(4) After January 1, 2017, all facilities were required to comply with these *E.coli* limits from April 1st through October 31st on an annual basis.
(5) Facilities required to report geometric mean if more than one sample collected during the reporting period.
(6) After January 1, 2017, all facilities were required to comply with these *E.coli* limit from November 1st to March 31st on an annual basis.
(7) Any facility with an existing Wasteload Allocation or effluent limit was required to continue to meet those limits.

C. *Summary of Facility Discharges and Compliance*

Table 2 summarizes the monthly average BOD_5 and TSS effluent concentrations for the 25 facilities currently permitted under the GP:

Table 2: Summary of Monthly Average Effluent Concentrations January 2013 – December 2016						
Facility Type	Number of Facilities	Units	**BOD_5**		**TSS**	
			Range	95^{th}	Range	95^{th}
Continuous Discharge	6	mg/L	11 - 57	52	10 - 56	51

Overall, the 95^{th} percentile of the monthly average BOD_5 concentration was 52 mg/L for continuous dischargers. The calculated 95^{th} percentile for two of the six continuous discharging facilities could not meet the BOD_5 limit of 30 mg/L for the Period of Record (POR). See Part IV.A.1 of this Fact Sheet for further discussion on BOD_5.

Overall, the 95^{th} percentile of the monthly average TSS concentration was 51 mg/L for continuous dischargers. See Part IV.A.2 of this Fact Sheet for further discussion on TSS.

The monthly DMRs show an effluent pH range of 5.0 – 10.8 s.u. (the 95^{th} percentile pH range was 5.4 – 9.5 s.u.) Two facilities had a total of three excursions below 6.0 s.u. There were a total of 10 facilities with a total of 34 excursions above 9.0 s.u.

III. Permit Coverage

A. Coverage Area

This GP for continuous domestic sewage treatment lagoons applies to all areas of the State of Montana, except for within the boundaries of Indian Lands, National Parks, and excluded waterbodies listed in III.D.

B. Regulatory Authority

Montana Code Annotated (MCA) 75-5-605(2) prohibits the discharge of sewage, industrial wastes or other wastes into and state waters without a current permit from DEQ. The authority for DEQ to issue MPDES permits is contained in 75-5-101, MCA et seq., with implementing regulations in Administrative Rules of Montana (ARM) 17.30 Subchapter 13.

C. Sources Eligible for Coverage

To be eligible for authorization under this 2017-issued GP the domestic sewage treatment lagoon must be:

- Classified as a minor with no pretreatment program and no categorical industrial users (CIU) or significant industrial users (SIU), and
- Designed to treat an average daily flow less than 1.0 million gallons per day.

D. Sources Ineligible for Coverage

1. DEQ may deny a general permit application for discharge under the general provisions of ARM 17.30.1341(4) for any of the following:

   a. The specific source applying for authorization appears unable to comply with:
      - effluent limitations or other terms and conditions of the permit;
      - water quality standards established pursuant to 75-5-301, MCA; or
      - prohibition of any discharges to which the regional administrator has objected in writing.

   b. The discharge is different in degree or nature from discharges reasonably expected from sources or activities within the category described in the General Permit.

   c. An MPDES permit or authorization for the same operation has previously been denied or revoked.

   d. The discharge to be authorized under a general MPDES permit is also included within an application or is subject to review under the Major Facility Siting Act, 75-20-101, *et seq.*, MCA.

   e. The point source will be located in an area of unique ecological or recreational significance. Such determination must be based upon considerations of Montana stream classifications adopted under 75-5-301, MCA, impacts on fishery resources, local conditions at proposed discharge sites, and designations of wilderness areas under 16 USC 1132 or of wild and scenic rivers under 16 USC 1274.

2. In addition, the following sources are excluded from coverage from this GP:
   a. Discharges to Outstanding Resource Waters or to those waterbodies classified as A-1 or A-Closed waters [ARM 17.30.601 *et seq*].
   b. The facility is a "new or increased source" that discharges to "high quality water," as defined in the Nondegradation of Water Quality Subchapter 7 [ARM 17.30.701 *et seq*].
   c. The facility is required to have a pretreatment program (see 40 CFR 403.3), or accepts discharge from users that are CIU or SIU.
   d. Any facility covered under an individual MPDES permit with site-specific WQBELs cannot request coverage under this GP.

E. Requirements for Continuing Authorization under the GP

All authorizations under the 2013-issued GP expire on December 31, 2017, along with the expiration of the GP. For coverage under the 2017-issued General Permit permittees must submit a complete renewal application package. A complete renewal application package must include:

- A complete Notice of Intent application form (NOI-581) provided by DEQ,
- A copy of the consultation letter from the Montana Sage Grouse Habitat Conservation Program (if applicable), and
- Renewal application fee of $800 per outfall

DEQ must receive the complete application package on or before **December 31, 2017** at the following address:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901

A facility's coverage under the 2017-issued GP is effective January 1, 2017, or later, upon receiving an Authorization Letter from DEQ.

F. Requirements for New Authorizations under the General Permit

Existing facilities with coverage under an Individual MPDES permit can obtain first-time coverage under the 2017-issued GP by submitting a complete application package. The application package must include:

- A complete application form Notice of Intent (NOI-581) provided by DEQ,
- A copy of the consultation letter from the Montana Sage Grouse Habitat Conservation Program (if applicable), and
- The appropriate application fee.

A facility's coverage under the 2017-issued GP is effective January 1, 2017, or later, upon receiving an Authorization Letter from DEQ.

G. *Termination of General Permit Coverage*

Permittees under the 2017-issued GP may terminate coverage. The permittee must submit a Notice of Termination (NOT) form to DEQ indicating the reason why permit coverage is no longer required. The permittee remains responsible for all applicable fees including annual fees until DEQ processes and notifies the permittee that permit coverage is terminated. Failure to submit a termination request shall result in accrual of annual fees.

Replace General Permit coverage with an Individual MPDES permit

Permittees under the 2017-issued GP may apply for coverage under an Individual MPDES permit. A facility remains covered under the General Permit until the effective date of the Individual MPDES Permit. Authorization under the General Permit will terminate on the effective date of the Individual MPDES permit.

H. *Transfer of Coverage*

To transfer permit coverage under the General Permit to a different entity, the owner or operator must submit a complete Permit Transfer Notification form provided by DEQ and a $500 permit transfer fee. The original owner or operator is responsible for all terms and conditions of the permit until DEQ notifies the new owner.

IV. Technology-based Effluent Limitations

A. Concentration and Mass-based Limits

Technology-based Effluent Limits (TBELs) for publically owned treatment works (POTWs) are set forth in 40 CFR 133 -- minimum treatment requirements for secondary treatment or equivalent. Secondary treatment is defined in terms of effluent quality as typically measured by pH, BOD_5, TSS, and percent removal of BOD_5 and TSS. Domestic sewage treatment lagoons may be regulated by one of three levels of treatment contained in 40 CFR 133, which DEQ identifies as follows:

- National Secondary Standards (NSS) – default minimum level of effluent quality attainable by secondary treatment [40 CFR 133.102];
- Treatment Equivalent-to-Secondary (TES) – minimum level of effluent quality attainable by *facilities eligible for treatment equivalent to secondary treatment* (a waste stabilization pond that achieves a 30-day average of at least 65% removal of BOD_5 and the facility's discharge has been shown to meet the *effluent concentration consistently achievable through proper operation and maintenance (O&M)* [40 CFR 133.105]; or
- Alternative State Requirements (ASR) – further adjusted minimum level of TSS for wastewater treatment when the principal process for secondary treatment is a waste stabilization pond system that achieves a 30-day average concentration of 45 mg/L BOD_5 or less [40 CFR 133.103(c)].

"Waste stabilization ponds" as referenced in the Secondary Treatment Regulations are now commonly referred to as "wastewater treatment lagoons" which includes both facultative and aerated lagoons.

There are no federal treatment requirements that apply specifically to privately-owned treatment works discharging domestic sewage. When EPA has not promulgated a standard for a specific industry, permit limits may be based on best professional judgment (BPJ) [40 CFR 125.3(c) and ARM 17.30.1203(5)]. Privately-owned treatment works provide the same function and would not have any unique factors or significant technical differences from POTWs that would affect the information published in 49 Federal Register (FR) 37006, September 20, 1984. DEQ determined that the TBELs for privately-owned treatment works in this permit are based on BPJ, and will be identical to the 40 CFR 133 requirements for POTWs.

1. BOD_5 concentration-based limits

All of the general permits renewals issued since the original *General Discharge Permit for Facultative Sewage Lagoons* issued in 1983 have required NSS for BOD_5. Based on literature review, both facultative and aerated lagoons *should* be able to achieve NSS (monthly average of less than 30 mg/L) for effluent BOD_5 concentrations with good design and proper O&M (see Part II.A). However, review of effluent quality between January 2013 and December 2016 shows that the 95th percentile for two of the six continuous dischargers could not meet NSS for BOD_5. DEQ finds it is appropriate to expand TBELs to include TES for this GP renewal -- as long as proper O&M has been conducted, these facilities would be more appropriately permitted under TES.

Therefore, DEQ will allow a facility using wastewater treatment lagoons as the primary treatment to comply with TES rather than NSS, provided it meets all of the following criteria as specified under 40 CFR 133.101(g):

- the facility certifies that they have applied good operation & maintenance (O&M),
- the monthly average 95th percentile for the last two to four years is greater than 30 mg/L BOD_5 (except for values attributable to upsets, bypasses, and operational errors or other unusual conditions) and/or the weekly average for the same period is greater than 45 mg/L, and
- the facility achieves a 30-day average of at least 65% removal of BOD_5. The 2013-issued GP included the requirement for all facilities to demonstrate compliance with the BOD_5 (or, if appropriate, $CBOD_5$) percent removal requirement of 85% no later than January 1, 2017. The removal efficiencies for the 25 authorized facilities were not available at the time of drafting this fact sheet. The equation for percent removal is shown in Part IV.E of this Fact Sheet.

Therefore, each facility covered under this GP will be assigned either NSS or TES for BOD_5, as appropriate. The BOD_5 effluent limits for both categories are listed below.

a. National Secondary Standards

Montana's domestic sewage lagoon general permit has required facilities to meet NSS for BOD_5 since 1983, and it will continue to be the baseline (default) requirement for BOD_5:

- 30 mg/L monthly average,
- 45 mg/L weekly average, and
- 85% removal (see Part IV.E for equation).

b. Treatment Equivalent to Secondary

TES requirements are contained in 40 CFR 133.105, and allow facilities to meet limits that are slightly relaxed from the NSS. Specifically, facilities subject to TES have the following BOD_5 effluent limits:

- 45 mg/L monthly average;
- 65 mg/L weekly average; and
- 65% removal (see Part IV.E for equation).

c. Carbonaceous Biochemical Oxygen Demand

The total biological oxygen demand of a wastewater is composed of two components – a carbonaceous oxygen demand and a nitrogenous oxygen demand. It has been reported that as much as 60 percent of the BOD_5 violations nationally may have been caused by nitrification in the BOD_5 test rather than by improper design or operation (Hall and Foxen 1983), *Aerated Lagoon Technology*, by Linvil G. Rich, Alumni Professor Emeritus, Dept of Environ. Eng. and Science, Clemson University http://www.lagoonsonline.com/technote1.htm

In lieu of BOD_5 limits, a permittee may request 5-day carbonaceous biochemical oxygen demand ($CBOD_5$) limits, as follows:

- NSS: 25 mg/L monthly average and 40 mg/L weekly average $CBOD_5$ [40 CFR 133.102(a)(4)].
- TES: 40 mg/L monthly average and 60 mg/L weekly average $CBOD_5$ [40 CFR 133.105(e)].

The permittee may make this request as part of the renewal process or a separate modification.

2. TSS concentration-based limits

Until 2013, all of the general permits renewals issued since the original General Discharge Permit for *Facultative Sewage Lagoons* (changed to *Domestic Sewage Treatment Lagoons* in 1999) required facilities to meet the ASR effluent limits of 100 mg/L TSS (monthly average) and 135 mg/L TSS (weekly average), without a TSS percent removal requirement. Subsequently, the 2013-issued GP required all applicable facilities to meet NSS effluent limits, unless *they demonstrate their eligibility* to meet TES or ASR, and added monitoring to meet the TSS percent removal requirement beginning January 1, 2017.

Algal blooms and design problems can cause elevated TSS concentrations even with proper O&M. Based on a review of the TSS data for facilities authorized under the 2013-issued GP, three of the six continuous discharging facilities could meet NSS, two could meet TES, and one could meet ASR.

For the 2017-issued GP, DEQ will continue to require all facilities to meet NSS for TSS *unless they demonstrate their eligibility to meet TES or ASR* as detailed below. In summary, the following effluent limits will apply to facilities authorized under the 2017-issued GP for continuous dischargers:

1. National Secondary Standards

The baseline (default) TSS requirement is NSS effluent limits of:

- 30 mg/L monthly average
- 45 mg/L weekly average, and
- 85% removal (see equation in Part IV.E of this Fact Sheet.)

2. Treatment Equivalent to Secondary

TES requirements are contained in 40 CFR 133.105, and allow facilities to meet limits that are slightly relaxed from the NSS. Specifically, facilities subject to TES have the following TSS effluent limits:

- 45 mg/L monthly average;
- 65 mg/L weekly average; and
- 65% removal (see equation in Part IV.E of this Fact Sheet.)

DEQ determined that in order to qualify for TES, a facility under this 2017-issued GP must meet all of the following:

i. The TSS *effluent concentrations consistently achievable through proper operation and maintenance* exceeds the minimum level of effluent quality set forth as NSS [40 CFR 133.101(g)(1)]. This criterion is satisfied if the 95th percentile value for the monthly average TSS concentration in a period of at least two years is greater than 30 mg/L. In addition the applicant must certify that O&M is properly performed on the facility;

ii. The facility uses a waste stabilization pond as the principle treatment process. Waste stabilization ponds include both facultative and aerated lagoons; and

iii. The facility provides significant biological treatment. To assure that significant biological treatment is provided, the facility must achieve greater than 65% BOD_5 removal.

3. Alternate State Requirements

The general requirements for ASR for TSS are contained in 40 CFR 133.103(c). The Montana-specific ASR was published in the Federal Register on September 20, 1984 (49 *FR* 37005). Specifically, facilities covered under the 2017-issued GP for continuous dischargers that are subject to ASR have the following TSS effluent limits:

- 100 mg/L monthly average;
- 135 mg/L weekly average; and
- Monthly average mass limit as a substitute for percent removal (see equation in Part IV.E of this Fact Sheet.)

DEQ has determined that in order to qualify for ASR for TSS, a facility under the 2017-issued GP must meet <u>all</u> of the following:

i. The TSS *effluent concentrations consistently achievable through proper operation and maintenance* exceeds the minimum level of effluent quality set forth as TES. This criterion is satisfied if the 95th percentile value for the monthly average TSS concentration in a period of at least two years is greater than 45 mg/L. In addition the applicant must certify that O&M is properly performed on the facility;

ii. The facility uses a waste stabilization pond system. Waste stabilization ponds include both facultative and aerated lagoons; and

iii. The facility provides significant biological treatment. To assure that significant biological treatment is provided, the facility must achieve 45 mg/L or less BOD_5 concentration on a monthly average basis.

3. Mass-based Effluent Limits (BOD_5/$CBOD_5$ and TSS)

Facilities are required to meet both concentration-based and mass-based limits [ARM 17.30.1345(8)(a)]. Both monthly and weekly average mass-based (load) limits for BOD_5 (or $CBOD_5$) and TSS will be calculated individually for each facility, based on a facility's average daily design flow and the monthly and weekly average concentration limits. The equation for calculating mass-based load limits is shown in Part IV.E of this Fact Sheet.

The monthly average mass-based limits for BOD_5 and TSS will be compared against the nondegradation allocated loads and the most stringent for each will be included as the monthly average permit limit.

B. pH

The 2013-issued GP required effluent pH to remain within the range of 6.0 – 9.0 s.u. unless a variation occurred which was due to natural biological processes. The domestic lagoon GP has historically allowed this deviation. However, there is no way for facilities regulated under this GP to demonstrate compliance with this exception. DEQ proposes to remove this exclusion and maintain the pH effluent limit to remain within the range of 6.0 – 9.0 s.u. at all times.

C. Nondegradation Allocated Loads

New or increased sources as defined in Montana's Nondegradation Policy are not eligible for coverage under the 2017-issued GP. Therefore, a new or increased source must apply and obtain coverage under an individual MPDES permit.

Sources that are in compliance with the conditions of their permit and do not exceed the limitations established in the permit or determined from a permit previously issued by DEQ are not considered new or increased sources.

DEQ calculates nondegradation load allocations for parameters with permit limitations in place on April 29, 1993. DEQ has addressed this requirement in the 2013-issued GP by maintaining monthly average BOD_5 and TSS load allocations for each facility based on the most stringent average daily design flow and monthly average BOD_5 and TSS concentration limits since 1993. The 2013-issued GP included BOD_5 and TSS nondegradation allocations for each facility using the equation used to calculate mass-loading (see Part IV.E):

Monthly Average Load Allocation (lb/day) = Most Stringent [avg daily design flow (mgd) x monthly avg concentration limit (mg/L) x 8.34]

If a municipality has seen an increase in either their average design flow or monthly average concentration limit for either BOD_5 or TSS since 1993, resulting in increase in their calculated monthly average load, the more stringent average monthly load will be maintained.

D. Proposed TBELs

TBELs are required to be met after treatment, prior to any dilution with groundwater or surface water. Compliance monitoring must be conducted at the end-of-pipe, prior to release into any channel or receiving water.

DEQ will assign one of the following TBEL subcategories to each facility as part of their renewal confirmation letter, based on the information provided as part of the renewal:

Group A – Total Suspended Solids (TSS) -National Secondary Standards (see **Table 3)**

5-Day Biochemical Oxygen Demand (BOD_5)

A.1. National Secondary Standards

A.2. Treatment Equivalent to Secondary

Group B – Total Suspended Solids (TSS) - Treatment Equivalent to Secondary (see **Table 4)**

5-Day Biochemical Oxygen Demand (BOD_5)

B.1. National Secondary Standards

B.2. Treatment Equivalent to Secondary

Group C – Total Suspended Solids (TSS) - Alternate State Requirements (see **Table 5)**

5-Day Biochemical Oxygen Demand (BOD_5)

C.1. National Secondary Standards

C.2. Treatment Equivalent to Secondary

Table 3. Proposed **TBEL Group A-**
Total Suspended Solids – ***National Secondary Standards*** [(1)]

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Rationale
Choices for 5-day Biochemical Oxygen Demand (BOD_5) [(2)]				
A.1. BOD_5 - National Secondary Standards	mg/L	30	45	40 CFR 133.102(a)
	lbs/day	[(3)]	[(3)]	
	% removal	85 [(4)]	NA	
A.2. BOD_5 - Treatment Equivalent to Secondary	mg/L	45	65	40 CFR 133.105(a)
	lbs/day	[(3)]	[(3)]	
	% removal	65 [(4)]	NA	
Total Suspended Solids				
Total Suspended Solids	mg/L	30	45	40 CFR 133.102(b)
	lbs/day	[(3)]	[(3)]	
	% removal	85 [(4)]	NA	
pH [(5)]	s.u.	6.0 - 9.0 (instantaneous)		40 CFR 133.102(c)

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. $CBOD_5$ limits contained in 40 CFR 133.102(a)(4) may replace BOD_5 limits if requested by the permittee as part of the renewal application process or a modification request and approved by DEQ.
3. Mass-based limits calculation shown below in Part IV.E.
4. Percent removal calculation shown below in Part IV.E.
5. Effluent pH shall remain between 6.0 and 9.0 s.u. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.

Table 4. Proposed **TBEL Group B - Total Suspended Solids *Treatment Equivalent to Secondary*** [1]				
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Rationale
Choices for 5-day Biochemical Oxygen Demand (BOD_5) [2]				
B.1. BOD_5 - National Secondary Standards	mg/L	30	45	40 CFR 133.102(a)
	lbs/day	[3]	[3]	
	% removal	85 [4]	NA	
B.2. BOD_5 - Treatment Equivalent to Secondary	mg/L	45	65	40 CFR 133.105(a)
	lbs/day	[3]	[3]	
	% removal	65 [4]	NA	
Total Suspended Solids (TSS)				
Total Suspended Solids	mg/L	45	65	40 CFR 133.105(b)
	lbs/day	[3]	[3]	
	% removal	65 [4]	NA	
pH [5]	s.u.	6.0 - 9.0 (instantaneous)		40 CFR 133.102(c)

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. $CBOD_5$ limits contained in 40 CFR 133.102(a)(4) may replace BOD_5 limits if requested by the permittee as part of the renewal application process or a modification request and approved by DEQ.
3. Mass-based limits calculations shown below in Part IV.E.
4. Percent removal calculation shown below in Part IV.E.
5. Effluent pH shall remain between 6.0 and 9.0 s.u. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.

Table 5. Proposed **TBEL Group C - Total Suspended Solids** ***Alternate State Requirements*** [1]				
Parameter	Units	Average Monthly Limit	Average Weekly Limit	Rationale
Choices for 5-day Biochemical Oxygen Demand (BOD_5) [2]				
C.1. BOD_5 - National Secondary Standards	mg/L	30	45	40 CFR 133.102(a)
	lbs/day	[3]	[3]	
	% removal	85 [4]	NA	
C.2. BOD_5 - Treatment Equivalent to Secondary	mg/L	45	65	40 CFR 133.105(a)
	lbs/day	[3]	[3]	
	% removal	65 [4]	NA	
Total Suspended Solids (TSS)				
Total Suspended Solids	mg/L	100	135	40 CFR 133.103(c)
	lbs/day	[3]	[3]	
	% removal	NA [4]	NA	
pH [5]	s.u.	6.0 - 9.0 (instantaneous)		40 CFR 133.102(c)

Footnotes:
1. See Definitions section at end of permit for explanation of terms.
2. $CBOD_5$ limits contained in 40 CFR 133.102(a)(4) may replace BOD_5 limits if requested by the permittee as part of the renewal application process or a modification request and approved by DEQ.
3. Mass-based limits calculation shown below in Part IV.E.
4. Percent BOD_5 percent removal calculation shown below in Part IV.E. TSS mass limits are a substitute for TSS percent removal.
5. Effluent pH shall remain between 6.0 and 9.0 s.u. For compliance purposes, any single analysis and/or measurement beyond this limitation shall be considered a violation of the conditions of this permit.

E. TBEL Equations

The following two equations – mass-based load and percent removal calculations -- will be included as part of the 2017-issued GP to clarify how authorized facilities must demonstrate compliance.

1. Mass-based Load Limits Equation

The following equations are used by DEQ to develop a facility's mass-based load limits:

Monthly average load limit (lb/day) [1]

= avg daily design flow (mgd) x monthly avg concentration limit (mg/L) x 8.34 conversion

Weekly average load limit (lb/day)

= avg daily design flow (mgd) x weekly avg concentration limit (mg/L) x 8.34 conversion

Footnote: (1) If a facility's nondegradation allocated load is more restrictive (for instance the average design flow for the facility anytime since 1993 was lower than the current design flow), then the nondegradation allocated load for that facility will supersede the mass-based monthly average load limit. Limiting each facility to the nondegradation monthly load allocation will ensure nonsignificance.

The same basic equations are used by the facility to calculate their actual loads for a given period of time, typically for monthly DMRs:

Monthly load (lb/day) – *average of all loading values calculated within the month:*

= Monthly average [actual daily discharge (mgd) x actual daily concentration (mg/L) x 8.34]

Weekly load (lb/day) – *highest average weekly loading value calculated within the month:*

= Highest (average weekly [actual daily discharge (mgd) x actual daily concentration (mg/L) x 8.34])

2. Percent Removal Equation

The following equation is used for a facility to determine their percent removal for a given month (or other time period):

$$\textbf{\% Removal} = \frac{[\textit{Influent Concentration}]-[\textit{Effluent Concentration}]}{[\textit{Influent Concentration}]} \times 100$$

Where:

Influent Concentration = Corresponding monthly average influent concentration based on the analytical results of the reporting period.

Effluent Concentration = Corresponding monthly average effluent concentration based on the analytical results of the reporting period.

V. Water Quality-Based Effluent Limitations

A. *Scope and Authority*

No permit may be issued when the imposition of conditions cannot ensure compliance with the applicable water quality requirements. In addition, Montana water quality standards require that no wastes may be discharged such that the waste either alone or in combination with other wastes will violate or can reasonably be expected to violate any standard. DEQ develops Water Quality-based Effluent Limits (WQBELs) when a discharge has the reasonable potential to exceed any state water quality standard and TBELs are not adequate to achieve water quality standards.

B. *Receiving Waters*

The 2017-issued GP covers facility discharges outside the boundaries of Indian Lands to any *state surface waters* except for Outstanding Resource Waters or those classified as A-1 or A-Closed waters (see Fact Sheet Part III.D.2).

'State waters' are defined as any body of water, irrigation system or drainage system either on the surface or underground. State waters do not include ponds or lagoons used solely for treating, transporting, or impounding pollutants; or irrigation waters or land application disposal waters when the waters are used up within the irrigation or land application disposal system and the waters are not returned to state waters [75-5-103, MCA]. Channels used solely for conveyance of wastewater discharges are considered part of the domestic lagoon system and are not regulated as state surface waters; therefore, compliance monitoring for any water-quality based effluent limits may be conducted at any location after treatment but prior to mixing with state surface water.

C. *Applicable Water Quality Standards*

Applicable discharges to state surface waters are subject to the specific water quality standards in ARM 17.30.623 - .629, Department Circulars DEQ-7 (Numeric Water Quality Standards) and -12A (Base Numeric Nutrient Standards), and the general provisions of ARM 17.30.635 through 637. All dischargers must ensure that state waters are free from substances which will:

(i) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines;

(ii) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 mg/L), or globules of grease or other floating materials;

(iii) produce odors, colors, or other conditions as to which create a nuisance or render undesirable tastes to fish flesh or make fish inedible;

(iv) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant, or aquatic life; and

(v) create conditions which produce undesirable aquatic life.

Total Maximum Daily Load

For this renewal, the 2016 Integrated Report listed 16 currently authorized facilities' receiving waterbodies as impaired (this included five of the six continuous dischargers). Specifically, the receiving waters for Montana State Hospital, Townsend, Eureka, Thompson Falls, and Troy were listed as impaired for various parameters. The 2016 Integrated Report list of impaired waterbodies includes both those waterbodies where beneficial uses are impaired by a pollutant (e.g., sediment, nutrients, metals, temperature) and waterbodies impaired by a non-pollutant (e.g., alteration in stream-side or littoral vegetative covers, low flow alterations). DEQ develops Total Maximum Daily Loads (TMDLs) for waterbodies with pollutant impairments. Two of the five waterbodies for continuous dischargers that were listed as impaired had TMDLs (Montana State Hospital and Eureka).

Wasteload Allocations (WLAs) that are assigned to point sources in the TMDL are incorporated into MPDES permits, consistent with the assumptions and requirements in the TMDL document. DEQ reviewed the two TMDLs related to the continuous dischargers and found there was one with a narrative WLA (TSS for Eureka). The TMDLs conclude that lagoons are small contributors when properly designed and operated. Therefore, proper operation and maintenance meets the WLAs of the applicable facilities. The 2017-issued GP includes conditions requiring the proper operation and maintenance of domestic lagoon facilities.

D. *Mixing Zones*

A mixing zone is an area where the effluent mixes with the receiving water and certain water quality standards may be exceeded [ARM 17.30 Subchapter 5 *et seq*]. No mixing zone will be granted that will impair beneficial uses. DEQ must determine the applicability of a mixing zone; mixing zones are granted on a parameter-by-parameter basis.

No mixing zones were granted for any of the authorized facilities as part of the 2013-issued GP; instead, monitoring was required for parameters of concern. For this renewal cycle, DEQ evaluated the dischargers eligible for coverage under the 2017-issued GP (MTG581000). Any mixing zones given to facilities under this General Permit will be discussed further in Part V.E.2 of this Fact Sheet.

When appropriate, DEQ will grant dilution on a parameter-parameter basis for each facility requesting authorization under this General Permit. Dilution is granted per parameter as the appropriate portion of the low flow: either the 7-day, 10-year low flow (7Q10) or for nutrients the seasonal 14-day, 5-year low flow conditions (seasonal 14Q5)). The dilution will be granted as follows:

1. *No available dilution* – if the receiving water's low flow is 0 cubic feet per second (cfs) or if DEQ requires the parameter's standard to be met at the end of pipe under this General Permit (*E. coli* bacteria and Total Residual Chlorine (TRC)).
2. *Alternative mixing zone dilution* – DEQ will grant up to 10% of the 7Q10 as dilution for meeting chronic ammonia and 1% of the 7Q10 as dilution for meeting acute ammonia standards without further evaluation.
3. *Standard mixing zone dilution* – This is based on the dilution ratio (ratio of the 7Q10: facility's mean annual discharge rate) and submittal of water quality information in

conformance with the requirements under ARM 17.30.506 (including optional 'Form 506, Water Quality Assessment (ARM 17.30.506)':

- Greater than a 100:1 dilution ratio – DEQ will grant up to 100% dilution for chronic and human health standards. In addition, DEQ will grant up to 10% acute dilution for ammonia based on consideration of the first order rate of decay.
- Less than a 100:1 dilution ratio - DEQ will grant up to 25% dilution for chronic and human health standards. In addition, DEQ will grant up to 2.5% acute dilution for ammonia based on consideration of the first order rate of decay.

4. *Nutrient Mixing Zone* (Total Nitrogen and Total Phosphorus) – dilution is based on 100% of the seasonal 14Q5 (typically the summer season of July 1st – September 30th, but other seasons may apply.

DEQ determines the low flow through either publically-available information or certified information provided by the applicant.

A facility must apply for coverage under an individual permit for any other mixing zone evaluation.

E. *Basis for WQBELs*

DEQ develops WQBELs for any pollutant of concern (POC) for which there is reasonable potential (RP) to cause or contribute to exceedances of instream numeric or narrative water quality standards. Pollutants and parameters are identified as POC for one or more of the following reasons:

- listed TBELs;
- identified as needing limits in the previous permit;
- identified as present in the effluent through monitoring or otherwise expected present in the discharge; or
- associated with impairment which may or may not have a WLA in a TMDL.

DEQ evaluated pollutants for the domestic sewage lagoon category in **Table 6**.

Table 6. Identification of Pollutants of Concern	
Parameter	**Basis for POC Identification**
5-day Biochemical Oxygen Demand (1)	Technology-based Effluent Limits, previous permit
Total Suspended Solids	Technology-based Effluent Limits, previous permit
pH	Technology-based Effluent Limits, previous permit
Oil & Grease	Known present
Dissolved Oxygen	Known present
E.coli bacteria	Previous permit, known present
Total Residual Chlorine	Previous permit, known present
Ammonia, as N	Known present
Nitrate+Nitrite, as N	Known present
Total Nitrogen, Total Phosphorus (2)	Known present, impairments
Other Parameters (WLA and other previous permit limits)	Previous permit, impairments

Footnotes:
(1) Permittees may request 5-day carbonaceous biochemical oxygen demand ($CBOD_5$) in lieu of BOD_5.
(2) Numeric nutrient standards have been implemented for wadeable streams and two (2) downstream segments of the Yellowstone River, as of April 2017.

1. Numeric Reasonable Potential for Intermittent and Perennial Receiving Waterbodies

When DEQ conducts a numeric analysis, a mass balance equation is used to determine RP and develop WQBELs, based on *EPA's Technical Support Document for Water Quality-based Toxics Control, March 1991* (TSD), EPA/505/2-90-001.

$$C_r = \frac{Q_d C_d + Q_s C_s}{Q_d + Q_s} \qquad (\textit{Equation 1})$$

Given:

C_r = the resulting receiving water concentration for a given period
Q_d = critical discharge rate (average daily design flow)
Q_s = critical receiving water low flow [available portion of the 7Q10 (see Part V.D of this Fact Sheet)]
C_d = critical effluent pollutant concentration (maximum discharge concentration x TSD multiplier)
C_s = critical ambient pollutant concentration (75^{th} percentile concentration)

The critical effluent concentration C_d is obtained following the method recommended by the TSD, which is multiplying the maximum effluent concentration observed during the three to five year period of record by the TSD Table 3-2 multiplier. For this GP, DEQ will develop the maximum effluent concentration for each facility based on the data provided as part of the renewal application and DMRs. If C_r > water quality standard based on *Equation 1*, then there is RP to exceed a water quality standard, and the facility will be required to apply for individual permit coverage.

2. Parameter-specific RP and WQBEL development

The following subsections discuss the basis for the RP analyses and WQBELs in this permit.

a. TSS, $CBOD_5$/BOD_5, and pH –

Each facility regulated under this GP will be required to meet TBELs which provide a significant reduction in solids and biological material through the TSS and $CBOD_5$/BOD_5 effluent limits (see Section IV). In addition, the TBEL effluent limitation for pH of 6.0 – 9.0 s.u. is protective of any receiving water quality. No additional WQBELs are required for these parameters.

b. Oil and Grease –

Discharges are prohibited from creating floating debris, scum, a visible oil sheen (or creates oil present in concentrations at or in excess of 10 mg/L), or globules of grease or other floating material in the receiving stream. Sewage treatment lagoons covered under this GP include minor facilities with no significant industrial contribution. However, oil & grease (O&G) is a parameter that could be present at a relatively low level in the wastewater from miscellaneous commercial sources.

Each authorized facility was required to analyze oil and grease concentrations annually during the current period of record. The oil & grease concentrations observed for the four years (2013 through 2016) for the six continuous dischargers ranged from nondetect to 2.0 mg/L oil & grease. Based on this data, it appears that continuous-discharging facilities authorized under the 2013-GP do *not* have RP to exceed 10 mg/L oil. DEQ has determined narratively that the domestic lagoon facilities could, however, cause or contribute to an oil sheen and will include this as an effluent limit.

Each facility authorized under this GP will be required to visually monitor their discharge a minimum of three times per week during periods of discharge. If there is a visual sign of an oil sheen or presence of oil, the facility must immediately take an oil & grease sample for analysis. The facility must also take all necessary steps to prevent the discharge of oil and grease. In addition, if the analysis results indicate the oil & grease concentration is greater than 10 mg/L, the facility must report the measures taken to eliminate the source with the next DMR submittal.

c. Escherichia coli Bacteria –

State surface water must be free from substances attributable to discharges that will create conditions harmful to human health. This includes pathogens. Pathogen limits are defined in terms of *Escherichia coli* (*E. coli*) bacteria.

E.coli standards are a surrogate for all human pathogens including bacteria and viruses. In 2017, the *E.coli* standards for all waterbodies were updated to read "Water quality criteria for *Escherichia coli* are expressed in colony forming units per 100 milliliters of water or as most probable number, which is a statistical representation of the number of organisms in a sample, as incorporated by reference in 40 CFR 136.3(b)."

The standards in ARM 17.30 Subchapter 6 read:

- April 1 through October 31 of each year - the geometric mean number of *E. coli* must not exceed 126 colony forming units (cfu) per 100 milliliters (mL) and 10% of the total samples may not exceed 252 cfu per 100 mL during any monthly period; and
- November 1 through March 31 of each year - the geometric mean number of *E. coli* must not exceed 630 cfu per 100 mL and 10% of the total samples may not exceed 1,260 cfu per 100 mL during any monthly period.

DEQ required all discharges covered by the 2013-issued GP to meet the *E. coli* effluent limits at the last point of control as of January 1, 2017. DEQ is proposing to retain these limits for the 2017-issued GP, but will change the associated units to read "number of organisms/100 mL," which will incorporate both cfu and MPN.

DEQ has determined that in order to protect human health, *all* discharges must meet the *E. coli* bacteria limit after all treatment but prior to discharge into state waters (i.e. the receiving waterbody) with no mixing zone. **Table 7** provides the *E. coli* bacteria effluent limits that will be included in each authorization:

Table 7: Proposed *E.Coli* Bacteria Effluent Limits (1)

Parameter	Units	Average Monthly Limit	Average Weekly Limit
E. coli Bacteria - summer (2,3)	# organisms/100 mL	126	252
E. coli Bacteria - winter (3,4)	# organisms /100 mL	630	1,260

Footnote:
1. See Definitions section at end of permit for explanation of terms.
2. This limit applies during the period April 1 through October 31, annually.
3. Report the geometric mean if more than one sample collected during the reporting period.
4. This limit applies during the period November 1 through March 31, annually.

d. Total Residual Chlorine –

The total residual chlorine (TRC) chronic aquatic life standard is 0.011 mg/L (11 µg/L) and the acute aquatic life standard is 0.019 mg/L (19 µg/L) [Department Circular DEQ-7]. The TRC standards were included as end-of-pipe TRC effluent limits in the 2013-issued GP and will be maintained for dischargers authorized under the 2017-issued GP. None of the continuous dischargers reported any detection of chlorine during the period of record.

Monitoring for TRC will be required whenever a facility uses chlorine to disinfect; the samples may be taken at any discharge location after treatment, prior to reaching the initial receiving waterbody. Approved analytical methods require that the TRC samples are analyzed within 15 minutes (40 CFR 136). An authorized facility's discharge is considered to be in compliance with the TRC limits of 11 µg/L average monthly and 19 µg/L maximum daily as long as analytical results show less than the Required Reporting Value (RRV) of 0.1 mg/L (100 µg/L).

e. Nutrients –

Montana adopted Department Circular DEQ-12A "Montana Base Numeric Standards" and the companion Department Circular DEQ-12B "Nutrient Standards Variances" in 2014, which was updated in June 2017. Circular DEQ-12A sets Total Nitrogen (TN) and Total Phosphorus (TP) standards (or criteria) for ecoregions and some individual surface waters in Montana. These TN and TP criteria apply during specific months, generally the summer. At this time there are no nutrient criteria for lakes, reservoirs, and all of Montana's large river segments except for two in the Yellowstone River. Circular DEQ-12B includes the nutrient variance program for lagoons who cannot meet calculated TN and/or TP limits designed to comply with the nutrient criteria. DEQ is not authorizing a variance under the General Permit; therefore, if a facility cannot meet the specific criteria for their ecoregion (or larger river or lake/reservoir) they will be required to apply for coverage under an individual permit.

When a facility discharges into a waterbody that does not have nutrient criteria but is listed as impaired for TN, TP, or other nutrient impacts such as chlorophyll-a, DEQ routinely includes TN and TP effluent limits for the facility that 'cap at current performance.'

In order to maintain coverage under this General Permit, one of the following scenarios must be met for a facility's discharge to state surface water, including both immediate and any immediate downstream waterbodies:

1. Scenario one: No applicable nutrient criteria and waterbodies not listed as impaired for nutrients or related impacts – facility will have nutrient effluent monitoring, only.
2. Scenario two: No applicable nutrient criteria, but waterbodies listed as impaired for nutrients and/or related impacts – facility is capped at current performance on a lb/day monthly average basis and required to comply with the Special Conditions Part VII.B.3 of this GP Fact Sheet (which requires the facility to conduct an Optimization Study).
3. Scenario three: Applicable nutrient criteria – facility must demonstrate no reasonable potential to exceed the criteria to remain under the GP. Facilities demonstrating 'no RP' will have nutrient effluent monitoring, only.

   Those facilities that do have RP can be covered under the 2017-issued GP as an interim condition, but are required to apply for individual permit coverage within two (2) years and required to comply with the Special Conditions Part VII.B.3 of this GP Fact Sheet (which requires the facility to conduct an Optimization Study).

Attachment B presents the specific ecoregions and TN and TP criteria evaluation for each of the six continuous dischargers currently authorized under the Domestic Sewage Lagoon General Permit. Nutrient requirements will be specified in the facility's authorization letter.

f. Total Ammonia as Nitrogen (Ammonia) –

Ammonia aquatic life acute and chronic toxicity are dependent on ambient pH and water temperature data for the receiving water body as well as the type of fishery present as contained within Circular DEQ-7. The 2013-issued GP did not include ammonia limits, but did require upstream and effluent monitoring.

For this General Permit renewal, DEQ will conduct an ammonia RP analysis for any facility requesting authorization as follows:

1. Develop the applicable receiving water acute and chronic ammonia standards, based on the 75th percentile of the upstream temperature and pH as well as the presence or absence of salmonid fish as determined by waterbody classifications in ARM 17.30 Subchapter 6;
2. Conduct the RP analysis using *Equation 1*, using available dilution as follows:
   - Dilution of 10% of the 7Q10 for chronic and 1% of the 7Q10 for acute; or
   - If there is RP after granting dilution consistent with an alternative mixing zone as described above, DEQ will grant a Standard Mixing Zone under ARM 17.30.516(3) if the facility has submitted information in conformance with the Water Quality Assessment requirements under ARM 17.30.506 and DEQ finds that the beneficial uses of the receiving water will be protected.

DEQ will continue to permit facilities under the domestic lagoon GP that have no RP to exceed calculated ammonia standards based on the above. Those facilities that do have RP can be covered under the 2017-issued GP as an interim condition, but are required to apply for individual permit coverage within two (2) years.

Attachment C presents the ammonia evaluation for each of the current six continuous dischargers. Ammonia requirements will be specified in the facility's authorization letter.

g. Nitrate + Nitrite –

The human health standard (HHS) for nitrate + nitrite is 10 mg/L. The 2013-issued GP required each permittee to monitor their effluent and upstream nitrate + nitrite concentrations during this permit cycle. For this General Permit renewal, DEQ will conduct a Nitrate + Nitrite RP analysis using *Equation 1*. If needed, DEQ will grant a Standard Mixing Zone if the facility has submitted information in conformance with the Water Quality Assessment requirements under ARM 17.30.506 and DEQ finds that the beneficial uses of the receiving water will be protected.

DEQ will continue to permit facilities under the domestic lagoon GP that have no RP to exceed calculated Nitrate+Nitrite standards based on the above. Those facilities that do have RP can be covered under the 2017-issued GP as an interim condition, but required to apply for individual permit coverage within two (2) years.

Attachment C presents the Nitrate+Nitrite evaluation for each of the six continuous dischargers. Nitrate+Nitrite requirements will be specified in the facility's authorization letter.

h. Whole Effluent Toxicity (WET) –

Facilities that maintain authorization to discharge under the 2017-issued GP do not require WET limits or testing based on the following rationale:

- No industrial users and indirect dischargers contributing to the influent;
- The requirement that facilities have flows of less than 1 mgd; and
- Other applicable effluent limits contained in this permit.

VI. Effluent Limits

Effluent limitations or conditions in reissued permits are required to be at least as stringent as those in the existing permit, with certain exceptions [40 CFR 122.44(l)]. DEQ considered the proposed permit limits to ensure that they were as stringent as previous limits, or met the anti-backsliding requirements.

Beginning on the effective date and lasting through the term of the 2017-issued GP, the discharge from each facility shall, at a minimum, meet the effluent limits presented below. The limits for each are comprised of the appropriate TBELs and WQBELs. These limits and the outfall location for each facility will be identified in a confirmation letter.

A. TBELs:

Each facility will be assigned BOD_5, TSS, and pH limits in their authorization letter, based on the appropriate TBEL category (i.e. Group A.1, A.2, B.1, etc.).

Group A – Total Suspended Solids (TSS) -National Secondary Standards (see **Table 3)**

5-Day Biochemical Oxygen Demand (BOD_5)

A.1. National Secondary Standards

A.2. Treatment Equivalent to Secondary

Group B – Total Suspended Solids (TSS) - Treatment Equivalent to Secondary (see **Table 4)**

5-Day Biochemical Oxygen Demand (BOD_5)

B.1. National Secondary Standards

B.2. Treatment Equivalent to Secondary

Group C – Total Suspended Solids (TSS) - Alternate State Requirements (see **Table 5)**

5-Day Biochemical Oxygen Demand (BOD_5)

C.1. National Secondary Standards

C.2. Treatment Equivalent to Secondary

B. WQBELs:

In addition to the TBELs, each facility is also subject to WQBELs. Beginning on the effective date of the permit and ending with the expiration of this permit, each facility will be subject to WQBELs as shown below in **Table 8 and below.**

Table 8. Water Quality-based Effluent Limits for Continuous Dischargers [1]

Parameter	Units	Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
Total Residual Chlorine [2]	µg/L	11	--	19
E. coli bacteria - summer [3]	# organisms/100 mL	126	252	--
E. coli bacteria - winter [3]	# organisms/100 mL	630	1,260	--
Oil & Grease	mg/L	--	--	10

Footnotes:

(1) See Definitions section at end of permit for explanation of terms. WQBELs are in addition to TBELs.

(2) TRC limits apply only when a facility uses chlorine to disinfect. Samples must be analyzed within 15 minutes. Analytical results less than 100 µg/L are considered in compliance with the TRC limit.

(3) All facilities are required to comply with the summertime *E.coli* bacteria limit from April 1 through October 31 and the wintertime limit from November 1 through March 31st on an annual basis. The geometric mean must be reported if more than one sample is collected during the reporting period.

In addition to **Table 8**, all facilities must meet the following restriction:

1. There shall be no discharge which causes a visible oil film (or to be present at concentrations at or in excess of 10 mg/L).

VII. Monitoring and Reporting Requirements and Special Conditions

A. *Effluent Monitoring*

Each facility is required to monitor their discharge at the last point of control before the discharge enters the receiving water. All facilities must ensure flow monitoring is representative of the nature and volume of the discharge. DEQ requires monitoring to occur on a calendar basis (i.e., calendar week, calendar month, calendar quarter). When monitoring is required twice per month, the two samples must be taken at least one week apart during the calendar month. When monitoring is required more than once a week, each sample must be taken on a unique calendar day.

Samples must be representative of the volume and quality of the effluent. Samples shall be collected, preserved and analyzed in accordance with approved procedures listed in 40 CFR 136 unless otherwise specified by DEQ. Analytical results reported as less than detection must achieve the required reporting values (RRV) in Department Circular DEQ-7 unless a different reporting level (RL) is specified in the 2017-issued GP.

Reporting frequency shall be monthly, and each facility must submit the results on their DMR for each month by the 28th of the following month. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

Table 9 presents the influent monitoring requirements:

Table 9: Influent Monitoring and Reporting Requirements (1)

Parameter	Units	Sample Type	Minimum Sampling Frequency (2)	Reporting Requirements	Reporting Level (3)
5-Day Biochemical Oxygen Demand (BOD_5) (4)	mg/L	Composite	1/Month	None	2
Total Suspended Solids (TSS)	mg/L	Composite	1/Month	None	10

Footnotes:

(1) See Definitions section in the permit.
(2) The influent concentration of BOD_5 and TSS are used to calculate the percent removal. Monthly influent samples are required whenever there is a discharge for that month.
(3) Reporting Level (RL) is the minimum reporting level required for the analysis.
(4) BOD_5 unless facility has requested to sample for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$).

Table 10 presents the proposed effluent monitoring requirements under the 2017-issued GP.

Table 10: Effluent Monitoring and Reporting Requirements [1]

Parameter	Units	Sample Type	Min. Sampling Frequency [2]	Reporting Requirements	Reporting Level [3]
Discharge Flow Rate	mgd	Instantaneous *or* Continuous	5/Week	Daily Maximum and Monthly Average	± 10% of actual
# Days with Flow	#Days	Calculated	1/Day	Monthly Count	1
5-Day Biochemical Oxygen Demand [4]	mg/L	Grab	2/Month	Weekly Maximum and Monthly Average	2
	lb/day	Calculated	1/Month		0.1
	% Removal	Calculated	1/Month	Monthly Minimum	0.1
Total Suspended Solids	mg/L	Grab	2/Month	Weekly Maximum & Monthly Average	10
	lb/day	Calculated	1/Month		0.1
	% Removal	Calculated	1/Month	Monthly Minimum	0.1
pH	s.u.	Instantaneous	1/Week	Daily Minimum and Daily Maximum	0.1
Oil & Grease	Yes / No	Visual [5]	3/Week	Monthly	--
	mg/L	Grab	[5]	Daily Maximum	1
E. coli Bacteria [6]	Number of organisms/ 100 mL	Grab	2/Month	Daily Maximum and Geometric Mean	1
Chlorine, Total Residual [7]	µg/L	Grab	3/Week	Daily Maximum and Monthly Average	100
Ammonia, Total as N	mg/L	Grab	1/Month	Daily Maximum and Monthly Average	0.07
Nitrate + Nitrite	mg/L	Grab	1/Month	Daily Maximum and Monthly Average	0.02
Total Kjeldahl Nitrogen	mg/L	Grab	1/Month [8]	Monthly Average	0.225
Total Nitrogen	mg/L	Grab	1/Month [8]	Monthly Average	0.25
	lb/day	Calculated			0.01
Total Phosphorus	mg/L	Grab	1/Month [8]	Monthly Average	0.003
	lb/day	Calculated			0.001

Footnotes:
(1) See Definitions section in the permit.
(2) **Monitoring is required only for any calendar period where there is a discharge.** Methods for calculating mass load (lb/day) and % removal are provided in Parts IV.E.1 & 2 of this Fact Sheet. Permittees are allowed to either conduct grab or composite effluent sampling: composite samples are 24-hour composite samples using a minimum of four grab samples. *DEQ will presume the permittees will comply with the monitoring requirement by taking one grab sample unless otherwise indicated in the NOI and specified in the authorization letter.*
(3) RL = minimum reporting level. Analytical results reported as less than detection must achieve the required reporting values (RRV) in Department Circular DEQ-7 unless a different RL is specified.
(4) BOD_5 unless the facility is authorized to demonstrate compliance with carbonaceous biochemical oxygen demand ($CBOD_5$).
(5) If visual monitoring indicates the presence of oil & grease, a grab sample must be submitted for analysis and discharge must cease if the concentration is found to be > 10 mg/L.
(6) *Escherichia coli (E. coli)* bacteria. Reporting in #organisms per 100 mL (equivalent to either colony forming units (cfu) per 100 mL or most probable number (mpn) per 100 mL). Report the geometric mean if more than one sample is collected during the reporting period.
(7) Limits and monitoring required for facilities that use chlorine for disinfection. If no chlorine is used during the reporting period, monitoring is not required and "NODI CODE = 9" must be reported on DMRs. Analytical results less than 100 µg/L (0.1 mg/L) will be considered in compliance with TRC limits.
(8) DEQ's authorization letter will specify the applicable period of nutrient monitoring (typically July 1 – September 30th).

B. Compliance Schedule and Special Conditions

1. Requirement to Apply for an Individual Permit N/A

When DEQ calculates a facility has RP to exceed a water quality standard as discussed in Part V.E.2 of this Fact Sheet, the facility will be required to apply for an individual permit as part of their authorization letter. These facilities will continue to be covered under the 2017-issued GP as long as they submit a complete application for an individual permit by no later than December 31, 2019. DEQ will terminate the facility's authorization under the 2017-issued GP once the individual permit is effective (ARM 17.30.1341).

2. Lagoon Operation and Maintenance Requirements

ARM 17.30.1342(5) states that a permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. One of the Special Conditions under the 2013-issued GP, as well as the proposed 2017-issued GP, is the requirement for every facility to maintain and operate in accordance with an up-to-date Operations & Management (O & M) Plan. Therefore, DEQ proposes to continue to include the requirement for each permitted facility to:

a. Maintain an up-to-date O&M manual for the domestic sewage treatment lagoon system;

b. Follow the procedures in the O&M manual;

c. **Conduct inspections at least monthly** to ensure the O&M procedures are being followed and are working; and

d. Maintain records of the routine inspections and any follow-up. Records from the routine inspections must be maintained for at least three (3) years, and available for an inspector upon request. At a minimum, the records shall include:
   - Date and time of inspection;
   - Name of the inspector(s);
   - Weather conditions during inspection;
   - Visual observation of lagoon conditions, including wastewater observations (water level, odor, and visible appearance) and dike condition (signs of leakage, erosion, rodents burrowing, and/or vegetation growth);
   - Discharge flow rate, if occurring;
   - Identification of O&M problems;
   - Recommendations, as appropriate, to rectify identified O&M problems;
   - A brief description of any actions taken with regards to identified problems; and
   - Other information, as appropriate (e.g., effluent sample and measurement location).

3. Nutrient Optimization Study N/A

Facilities that discharge to waterbodies listed as impaired for nutrients (TN, TP, or other eutrophication indicators) and facilities that have RP to exceed TN and/or TP criteria must complete a nutrient optimization study within four years of coverage under this renewed General Permit (January 1, 2022, unless the facility coverage is after January 1, 2018).

The optimization study must include:

- Evaluation of current facility operations, including advanced operational strategies, reuse, recharge, and land application;
- Selection and planning for facility-specific nutrient minimization activities; and
- Implementation of selected nutrient minimization activities.

Facilities required to undertake the nutrient optimization study are required to submit an annual progress report by January 28th of each year, and a final summary of improvements by no later than January 14, 2022.

4. Seasonal Land Application of Treated Effluent N/A

Any authorized facilities that employ land application are required to incorporate good operating procedures for the treated effluent land application system into the facility's final O&M manual as a Land Application Nutrient Management Plan (NMP). The NMP shall be designed to minimize the potential for release of pollutants to state waters. The plan shall detail how the facility will control land-applied effluent to optimize nutrient uptake and eliminate the risk of runoff to surface water or ground water infiltration/ percolation. Each facility shall maintain land application records for three (3) years and make them available for inspection by DEQ personnel upon request.

5. Inflow/Infiltration

The 2017-issued GP will require an Infiltration/Inflow (I/I) status update to be submitted during the last year of the permit cycle for all facilities with an average daily design flow greater than 0.1 mgd. This status update should include the:

- date of the most recent I/I assessment (which may be before this permit cycle),
- work completed since the most recent I/I assessment,
- work planned to reduce I/I over the next five years, and
- best estimate of the current amount and sources of I/I into the collection system.

A summary of the facility's most recent I/I review must be completed by **July 1, 2022** and submitted to DEQ by no later than **July 14, 2022.**

6. Compliance Schedule and Special Conditions Summary

Table 11 presents a summary of the Compliance Schedule and Special Conditions due dates.

Table 11: Summary of Compliance Schedule and Special Conditions Due Dates

Action	Scheduled Completion Date of Action (1)	Report Due Date (2)
Compliance Schedule		
Individual Permit Application as Required in Facility Authorization Letter.	December 31, 2019	Annual Progress Reports by January 28th until submitted. N/A
Special Conditions Due Date		
Operation & Maintenance Plan and records	Develop, implement, and maintain onsite	NA
Nutrient Optimization Plan		Progress Reports by January 28th annually until completed. Summary report due January 14, 2022. N/A
Land application – Plan and records *if land application is used*	Develop and implement and maintain onsite	NA N/A
Review I/I and provide status update	July 1, 2022	July 14, 2022

Footnotes:
(1) The actions must be completed on or before the scheduled completion dates.
(2) This notification must be received by DEQ on or before the scheduled due date.

C. Sludge Requirements

The use or disposal of sewage sludge must be in conformance with 40 CFR Part 503.

D. Pretreatment Program

Facilities that operate under the EPA Pretreatment Program or accept discharge from categorical industrial users, significant industrial users, or other users that may cause pass through or interference, cannot be covered under the 2017-issued GP. The GP will include standard language restricting the introduction of certain pollutants into the authorized facilities and requiring a facility to provide adequate notice to DEQ if a new source, volume, or character of industrial pollutant is introduced into the system.

VIII. Information Sources

1. Montana Code Annotated Title 75 - Chapter 5 - Water Quality
2. Administrative Rules of Montana Title 17 Chapter 30 - Water Quality
   a. Subchapter 2 - Water Quality Permit and Application Fees
   b. Subchapter 5 - Mixing Zones in Surface and Ground Water
   c. Subchapter 6 - Montana Surface Water Quality Standards and Procedures
   d. Subchapter 7- Nondegradation of Water Quality
   e. Subchapter 11 - Storm Water Discharges
   f. Subchapter 12 - MPDES Standards
   g. Subchapter 13 - MPDES Permits
3. Montana DEQ Circular DEQ-2, Design Standards for Wastewater Facilities, September 2016.
4. Montana DEQ Circular DEQ-7, Montana Numeric Water Quality Standards, May 2017.
5. Montana DEQ Circular DEQ-12A, Montana Base Numeric Nutrient Standards, July 2014 and Circular DEQ-12B, Nutrient Standards Variances, June 2017
6. Montana Pollutant Discharge Elimination System (MPDES) Permit Number MTG580000: Administrative Record.
7. Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. §§ 1251-1387, October 18, 1972, as amended 1973-1983, 1987, 1988, 1990-1992, 1994, 1995 and 1996.
8. Federal Water Pollution Control Act (Clean Water Act), § 303(d), 33 USC 1313(d) Montana List of Waterbodies in Need of Total Maximum Daily Load Development, 2016.
9. Federal Register, 49 FR 37005 Alternative State Requirements for Montana, September 20, 1984.
10. US Code of Federal Regulations, 40 CFR Parts 122-125, 130-133, & 136.
11. US Code of Federal Regulations, 40 CFR Part 403 – General Pretreatment Regulations for Existing and New Sources of Pollution.
12. US Code of Federal Regulations, 40 CFR Part 503 – Standards for the Use or Disposal of Sewage Sludge.
13. US Department of the Interior US Geological Survey, Statistical Summaries of Streamflow in Montana and Adjacent Areas, Water Years 1900 through 2002, Scientific Investigations Report 2004-5266, 2004 and final electronic update through 2009, dated 2016.
14. US EPA. Office of Water. Design Manual for Municipal Wastewater Stabilization Ponds, EPA 625-1-83-015. October 1983.
15. US EPA. Principles of Design and Operations of Wastewater Treatment Pond Systems for Plant Operators, Engineers, and Managers, EPA/600/R-11/088, August 2011.
16. US EPA Technical Support Document for Water Quality-Based Toxics Control, EPA/505/2-30-001, March 1991.
17. US EPA NPDES Permit Writers' Manual, EPA 833-K-10-001, September 2010.

Completed: July 2017

APPENDIX P

DMR Data & Sampling Logs

CITY OF THOMPSON FALLS WWTF

CITY OF THOMPSON FALLS V

001-A

BOD, 5-day, 20 deg. C-Effluent Gross-Milligrams per Liter

Monthly Average

Monitoring Period I	DMR Value	NODI Desc
01/31/2013	11.5	
02/28/2013	11.5	
03/31/2013	25.	
04/30/2013	32.	
05/31/2013	12.	
06/30/2013	13.	
07/31/2013	5.	
08/31/2013	6.	
09/30/2013	4.5	
10/31/2013	4.5	
11/30/2013	10.5	
12/31/2013	7.5	
01/31/2014	11.	
02/28/2014	12.5	
03/31/2014	13.5	
04/30/2014	24.5	
05/31/2014	11.	
06/30/2014	17.5	
07/31/2014	8.5	
08/31/2014	9.5	
09/30/2014	9.	
10/31/2014	6.5	
11/30/2014	7.5	
12/31/2014	14.	
01/31/2015	9.5	
02/28/2015	15.	
03/31/2015	18.	
04/30/2015	22.	
05/31/2015	18.	
06/30/2015	6.5	
07/31/2015	6.	
08/31/2015	8.	
09/30/2015	14.	
10/31/2015	9.5	
11/30/2015	13.	
12/31/2015	9.	
01/31/2016	15.	
02/29/2016	23.	
03/31/2016	24.	
04/30/2016	7.5	
05/31/2016	9.	
06/30/2016	4.28	
07/31/2016	4.5	

08/31/2016	17.	
09/30/2016		No Discharge
10/31/2016	44.5	
11/30/2016	17.5	
12/31/2016	6.	

Weekly Average

Monitoring Period	DMR Value	NODI Desc
01/31/2013	12.	
02/28/2013	13.	
03/31/2013	33.	
04/30/2013	53.	
05/31/2013	16.	
06/30/2013	14.	
07/31/2013	7.	
08/31/2013	7.	
09/30/2013	5.	
10/31/2013	5.	
11/30/2013	15.	
12/31/2013	8.	
01/31/2014	15.	
02/28/2014	13.	
03/31/2014	17.	
04/30/2014	30.	
05/31/2014	12.	
06/30/2014	20.	
07/31/2014	9.	
08/31/2014	12.	
09/30/2014	11.	
10/31/2014	7.	
11/30/2014	10.	
12/31/2014	18.	
01/31/2015	12.	
02/28/2015	18.	
03/31/2015	26.	
04/30/2015	25.	
05/31/2015	25.	
06/30/2015	8.	
07/31/2015	6.	
08/31/2015	9.	
09/30/2015	15.	
10/31/2015	11.	
11/30/2015	14.	
12/31/2015	9.	
01/31/2016	19.	
02/29/2016	28.	
03/31/2016	36.	
04/30/2016	8.	
05/31/2016	10.	
06/30/2016	5.03	
07/31/2016	5.	
08/31/2016	26.	

09/30/2016		No Discharge
10/31/2016	82.	
11/30/2016	27.	
12/31/2016	6.	

BOD, 5-day, 20 deg. C-Effluent Gross-Pounds per Day

Monthly Average

Monitoring Period	DMR Value	NODI Desc
01/31/2013	3.5	
02/28/2013	2.6	
03/31/2013	5.8	
04/30/2013	9.6	
05/31/2013	3.1	
06/30/2013	3.36	
07/31/2013	1.17	
08/31/2013	1.95	
09/30/2013	1.7	
10/31/2013	1.2	
11/30/2013	3.2	
12/31/2013	1.9	
01/31/2014	3.9	
02/28/2014	4.7	
03/31/2014	8.8	
04/30/2014	9.47	
05/31/2014	4.34	
06/30/2014	4.75	
07/31/2014	2.25	
08/31/2014	3.74	
09/30/2014	3.69	
10/31/2014	3.89	
11/30/2014	4.88	
12/31/2014	6.61	
01/31/2015	4.8	
02/28/2015	5.2	
03/31/2015	6.02	
04/30/2015	9.89	
05/31/2015	9.	
06/30/2015	3.81	
07/31/2015	1.8	
08/31/2015	2.52	
09/30/2015	3.97	
10/31/2015	3.53	
11/30/2015	4.82	
12/31/2015	2.93	
01/31/2016	6.25	
02/29/2016	7.09	
03/31/2016	8.71	
04/30/2016	3.6	
05/31/2016	4.5	
06/30/2016	4.28	

07/31/2016	1.24	
08/31/2016	1.03	
09/30/2016		No Discharge
10/31/2016	10.52	
11/30/2016	2.88	
12/31/2016	.8	

Weekly Average

Monitoring Period I	DMR Value	NODI Desc
01/31/2013	3.6	
02/28/2013	2.9	
03/31/2013	7.7	
04/30/2013	15.9	
05/31/2013	4.1	
06/30/2013	3.62	
07/31/2013	1.63	
08/31/2013	2.28	
09/30/2013	1.9	
10/31/2013	1.4	
11/30/2013	4.5	
12/31/2013	2.1	
01/31/2014	5.3	
02/28/2014	4.9	
03/31/2014	11.	
04/30/2014	12.76	
05/31/2014	3.6	
06/30/2014	6.	
07/31/2014	2.1	
08/31/2014	4.5	
09/30/2014	4.4	
10/31/2014	4.38	
11/30/2014	5.25	
12/31/2014	8.56	
01/31/2015	5.7	
02/28/2015	5.4	
03/31/2015	6.94	
04/30/2015	11.68	
05/31/2015	12.3	
06/30/2015	5.87	
07/31/2015	2.05	
08/31/2015	2.7	
09/30/2015	4.37	
10/31/2015	4.4	
11/30/2015	5.31	
12/31/2015	3.6	
01/31/2016	7.6	
02/29/2016	8.64	
03/31/2016	12.61	
04/30/2016	3.8	
05/31/2016	5.3	
06/30/2016	5.03	
07/31/2016	2.14	

08/31/2016	1.4	
09/30/2016		No Discharge
10/31/2016	20.52	
11/30/2016	4.95	
12/31/2016	.85	

Chlorine, total residual-Effluent Gross-Milligrams per Liter

Daily Maximum

Monitoring Period	DMR Value	NODI Desc
01/31/2013		Conditional Monitoring - Not Required This Period
02/28/2013		Conditional Monitoring - Not Required This Period
03/31/2013		Conditional Monitoring - Not Required This Period
04/30/2013		Conditional Monitoring - Not Required This Period
05/31/2013		Conditional Monitoring - Not Required This Period
06/30/2013		Conditional Monitoring - Not Required This Period
07/31/2013		Conditional Monitoring - Not Required This Period
08/31/2013		Conditional Monitoring - Not Required This Period
09/30/2013		Conditional Monitoring - Not Required This Period
10/31/2013		Conditional Monitoring - Not Required This Period
11/30/2013		Conditional Monitoring - Not Required This Period
12/31/2013		Conditional Monitoring - Not Required This Period
01/31/2014		Conditional Monitoring - Not Required This Period
02/28/2014		Conditional Monitoring - Not Required This Period
03/31/2014		Conditional Monitoring - Not Required This Period
04/30/2014		Conditional Monitoring - Not Required This Period
05/31/2014		Conditional Monitoring - Not Required This Period
06/30/2014		Conditional Monitoring - Not Required This Period
07/31/2014		Conditional Monitoring - Not Required This Period
08/31/2014		Conditional Monitoring - Not Required This Period
09/30/2014		Conditional Monitoring - Not Required This Period
10/31/2014		Conditional Monitoring - Not Required This Period
11/30/2014		Conditional Monitoring - Not Required This Period
12/31/2014		Conditional Monitoring - Not Required This Period
01/31/2015		Conditional Monitoring - Not Required This Period
02/28/2015		Conditional Monitoring - Not Required This Period
03/31/2015		Conditional Monitoring - Not Required This Period
04/30/2015		Conditional Monitoring - Not Required This Period
05/31/2015		Conditional Monitoring - Not Required This Period
06/30/2015		Conditional Monitoring - Not Required This Period
07/31/2015		Conditional Monitoring - Not Required This Period
08/31/2015		Conditional Monitoring - Not Required This Period
09/30/2015		Conditional Monitoring - Not Required This Period
10/31/2015		Conditional Monitoring - Not Required This Period
11/30/2015		Conditional Monitoring - Not Required This Period
12/31/2015		Conditional Monitoring - Not Required This Period
01/31/2016		Conditional Monitoring - Not Required This Period
02/29/2016		Conditional Monitoring - Not Required This Period
03/31/2016		Conditional Monitoring - Not Required This Period
04/30/2016		Conditional Monitoring - Not Required This Period
05/31/2016		Conditional Monitoring - Not Required This Period

06/30/2016		Conditional Monitoring - Not Required This Period
07/31/2016		Conditional Monitoring - Not Required This Period
08/31/2016		Conditional Monitoring - Not Required This Period
09/30/2016		No Discharge
10/31/2016		Conditional Monitoring - Not Required This Period
11/30/2016		Conditional Monitoring - Not Required This Period
12/31/2016		Conditional Monitoring - Not Required This Period

Monthly Average

Monitoring Period	DMR Value	NODI Desc
01/31/2013		Conditional Monitoring - Not Required This Period
02/28/2013		Conditional Monitoring - Not Required This Period
03/31/2013		Conditional Monitoring - Not Required This Period
04/30/2013		Conditional Monitoring - Not Required This Period
05/31/2013		Conditional Monitoring - Not Required This Period
06/30/2013		Conditional Monitoring - Not Required This Period
07/31/2013		Conditional Monitoring - Not Required This Period
08/31/2013		Conditional Monitoring - Not Required This Period
09/30/2013		Conditional Monitoring - Not Required This Period
10/31/2013		Conditional Monitoring - Not Required This Period
11/30/2013		Conditional Monitoring - Not Required This Period
12/31/2013		Conditional Monitoring - Not Required This Period
01/31/2014		Conditional Monitoring - Not Required This Period
02/28/2014		Conditional Monitoring - Not Required This Period
03/31/2014		Conditional Monitoring - Not Required This Period
04/30/2014		Conditional Monitoring - Not Required This Period
05/31/2014		Conditional Monitoring - Not Required This Period
06/30/2014		Conditional Monitoring - Not Required This Period
07/31/2014		Conditional Monitoring - Not Required This Period
08/31/2014		Conditional Monitoring - Not Required This Period
09/30/2014		Conditional Monitoring - Not Required This Period
10/31/2014		Conditional Monitoring - Not Required This Period
11/30/2014		Conditional Monitoring - Not Required This Period
12/31/2014		Conditional Monitoring - Not Required This Period
01/31/2015		Conditional Monitoring - Not Required This Period
02/28/2015		Conditional Monitoring - Not Required This Period
03/31/2015		Conditional Monitoring - Not Required This Period
04/30/2015		Conditional Monitoring - Not Required This Period
05/31/2015		Conditional Monitoring - Not Required This Period
06/30/2015		Conditional Monitoring - Not Required This Period
07/31/2015		Conditional Monitoring - Not Required This Period
08/31/2015		Conditional Monitoring - Not Required This Period
09/30/2015		Conditional Monitoring - Not Required This Period
10/31/2015		Conditional Monitoring - Not Required This Period
11/30/2015		Conditional Monitoring - Not Required This Period
12/31/2015		Conditional Monitoring - Not Required This Period
01/31/2016		Conditional Monitoring - Not Required This Period
02/29/2016		Conditional Monitoring - Not Required This Period
03/31/2016		Conditional Monitoring - Not Required This Period
04/30/2016		Conditional Monitoring - Not Required This Period
05/31/2016		Conditional Monitoring - Not Required This Period
06/30/2016		Conditional Monitoring - Not Required This Period

07/31/2016		Conditional Monitoring - Not Required This Period
08/31/2016		Conditional Monitoring - Not Required This Period
09/30/2016		No Discharge
10/31/2016		Conditional Monitoring - Not Required This Period
11/30/2016		Conditional Monitoring - Not Required This Period
12/31/2016		Conditional Monitoring - Not Required This Period

E. coli, MTEC-MF-Effluent Gross-Colony Forming Units per 100ml

Monthly Average

Monitoring Period	DMR Value	NODI Desc
01/31/2013	594.	
02/28/2013	35.	
03/31/2013	120.	
04/30/2013	39.	
05/31/2013	16.5	
06/30/2013	48.	
07/31/2013	26.	
08/31/2013	96.	
09/30/2013	28.	
10/31/2013	75.	
11/30/2013	13.	
12/31/2013	7.5	
01/31/2014	44.5	
02/28/2014	238.	
03/31/2014	29.	
04/30/2014	16.	
05/31/2014	70.81	
06/30/2014	88.	
07/31/2014	27.	
08/31/2014	51.	
09/30/2014	52.	
10/31/2014	131.	
11/30/2014	346.	
12/31/2014	42.	
01/31/2015	341.	
02/28/2015	1141.	
03/31/2015	10.	
04/30/2015	13.	
05/31/2015	40.	
06/30/2015	8.	
07/31/2015	11.	
08/31/2015	83.	
09/30/2015	153.	
10/31/2015	32.	
11/30/2015	28.	
12/31/2015	148.	
01/31/2016	205.	
02/29/2016	76.	
03/31/2016	46.	
04/30/2016	7.	

05/31/2016	7.	
06/30/2016	10.	
07/31/2016	9.	
08/31/2016	14.	
09/30/2016		No Discharge
10/31/2016	13.	
11/30/2016	5.	
12/31/2016	11.	

Weekly Average

Monitoring Period	DMR Value	NODI Desc
01/31/2013	727.	
02/28/2013	43.	
03/31/2013	120.	
04/30/2013	45.	
05/31/2013	24.	
06/30/2013	85.	
07/31/2013	26.	
08/31/2013	159.	
09/30/2013	35.	
10/31/2013	93.	
11/30/2013	15.	
12/31/2013	10.	
01/31/2014	62.	
02/28/2014	387.	
03/31/2014	166.	
04/30/2014	19.	
05/31/2014	218.	
06/30/2014	219.	
07/31/2014	52.	
08/31/2014	82.	
09/30/2014	55.	
10/31/2014	173.	
11/30/2014	461.	
12/31/2014	73.	
01/31/2015	1120.	
02/28/2015	2420.	
03/31/2015	10.	
04/30/2015	14.	
05/31/2015	42.	
06/30/2015	71.	
07/31/2015	12.	
08/31/2015	185.	
09/30/2015	179.	
10/31/2015	38.	
11/30/2015	40.	
12/31/2015	167.	
01/31/2016	219.	
02/29/2016	130.	
03/31/2016	56.	
04/30/2016	12.	
05/31/2016	22.	

06/30/2016	15.	
07/31/2016	9.	
08/31/2016	16.	
09/30/2016		No Discharge
10/31/2016	16.	
11/30/2016	6.	
12/31/2016	39.	

Flow rate-Effluent Gross-Million Gallons per Day

Daily Maximum

Monitoring Period I	DMR Value	NODI Desc
01/31/2013	.051	
02/28/2013	.039	
03/31/2013	.068	
04/30/2013	.061	
05/31/2013	.068	
06/30/2013	.048	
07/31/2013	.036	
08/31/2013	.098	
09/30/2013	.068	
10/31/2013	.061	
11/30/2013	.082	
12/31/2013	.064	
01/31/2014	.064	
02/28/2014	.085	
03/31/2014	.101	
04/30/2014	.061	
05/31/2014	.068	
06/30/2014	.068	
07/31/2014	.042	
08/31/2014	.068	
09/30/2014	.068	
10/31/2014	.085	
11/30/2014	.085	
12/31/2014	.091	
01/31/2015	.091	
02/28/2015	.085	
03/31/2015	.089	
04/30/2015	.06	
05/31/2015	.081	
06/30/2015	.093	
07/31/2015	.068	
08/31/2015	.057	
09/30/2015	.055	
10/31/2015	.084	
11/30/2015	.084	
12/31/2015	.078	
01/31/2016	.064	
02/29/2016	.053	
03/31/2016	.073	

04/30/2016	.077	
05/31/2016	.076	
06/30/2016	.074	
07/31/2016	.064	
08/31/2016	.07	
09/30/2016		No Discharge
10/31/2016	.072	
11/30/2016	.034	
12/31/2016	.024	

Monthly Average

Monitoring Period I	DMR Value	NODI Desc
01/31/2013	.036	
02/28/2013	.027	
03/31/2013	.028	
04/30/2013	.036	
05/31/2013	.031	
06/30/2013	.031	
07/31/2013	.028	
08/31/2013	.039	
09/30/2013	.045	
10/31/2013	.033	
11/30/2013	.036	
12/31/2013	.031	
01/31/2014	.042	
02/28/2014	.045	
03/31/2014	.078	
04/30/2014	.042	
05/31/2014	.042	
06/30/2014	.039	
07/31/2014	.031	
08/31/2014	.051	
09/30/2014	.051	
10/31/2014	.064	
11/30/2014	.069	
12/31/2014	.06	
01/31/2015	.054	
02/28/2015	.052	
03/31/2015	.05	
04/30/2015	.051	
05/31/2015	.055	
06/30/2015	.054	
07/31/2015	.039	
08/31/2015	.035	
09/30/2015	.038	
10/31/2015	.043	
11/30/2015	.04	
12/31/2015	.047	
01/31/2016	.044	
02/29/2016	.042	
03/31/2016	.049	
04/30/2016	.055	

05/31/2016	.048	
06/30/2016	.06	
07/31/2016	.026	
08/31/2016	.022	
09/30/2016		No Discharge
10/31/2016	.038	
11/30/2016	.016	
12/31/2016	.014	

Nitrite + Nitrate total [as N]-Effluent Gross-Milligrams per Liter

Daily Maximum

Monitoring Period I	DMR Value	NODI Desc
05/31/2013	4.5	
06/30/2013	1.24	
07/31/2013	.29	
08/31/2013	.21	
09/30/2013	1.23	
10/31/2013	1.87	
05/31/2014	4.01	
06/30/2014	3.38	
07/31/2014	3.08	
08/31/2014	1.56	
09/30/2014	2.38	
10/31/2014	2.45	
05/31/2015	2.23	
06/30/2015	2.07	
07/31/2015	1.61	
08/31/2015	2.67	
09/30/2015	2.79	
10/31/2015	4.27	
05/31/2016	3.46	
06/30/2016	2.25	
07/31/2016	3.34	
08/31/2016	.61	
09/30/2016		No Discharge
10/31/2016	.	

Monthly Average

Monitoring Period I	DMR Value	NODI Desc
05/31/2013	4.5	
06/30/2013	1.24	
07/31/2013	.29	
08/31/2013	.21	
09/30/2013	1.23	
10/31/2013	1.87	
05/31/2014	4.01	
06/30/2014	3.38	
07/31/2014	3.08	
08/31/2014	1.56	
09/30/2014	2.38	

10/31/2014	2.45	
05/31/2015	2.23	
06/30/2015	2.07	
07/31/2015	1.61	
08/31/2015	2.67	
09/30/2015	2.79	
10/31/2015	4.27	
05/31/2016	3.46	
06/30/2016	2.25	
07/31/2016	3.34	
08/31/2016	.61	
09/30/2016		No Discharge
10/31/2016	.	

Nitrogen, ammonia total [as N]-Effluent Gross-Milligrams per Liter

Daily Maximum

Monitoring Period	DMR Value	NODI Desc
01/31/2013	2.86	
02/28/2013	6.52	
03/31/2013	6.52	
04/30/2013	3.46	
05/31/2013	.28	
06/30/2013	.14	
07/31/2013	.08	
08/31/2013	.11	
09/30/2013	.14	
10/31/2013	.16	
11/30/2013	.16	
12/31/2013	1.98	
01/31/2014	6.23	
02/28/2014	10.2	
03/31/2014	13.6	
04/30/2014	9.86	
05/31/2014	.06	
06/30/2014	.28	
07/31/2014	.11	
08/31/2014	.16	
09/30/2014	.09	
10/31/2014	.12	
11/30/2014	.39	
12/31/2014	2.98	
01/31/2015	7.17	
02/28/2015	9.01	
03/31/2015	7.55	
04/30/2015	4.21	
05/31/2015	.68	
06/30/2015	.26	
07/31/2015	.54	
08/31/2015	.4	
09/30/2015	1.75	

10/31/2015	2.57	
11/30/2015	2.76	
12/31/2015	3.74	
01/31/2016	7.64	
02/29/2016	7.76	
03/31/2016	2.62	
04/30/2016	13.	
05/31/2016	2.02	
06/30/2016	3.13	
07/31/2016	.13	
08/31/2016	.09	
09/30/2016		No Discharge
10/31/2016	.04	
11/30/2016	.18	
12/31/2016	.4	

Monthly Average

Monitoring Period I	DMR Value	NODI Desc
01/31/2013	2.86	
02/28/2013	6.52	
03/31/2013	6.52	
04/30/2013	3.46	
05/31/2013	.28	
06/30/2013	.14	
07/31/2013	.08	
08/31/2013	.11	
09/30/2013	.14	
10/31/2013	.16	
11/30/2013	.16	
12/31/2013	1.98	
01/31/2014	6.23	
02/28/2014	10.2	
03/31/2014	13.6	
04/30/2014	9.86	
05/31/2014	.06	
06/30/2014	.28	
07/31/2014	.11	
08/31/2014	.16	
09/30/2014	.09	
10/31/2014	.12	
11/30/2014	.39	
12/31/2014	2.98	
01/31/2015	7.17	
02/28/2015	9.01	
03/31/2015	7.55	
04/30/2015	4.21	
05/31/2015	.68	
06/30/2015	.26	
07/31/2015	.54	
08/31/2015	.4	
09/30/2015	1.75	
10/31/2015	2.57	

11/30/2015	2.76	
12/31/2015	3.74	
01/31/2016	7.64	
02/29/2016	7.76	
03/31/2016	2.62	
04/30/2016	13.	
05/31/2016	2.02	
06/30/2016	3.13	
07/31/2016	.13	
08/31/2016	.09	
09/30/2016		No Discharge
10/31/2016	.04	
11/30/2016	.18	
12/31/2016	.4	

Nitrogen, Kjeldahl, total [as N]-Effluent Gross-Milligrams per Liter

Monthly Average

Monitoring Period I	DMR Value	NODI Desc
05/31/2013	3.6	
06/30/2013	2.38	
07/31/2013	1.65	
08/31/2013	1.7	
09/30/2013	1.47	
10/31/2013	1.37	
05/31/2014	3.4	
06/30/2014	2.36	
07/31/2014	1.98	
08/31/2014	1.99	
09/30/2014	1.92	
10/31/2014	1.84	
05/31/2015	3.53	
06/30/2015	1.69	
07/31/2015	1.95	
08/31/2015	1.66	
09/30/2015	3.11	
10/31/2015	4.28	
05/31/2016	3.54	
06/30/2016	4.01	
07/31/2016	1.62	
08/31/2016	1.75	
09/30/2016		No Discharge
10/31/2016	2.52	

Nitrogen, total [as N]-Effluent Gross-Milligrams per Liter

Monthly Average

Monitoring Period I	DMR Value	NODI Desc
05/31/2013	8.1	
06/30/2013	3.62	

07/31/2013	2.02	
08/31/2013	2.02	
09/30/2013	2.84	
10/31/2013	3.4	
05/31/2014	7.41	
06/30/2014	5.74	
07/31/2014	5.06	
08/31/2014	3.55	
09/30/2014	4.3	
10/31/2014	4.29	
05/31/2015	5.76	
06/30/2015	3.76	
07/31/2015	3.56	
08/31/2015	4.33	
09/30/2015	5.9	
10/31/2015	8.55	
05/31/2016	7.	
06/30/2016	6.26	
07/31/2016	4.96	
08/31/2016	2.36	
09/30/2016		No Discharge
10/31/2016	2.52	

Nitrogen, total [as N]-Effluent Gross-Pounds per Day

Monthly Average

Monitoring Period	DMR Value	NODI Desc
05/31/2013	2.1	
06/30/2013	.94	
07/31/2013	.47	
08/31/2013	.66	
09/30/2013	1.07	
10/31/2013	.94	
05/31/2014	2.22	
06/30/2014	1.34	
07/31/2014	1.18	
08/31/2014	1.33	
09/30/2014	1.72	
10/31/2014	2.43	
05/31/2015	2.69	
06/30/2015	2.76	
07/31/2015	.92	
08/31/2015	1.08	
09/30/2015	1.62	
10/31/2015	2.85	
05/31/2016	3.21	
06/30/2016	2.45	
07/31/2016	2.65	
08/31/2016	.06	
09/30/2016		No Discharge
10/31/2016	.19	

pH-Effluent Gross-Standard Units

Instantaneous Maximum

Monitoring Period	DMR Value	NODI Desc
01/31/2013	7.9	
02/28/2013	8.26	
03/31/2013	8.43	
04/30/2013	8.41	
05/31/2013	8.84	
06/30/2013	7.62	
07/31/2013	7.61	
08/31/2013	7.62	
09/30/2013	7.77	
10/31/2013	8.03	
11/30/2013	8.	
12/31/2013	7.99	
01/31/2014	8.23	
02/28/2014	7.85	
03/31/2014	8.2	
04/30/2014	8.77	
05/31/2014	8.89	
06/30/2014	7.92	
07/31/2014	7.53	
08/31/2014	7.86	
09/30/2014	7.99	
10/31/2014	7.92	
11/30/2014	7.86	
12/31/2014	8.04	
01/31/2015	7.82	
02/28/2015	8.14	
03/31/2015	8.3	
04/30/2015	8.84	
05/31/2015	7.93	
06/30/2015	8.39	
07/31/2015	7.3	
08/31/2015	7.41	
09/30/2015	7.44	
10/31/2015	7.57	
11/30/2015	7.87	
12/31/2015	8.12	
01/31/2016	7.96	
02/29/2016	8.16	
03/31/2016	8.35	
04/30/2016	8.02	
05/31/2016	7.67	
06/30/2016	7.57	
07/31/2016	7.77	
08/31/2016	8.13	
09/30/2016		No Discharge
10/31/2016	8.32	

11/30/2016	8.82	
12/31/2016	8.61	

Instantaneous Minimum

Monitoring Period	DMR Value	NODI Desc
01/31/2013	7.84	
02/28/2013	7.94	
03/31/2013	8.36	
04/30/2013	7.84	
05/31/2013	7.77	
06/30/2013	7.45	
07/31/2013	7.45	
08/31/2013	7.41	
09/30/2013	7.56	
10/31/2013	7.85	
11/30/2013	7.98	
12/31/2013	7.68	
01/31/2014	7.77	
02/28/2014	7.71	
03/31/2014	7.7	
04/30/2014	7.95	
05/31/2014	7.41	
06/30/2014	7.1	
07/31/2014	7.25	
08/31/2014	7.4	
09/30/2014	7.74	
10/31/2014	7.73	
11/30/2014	7.83	
12/31/2014	7.76	
01/31/2015	7.64	
02/28/2015	7.66	
03/31/2015	8.13	
04/30/2015	8.	
05/31/2015	7.48	
06/30/2015	7.38	
07/31/2015	7.2	
08/31/2015	7.35	
09/30/2015	7.29	
10/31/2015	7.45	
11/30/2015	7.53	
12/31/2015	7.52	
01/31/2016	7.81	
02/29/2016	7.91	
03/31/2016	7.59	
04/30/2016	7.48	
05/31/2016	7.49	
06/30/2016	7.38	
07/31/2016	7.65	
08/31/2016	7.83	
09/30/2016		No Discharge
10/31/2016	8.21	
11/30/2016	8.32	

12/31/2016	8.39	

Phosphorus, total [as P]-Effluent Gross-Milligrams per Liter

Monthly Average

Monitoring Period	DMR Value	NODI Desc
05/31/2013	3.2	
06/30/2013	3.26	
07/31/2013	3.96	
08/31/2013	4.41	
09/30/2013	4.9	
10/31/2013	4.27	
05/31/2014	1.96	
06/30/2014	2.09	
07/31/2014	2.46	
08/31/2014	2.81	
09/30/2014	2.49	
10/31/2014	2.45	
05/31/2015	1.85	
06/30/2015	1.81	
07/31/2015	2.16	
08/31/2015	2.57	
09/30/2015	2.91	
10/31/2015	3.23	
05/31/2016	2.44	
06/30/2016	2.65	
07/31/2016	2.75	
08/31/2016	3.17	
09/30/2016		No Discharge
10/31/2016	3.75	

Phosphorus, total [as P]-Effluent Gross-Pounds per Day

Monthly Average

Monitoring Period	DMR Value	NODI Desc
05/31/2013	.81	
06/30/2013	.84	
07/31/2013	.92	
08/31/2013	1.43	
09/30/2013	1.8	
10/31/2013	1.18	
05/31/2014	.59	
06/30/2014	.49	
07/31/2014	.57	
08/31/2014	1.05	
09/30/2014	1.	
10/31/2014	1.39	
05/31/2015	.86	
06/30/2015	1.33	
07/31/2015	.74	

08/31/2015	.75	
09/30/2015	.8	
10/31/2015	1.08	
05/31/2016	1.12	
06/30/2016	.92	
07/31/2016	1.47	
08/31/2016	.08	
09/30/2016		No Discharge
10/31/2016	.28	

Solids, total suspended-Effluent Gross-Milligrams per Liter

Monthly Average

Monitoring Period I	DMR Value	NODI Desc
01/31/2013	11.	
02/28/2013	17.5	
03/31/2013	26.	
04/30/2013	24.	
05/31/2013	22.5	
06/30/2013	12.	
07/31/2013	9.5	
08/31/2013	8.	
09/30/2013	8.	
10/31/2013	12.	
11/30/2013	6.5	
12/31/2013	4.	
01/31/2014	3.5	
02/28/2014	5.5	
03/31/2014	9.5	
04/30/2014	23.	
05/31/2014	10.	
06/30/2014	11.	
07/31/2014	8.5	
08/31/2014	9.	
09/30/2014	10.5	
10/31/2014	6.5	
11/30/2014	8.5	
12/31/2014	3.	
01/31/2015	2.	
02/28/2015	8.5	
03/31/2015	17.	
04/30/2015	20.	
05/31/2015	18.	
06/30/2015	6.	
07/31/2015	2.5	
08/31/2015	2.	
09/30/2015	3.	
10/31/2015	1.5	
11/30/2015	2.	
12/31/2015	3.5	
01/31/2016	8.	

02/29/2016	19.	
03/31/2016	27.	
04/30/2016	7.	
05/31/2016	3.5	
06/30/2016	2.5	
07/31/2016	6.	
08/31/2016	12.5	
09/30/2016		No Discharge
10/31/2016	16.5	
11/30/2016	13.	
12/31/2016	8.5	

Weekly Average

Monitoring Period	DMR Value	NODI Desc
01/31/2013	12.	
02/28/2013	20.	
03/31/2013	26.	
04/30/2013	40.	
05/31/2013	26.	
06/30/2013	16.	
07/31/2013	12.	
08/31/2013	9.	
09/30/2013	9.	
10/31/2013	14.	
11/30/2013	7.	
12/31/2013	6.	
01/31/2014	5.	
02/28/2014	7.	
03/31/2014	14.	
04/30/2014	27.	
05/31/2014	13.	
06/30/2014	11.	
07/31/2014	9.	
08/31/2014	10.	
09/30/2014	11.	
10/31/2014	8.	
11/30/2014	12.	
12/31/2014	3.	
01/31/2015	2.	
02/28/2015	14.	
03/31/2015	22.	
04/30/2015	21.	
05/31/2015	23.	
06/30/2015	7.	
07/31/2015	3.	
08/31/2015	10.	
09/30/2015	3.	
10/31/2015	2.	
11/30/2015	2.	
12/31/2015	5.	
01/31/2016	9.	
02/29/2016	23.	

03/31/2016	34.	
04/30/2016	10.	
05/31/2016	4.	
06/30/2016	3.	
07/31/2016	7.	
08/31/2016	16.	
09/30/2016		No Discharge
10/31/2016	18.	
11/30/2016	13.	
12/31/2016	9.	

Solids, total suspended-Effluent Gross-Pounds per Day

Monthly Average

Monitoring Period I	DMR Value	NODI Desc
01/31/2013	3.3	
02/28/2013	3.9	
03/31/2013	6.1	
04/30/2013	7.2	
05/31/2013	5.8	
06/30/2013	3.1	
07/31/2013	2.22	
08/31/2013	2.6	
09/30/2013	3.	
10/31/2013	3.3	
11/30/2013	1.95	
12/31/2013	1.03	
01/31/2014	1.2	
02/28/2014	2.	
03/31/2014	6.2	
04/30/2014	8.83	
05/31/2014	4.49	
06/30/2014	2.93	
07/31/2014	2.25	
08/31/2014	3.63	
09/30/2014	4.32	
10/31/2014	3.14	
11/30/2014	5.22	
12/31/2014	1.5	
01/31/2015	1.	
02/28/2015	2.73	
03/31/2015	6.75	
04/30/2015	8.93	
05/31/2015	9.26	
06/30/2015	3.53	
07/31/2015	.72	
08/31/2015	1.76	
09/30/2015	.86	
10/31/2015	.54	
11/30/2015	.72	
12/31/2015	1.25	

01/31/2016	3.03	
02/29/2016	5.82	
03/31/2016	9.76	
04/30/2016	5.	
05/31/2016	1.7	
06/30/2016	1.23	
07/31/2016	2.04	
08/31/2016	1.52	
09/30/2016		No Discharge
10/31/2016	2.18	
11/30/2016	1.85	
12/31/2016	1.14	

Weekly Average

Monitoring Period	DMR Value	NODI Desc
01/31/2013	3.6	
02/28/2013	4.5	
03/31/2013	6.1	
04/30/2013	12.	
05/31/2013	6.7	
06/30/2013	4.13	
07/31/2013	2.8	
08/31/2013	2.92	
09/30/2013	3.4	
10/31/2013	3.85	
11/30/2013	2.1	
12/31/2013	1.55	
01/31/2014	1.8	
02/28/2014	2.6	
03/31/2014	9.1	
04/30/2014	11.48	
05/31/2014	3.9	
06/30/2014	3.3	
07/31/2014	2.1	
08/31/2014	4.25	
09/30/2014	4.4	
10/31/2014	4.54	
11/30/2014	7.8	
12/31/2014	1.56	
01/31/2015	1.1	
02/28/2015	4.2	
03/31/2015	7.63	
04/30/2015	9.45	
05/31/2015	11.32	
06/30/2015	5.14	
07/31/2015	.77	
08/31/2015	2.92	
09/30/2015	.88	
10/31/2015	.67	
11/30/2015	.82	
12/31/2015	2.	
01/31/2016	3.6	

02/29/2016	7.09	
03/31/2016	11.9	
04/30/2016	5.2	
05/31/2016	1.8	
06/30/2016	1.68	
07/31/2016	3.74	
08/31/2016	2.8	
09/30/2016		No Discharge
10/31/2016	3.	
11/30/2016	2.39	
12/31/2016	1.27	

001-UP

Nitrite + Nitrate total [as N]-Instream Monitoring-Milligrams per Liter

Quarterly Average

Monitoring Period	DMR Value	NODI Desc
03/31/2014	.05	
06/30/2014	.06	
09/30/2014	.02	
12/31/2014	.04	
03/31/2015	.05	
06/30/2015	.02	
09/30/2015	.12	
12/31/2015	.06	
03/31/2016	.12	
06/30/2016	.	
09/30/2016		Analysis Not Conducted/No Sample
12/31/2016	.01	

Nitrogen, ammonia total [as N]-Instream Monitoring-Milligrams per Liter

Quarterly Average

Monitoring Period	DMR Value	NODI Desc
03/31/2014	.06	
06/30/2014	.03	
09/30/2014	.02	
12/31/2014	.05	
03/31/2015	.03	
06/30/2015	.01	
09/30/2015	.02	
12/31/2015	.04	
03/31/2016	.03	
06/30/2016	.26	
09/30/2016		Analysis Not Conducted/No Sample
12/31/2016	.04	

Nitrogen, Kjeldahl, total [as N]-Instream Monitoring-Milligrams per Liter

Quarterly Average

Monitoring Period	DMR Value	NODI Desc
03/31/2014		Below Detection Limit/No Detection
06/30/2014		Below Detection Limit/No Detection
09/30/2014		Below Detection Limit/No Detection
12/31/2014		Below Detection Limit/No Detection
03/31/2015	.	
06/30/2015	.	
09/30/2015	.23	
12/31/2015	.	
03/31/2016	.38	
06/30/2016	.	
09/30/2016		Analysis Not Conducted/No Sample
12/31/2016	.	

Nitrogen, total [as N]-Instream Monitoring-Milligrams per Liter

Quarterly Average

Monitoring Period	DMR Value	NODI Desc
03/31/2014	.05	
06/30/2014	.03	
09/30/2014	.02	
12/31/2014	.04	
03/31/2015	.05	
06/30/2015	.	
09/30/2015	.35	
12/31/2015	.06	
03/31/2016	.5	
06/30/2016	.	
09/30/2016		Analysis Not Conducted/No Sample
12/31/2016	.	

pH-Instream Monitoring-Standard Units

Monthly Average

Monitoring Period	DMR Value	NODI Desc
03/31/2014	8.1	
06/30/2014	7.99	
09/30/2014	8.33	
12/31/2014	8.26	
03/31/2015	8.17	
06/30/2015	8.11	
09/30/2015	8.37	
12/31/2015	8.	
03/31/2016	7.94	
06/30/2016	7.91	
09/30/2016		Analysis Not Conducted/No Sample
12/31/2016	8.15	

Phosphorus, total [as P]-Instream Monitoring-Milligrams per Liter

Quarterly Average

Monitoring Period	DMR Value	NODI Desc
03/31/2014	.02	
06/30/2014	.03	
09/30/2014		Below Detection Limit/No Detection
12/31/2014	.01	
03/31/2015	.01	
06/30/2015	.06	
09/30/2015	.02	
12/31/2015	.01	
03/31/2016	.02	
06/30/2016	.02	
09/30/2016		Analysis Not Conducted/No Sample
12/31/2016	.	

Temperature, water deg. centigrade-Instream Monitoring-Degrees Centigra

Monthly Average

Monitoring Period	DMR Value	NODI Desc
03/31/2014	5.8	
06/30/2014	10.2	
09/30/2014	19.6	
12/31/2014	6.7	
03/31/2015	5.86	
06/30/2015	12.67	
09/30/2015	17.48	
12/31/2015	7.6	
03/31/2016	5.8	
06/30/2016	12.6	
09/30/2016		Analysis Not Conducted/No Sample
12/31/2016	8.43	

001-Y

Oil and grease, hexane extr method-Effluent Gross-Milligrams per Liter

Annual Average

Monitoring Period	DMR Value	NODI Desc
12/31/2013		Below Detection Limit/No Detection
12/31/2014		Below Detection Limit/No Detection
12/31/2015	1.	
12/31/2016	.	

City of Thompson Falls

WWTP Sampling Log Jan. 2014

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
7 Jan	pH	effluent	7.77	4.01= 4.00 7.00= 7.03
1300	temp	effluent	6.6	10.01= 10.09
				slope1 -57.0 sens 99.2
				slope2 -55.5 sens 96.6
13 Jan	pH	effluent	7.87	4.01= 4.00 7.00= 7.03
0950	temp	effluent	5.5	10.01= 10.09
				slope1 - 56.9 sens 98.7
13 Jan				slope2 -56.0 sens 97.3
1015	pH	upstream	8.23	
	temp	upstream	3.8	
7 Jan	BOD	influent	238	
1510	TSS	influent	122	
1515	BOD	effluent	7	
	TSS	effluent	2	
	E. coli	effluent	27	
	Ammonia	effluent	6.23	
21 Jan	pH	effluent	7.93	4.01=4.00 7.01=7.03
1100	temp	effluent	6.0	10.01= 10.08
				slope1 - 56.4 sens 97.7
				slope2 -56.2 sens 97.4
28 Jan	pH	effluent	7.86	4.01= 4.00 7.00= 7.02
0830	temp	effluent	4.9	10.01= 10.06
				slope 1 - 57.3 sens 98.8
				slope2 - 56.6 sens 97.5
28 Jan	BOD	effluent	15	
1515	TSS	effluent	5	
	E. Coli	effluent	62	

City of Thompson Falls

WWTP Sampling Log   Feb. 2014

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Feb 5, 2014	pH	effluent	7.78	4.01 = 4.00 7.00 = 7.03
0800	temp	effluent	5.7	10.01 = 10.09
				slope 1 - 56.5 sens 98.1
				slope 2 - 56.6 sens 98.2
Feb 5, 2014	BOD	influent	382	
1510	TSS	influent	929	
1515	BOD	effluent	13	
	TSS	effluent	7	
	E. Coli	effluent	147	
	Ammonia	effluent	10.2	
Feb 11	pH	effluent	7.85	4.01 = 4.00 7.00 = 7.03
1030	temp	effluent	4.9	10.01 = 10.10
				slope 1 - 56.5 ~~slope~~ sens 98.5
				slope 2 - 56.1 sens 97.7
Feb 19	pH	effluent	7.71	4.01 = 4.00 7.00 = 7.03
0845	temp	effluent	5.4	10.01 = 10.09
				slope 1 - 56.2 sens 97.8
				slope 2 - 56.1 sens 97.7
Feb 26	BOD	effluent	12	
	TSS	effluent	4	
	E. Coli.	effluent	387	
Feb 26	pH	effluent	7.78	4.01 = 4.00 7.00 = 7.04
	temp	effluent	4.2	10.01 = 10.10
				slope 1 - 56.6 sens 98.7
				slope 2 - 53.7 sens 97.2
Feb 26	pH	upstream	7.84	4.01 = 4.00 7.00 = 7.03
	temp	upstream	6.3	10.01 = 10.09
				slope 1 - 56.3 sens 97.9
				slope 2 - 56.0 sens 97.3

City of Thompson Falls

WWTP Sampling Log March 2014

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Mar 4	pH	effluent	7.71	4.01=4.00 7.00=7.03
1030	temp	effluent	3.9	10.01=10.09
				slope1 - 56.3 sens 97.9
				slope2 - 56.0 sens 97.3
Mar 4	BOD	effluent	10	
1515	TSS	effluent	5	
	Ammonia	effluent	13.6	
	E. Coli	effluent	166	
Mar 11	pH	effluent	7.84	4.01=4.00 7.00=7.03
0840	temp	effluent	4.8	10.01=10.10
				slope1 - 56.3 sens 98.1
				slope2 - 56.3 sens 98.1
Mar 19	pH	upstream	8.15	4.01=4.00 7.00=7.03
1000	temp	upstream	7.4	10.01= 10.08
	pH	effluent	8.07	slope 1 - 56.6 sens 98.1
	temp	effluent	5.5	slope2 - 55.9 sens 97.0
Mar25	Ammonia ~~pH~~	upstream	0.06	
1510	~~temp~~ TKN	upstream	~~0.05~~ ND	
	Phosphorus	upstream	0.02	
	Nitrate + Nitrite	upstream	0.05	
1520	BOD	influent	183	
	TSS	influent	321	
1525	BOD	effluent	17	
	TSS	effluent	14	
	E. coli	effluent	5	
Mar 27	pH	effluent	8.13	4.01=4.00 7.00=7.03
0830	temp	effluent	5.6	10.01= 10.09
				slope 1 - 56.1 sens 97.6
				slope2 - 56.2 sens 97.8

City of Thompson Falls

WWTP Sampling Log April 2014

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
April 1	pH	effluent	8.06	4.01 = 4.00 7.00 = 7.03
1400	temp	effluent	5.8	10.01 = 10.10
				slope 1 -56.5 sens 98.5
				slope 2 - 55.7 sens 97.1
April 2	BOD	effluent	19	
1515	TSS	effluent	19	
	Ammonia	effluent	9.86	
	E. coli	effluent	21	
April 10	pH	effluent	8.23	4.01 = 4.00 7.00 = 7.03
0750	temp	effluent	9.6	10.01 = 10.09
				slope 1 -56.1 sens 97.7
				slope 2 -55.6 sens 96.8
April 15	pH	effluent	8.35	4.01 = 4.00 7.00 = 7.03
1350	temp	effluent	12.0	10.01 = 10.09
				slope 1 - 56.3 sens 98.1
				slope 2 - 55.5 sens 96.7
April 22	pH	upstream	7.95	4.01 = 4.00 7.00 = 7.03
0925	temp	upstream	9.4	10.01 = 10.09
	pH	effluent	8.59	slope 1 - 56.4 sens 98.0
	temp	effluent	12.1	slope 2 - 55.4 sens 97.1
April 29	BOD	influent	641	
	TSS	influent	1180	
	BOD	effluent	30	
	TSS	effluent	~~17~~ 27	
	E. coli	effluent	13	
April 30	pH	effluent	8.77	4.01 = 4.00 7.00 = 7.03
	temp	effluent	12.0	10.01 = 10.10
				slope 1 - 56.4 sens 98.4
				slope 2 - 54.8 sens 95.4

City of Thompson Falls May /2014
WWTP Sampling Log

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
5 May	pH	effluent	8.86	4.01= 4.00 7.00=7.03
1335	Temp	effluent	16	10.01= 10.09
				slope 1 -56.9 sens 98.9
				slope 2 - 55.8 sens 96.9
12 May	pH	effluent	8.89	4.01 = 4.00 7.00=7.03
0800	temp	effluent	12.9	10.01= 10.09
0810	pH	upstream	8.10	slope 1 -56.4 sens 98.2
	temp	upstream	8.0	slope 2 - 56.2 sens 97.7
21 May	pH	effluent	7.41	4.01 = 4.00 7.00= 7.03
0830	temp	effluent	15.7	10.01= 10.09
				slope 1 -56.8 sens 98.8
				slope 2- 56.0 sens 97.3
13 May	BOD	influent	208	
1510	TSS	influent	134	
1515	BOD	effluent	12	
	TSS	effluent	13	
	E. coli	effluent	23	
	Ammonia	effluent	0.06	
	N+N	effluent	4.01	
	TKN	effluent	3.40	
	Phosphorous	effluent	1.96	
27 May	pH	effluent	7.41	4.01=4.00 7.00= 7.03
0940	temp	effluent	17.4	10.01=10.09
				slope 1 -56.5 sens 98.1
				slope2- 56.6 sens 98.4
27 May	BOD	effluent	10	
1510	TSS	effluent	7	
	E. Coli	effluent	218	
1515	Oil + Grease	effluent		
1520	Ammonia	upstream	0.03	
	TKN	upstream	0.06	
	N+N	upstream	ND	
	Phosporous	upstream	0.03	

City of Thompson Falls
WWTP Sampling Log

June 2014

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
3 Jun	pH	upstream	7.92	4.01= 4.00 7.00= 7.03
0830	temp	upstream	13.20	10.01= 10.08
	pH	effluent	7.20	slope 1 -57.1 sens 99.0
	temp	effluent	15.90	slope 2 - 56.2 sens 97.3
3 Jun	BOD	effluent	15	
1510	TSS	effluent	11	
	E. Coli	effluent	219	
\	Ammonia	effluent	0.28	
	TKN	effluent	2.36	
	NFN	effluent	3.38	
	Phosphorus	effluent	2.09	
1510	BOD	influent	514	
	TSS	influent	308	
12 Jun	pH	effluent	7.27	4.01=4.00 7.00= 7.03
0830	temp	effluent	17.3	10.01 = 10.08
				slope 1 - 56.8 sens 98.4
				slope 2 - 56.3 sens 97.5
19 Jun	pH	effluent	7.12	4.01=4.00 7.00=7.03
0930	temp	effluent	14.9	10.01=10.08
				slope 1 - 56.6 sens 98.2
				slope 2 - 55.9 sens 96.9
24 Jun	pH	effluent	7.10	4.01=4.00 7.00 = 7.02
0930	temp	effluent	17.9	10.01=10.07
				slope 1 -57.3 sens 99.0
				slope 2 - 56.3 sens 97.2
24 Jun	BOD	effluent	20	
1515	TSS	effluent	35	
	E. Coli	effluent	11	

City of Thompson Falls

WWTP Sampling Log

July /2014

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
2nd	pH	effluent	7.25	4.01=4.00 7.00=7.02
1000	temp	effluent	18.8	10.01 = 10.07
				slope1 -56.8 sens 98.1
				slope2 - 56.3 sens 97.3
2nd	BOD	influent	72	
1510	TSS	influent	66	
1515	BOD	effluent	9	
1515	TSS	effluent	9	
1515	E. Coli	effluent	14	
1515	Ammonia	effluent	0.11	
1515	TKN	effluent	1.98	
1515	N+N	effluent	3.08	
1515	Phosphorus	effluent	2.46	
9th	pH	effluent	7.31	4.01=4.00 7.00=7.02
0915	temp	effluent	20.5	10.01= 10.07
				slope 1-56.9 sens. ~~temp~~ 98.2
				slope 2 - 56.3 sens 97.2
17th	pH	effluent	7.37	4.01=4.00 7.00=7.02
0830	temp	effluent	20.4	10.01= 10.06
0840	pH	upstream	8.16	slope 1 -57.1 sens 98.3
	temp	upstream	20.4	slope 2 -56.4 sens 97.2
23rd	pH	effluent	7.38	4.01=4.00 7.00=7.02
1000	temp	effluent	20.4	10.01= 10.06
				slope1 -57.3 sens 98.7
				slope2 -56.2 sens 96.7
23rd	BOD	effluent	8	
1515	TSS	effluent	8	
	E. Coli	effluent	52	
31st	pH	effluent	7.53	4.01=4.00 7.00= 7.02
0550	temp	effluent	19.0	10.01 = 10.06
				slope1 - 57.3 sens 98.7
				slope2 -56.2 sens 96.8

City of Thompson Falls

WWTP Sampling Log

Aug 2014

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
5th	pH	effluent	7.40	4.01 = 4.00 7.00 = 7.02
0850	temp	effluent	19.1	10.01 = 10.06
				slope 1 - 56.7 sens 97.8
				slope 2 - 56.4 sens 97.1
5th	BOD	influent	30	
1510	TSS	influent	26	
1515	BOD	effluent	12	
	TSS	effluent	8	
	E. Coli	effluent	82	
	Ammonia	effluent	0.16	
	Nitrate + Nitrite	effluent	1.56	
	TKN	effluent	1.99	
	Phosphorus	effluent	2.81	
13th	Ammonia	upstream	0.02	
1520	Phosphorus	upstream	ND	
	TKN	upstream	ND	
	N+N	upstream	0.02	
15th	pH	effluent ~~upstream~~	7.52	4.01 = 4.00 7.00 = 7.02
0940	temp	effluent	19.6	10.01 = 10.06
1000	pH	upstream	8.37	slope 1 - 57.3 sens 98.7
	temp	upstream	20.0	slope 2 - 56.2 sens 96.8
22nd	pH	effluent	7.53	4.01 = 4.00 7.00 = 7.02
0830	temp	effluent	20.3	10.01 = 10.06
				slope 1 - 57.0 sens 98.0
				slope 2 - 56.4 sens 97.0
28th	pH	effluent	7.86	4.01 = 4.00 7.00 = 7.03
0830	temp	effluent	15.9	10.01 = 10.07
				slope 1 - 56.7 sens 98.0
				slope 2 - 56.4 sens 97.5
1515	BOD	effluent	7	
	TSS	effluent	10	
	E. coli	effluent	32	
1510	BOD	influent	124	
	TSS	influent	69	

City of Thompson Falls
WWTP Sampling Log

Sep / 2014

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
3rd	pH	effluent	7.74	4.01=4.00 7.00=7.03
1310	Temp	effluent	16.1	10.01= 10.08
				slope 1-56.6 sens 98.0
				slope 2-56.3 sens 97.4
3rd	BOD	effluent	7	
1515	TSS	effluent	10	
"	E.Coli	effluent	55	
9th	pH	effluent	7.99	4.01= 4.00 7.00= 7.01
0700	temp	effluent	11.9	10.01= 10.08
				slope 1- sens
				slope 2- sens
16th	pH	effluent	7.90	4.01= 4.00 7.00= 7.03
0800	temp	effluent	12.7	10.01= 10.08
				slope 1-56.9 sens 98.4
				slope 2-56.3 sens 97.5
23rd	pH	effluent	7.87	4.01=4.00 7.00= 7.02
1530	Temp	effluent	18.9	10.01= 10.06
	pH	upstream	8.46	slope 1-57.0 sens 98.3
	temp	upstream	18.4	slope 2-56.4 sens 97.3

Oct/2014

City of Thompson Falls

WWTP Sampling Log

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
1st	pH	effluent	7.79	4.00 = 4.00 7.00 = 7.03
1400	temp	effluent	15.9	10.01 = 10.08
				slope 1 -57.6 sens 99.8
				slope 2 - 55.6 sens 96.2
1st				
1510	BOD	influent	198	
	TSS	influent	277	
1515	BOD	effluent	6	
	TSS	effluent	8	
	E. Coli	effluent	173	
	Ammonia	effluent	0.12	
	Phosphorus	effluent	2.45	
	TKN	effluent	1.84	
	Nitrate + Nitrite	effluent	2.45	
7th	pH	effluent	7.73	4.01 = 4.00 7.00 = 7.03
1000	temp	effluent	14.5	10.01 = 10.08
1010	pH	upstream	8.52	slope 1 -57.0 sens 98.7
	temp	upstream	14.8	slope 2 - 55.8 sens 96.7
15th	pH	effluent	7.79	4.01 = 4.00 7.00 = 7.03
0910	temp	effluent	12.4	10.01 = 10.08
				slope 1 -56.3 sens 97.7
				slope 2 -56.1 sens 97.2
21st	pH	effluent	7.92	4.01 = 4.00 7.00 = 7.03
1015	temp	effluent	12.1	10.01 = 10.06
				slope 1 -56.3 sens 97.7
				slope 2 - 56.3 sens 97.8
27th	pH	effluent	7.83	4.01 = 4.00 7.00 = 7.03
1500	temp	effluent	11.9	10.01 = 10.08
				slope 1 -56.3 sens 97.7
				slope 2 - 56.2 sens 97.4
28th	BOD	effluent	7	
	TSS	effluent	5	
	E. Coli	effluent	99	

City of Thompson Falls

WWTP Sampling Log Nov 2014

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Nov 5	pH	effluent	7.85	4.01 = 4.00 7.00 = 7.03
0930	temp	effluent	7.7	10.01 = 10.08
				slope 1 - 57.0 sens 98.7
				slope 2 - 56.0 sens 97.0
1515	BOD	effluent	7	
	TSS	effluent	12	
	Amonia	effluent	0.39	
	E. coli	effluent	260	
1510	BOD	influent	224	
	TSS	influent	162	
Nov 12	pH	effluent	7.83	4.01=4.00 7.00=7.03
1415	temp	effluent	5.0	10.01 = 10.10
				slope 1 - 55.9 sens 97.3
				slope 2 - 55.6 sens 96.9
Nov 17	pH	upstream	8.23	4.01=4.00 7.00=7.03
1000	temp	upstream	1.5	10.01 = 10.08
1030	pH	effluent	7.86	slope 1 - 57.2 sens 99.3
	temp	effluent	1.6	slope 2 - 55.0 sens 95.5
Nov 24	pH	effluent	7.86	4.01=4.00 7.00 = 7.04
1030	temp	effluent	5.1	10.01 = 10.10
				slope 1 - 55.3 sens 96.6
				slope 2 - 54.6 sens 95.4
Nov 25	BOD	effluent	10	
	TSS	effluent	5	
	E. Coli	effluent	461	

Dec/2014

City of Thompson Falls

WWTP Sampling Log

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Dec 3	pH	effluent	7.85	4.01= 4.00 7.00= 7.03
0840	temp	effluent	1.8	10.01= 10.10
				slope 1 -56.7 sens 98.8
				slope 2 - 55.1 sens 96.0
Dec 3	BOD	influent	504	
1510	TSS	influent	908	
1515	BOD	effluent	9	
	TSS	effluent	3	
	Ammonia	effluent	2.98	
	E. Coli	effluent	26	
Dec 10	pH	upstream	8.04	4.01= 4.00 7.00= 7.04
1030	temp	upstream	3.8	10.01= 10.11
1045	pH	effluent	7.76	slope 1 -55.1 sens 96.3
	temp	effluent	4.5	slope 2 -54.9 sens 95.9
Dec 15	pH	effluent	7.84	4.01= 4.00 7.00= 7.03
1320	temp	effluent	5.1	10.01= 10.10
				slope 1 - 55.7 sens 97.1
				slope 2 - 55.6 sens 96.9
Dec 22	pH	effluent	7.80	4.01= 4.00 7.00= 7.04
1420	temp	effluent	6.3	10.01= 10.10
				slope 1 -56.7 sens 98.8
				slope 2 - 54.4 sens 94.8
Dec 30	pH	effluent	7.76	4.01= 4.00 7.00= 7.03
1430	temp	effluent	1.2	10.01= 10.09
				slope 1 - 56.1 sens 97.5
				slope 2 -55.4 sens 96.4
Dec 30	BOD	effluent	18	
1510	TSS	effluent	3	
	E. Coli	effluent	73	

City of Thompson Falls

WWTP Sampling Log   Jan/2015

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Jan 7	pH	effluent	7.64	4.01= 4.00 7.00= 7.04
1100	Temp	effluent	5.0	10.01= 10.10
				slope 1- 56.0 sens 97.7
				slope 2 - 55.3 sens 96.5
Jan 7	BOD	effluent	7	
1515	TSS	effluent	2	
	Ammonia	effluent	7.17	
	E. Coli	effluent	104	
Jan 15	pH	effluent	7.75	4.01= 4.00 7.00= 7.04
0940	~~pH~~ temp	effluent	3.3	10.01= 10.10
	pH	upstream	8.18	slope 1 -57.2 sens 99.6
	temp	upstream	2.9	slope 2 -56.7 sens 97.7
Jan 22	pH	effluent	7.76	4.01= 4.00 7.00= 7.03
0815	temp	effluent	2.0	10.01= 10.07
				slope 1 -56.8 sens 98.2
				slope 2 - 55.6 sens 96.1
Jan 26	pH	effluent	7.82	4.01= 4.00 7.00= 7.03
1035	temp	effluent	4.4	10.01= 10.09
				slope 1 -56.1 sens 97.6
				slope 2 -55.2 sens 96.0
Jan 28	BOD	influent	134	
1510	TSS	influent	98	
1515	BOD	effluent	12	
	TSS	effluent	2	
	E. Coli	effluent	1120	

City of Thompson Falls

WWTP Sampling Log   Feb/2015

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Feb 3	pH	upstream	8.14	4.01= 4.00 7.00= 7.03
1000	temp	upstream	7.3	10.01= 10.10
1010	pH	effluent	7.68	slope 1 -56.5 sens 98.5
	temp	effluent	3.0	slope 2 -54.6 sens 98.2
Feb 4	~~inf~~ BOD	influent	~~12~~ 147	
1510	TSS	influent	102	
1515	BOD	effluent	12	
	TSS	effluent	3	
	E. Coli	effluent	2420	
	Ammonia	effluent	9.01	
Feb 11	pH	effluent	7.66	4.01= 4.00 7.00= 7.03
1025	temp	effluent	6.2	10.01= 10.09
				slope 1 - 56.8 sens 99.0
				slope 2 - 54.4 sens 94.8
Feb 17	pH	effluent	7.71	4.01=4.00 7.00=7.03
1000	temp	effluent	4.6	10.01=10.09
				slope 1 - 56.5 sens 98.1
				slope 2 - 55.3 sens 96.0
Feb 24	pH	effluent	8.02	4.01=4.00 7.00=7.03
1030	temp	effluent	5.6	10.01= 10.10
				slope 1 - 56.2 sens 97.8
				slope 2 - 54.9 sens 95.6
Feb 24	BOD	effluent	12	
1515	TSS	effluent	3	
	E. Coli	effluent	>2420	

City of Thompson Falls March / 2015

WWTP Sampling Log

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Mar 3	pH	effluent	8.26	4.01 = 4.00 7.00 = 7.03
1050	temp	effluent	7.0	10.01 = 10.09
				slope 1 - 56.1 sens 97.7
				slope 2 - 55.2 sens 96.1
Mar 4	BOD	influent	244	
1510	TSS	influent	139	
1515	BOD	effluent	26	
1515	TSS	effluent	22	
1515	Ammonia	effluent	7.55	
1515	E. Coli	effluent	10	
Mar 10	pH	effluent	8.30	4.01 = 4.00 7.00 = 7.04
0810	temp	effluent	6.6	10.01 = 10.10
				slope 1 - 56.6 sens 98.6
				slope 2 - 54.8 sens 95.6
Mar 16	pH	effluent	8.13	4.01 = 4.00 7.00 = 7.03
1110	temp	effluent	9.4	10.01 = 10.10
				slope 1 - 56.4 sens 98.3
				slope 2 - 54.9 sens 95.6
Mar 23	pH	effluent	8.26	4.01 = 4.00 7.00 = 7.03
1330	temp	effluent	7.8	10.01 = 10.09
1340	pH	upstream	8.2	slope 1 - 56.3 sens 97.9
	temp	upstream	7.4	slope 2 - 55.1 sens 95.8
Mar 24	Ammonia	upstream	0.03	
1510	TKN	upstream	ND	
	N + N	upstream	0.05	
	Phosphorus	upstream	0.01	

City of Thompson Falls

WWTP Sampling Log April 2015

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Apr 3	pH	upstream	8.0	4.01= 4.00 7.00= 7.03
0920	temp	upstream	6.4	10.01= 10.09
0910	pH	effluent	8.12	slope 1 -56.6 sens 98.4
	temp	effluent	9.1	slope 2 -54.9 sens 95.4
Apr 7	BOD	influent	255	
1510	TSS	influent	215	
1515	BOD	effluent	25	
"	TSS	effluent	18	
"	Ammonia	effluent	4.21	
"	E. Coli	effluent	14	
April 9	pH	effluent	8.37	4.01= 4.00 7.00 = 7.03
0945	temp	effluent	10.6	10.01= 10.10
				slope 1 -56.5 sens 98.5
				slope 2 -54.5 sens 95.0
April 15	pH	effluent	8.73	4.01= 4.00 7.00= 7.03
0945	temp	effluent	10.3	10.01= 10.09
				slope 1 -56.3 sens 98.0
				slope 2 -55.0 sens 95.7
April 22	pH	effluent	8.84	4.01= 4.00 7.00=7.03
0950	temp	effluent	13.8	10.01= 10.10
				slope 1 -55.8 sens 97.3
				slope 2 -55.1 sens 96.0
April 27	pH	effluent	8.64	4.01=4.00 7.00= 7.03
0930	temp	effluent	12.4	10.01= 10.09
				slope 1 -55.8 sens 97.0
				slope 2 -54.7 sens 95.2

City of Thompson Falls

WWTP Sampling Log

May 2015

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
4 May	pH	upstream	7.93	4.01= 4.00 7.00= 7.03
1300	Temp	upstream	14.7	10.01= 10.09
	pH	effluent	8.20	slope 1 -56.0 sens 97.5
	temp	effluent	17.2	slope 2 -54.9 sens 95.5
5 May	BOD	influent	210	
1510	TSS	influent	66	
1515	BOD	effluent	25	
	TSS	effluent	23	
	E. Coli	effluent	39	
	Ammonia	effluent	0.68	
11 May	pH	effluent	7.80	4.01= 4.00 7.00= 7.03
1355	temp	effluent	16.8	10.01= 10.08
				slope 1 -56.7 sens 98.4
				slope 2 - 54.7 sens 95.0
18 May	pH	effluent	7.79	4.01=4.00 7.00=7.03
1525	temp	effluent	18.2	10.01= 10.08
				slope 1 -56.3 sens 97.6
				slope 2 -54.8 sens 95.2
12 May	TKN	effluent	3.53	
1515	N + N	effluent	2.23	
	Phosphorus	effluent	1.85	
26 May	BOD	effluent	1[illegible]	
1510	TSS	effluent	12	
	E. Coli	effluent	42	
27 May	pH	effluent	7.48	4.01= 4.00 7.00= 7.03
1000	temp	effluent	17.3	10.01= 10.08
				slope 1 -56.9 sens 98.7
				slope 2 -55.2 sens 95.6

City of Thompson Falls   June 2015

WWTP Sampling Log

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
June 1	pH	upstream	8.39	4.01= 4.00 7.00 = 7.02
1300	temp	upstream	16.9	10.01= 10.07
June 1	pH	effluent	7.64	slope 1 - 57.4 sens 99.2
1250	temp	effluent	20.6	slope 2 - 55.2 sens 95.4
June 2	BOD	influent	467	
1510	TSS	influent	1080	
1515	BOD	effluent	8	
1515	TSS	effluent	7	
1515	E. Coli	effluent	<1	
1515	Ammonia	effluent	0.26	
1515	N + N	effluent	2.07	
1515	TKN	effluent	1.69	
1515	Phosphorus	effluent	1.81	
June 9	pH	effluent	7.41	4.01= 4.00 7.00 = 7.03
1030	temp	effluent	18.8	10.01= 10.08
				slope 1 -57.2 ~~slope 2~~ sens 99.1
				slope 2 -54.7 sens 94.8
June 16	pH	effluent	7.66	4.01= 4.00 7.00= 7.03
1300	temp	effluent	20.8	10.01= 10.07
				slope 1 - 56.7 sens 97.9
				slope 2 - 55.4 sens 95.5
June 23	pH	effluent	7.38	4.01= 4.00 7.00=7.02
0800	Temp	effluent	20.6	10.01= 10.07
				slope 1 -56.4 sens 97.5
				slope 2 - 55.4 sens 95.7
June 23	BOD	effluent	5	
1515	TSS	effluent	5	
1515	E. Coli	effluent	71	
1530	Ammonia	upstream	0.01	
	N + N	upstream	0.02	
	TKN	upstream	0-ND	
	Phosphorus	upstream	0.06	

City of Thompson Falls

WWTP Sampling Log   July 2015

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
July 4	pH	effluent	7.30	4.01= 4.00 7.00= 7.02
0930	Temp	effluent	20.8	10.01= 10.07
				slope 1 - 56.3 sens 97.3
				slope 2 - 55.5 sens 95.8
July 7	BOD	influent	132	
1510	TSS	influent	139	
1515	BOD	effluent	6	
	TSS	effluent	2	
	E. Coli	effluent	10	
	Ammonia	effluent	0.54	
	N+N	effluent	1.61	
	TKN	effluent	1.95	
	Phosphorus	effluent	2.16	
July 9	pH	effluent	7.27	4.01= 4.00 7.00= 7.02
0810	temp	effluent	19.7	10.01= 10.07
				slope 1-56.8 sens 98.2
				slope 2 - 55.3 sens 95.6
July 15	pH	effluent	7.26	4.01=4.00 7.00= 7.02
0930	temp	effluent	20.3	10.01= 10.06
				slope 1 - 57.5 sens 99.1
				slope 2 - 55.1 sens 94.9
July 22	pH	upstream	8.43	4.01= 4.00 7.00= 7.02
1000	Temp	upstream	20.8	10.01= 10.06
1015	pH	effluent	7.20	slope 1 -57.1 sens 98.3
	temp	effluent	20.7	slope 2 - 55.6 sens 95.8
July 27	pH	effluent	7.30	4.01= 4.00 7.00= 7.02
0930	Temp	effluent	18.9	10.01= 10.06
				slope 1 - 56.9 sens 97.9
				slope 2 - 55.5 sens 95.5

City of Thompson Falls

WWTP Sampling Log August 2015

DATE / TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Aug 3	pH	effluent	7.37	4.01 = 4.00 7.00 = 7.02
0930	temp	effluent	20.0	10.01 = 10.05
				slope 1 -56.8 sens 97.4
				slope 2 -55.9 sens 96.0
Aug 11	pH	upstream	8.27	4.01 = 4.00 7.00 = 7.02
1330	temp	upstream	21.9	10.01 = 10.06
1340	pH	effluent	7.35	slope 1 -57.7 sens 99.4
	temp	effluent	21.0	slope 2 -55.2 sens 95.0
Aug 5	BOD	influent	193	
1510	TSS	influent	75	
1515	BOD	effluent	8	
	TSS	effluent	10	
	Ammonia	effluent	0.40	
	E. Coli	effluent	37	
	N + N	effluent	2.67	
	TKN	effluent	1.66	
	Phosporus	effluent	2.57	
Aug 20	pH	effluent	7.41	4.01 = 4.00 7.00 = 7.02
	temp	effluent	18.3	10.01 = 10.07
				slope 1 -56.1 sens 96.8
				slope 2 -55.7 sens 96.1
Aug 25	BOD	effluent	~~8~~ 9	
1520	TSS	effluent	2	
	E. Coli	effluent	18.5	
1510	N + N	upstream	0.12	
	TKN	upstream	0.23	
	Ammonia	upstream	0.02	
	Phosphorus	upstream	0.02	
Aug 26	pH	effluent	7.36	4.01 = 4.00 7.00 = 7.02
0845	temp	effluent	18.0	10.01 = 10.07
				slope 1 -56.4 sens 97.3
				slope 2 -56.1 sens 96.8

Sep / 2015

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
1 Sep	BOD	influent	142	
1510	TSS	influent	81	
1515	BOD	effluent	13	
	TSS	effluent	3	
	E. Coli	effluent	179	
	Ammonia	effluent	1.75	
	TKN	effluent	3.11	
	N + N	effluent	2.79	
	Phosphorus	effluent	2.91	
3 Sep	pH	effluent	7.35	4.01 = 4.00 7.00 = 7.02
1000	temp	effluent	17.87	10.01 = 10.07
				slope 1 -56.8 sens 98.0
				slope 2 -55.3 sens 95.4
7 Sep	pH	upstream	8.37	4.01 = 4.00 7.00 = 7.03
0830	temp	upstream	17.48	10.01 = 10.07
0840	pH	effluent	7.29	slope 1 -55.6 sens 96.1
	temp	effluent	16.70	slope 2 -54.0 sens 94.8
16 Sep	pH	effluent	7.43	4.01 = 4.00 7.00 = 7.03
0900	temp	effluent	14.10	10.01 = 10.08
				slope 1 -56.3 sens 97.4
				slope 2 -55.6 sens 96.2
21 Sep	pH	effluent	7.38	4.01 = 4.00 7.00 = 7.03
1335	temp	effluent	18.87	10.01 = 10.07
22 Sep	BOD	effluent	15	slope 1 -56.5 sens 97.7
1515	TSS	effluent	3	slope 2 -55.3 sens 95.6
	E. Coli	effluent	130	
28 Sep	pH	effluent	7.44	4.01 = 4.00 7.00 = 7.03
1310	temp	effluent	17.48	10.00 = 10.08
				slope 1 -56.1 sens 97.1
				slope 2 -55.4 sens 95.9

October 2015

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
10-6-2015	BOD	influent	228	
1510	TSS	influent	134	
1510	BOD	effluent	8	
	TSS	effluent	2	
	E. Coli	effluent	38	
	Ammonia	effluent	2.57	
	N+N	effluent	4.27	
	TKN	effluent	4.28	
	Phosphorus	effluent	3.23	
	oil + Grease	effluent	1	
10-7-2015	pH	effluent	7.49	4.01 = 4.00 7.00 = 7.03
0910	Temp	effluent	13.71	10.01 = 10.08
0920	pH	upstream	8.02	slope 1 -55.8 sens 96.7
	temp	upstream	12.77	slope 2 -55.4 sens 96.1
10-14-2015	pH	effluent	7.45	4.01 = 4.00 7.00 = 7.03
0930	Temp	effluent	13.1	10.01 = 10.08
				slope 1 -56.5 sens 98.0
				slope 2 -54.4 sens 94.2
10-19-2015	pH	effluent	7.48	4.01 = 4.00 7.00 = 7.03
0955	Temp	effluent	16.0	10.01 = 10.08
				slope 1 -56.1 sens 97.3
				slope 2 -55.2 sens 95.8
10-20-2015	BOD	effluent	11	
1515	TSS	effluent	~~27~~ 1	
	E. Coli	effluent	+ 27	
10-27-15	pH	effluent	7.57	4.01 = 4.00 7.00 = 7.03
1000	temp	effluent	11.4	10.01 = 10.08
				slope 1 -56.4 sens 97.9
				slope 2 -54.8 sens 95.2

November 2015

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
11-2-15	pH	effluent	7.53	4.01= 4.00 7.00= 7.03
0910	temp	effluent	10.2	10.01= 10.08
				slope 1 -55.6 sens 96.4
				slope 2 -55.3 sens 95.9
11-3-15	BOD	influent	223	
1510	TSS	influent	158	
1515	BOD	effluent	13	
	TSS	effluent	2	
	E. Coli	effluent	20	
	Ammonia	effluent	2.76	
11-10-15	pH	effluent	7.62	4.01= 4.00 7.00= 7.03
0800	temp	effluent	8.2	10.01= 10.09
				slope 1 -55.5 sens 96.5
				slope 2 -55.3 sens 96.2
11-17-15	pH	upstream	7.87	4.01= 4.00 7.00= 7.03
0835	temp	upstream	6.5	10.01 = 10.08
	pH	effluent	7.49	slope 1 - 56.4 sens 97.7
	temp	effluent	7.4	slope 2 - 55.4 sens 95.9
11-17-15	BOD	effluent	14	
1520	TSS	effluent	2	
	E.Coli	effluent	40	
1505	N+N	instream/upstream	0.06	
	TKN	instream/upstream	ND	
	Ammonia	instream/upstream	0.04	
	Phosphorus	instream/upstream	0.01	
11-24-15	pH	effluent	7.55	4.01= 4.00 7.00= 7.02 10.01= 10.07
0920	temp	effluent	6.2	slope 1 -56.3 sens 97.3
				slope 2 - 55.6 sens 96.0

December 2015

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
12-1-15	BOD	influent	274	
1510	TSS	influent	205	
1515	BOD	effluent	9	
	TSS	effluent	2	
	Ammonia	effluent	3.74	
	E. Coli	effluent	132	
12-2-15	pH	effluent	7.72	4.01=4.00 7.00=7.03 10.01=10.07
0830	temp	effluent	3.6	slope 1 -56.5 sens 97.7
				slope 2 -55.5 sens 95.9
12-8-15	pH	instream/upstream	8.12	4.01=4.00 7.00=7.03 10.01=10.09
1000	temp	instream/upstream	3.4	slope 1 -56.7 sens 98.5
	pH	effluent	7.77	slope 2 - 54.8 sens 95.2
	temp	effluent	4.8	
12-17-15	pH	effluent	7.75	4.01=3.99 7.00=7.02 10.01=10.08
0940	temp	effluent	5.1	slope 1 -56.4 sens 97.7
				slope 2 -55.4 sens 95.9
12-22-15	pH	effluent	7.80	4.01=4.00 7.00=7.04 10.01=10.10
	temp	effluent	4.9	slope 1 -56.7 sens 98.8
				slope 2 -54.4 sens 94.8
12-28-15	pH	effluent	7.87	4.01=4.32 7.00=7.29 10.01=9.99
	temp	effluent	4.6	slope 1 -56.4 sens 97.7
				slope 2 -55.4 sens 95.9
12-29-15	BOD	effluent	9	
	TSS	effluent	5	
	E. Coli	effluent	167	

January 2016

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
1-5-2016	pH	effluent	7.91	4.01=4.00 7.00=7.03 10.01=10.09
1420	temp	effluent	3.1	slope 1 -55.9 sens 97.1
				slope 2 - 54.4 sens 94.6
1-5-2016	BOD	influent	274	
1510	TSS	influent	165	
1515	BOD	effluent	12	
	TSS	effluent	6	
	Ammonia	effluent	7.64	
	E. Coli	effluent	219	
1-13-2016	pH	effluent	7.81	4.01=4.00 7.00=7.03 10.01=10.08
0900	temp	effluent	4.0	slope 1 -55.2 sens 95.7
				slope 2 -55.5 sens 96.1
1-~~20~~ 19-2016	pH	upstream	8.13	4.01=4.00 7.00=7.03 10.01=10.08
1000	temp	upstream	3.9	slope 1 -56.0 sens 97.0
1010	pH	effluent	7.96	slope 2 - 55.1 sens 95.4
	temp	effluent	4.8	
1-26-2016	E. Coli	effluent	192	
1510				
1-27-2016	BOD	effluent	19	
1510	TSS	effluent	9	
1-27-2016	pH	effluent	7.92	4.01=4.00 7.00=7.03 10.01=10.08
1540	temp	effluent	4.6	slope 1 -56.1 sens 97.6
				slope 2 -55.2 sens 96.0

CITY OF THOMPSON FALLS Feb. 2016

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Feb 3, 2016	BOD	influent	236	
1510	TSS	influent	245	
1515	BOD	effluent	17	
	TSS	effluent	14	
	Ammonia	effluent	7.76	
	E. Coli	effluent	130	
Feb. 3 2016	pH	effluent	8.11	4.01 = 4.00 7.00 = 7.03 10.01 = 10.08
1545	temp	effluent	4.6	slope 1 -55.7 sens 96.7
				slope 2 -56.0 sens 97.1
Feb. 8, 2016	pH	effluent	7.91	4.01 = 4.00 7.03 = 7.03 10.01 = 10.08
1045	temp	effluent	5.6	slope 1 -55.0 sens 95.2
				slope 2 -55.3 sens 95.8
Feb 16, 2016	pH	instream/upstream	7.51	4.01 = 4.00 7.00 = 7.03 10.01 = 10.08
0930	temp	instream/upstream	6.6	slope 1 -55.9 sens 96.8
0945	pH	effluent	8.16	slope 2 -55.3 sens 95.9
	temp	effluent	7.9	
Feb. 25 2016	pH	effluent	8.01	4.01 = 4.00 7.00 = 7.03 10.01 = 10.08
1000	temp	effluent	7.2	slope 1 -55.5 sens 96.2
				slope 2 -55.0 sens 95.4
Feb. 23 2016	N + N	instream/upstream	0.12	
1510	TKN	" "	0.38	
	Ammonia	" "	0.03	
	Phosphorus	" "	0.02	
1520	BOD	effluent	28	
	TSS	effluent	23	
	E. Coli	effluent	45	
	CBOD	effluent	12	

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG March 2016

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
3-4-2016	pH	effluent	8.35	4.01=4.00 7.00=7.03 10.01=10.08
0915	temp	effluent	9.7	slope 1 -55.6 sens 96.5
				slope 2 -55.2 sens 95.8
3-8-2016	BOD	influent	~~36~~ 487	
1510	TSS	influent	716	
1515	BOD	effluent	36	
	TSS	effluent	34	
	Ammonia	effluent	2.62	
	CBOD	effluent	14	
	E. Coli	effluent	56	
3-10-2016	pH	effluent	7.97	4.01=4.00 7.00=7.03 10.01=10.08
0930	temp	effluent	8.5	slope 1 -56.0 sens 97.1
0945	pH	upstream	8.17	slope 2 -55.3 sens 95.9
	temp	upstream	6.9	
3-16-2016	pH	effluent	7.90	4.01=4.00 7.00=7.03 10.01=10.08
0900	temp	effluent	7.2	slope 1 -56.6 sens 98.2
				slope 2 -55.4 sens 96.1
3-22-2016	pH	effluent	7.59	4.01=4.00 7.00=7.02 10.01=10.06
0930	temp	effluent	9.9	slope 1 -56.5 sens 97.3
				slope 2 -55.4 sens 95.3
3-22-2016	BOD	effluent	12	
1515	TSS	effluent	19	
	E. Coli	effluent	38	
	CBOD	effluent	7	
3-29-2016	pH	effluent	8.03	4.01=4.00 7.00=7.03 10.08=10.08
0945	temp	effluent	9.3	slope 1 -56.1 sens 97.3
				slope 2 -55.5 sens 96.3

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

April 2016

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
4-5-16	pH	upstream	8.02	4.01=4.00 7.00=7.03 10.01=10.08
1030	temp	upstream	9.0	slope 1 - 55.9 sens 96.9
1040	pH	effluent	7.61	slope 2 - 55.3 sens 95.7
	temp	effluent	11.0	
4-5-16	BOD	influent	489	
1510	TSS	influent	716	
1515	BOD	effluent	8	
	CBOD	effluent	~~8~~ 6	
	TSS	effluent	10	
	E. Coli	effluent	12	
4-12-16	pH	effluent	7.62	4.01=4.00 7.00=7.03 10.01=10.09
1400	temp	effluent	14.3	slope 1 -56.7 sens 98.6
				slope 2 -54.7 sens 95.1
4-18-16	pH	effluent	7.70	4.01=4.00 7.00=7.03 10.01=10.09
1015	temp	effluent	13.9	slope 1 -55.8 sens 97.0
				slope 2 -55.1 sens 95.9
4-25-16	pH	effluent	7.48	4.01=4.00 7.00=7.03 10.01=10.10
1100	temp	effluent	14.6	slope 1 -55.6 sens 96.8
				slope 2 -54.7 sens 95.2
4-26-16	BOD	effluent	7	
	TSS	effluent	4	
	E. Coli	effluent	4	
	Ammonia	effluent	13.0	

May /2016

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
5-4-16	pH	effluent	7.67	4.01=4.00 7.00=7.03 10.01=10.08
0830	temp	effluent	15.6	slope 1 -56.1 sens 97.2
0845	pH	upstream	8.21	slope 2 -55.0 sens 95.4
	temp	upstream	13.1	
5-4-16	BOD	effluent	8	
1510	TSS	effluent	4	
	E. coli	effluent	2	
	Ammonia	effluent	2.02	
	N+N	effluent	3.46	
	TKN	effluent	3.54	
	Phosphorus	effluent	2.44	
5-9-16	pH	effluent	7.49	4.01=4.00 7.00=7.03 10.01=10.08
0930	temp	effluent	16.3	slope 1 -55.5 sens 96.1
				slope 2 -55.3 sens 95.7
5-16-16	pH	effluent	7.62	4.01=4.00 7.03=7.00 10.09=10.09
0945	temp	effluent	16.2	slope 1 -55.6 sens 96.5
				slope 2 -55.2 sens 95.8
5-10-16	BOD	influent	121	
1510	TSS	influent	202	
5-23-16	pH	effluent	7.54	4.01=4.00 7.00=7.03 10.01=10.08
1000	temp	effluent	14.9	slope 1 -55.8 sens 96.5
				slope 2 -54.9 sens 94.9
5-24-16	BOD	10	effluent	
1510	TSS	3	"	
	E. coli	22	"	

June /2016

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
6-1-16	pH	effluent	7.57	4.01= 4.00 7.00=7.03 10.01= 10.08
0930	temp	effluent	18.5	slope 1 -55.3 sens 95.9
				slope 2 -55.6 sens 96.4
6-2-16	BOD	influent	227	
1510	TSS	influent	280	
1515	BOD	effluent	9	
	TSS	effluent	2	
	E. Coli	effluent	15	
	Ammonia	effluent	3.13	
	N+N	effluent	2.25	
	TKN	effluent	4.01	
	Phosphorus	effluent	2.65	
6-9-16	pH	~~eff 7.55~~ effluent	7.55	4.01= 4.00 7.00=7.03 10.01= 10.08
1430	temp	~~16.6~~ effluent	17.6	slope 1 -55.4 sens 95.9
1440	pH	upstream	7.92	slope 2 -55.3 sens 95.8
	temp	upstream	15.7	
6-17-16	pH	effluent	7.53	4.01=4.00 7.00=7.02 10.01= 10.07
1000	temp	effluent	16.6	slope 1 -55.7 sens 96.2
				slope 2 -55.8 sens 96.3
6-21-16	pH	effluent	7.38	4.01= 4.00 7.00=7.02 10.01=10.07
	temp	effluent	16.6	slope 1 -55.6 sens 96.0
				slope 2 -55.6 sens 96.0
6-21-16	BOD	effluent	9	
1510	TSS	effluent	3	
	E. Coli	effluent	7	
	N+N	upstream	ND	
	TKN	upstream	ND	
	Ammonia	upstream	0.26	
	Phosphorus	upstream	0.02	
6-29-16	pH	effluent	7.51	4.01 = 4.00 7.00=7.02 10.01=10.06
	temp	effluent	20.1	slope 1 -56.2 sens 96.9
				slope 2 -55.6 sens 95.8

July /2016

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
07-05-2016	pH	effluent	7.65	4.01=4.00 7.00=7.02 10.01=10.07
1400	Temp	effluent	21.7	slope 1 -55.7 sens 96.0
				slope 2 -55.9 sens 96.3
7-06-2016	BOD	influent	198	
1510	TSS	influent	217	
1515	BOD	effluent	4	
	TSS	effluent	7	
	E. Coli	effluent	15	
	Ammonia	effluent	0.13	
	Phosphorus	effluent	2.75	
	N+N	effluent	3.34	
	TKN	effluent	1.62	
7-12-2016	pH	effluent	7.71	4.01=4.00 7.00=7.02 10.01=10.06
1240	Temp	effluent	19.1	slope 1 -56.0 sens 96.5
1245	pH	upstream	8.68	slope 2 -55.5 sens 95.7
	Temp	upstream	18.6	
7-18-2016	pH	effluent	7.65	4.01=4.00 7.00=7.02 10.01=10.06
0920	temp	effluent	17.8	slope 1-55.6 sens 95.9
				slope 2 -55.5 sens 95.7
7-26-2016	pH	effluent	7.77	4.01=4.00 7.02=7.00 10.01=10.07
0845	temp	effluent	18.4	slope 1 -55.4 sens 95.6
				slope 2 -55.3 sens=95.9
7-26-2016	BOD	effluent	5	
1510	TSS	effluent	5	
	E. Coli	effluent	11	

August /2016

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
8-2-2016	~~1045~~ pH	effluent	7.88	4.01= 4.00 7.00=7.02 10.01=10.05
1045	temp	effluent	20.0	slope 1 -56.2 sens 96.5
1055	pH	upstream	8.42	slope 2 -55.9 sens 96.0
	temp	upstream	20.7	
8-2-2016	BOD	influent	221	
1510	TSS	influent	378	
1515	BOD	effluent	26	
	TSS	effluent	9	
	E.Coli	effluent	16	
	N+N	effluent	0.61	
	TKN	effluent	1.75	
	Ammonia	effluent	0.09	
	Phosphorus	effluent	3.17	
8-10-16	pH	effluent	8.01	4.01=4.00 7.00=7.02 10.01=10.05
0840	temp	effluent	17.3	slope 1 -55.4 sens 95.5
				slope 2 -51.6 sens 89.0
8-16-16	pH	effluent	7.83	4.01=4.00 7.00=7.02 10.01=10.07
0810	temp	effluent	17.8	slope 1 -55.6 sens 95.9
				slope 2 -55.5 sens 95.7
8-22-16	pH	effluent	8.13	4.01= 4.00 7.00=7.02 10.01=10.06
1030	temp	effluent	19.7	slope 1 - ~~56.2~~ 55.9 sens 96.4
				slope 2 -56.2 sens 96.9
8-23-16	pH	effluent	8.10	4.01=4.00 7.00=7.02 10.01=10.07
0820	temp	effluent	17.7	slope 1 -55.3 sens 95.5
8-23-16				slope 2 - 56.5 sens 97.5
1510	BOD	effluent	8	
	TSS	effluent	~~12~~ 16	
	E.Coli	effluent	~~16~~ 12	

Sept. 2016

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
9-27-16	pH	upstream	8.72	4.01=4.00 7.00=7.03 10.01=10.07
1000	temp	upstream	14.6	slope 1 -55.1 sens 95.2
				slope 2 -55.8 sens 96.6

October 2016

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
10-5-16	pH	upstream	8.21	4.01= 4.00 7.00=7.03 10.01=10.08
0930	temp	upstream	12.9	slope 1 -55.3 sens 95.6
0920	pH	effluent	8.42	slope 2 -55.8 sens 96.5
	temp	effluent	13.9	
10-5-16	BOD	effluent	7	
1510	TSS	effluent	18	
	E. Coli	effluent	11	
	Ammonia	effluent	0.04	
	N+N	effluent	ND	
	TKN	effluent	2.52	
	Phosphorus	effluent	3.75	
10-11-16	pH	effluent	8.27	4.01=4.00 7.00=7.03 10.01=10.09
0630	temp	effluent	10.6	slope 1 -54.7 sens 98.5
10-11-16	BOD	influent	198	slope 2 -53.4 sens 92.8
1510	TSS	influent	134	
10-17-16	pH	effluent	8.29	4.01=4.00 7.00=7.02 10.01=10.07
1300	temp	effluent	11.7	slope 1 -55.7 sens 96.2
				slope 2 -55.6 sens 96.0
10-17-16	N+N	upstream	0.01	~~late sample for~~ 3rd
1510	TKN	upstream	ND	quarter missed
	Ammonia	upstream	0.04	
	Phosphorus	upstream	ND	
10-26-16	pH	effluent	8.32	4.01=4.00 7.00=7.03 10.01=10.07
1015	temp	effluent	10.6	slope 1 -55.6 sens 96.2
				slope 2 -55.4 sens 95.9
1510	BOD	effluent	82	
	TSS	effluent	12	
	E. Coli	effluent	16	

November /2016

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Nov. 2	pH	effluent	8.32	slope 1 - 55.6 sens 96.2
1015	temp	effluent	10.6	slope 2 - 55.4 sens 95.9
				4.01=4.00 7.00=7.02 10.01=10.07
1510	BOD	influent	241	
	TSS	influent	150	
1530	BOD	effluent	27	
	TSS	effluent	13	
	E. Coli	effluent	6	
	Ammonia	effluent	0.18	
Nov. 7	~~BOD~~ pH	effluent	8.62	slope 1 - 55.7 sens 96.2
1030	~~TSS E. Coli~~			slope 2 - 55.8 sens 96.4
	temp	effluent	8.9	4.01=4.00 7.00=7.03 10.01=10.07
Nov. 14	pH	upstream	8.20	slope 1 -55.8 sens 96.5
1100	temp	upstream	8.6	slope 2 -55.1 sens 95.4
	pH	effluent	8.82	4.01=4.00 7.00=7.03 10.01=10.08
	temp	effluent	10.2	
Nov. 21	pH	effluent	8.54	slope 1 -54.7 sens 94.7
1000	temp	effluent	8.3	slope 2 - 55.7 sens 96.4
				4.01=4.00 7.00=7.03 10.01=10.08
Nov. 22	BOD	effluent	8	
1510	TSS	effluent	13	
	E. Coli	effluent	4	
Nov. 28	pH	effluent	8.70	4.01=4.00 7.00=7.03 10.01=10.07
1245	temp	effluent	7.4	slope 1 - 55.0 sens 95.0
				slope 2 -56.1 sens 97.0

Dec. 2016

CITY OF THOMPSON FALLS

WWTP SAMPLING LOG

DATE/ TIME	SAMPLE TYPE	LOCATION	RESULTS	CALIBRATION INFORMATION
Dec. 6	BOD	effluent	6	
1510	TSS	effluent	8	
	E. Coli	effluent	3	
	Ammonia	effluent	0.40	
Dec. 7	pH	upstream	8.04	4.01 = 4.00 7.00 = 7.03 10.01 = 10.08
1000	temp.	upstream	3.8	slope 1 -55.3 sens. 95.8
	pH	effluent	8.61	slope 2 -55.6 sens. 96.4
	temp.	effluent	3.4	
Dec 13	pH	effluent	8.49	4.01 = 4.03 7.00 = 7.03 10.01 = 10.09
1015	temp	effluent	3.7	slope 1 -55.1 sens 95.8
				slope 2 -55.3 sens 96.1
Dec. 19	pH	effluent	8.43	4.01 = 4.00 7.00 = 7.03 10.01 = 10.09
0915	temp	effluent	3.2	slope 1 -55.8 sens 97.0
				slope 2 -54.3 sens 94.3
Dec. 27	pH	effluent	8.39	4.01 = 4.00 7.00 = 7.03 10.01 = 10.09
0940	temp	effluent	3.7	slope 1 -55.1 sens 95.8
				slope 2 -55.4 sens 96.2
Dec. 28	BOD	influent	261	
1510	TSS	influent	136	
1515	BOD	effluent	6	
	TSS	effluent	9	
	E. Coli	effluent	39	
Nov. ~~22~~ 29	Oil + Grease	effluent	ND	
1510				
Nov. 17	Ammonia	upstream	0.04	
1510	N+N	upstream	0.01	
	Phosphorus	upstream	ND	
	TKN	upstream	ND	

APPENDIX Q

RP Analysis Calculations

Parameter:	Ammonia - Proposed Permit Flows
Restriction:	Dillution = 1% Acute, 10% Chronic
Facility:	Thompson Falls
Permit Number:	MTG580035
Receiving Water:	Clark Fork River
Date:	6/27/2017

Condition		%	Chronic	Acute	Other			
Acute Std, mg/L				4.45		*from DEQ-7 based on 95th percentile pH effluent of samples*	8.35	
Chronic Std, mg/L			1.736			*from DEQ-7 based on 75th percentile temperature and pH of samples - summer and winter*		8.22 pH
ACR								12.64 deg C
Mixing Zone								
7Q10	cfs		5201	5201		*Calculate or get from permit - calculated from monthly data*		
Chronic MZ	cfs	10	520.1					
Acute MZ	cfs	1		52.01			Projected	
Effluent Flow	cfs		0.28	0.28		*Design flow converted to cfs*	180738.00 gpd	0.28
Water Quality Std.	mg/L		1.74	4.45				
Background Conc.	mg/L		0.04	0.04		*75th percentile of ammonia sample results-monitoring in ClarkFork*		0.04
Wasteload Allocation (from mass balance)								
WLAc	mg/L		3155.86			*Chronic wasteload allocation - mass balance*		
WLAa	mg/L			824.60		*Acute wasteload allocation - mass balance*		
Long-Term Average -Calc.								
Coeff. Variation (CV)	na				0.6	*CV=standard deviation/mean -*		
Percentile	%				0.99/.95	*95 for conventional;99 for toxic*		
LTAc, multiplier Table 5-1			0.644			95th		
LTAa, multiplier Table 5-1				0.321		99th		
LTAc	mg/L		2032.37			*WLAc * multiplier*		
LTAa	mg/L			264.70		*WLAa * multiplier*		
LTA=min(LTAc, LTAa)	mg/L		264.70	264.70		*Smallest of LTAc or LTAa*		
AML, multiplier Table 5-2			2.13			95th percentile 'n' = 1		
MDL, multiplier Table 5-2				3.11		99th percentile		

		AML	MDL
Final Effluent Limit	mg/L	563.8	823.2

Comment: CV=0.6, n=1, p=0.99 for Acute, 0.95 for Chronic

Parameter:	Nitrate-Projected Flow
Pollutant Type	Human Health
Restriction:	Nitrate Applicable Std=10 mg/l
Facility:	Thompson Falls
Permit Number:	MTG580035
Receiving Water:	Clark Fork River
Date:	7/5/2017

Condition		%	Chronic	Other
Applicable Standard	mg/l		10.0	
15% of Applicable Standard			1.500	
Mixing Zone				
14Q5	cfs		6069	
Mixing Zone	cfs	10	606.9	
Effluent Flow (0.46 MGD)	cfs		0.279662433	
Water Quality Std.	mg/L		10.000	
Background Conc.	mg/L		0.050	
Wasteload Allocation (from mass balance)				
WLAc	mg/L		21602.66	
Long-Term Average -Calc.				
Coeff. Variation (CV)	na			0.6
Percentile	%			99
LTAc multiplier from Table 5-1			0.527	chronic
LTAc	mg/L		11384.60	
	mg/L			
LTAc	mg/L		11384.60	
Sample Size n			1	
AML, multiplier Table 5-2			2.13	95%

		AML
Final Effluent Limit	mg/L	24249.2

Nitrite Significance Determination

Parameter:	Nitrite-Nondeg Significance-15%
Pollutant Type	Human Health
Restriction:	Nitrite Applicable Std=1 mg/l
Facility:	Thompson Falls
Permit Number:	MTG580035
Receiving Water:	Clark Fork River
Date:	7/5/2017

Condition		%	Chronic	Other
Applicable Standard	mg/l		1.0	
15% of Applicable Standard			0.150	
Mixing Zone				
14Q5	cfs		6069	
Mixing Zone	cfs	100	6069	
Effluent Flow (0.468 MGD)	cfs		0.724	
Water Quality Std. (15%)	mg/L		0.150	
Background Conc.	mg/L		0.060	
Wasteload Allocation (from mass balance)				
WLAc	mg/L		754.58	
Long-Term Average -Calc.				
Coeff. Variation (CV)	na			0.6
Percentile	%			99
LTAc multiplier from Table 5-1			0.527	chronic
LTAc	mg/L		397.67	
LTAc	mg/L		397.67	
Sample Size n			1	
AML, multiplier Table 5-2			2.13	95%

		AML
Final Effluent Limit	mg/L	847.0

Total Nitrogen Significance Determination

Parameter:	Total Nitrogen - Projected Flows
Restriction:	Annual
Facility:	Thompson Falls
Treatment Target	TN=10 mg/l
Permit Number:	MTG580035
Receiving Water:	Clark Fork River
Date:	7/5/2017

Condition		%	Standard
Standard Value			0.28
Acceptable Background = 40%	mg/L		0.11
Background Concentration (95th percentile)			0.12
Increase in Background Allowed =10%			0.01
Nondeg Water Quality Standard			0.12
14Q5	cfs		6069
Nutrient MZ	cfs	100	6069
Effluent Flow (0.181 MGD)	cfs		0.2797
Water Quality Std.	mg/L		0.01
Wasteload Allocation (from mass balance)			
WLAc	mg/L		260.43
Long-Term Average -Calc.			
Coeff. Variation (CV)	na	**0.6**	
Percentile	%	**99%**	
LTAc, multiplier Table 5-1		**99%**	0.527
LTAc	mg/L		137.24
LTA=min(LTAc, LTAa)	mg/L		137.24
Sample Size			1
AML, multiplier Table 5-2		**95%**	1.38
			AML
Final Effluent Limit	**mg/L**		**189.40**

Total Phosphorous Significance Determination

Parameter:	Total Phosphorous - Projected Flows
Restriction:	Annual
Facility:	Thompson Falls
Treatment Target	TP=1 mg/l
Permit Number:	MTG580035
Receiving Water:	Clark Fork River
Date:	7/5/2017

Condition		%	Standard	
Standard Value	mg/L		0.025	
Acceptable Background = 40%	mg/L		0.010	
Background Concentration (95th percentile)			0.051	
Increase in Background Allowed =10%			0.005	
Nondeg Water Quality Standard			0.015	
14Q5 (July-October)	cfs		6069	
Chronic MZ	cfs	100	6069	
Effluent Flow (0.181 MGD)	cfs		0.2797	180738
Water Quality Std.	mg/L		0.0051	
Wasteload Allocation (from mass balance)				
WLAc	mg/L		110.68	
Long-Term Average -Calc.				
Coeff. Variation (CV)	na	**0.6**		
Percentile	%	**99%**		
LTAc, multiplier Table 5-1		**99%**	0.527	
LTAc	mg/L		58.33	
LTA=min(LTAc, LTAa)	mg/L		58.33	
Sample Size			10	
AML, multiplier Table 5-2		**95%**	1.38	
			AML	
Final Effluent Limit	**mg/L**		**80.49**	

APPENDIX R

Financial Data

CITY OF THOMPSON FALLS
Cash Reserve Worksheet
For the Year: 2017 - 2018

Fund	Cash Available	Proposed Revenues	Proposed Expenditures	AP/AR Outstanding	Cash Remaining	% of Exp.
5310 SEWER OPERATING	122,764.60	276,686.00	277,541.00	9,814.06	112,095.54	40.39%
Totals	**122,764.60**	**276,686.00**	**277,541.00**	**9,814.06**	**112,095.54**	

For the Year: 2017 - 2018

Account Object	Actuals 13-14	Actuals 14-15	Actuals 15-16	Actuals 16-17	Current Budget 16-17	% Exp. 16-17	Prelim. Budget 17-18	Budget Changes 17-18	Final Budget 17-18	% Old Budget 17-18
5310 SEWER OPERATING										
430610 Administration										
100 SALARIES	11,208	11,484	13,321	14,214	14,941	95%	15,819	__________	15,819	106%
120 OVERTIME	59		173	67	100	67%	150	__________	150	150%
200 SUPPLIES	246	441	255		500	0%	500	__________	500	100%
310 COMMUNICATION AND TRANSPO	100		649		700	0%	700	__________	700	100%
330 PUBLICITY, SUBSCRIPTIONS	347	223			350	0%	350	__________	350	100%
340 UTILITY SERVICES	1,169	1,215	1,226	1,457	1,500	97%	1,500	__________	1,500	100%
350 PROFESSIONAL SERVICES	1,625	98		2,762	100	***%	3,000	__________	3,000	3000%
360 REPAIR & MAINTENANCE SERV	531	575	598	833	1,000	83%	1,000	__________	1,000	100%
370 TRAVEL & TRAINING				120	0	***%	__________	__________	0	0%
390 OTHER PURCHASED SERVICES PER		120	296	45,040	65,000	69%	30,000	__________	30,000	46%
510 INSURANCE	1,553	1,495	1,483	1,354	1,600	85%	1,600	__________	1,600	100%
Account:	16,838	15,651	18,001	65,847	85,791	77%	54,619	0	54,619	64%
430630 Collection and Transmission										
100 SALARIES	9,599	9,842	9,846	10,004	11,411	88%	11,805	__________	11,805	103%
120 OVERTIME	58		187	550	200	275%	550	__________	550	275%
200 SUPPLIES	1,451	7,413	3,144	12,527	3,300	380%	7,500	__________	7,500	227%
340 UTILITY SERVICES	5,193	6,287	6,316	4,763	6,500	73%	6,250	__________	6,250	96%
360 REPAIR & MAINTENANCE SERV	1,142	3,093	323	17,325	19,800	88%	91,850	__________	91,850	464%
390 OTHER PURCHASED SERVICES	200	925	5,134	804	18,000	4%	1,500	__________	1,500	8%
930 IMPROVEMENTS OTHER THAN B			16,500		0	0%	__________	__________	0	0%
940 MACHINERY & EQUIPMENT				28,857	0	***%	35,000	__________	35,000	*****%
Account:	17,643	27,560	41,450	74,830	59,211	126%	154,455	0	154,455	261%

Account Object	Actuals 13-14	Actuals 14-15	Actuals 15-16	Actuals 16-17	Current Budget 16-17	% Exp. 16-17	Prelim. Budget 17-18	Budget Changes 17-18	Final Budget 17-18	% Old Budget 17-18
430640 Treatment and Disposal										
100 SALARIES	11,528	11,744	11,971	12,569	14,473	87%	15,440	__________	15,440	107%
200 SUPPLIES	2,101	1,850	1,149	3,237	1,300	249%	4,100	__________	4,100	315%
340 UTILITY SERVICES	10,562	11,244	12,120	11,370	13,000	87%	11,750	__________	11,750	90%
360 REPAIR & MAINTENANCE SERV	938	1,065	1,081	3,236	5,000	65%	3,200	__________	3,200	64%
390 OTHER PURCHASED SERVICES	7,141	6,110	6,105	5,461	8,000	68%	10,000	__________	10,000	125%
940 MACHINERY & EQUIPMENT		4,104			0	0%	__________	__________	0	0%
Account:	32,270	36,117	32,426	35,873	41,773	86%	44,490	0	44,490	107%
490230 SEWER REVENUE BOND 1998										
610 Principal	4,789	7,750	7,984	12,431	8,500	146%	8,477	__________	8,477	100%
620 Interest	4,198	5,998	5,764	8,191	5,600	146%	5,500	__________	5,500	98%
Account:	8,987	13,748	13,748	20,622	14,100	146%	13,977	0	13,977	99%
490501 STREET, PARKS, CEMETERY EQUIPMENT INTERCAP										
610 Principal				3,620	20,000	18%	8,000	__________	8,000	40%
INTERCAP LOANS IMPROVEMENTS $7,035.95 - INTEREST $765.32 BALANCE AFTER PYMTS $25,344.51 PER $15,000 NARRITIVE FOR RRGL PLANNING GRANT $16,500										
620 Interest				276	1,500	18%	2,000	__________	2,000	133%
INTERCAP LOANS IMPROVEMENTS $7,035.95 - INTEREST $765.32 BALANCE AFTER PYMTS $25,344.51 PER $15,000 NARRITIVE FOR RRGL PLANNING GRANT $16,500										
Account:				3,896	21,500	18%	10,000	0	10,000	47%
Fund:	75,738	93,076	105,625	201,068	222,375	90%	277,541	0	277,541	125% %
Grand Total:	75,738	93,076	105,625	201,068	222,375		277,541	0	277,541	

BUDGET CERTIFICATION

THIS IS TO CERTIFY that the Preliminary Annual Budget for Fiscal 2017, was prepared according to law and adopted by the City Council on September _______, 2016; and that all financial data and other information set forth herein are complete and correct to the best of my knowledge and belief.

Signed ____________________________
Mayor, Mark Sheets

City of Thompson Falls

September _____, 2016

07/19/17 CITY OF THOMPSON FALLS

15:03:37 Revenue Budget Report -- MultiYear Actuals Report ID: B250B

For the Year: 2017 - 2018

Account	Actuals 13-14	Actuals 14-15	Actuals 15-16	Actuals 16-17	Current Budget 16-17	% Rec. 16-17	Prelim. Budget 17-18	Budget Change 17-18	Final Budget 17-18	% Old Budget 17-18
5310 SEWER OPERATING										
330000 INTERGOVERNMENTAL REVENUES										
334120 TREASURE STATE ENDOWMENT				17,000	0	***%	__________	__________	0	0%
Group:				17,000	0	***%	0	0	0	0%
340000 CHARGES FOR SERVICES										
343031 Sewer Service Charges	107,544	116,720	102,346	109,641	102,000	107%	91,458	__________	91,458	89%
343032 Sewer Installation	2,500				0	0%	__________	__________	0	0%
343036 Miscellaneous Sewer	34,428				0	0%	__________	__________	0	0%
Group:	144,472	116,720	102,346	109,641	102,000	107%	91,458	0	91,458	89%
360000 Miscellaneous Revenues										
365000 Contributions & Donations $30,000 USDA RD Planning Grant $15,000 DNRC Planning Grant RRGL RRGL Grant for repairs - $125,000 Jerry budgeted $91,850 R&M + 35,000 machinery/equip					0	0%	170,000	__________	170,000	*****%
Group:					0	0%	170,000	0	170,000	*****%
370000 INVESTMENT AND ROYALTY EARNINGS										
371010 Investment Earnings	169	230	280	270	202	134%	228	__________	228	112%
Group:	169	230	280	270	202	134%	228	0	228	112%
380000 OTHER FINANCING SOURCES										
381070 PROCEEDS FROM PER Intercap Loan $15,000 Planning grant $15,000 RD grant $30,000 City cash $5,000				52,500	55,334	95%	15,000	__________	15,000	27%
Group:				52,500	55,334	95%	15,000	0	15,000	27%
Fund:	144,641	116,950	102,626	179,411	157,536	114%	276,686	0	276,686	175%
Grand Total:	144,641	116,950	102,626	179,411	157,536		276,686	0	276,686	

BLACK MOUNTAIN SOFTWARE UTILITY BILLING SYSTEM **CITY OF THOMPSON FALLS**

AVERAGE CHARGES AND USAGE **For Charges from 7-2016 to 7-2017** **13:04:44 - 07/28/2017**

Status: **ALL**

User Types: **ALL**

Fund - Service	Average Charge	Amount
5310 - SEWER	70.76	5400
Average Total Charge:		**70.76**
Average Usage:		**5400**
5210 - WATER	44.68	7643
5210 - PENALTY	2.00	0
Average Total Charge:		**46.68**
Average Usage:		**7643**

APPENDIX S

Montana Structures Shapefile Summary

Montana Structures/Addresses Framework

Thumbnail Not Available

Tags

structure, Montana Spatial Data Infrastructure, MSDI, Structures/Addresses Framework, structures, addresses, structure, address, critical structure, building, dwelling, single-family, dwelling, multi-family, institutional residence / dorm / barrack, storage structure, garage, cabin / guest house, mobile home, health or medical facility (generic), hospital / medical center, outpatient clinic, nursing home / long term care, rehabilitation center, day care facility, public health office, pharmacy, emergency services or law enforcement facility (generic), law enforcement / police / sheriff, fire station, ambulance service / EMS, emergency shelter, Emergency Operations Center (EOC), search and rescue office / facility, transportation facility (generic), airport, heliport, parking site, rest stop / roadside park, border crossing / port of entry, railroad facility, harbor facility, bus station / dispatch facility, government or military facility, court house, correctional facility, military facility, state capitol, local government facility, state government facility, federal government facility, tribal government facility, city / town hall, education facility, school (K-12), college / university facility, water supply or treatment facility (generic), water tower, dam site, energy or utility facility (generic), electric facility, power substation, oil / gas facility, coal facility, wind facility, hydroelectric facility, information or communications facility (generic), communication tower, radio / TV broadcast facility, telephone facility, mail or shipping facility (generic), post office, commercial or retail site (generic), hotel / motel, gas station, grocery store, shopping mall / center, banking or finance facility, funeral home, office building, restaurant, disposal site, automotive retail / service, agriculture, food or livestock facility (generic), veterinary hospital / clinic, farm / ranch, grain elevator, public attraction or landmark (generic), park / recreation area, museum, library, church / place of worship, cemetery, sports facility, civic / community center, fairgrounds, industrial or manufacturing facility (generic), mine site, lumber products facility

Summary

To provide a standardized repository for structures data. The Structures/Addresses Framework is designed to support a wide range of uses for a statewide, standardized structures layer, from emergency response, to planning, to natural resource studies.

Description

The Montana Structures/Addresses Framework is a statewide spatial database of structure and address points in the State of Montana. The Montana Structures/Addresses Framework is part of the Montana Spatial Data Infrastructure (MSDI). The goal of the Montana Structures/Addresses Framework is to have a routinely updated statewide database of primary structures/buildings and addresses.

Through a federated approach, the project integrates structures and address data from local, state, federal and private data providers into a standardized database. For more information about the included datasets, see Source information in the Data Quality Information section of this document or the feature level metadata tables in the database.

Credits

There are no credits for this item.

Use limitations

DISCLAIMER: The Montana State Library Geographic Information Services provides this product/service for informational purposes only. The Library did not produce it for, nor is it suitable for legal, engineering, or surveying purposes. Consumers of this information should review or consult the primary data and information sources to ascertain the viability of the information for their purposes. The Library provides these data in good faith but does not represent or warrant its accuracy, adequacy, or completeness. In no event shall the Library be liable for any incorrect results or analysis; any direct, indirect, special, or consequential damages to any party; or any lost profits arising out of or in connection with the use or the inability to use the data or the services provided. The Library makes these data and services available as a convenience to the public, and for no other purpose. The Library reserves the right to change or revise published data and/or services at any time.

Extent

There is no extent for this item.

Scale Range

There is no scale range for this item.

You are currently using the Item Description metadata style. Change your metadata style in the Options dialog box to see additional metadata content.

Metadata for Montana Structures/Addresses Framework

Identification Information:

Citation:

Originator: Montana State Library
Publication date: 06/29/2017
Title: Montana Structures/Addresses Framework

Publisher: Montana State Library

Online linkage:ftp://ftp.geoinfo.msl.mt.gov/Data/Spatial/MSDI/AddressStructures/

Abstract:
The Montana Structures/Addresses Framework is a statewide spatial database of structure and address points in the State of Montana. The Montana Structures/Addresses Framework is part of the Montana Spatial Data Infrastructure (MSDI). The goal of the Montana Structures/Addresses Framework is to have a routinely updated statewide database of primary structures/buildings and addresses.

Through a federated approach, the project integrates structures and address data from local, state, federal and private data providers into a standardized database. For more information about the included datasets, see Source information in the Data Quality Information section of this document or the feature level metadata tables in the database.

Purpose:
To provide a standardized repository for structures data. The Structures/Addresses Framework is designed to support a wide range of uses for a statewide, standardized structures layer, from emergency response, to planning, to natural resource studies.

Time period of content:

Calendar date: 06/29/2017
Currentness reference: publication date

Status:

Progress: In work
Maintenance and update frequency: Continually

Access constraints:
None. All datasets contained in the Structures Database are publicly available and non-sensitive.
Use constraints:
DISCLAIMER: The Montana State Library Geographic Information Services provides this product/service for informational purposes only. The Library did not produce it for, nor is it suitable for legal, engineering, or surveying purposes. Consumers of this information should review or consult the primary data and information sources to ascertain the viability of the information for their purposes. The Library provides these data in good faith but does not represent or warrant its accuracy, adequacy, or completeness. In no event shall the Library be liable for any incorrect results or analysis; any direct, indirect, special, or consequential damages to any party; or any lost profits arising out of or in connection with the use or the inability to use the data or the services provided.

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Point of contact:

Montana State Library
PO Box 201800
Helena, MT 59620

Telephone: 406-444-5355
TDD/TTY telephone: 406-444-4799
Fax: 406-444-0266
E-Mail: geoinfo@mt.gov

Security information:

Security classification system: USGS Best Practices - Structures
Security classification: Unclassified

FID	UNIQUEID	PROVIDERID	DATASETID	RECORDID	PARCELID	ADDNUM	ROADNAME	POSTTYPE	POSTDIR	FULLRDNAME	FULLADDRES	COMMUNITY	ZIPCODE	NAME	GNIS_ID	STRUCTTYPE
0	305115000.STR.1314	305115000	STR	1314	35309108225150000	416	PRESTON	AVE	W	PRESTON AVE W	416 PRESTON AVE W	THOMPSON FALLS		Saint Williams Catholic Church	1780859	Church / place of worship
1	305115000.STR.106	305115000	STR	106	35309107101070000	1120	PRESTON	AVE	W	PRESTON AVE W	1120 PRESTON AVE W	THOMPSON FALLS	59873	Assembly of God Church	1780862	Church / place of worship
2	305115000.STR.1313	305115000	STR	1313	35309108228100000	704	PRESTON	AVE	W	PRESTON AVE W	704 PRESTON AVE W	THOMPSON FALLS	59873	Community Congregational Church	1780858	Church / place of worship
3	305115000.STR.1315	305115000	STR	1315	35309108227200000	611	OGDEN	AVE	W	OGDEN AVE W	611 OGDEN AVE W	THOMPSON FALLS	59873	Our Saviors Lutheran Church	1780860	Church / place of worship
4	306101002.STR.281241	306101002	STR	281241	35309109205300000	226	BOULDER	AVE		BOULDER AVE	226 BOULDER AVE	THOMPSON FALLS	59873	BOULDER AVENUE		Nursing home / long term care
5	305115000.STR.1310	305115000	STR	1310	35309108129180000	306	CHURCH	ST		CHURCH ST	306 CHURCH ST	THOMPSON FALLS	59873	Thompson Falls Christian Church	1780855	Church / place of worship
6	305115000.STR.77e19c30-	305115000	STR	77e19c30-7(	35309108137020000	225	GROVE	ST		GROVE ST	225 GROVE ST	THOMPSON FALLS	59873	Thompson Falls Volunteer Fire Department Station 2	2546479	Fire station
7	305115000.STR.1311	305115000	STR	1311	35309108133010000	414	HALEY	AVE	E	HALEY AVE E	414 HALEY AVE E	THOMPSON FALLS	59873	Pentecostal Church of God	1780856	Church / place of worship
8	305115000.STR.1317	305115000	STR	1317	35309109205400000	210	GOLF	ST		GOLF ST	210 GOLF ST	THOMPSON FALLS	59873	The Church of Jesus Christ of Latter Day Saints	1780863	Church / place of worship
9	305115000.STR.1316	305115000	STR	1316	35309109102250000	1107	MT SILCOX	DR		MT SILCOX DR	1107 MT SILCOX DR	THOMPSON FALLS	59873	Jehovahs Witnesses	1780861	Church / place of worship
10	99089000.STR.69	99089000	STR	69		723	SOUTHWOOD	CT		SOUTHWOOD CT	723 SOUTHWOOD CT	THOMPSON FALLS	59873			Dwelling, single-family
11	99089000.STR.149	99089000	STR	149		905	HALEY	AVE	E	HALEY AVE E	905 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
12	99089000.STR.228	99089000	STR	228		518	GROVE	ST		GROVE ST	518 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
13	99089000.STR.229	99089000	STR	229		411	CEDAR	ST		CEDAR ST	411 CEDAR ST	THOMPSON FALLS	59873			Mobile home
14	99089000.STR.269	99089000	STR	269		104	GREENWOOD	ST		GREENWOOD ST	104 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
15	99089000.STR.320	99089000	STR	320		208	BOULDER	AVE		BOULDER AVE	208 BOULDER AVE	THOMPSON FALLS	59873			Dwelling, multi-family
16	99089000.STR.399	99089000	STR	399		229	BOULDER	AVE		BOULDER AVE	229 BOULDER AVE	THOMPSON FALLS	59873			Dwelling, single-family
17	99089000.STR.462	99089000	STR	462		215	WOODLAND	ST		WOODLAND ST	215 WOODLAND ST	THOMPSON FALLS	59873			Mobile home
18	99089000.STR.467	99089000	STR	467		228	CLAY	ST		CLAY ST	228 CLAY ST	THOMPSON FALLS	59873			Mobile home
19	99089000.STR.468	99089000	STR	468		425	FERRY	ST	N	FERRY ST N	425 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
20	99089000.STR.471	99089000	STR	471		505	WOODLAND	ST		WOODLAND ST	505 WOODLAND ST	THOMPSON FALLS	59873			Mobile home
21	99089000.STR.478	99089000	STR	478		202	BOULDER	AVE		BOULDER AVE	202 BOULDER AVE	THOMPSON FALLS	59873			Dwelling, multi-family
22	99089000.STR.490	99089000	STR	490		206	BOULDER	AVE		BOULDER AVE	206 BOULDER AVE	THOMPSON FALLS	59873			Dwelling, multi-family
23	99089000.STR.497	99089000	STR	497		503	COLUMBIA	ST	N	COLUMBIA ST N	503 COLUMBIA ST N	THOMPSON FALLS	59873			Mobile home
24	99089000.STR.498	99089000	STR	498		114	MADISON	ST	N	MADISON ST N	114 MADISON ST N	THOMPSON FALLS	59873			Mobile home
25	99089000.STR.500	99089000	STR	500		204	BOULDER	AVE		BOULDER AVE	204 BOULDER AVE	THOMPSON FALLS	59873			Dwelling, multi-family
26	99089000.STR.573	99089000	STR	573		1199	MT SILCOX	DR		MT SILCOX DR	1199 MT SILCOX DR	THOMPSON FALLS	59873			Dwelling, single-family
27	99089000.STR.577	99089000	STR	577		608	ASPEN	CT		ASPEN CT	608 ASPEN CT	THOMPSON FALLS	59873			Dwelling, single-family
28	99089000.STR.578	99089000	STR	578		715	SOUTHWOOD	CT		SOUTHWOOD CT	715 SOUTHWOOD CT	THOMPSON FALLS	59873			Dwelling, single-family
29	99089000.STR.580	99089000	STR	580		543	GRIZZLY	DR		GRIZZLY DR	543 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
30	99089000.STR.583	99089000	STR	583		605	ASPEN	CT		ASPEN CT	605 ASPEN CT	THOMPSON FALLS	59873			Dwelling, single-family
31	99089000.STR.584	99089000	STR	584		605	ASPEN	CT		ASPEN CT	605 ASPEN CT	THOMPSON FALLS	59873			Commercial or retail site (generic)
32	99089000.STR.585	99089000	STR	585		720	SOUTHWOOD	CT		SOUTHWOOD CT	720 SOUTHWOOD CT	THOMPSON FALLS	59873			Dwelling, single-family
33	99089000.STR.1361	99089000	STR	1361		221	ADAMS	ST		ADAMS ST	221 ADAMS ST	THOMPSON FALLS	59873			Dwelling, single-family
34	99089000.STR.1372	99089000	STR	1372		102	KOO KOO SINT	CT		KOO KOO SINT CT	102 KOO KOO SINT CT	THOMPSON FALLS	59873			Dwelling, single-family
35	99089000.STR.1373	99089000	STR	1373		101	KOO KOO SINT	CT		KOO KOO SINT CT	101 KOO KOO SINT CT	THOMPSON FALLS	59873			Dwelling, single-family
36	99089000.STR.1374	99089000	STR	1374		108	KANIKSU	CT		KANIKSU CT	108 KANIKSU CT	THOMPSON FALLS	59873			Dwelling, single-family
37	99089000.STR.1375	99089000	STR	1375		105	KANIKSU	CT		KANIKSU CT	105 KANIKSU CT	THOMPSON FALLS	59873			Dwelling, single-family
38	99089000.STR.1376	99089000	STR	1376		106	KANIKSU	CT		KANIKSU CT	106 KANIKSU CT	THOMPSON FALLS	59873			Dwelling, single-family
39	99089000.STR.1378	99089000	STR	1378		424	GREENWOOD	ST		GREENWOOD ST	424 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
40	99089000.STR.1379	99089000	STR	1379		414	GREENWOOD	ST		GREENWOOD ST	414 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
41	99089000.STR.1380	99089000	STR	1380		417	GREENWOOD	ST		GREENWOOD ST	417 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
42	99089000.STR.1381	99089000	STR	1381		403	GREENWOOD	ST		GREENWOOD ST	403 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
43	99089000.STR.1382	99089000	STR	1382		305	GREENWOOD	ST		GREENWOOD ST	305 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
44	99089000.STR.1383	99089000	STR	1383		315	GREENWOOD	ST		GREENWOOD ST	315 GREENWOOD ST	THOMPSON FALLS	59873			Building (generic)
45	99089000.STR.1386	99089000	STR	1386		507	BIGHORN	DR		BIGHORN DR	507 BIGHORN DR	THOMPSON FALLS	59873			Dwelling, multi-family
46	99089000.STR.1391	99089000	STR	1391		214	GREENWOOD	ST		GREENWOOD ST	214 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
47	99089000.STR.1392	99089000	STR	1392		202	GREENWOOD	ST		GREENWOOD ST	202 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
48	99089000.STR.1393	99089000	STR	1393		205	GREENWOOD	ST		GREENWOOD ST	205 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
49	99089000.STR.1394	99089000	STR	1394		201	GREENWOOD	ST		GREENWOOD ST	201 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
50	99089000.STR.1396	99089000	STR	1396		307	CHURCH	ST		CHURCH ST	307 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
51	99089000.STR.1398	99089000	STR	1398		318	CHURCH	ST		CHURCH ST	318 CHURCH ST	THOMPSON FALLS	59873			Mobile home
52	99089000.STR.1399	99089000	STR	1399		319	CHURCH	ST		CHURCH ST	319 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
53	99089000.STR.1400	99089000	STR	1400		330	CHURCH	ST		CHURCH ST	330 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
54	99089000.STR.1402	99089000	STR	1402		403	CHURCH	ST		CHURCH ST	403 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
55	99089000.STR.1403	99089000	STR	1403		408	CHURCH	ST		CHURCH ST	408 CHURCH ST	THOMPSON FALLS	59873			Mobile home
56	99089000.STR.1404	99089000	STR	1404		416	CHURCH	ST		CHURCH ST	416 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
57	99089000.STR.1405	99089000	STR	1405		415	CHURCH	ST		CHURCH ST	415 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
58	99089000.STR.1406	99089000	STR	1406		504	CHURCH	ST		CHURCH ST	504 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
59	99089000.STR.1408	99089000	STR	1408		509	CHURCH	ST		CHURCH ST	509 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
60	99089000.STR.1409	99089000	STR	1409		508	CHURCH	ST		CHURCH ST	508 CHURCH ST	THOMPSON FALLS	59873			Mobile home
61	99089000.STR.1410	99089000	STR	1410		519	CHURCH	ST		CHURCH ST	519 CHURCH ST	THOMPSON FALLS	59873			Mobile home
62	99089000.STR.1411	99089000	STR	1411		603	CHURCH	ST		CHURCH ST	603 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
63	99089000.STR.1412	99089000	STR	1412		610	CHURCH	ST		CHURCH ST	610 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
64	99089000.STR.1414	99089000	STR	1414		609	CHURCH	ST		CHURCH ST	609 CHURCH ST	THOMPSON FALLS	59873			Mobile home
65	99089000.STR.1415	99089000	STR	1415		617	CHURCH	ST		CHURCH ST	617 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
66	99089000.STR.1416	99089000	STR	1416		626	CLAY	ST		CLAY ST	626 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
67	99089000.STR.1417	99089000	STR	1417		625	CLAY	ST		CLAY ST	625 CLAY ST	THOMPSON FALLS	59873			Mobile home
68	99089000.STR.1418	99089000	STR	1418		622	CLAY	ST		CLAY ST	622 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
69	99089000.STR.1419	99089000	STR	1419		614	CLAY	ST		CLAY ST	614 CLAY ST	THOMPSON FALLS	59873			Mobile home
70	99089000.STR.1420	99089000	STR	1420		534	MAPLE	ST		MAPLE ST	534 MAPLE ST	THOMPSON FALLS	59873			Dwelling, single-family
71	99089000.STR.1421	99089000	STR	1421		526	MAPLE	ST		MAPLE ST	526 MAPLE ST	THOMPSON FALLS	59873			Dwelling, single-family
72	99089000.STR.1422	99089000	STR	1422		520	MAPLE	ST		MAPLE ST	520 MAPLE ST	THOMPSON FALLS	59873			Dwelling, single-family
73	99089000.STR.1423	99089000	STR	1423		515	MAPLE	ST		MAPLE ST	515 MAPLE ST	THOMPSON FALLS	59873			Dwelling, single-family
74	99089000.STR.1461	99089000	STR	1461		204	CLAY	ST		CLAY ST	204 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
75	99089000.STR.1539	99089000	STR	1539		601	COLUMBIA	ST	N	COLUMBIA ST N	601 COLUMBIA ST N	THOMPSON FALLS	59873			Government or military facility (generic)
76	99089000.STR.1560	99089000	STR	1560		102	PARK	ST		PARK ST	102 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
77	99089000.STR.1561	99089000	STR	1561		314	WOOD	ST		WOOD ST	314 WOOD ST	THOMPSON FALLS	59873			Mobile home
78	99089000.STR.1562	99089000	STR	1562		311	WOOD	ST		WOOD ST	311 WOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
79	99089000.STR.1563	99089000	STR	1563		304	WOOD	ST		WOOD ST	304 WOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
80	99089000.STR.1564	99089000	STR	1564		323	JEFFERSON	ST	N	JEFFERSON ST N	323 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
81	99089000.STR.1565	99089000	STR	1565		318	JEFFERSON	ST	N	JEFFERSON ST N	318 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
82	99089000.STR.1566	99089000	STR	1566		315	JEFFERSON	ST	N	JEFFERSON ST N	315 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
83	99089000.STR.1567	99089000	STR	1567		314	JEFFERSON	ST	N	JEFFERSON ST N	314 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
84	99089000.STR.1571	99089000	STR	1571		322	GROVE	ST		GROVE ST	322 GROVE ST	THOMPSON FALLS	59873			Mobile home
85	99089000.STR.1572	99089000	STR	1572		323	GROVE	ST		GROVE ST	323 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
86	99089000.STR.1575	99089000	STR	1575		410	GROVE	ST		GROVE ST	410 GROVE ST	THOMPSON FALLS	59873			Mobile home

FID	UNIQUEID	PROVIDERID	DATASETID	RECORDID	PARCELID	ADDNUM	ROADNAME	POSTTYPE	POSTDIR	FULLRDNAME	FULLADDRES	COMMUNITY	ZIPCODE	NAME	GNIS_ID	STRUCTTYPE
87	99089000.STR.1619	99089000	STR	1619		514	HALEY	AVE	E	HALEY AVE E	514 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
88	99089000.STR.1620	99089000	STR	1620		607	HALEY	AVE	E	HALEY AVE E	607 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
89	99089000.STR.1621	99089000	STR	1621		616	PRESTON	AVE	W	PRESTON AVE W	616 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
90	99089000.STR.1622	99089000	STR	1622		608	PRESTON	AVE	W	PRESTON AVE W	608 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
91	99089000.STR.1623	99089000	STR	1623		104	EDDY	ST		EDDY ST	104 EDDY ST	THOMPSON FALLS	59873			Dwelling, single-family
92	99089000.STR.1625	99089000	STR	1625		211	EDDY	ST		EDDY ST	211 EDDY ST	THOMPSON FALLS	59873			Dwelling, single-family
93	99089000.STR.1626	99089000	STR	1626		410	GOLF	ST		GOLF ST	410 GOLF ST	THOMPSON FALLS	59873			Civic / community center
94	99089000.STR.1630	99089000	STR	1630		1192	MT SILCOX	DR		MT SILCOX DR	1192 MT SILCOX DR	THOMPSON FALLS	59873			Dwelling, single-family
95	99089000.STR.1633	99089000	STR	1633		1191	MT SILCOX	DR		MT SILCOX DR	1191 MT SILCOX DR	THOMPSON FALLS	59873			Civic / community center
96	99089000.STR.1634	99089000	STR	1634		1209	MT SILCOX	DR		MT SILCOX DR	1209 MT SILCOX DR	THOMPSON FALLS	59873			Dwelling, single-family
97	99089000.STR.1635	99089000	STR	1635		704	SOUTHWOOD	CT		SOUTHWOOD CT	704 SOUTHWOOD CT	THOMPSON FALLS	59873			Dwelling, single-family
98	99089000.STR.1636	99089000	STR	1636		708	SOUTHWOOD	CT		SOUTHWOOD CT	708 SOUTHWOOD CT	THOMPSON FALLS	59873			Dwelling, single-family
99	99089000.STR.1637	99089000	STR	1637		712	SOUTHWOOD	CT		SOUTHWOOD CT	712 SOUTHWOOD CT	THOMPSON FALLS	59873			Dwelling, single-family
100	99089000.STR.1638	99089000	STR	1638		716	SOUTHWOOD	CT		SOUTHWOOD CT	716 SOUTHWOOD CT	THOMPSON FALLS	59873			Dwelling, single-family
101	99089000.STR.1639	99089000	STR	1639		1219	MT SILCOX	DR		MT SILCOX DR	1219 MT SILCOX DR	THOMPSON FALLS	59873			Dwelling, single-family
102	99089000.STR.1640	99089000	STR	1640		1014	OGDEN	AVE	W	OGDEN AVE W	1014 OGDEN AVE W	THOMPSON FALLS	59873			Dwelling, single-family
103	99089000.STR.1641	99089000	STR	1641		715	OGDEN	AVE	W	OGDEN AVE W	715 OGDEN AVE W	THOMPSON FALLS	59873			Dwelling, single-family
104	99089000.STR.1643	99089000	STR	1643		311	3RD	AVE	E	3RD AVE E	311 3RD AVE E	THOMPSON FALLS	59873			Dwelling, single-family
105	99089000.STR.1645	99089000	STR	1645		307	3RD	AVE	E	3RD AVE E	307 3RD AVE E	THOMPSON FALLS	59873			Dwelling, single-family
106	99089000.STR.1646	99089000	STR	1646		206	3RD	AVE	W	3RD AVE W	206 3RD AVE W	THOMPSON FALLS	59873			Mobile home
107	99089000.STR.1647	99089000	STR	1647		307	3RD	AVE	W	3RD AVE W	307 3RD AVE W	THOMPSON FALLS	59873			Education facility (generic)
108	99089000.STR.1649	99089000	STR	1649		406	3RD	AVE	W	3RD AVE W	406 3RD AVE W	THOMPSON FALLS	59873			Dwelling, single-family
109	99089000.STR.1650	99089000	STR	1650		412	3RD	AVE	W	3RD AVE W	412 3RD AVE W	THOMPSON FALLS	59873			Dwelling, single-family
110	99089000.STR.1651	99089000	STR	1651		512	3RD	AVE	W	3RD AVE W	512 3RD AVE W	THOMPSON FALLS	59873			Dwelling, single-family
111	99089000.STR.1652	99089000	STR	1652		602	PRESTON	AVE	W	PRESTON AVE W	602 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
112	99089000.STR.1653	99089000	STR	1653		508	PRESTON	AVE	W	PRESTON AVE W	508 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
113	99089000.STR.1654	99089000	STR	1654		322	PRESTON	AVE	W	PRESTON AVE W	322 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
114	99089000.STR.1657	99089000	STR	1657		312	PRESTON	AVE	W	PRESTON AVE W	312 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
115	99089000.STR.1658	99089000	STR	1658		308	PRESTON	AVE	W	PRESTON AVE W	308 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
116	99089000.STR.1659	99089000	STR	1659		210	PRESTON	AVE	W	PRESTON AVE W	210 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, multi-family
117	99089000.STR.1661	99089000	STR	1661		202	PRESTON	AVE	W	PRESTON AVE W	202 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, multi-family
118	99089000.STR.1662	99089000	STR	1662		120	PRESTON	AVE	W	PRESTON AVE W	120 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
119	99089000.STR.1665	99089000	STR	1665		1122	PRESTON	AVE	W	PRESTON AVE W	1122 PRESTON AVE W	THOMPSON FALLS	59873			Mobile home
120	99089000.STR.1688	99089000	STR	1688		708	HALEY	AVE	E	HALEY AVE E	708 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
121	99089000.STR.1689	99089000	STR	1689		908	HALEY	AVE	E	HALEY AVE E	908 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
122	99089000.STR.1690	99089000	STR	1690		916	HALEY	AVE	E	HALEY AVE E	916 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
123	99089000.STR.1691	99089000	STR	1691		926	HALEY	AVE	E	HALEY AVE E	926 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
124	99089000.STR.1693	99089000	STR	1693		925	HALEY	AVE	E	HALEY AVE E	925 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
125	99089000.STR.1694	99089000	STR	1694		215	ADAMS	ST		ADAMS ST	215 ADAMS ST	THOMPSON FALLS	59873			Dwelling, single-family
126	99089000.STR.1695	99089000	STR	1695		216	ADAMS	ST		ADAMS ST	216 ADAMS ST	THOMPSON FALLS	59873			Dwelling, single-family
127	99089000.STR.1696	99089000	STR	1696		220	ADAMS	ST		ADAMS ST	220 ADAMS ST	THOMPSON FALLS	59873			Mobile home
128	99089000.STR.1697	99089000	STR	1697		305	ADAMS	ST		ADAMS ST	305 ADAMS ST	THOMPSON FALLS	59873			Mobile home
129	99089000.STR.1698	99089000	STR	1698		308	ADAMS	ST		ADAMS ST	308 ADAMS ST	THOMPSON FALLS	59873			Mobile home
130	99089000.STR.1699	99089000	STR	1699		317	ADAMS	ST		ADAMS ST	317 ADAMS ST	THOMPSON FALLS	59873			Dwelling, single-family
131	99089000.STR.1701	99089000	STR	1701		409	ADAMS	ST		ADAMS ST	409 ADAMS ST	THOMPSON FALLS	59873			Dwelling, single-family
132	99089000.STR.1702	99089000	STR	1702		109	GOLF	ST		GOLF ST	109 GOLF ST	THOMPSON FALLS	59873			Dwelling, single-family
133	99089000.STR.1705	99089000	STR	1705		108	GOLF	ST		GOLF ST	108 GOLF ST	THOMPSON FALLS	59873			Dwelling, single-family
134	99089000.STR.1707	99089000	STR	1707		306	GOLF	ST		GOLF ST	306 GOLF ST	THOMPSON FALLS	59873			Dwelling, single-family
135	99089000.STR.1708	99089000	STR	1708		310	GOLF	ST		GOLF ST	310 GOLF ST	THOMPSON FALLS	59873			Dwelling, single-family
136	99089000.STR.1710	99089000	STR	1710		507	GOLF	ST		GOLF ST	507 GOLF ST	THOMPSON FALLS	59873			Civic / community center
137	99089000.STR.1711	99089000	STR	1711		506	GOLF	ST		GOLF ST	506 GOLF ST	THOMPSON FALLS	59873			Civic / community center
138	99089000.STR.1713	99089000	STR	1713		709	GOLF	ST		GOLF ST	709 GOLF ST	THOMPSON FALLS	59873			Building (generic)
139	99089000.STR.1714	99089000	STR	1714		711	GOLF	ST		GOLF ST	711 GOLF ST	THOMPSON FALLS	59873			Government or military facility (generic)
140	99089000.STR.1716	99089000	STR	1716		610	GOLF	ST		GOLF ST	610 GOLF ST	THOMPSON FALLS	59873			Government or military facility (generic)
141	99089000.STR.1717	99089000	STR	1717		102	HILL	ST		HILL ST	102 HILL ST	THOMPSON FALLS	59873			Dwelling, single-family
142	99089000.STR.1718	99089000	STR	1718		101	HILL	ST		HILL ST	101 HILL ST	THOMPSON FALLS	59873			Dwelling, single-family
143	99089000.STR.1719	99089000	STR	1719		107	HILL	ST		HILL ST	107 HILL ST	THOMPSON FALLS	59873			Mobile home
144	99089000.STR.1720	99089000	STR	1720		116	HILL	ST		HILL ST	116 HILL ST	THOMPSON FALLS	59873			Dwelling, single-family
145	99089000.STR.1721	99089000	STR	1721		105	ELK	ST		ELK ST	105 ELK ST	THOMPSON FALLS	59873			Dwelling, single-family
146	99089000.STR.1724	99089000	STR	1724		104	ELK	ST		ELK ST	104 ELK ST	THOMPSON FALLS	59873			Dwelling, single-family
147	99089000.STR.1732	99089000	STR	1732		212	BOULDER	AVE		BOULDER AVE	212 BOULDER AVE	THOMPSON FALLS	59873			Dwelling, single-family
148	99089000.STR.1733	99089000	STR	1733		410	WASHINGTON	ST		WASHINGTON ST	410 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
149	99089000.STR.1734	99089000	STR	1734		322	WASHINGTON	ST		WASHINGTON ST	322 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
150	99089000.STR.1736	99089000	STR	1736		319	WASHINGTON	ST		WASHINGTON ST	319 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
151	99089000.STR.1737	99089000	STR	1737		312	WASHINGTON	ST		WASHINGTON ST	312 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
152	99089000.STR.1738	99089000	STR	1738		307	WASHINGTON	ST		WASHINGTON ST	307 WASHINGTON ST	THOMPSON FALLS	59873			Commercial or retail site (generic)
153	99089000.STR.1740	99089000	STR	1740		303	WASHINGTON	ST		WASHINGTON ST	303 WASHINGTON ST	THOMPSON FALLS	59873			Mobile home
154	99089000.STR.1741	99089000	STR	1741		221	WASHINGTON	ST		WASHINGTON ST	221 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
155	99089000.STR.1742	99089000	STR	1742		220	WASHINGTON	ST		WASHINGTON ST	220 WASHINGTON ST	THOMPSON FALLS	59873			Mobile home
156	99089000.STR.1744	99089000	STR	1744		216	GROVE	ST		GROVE ST	216 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
157	99089000.STR.1745	99089000	STR	1745		219	GROVE	ST		GROVE ST	219 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
158	99089000.STR.1746	99089000	STR	1746		224	GROVE	ST		GROVE ST	224 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
159	99089000.STR.1747	99089000	STR	1747		225	GROVE	ST		GROVE ST	225 GROVE ST	THOMPSON FALLS	59873			Emergency services or law enforcement
160	99089000.STR.1748	99089000	STR	1748		314	GROVE	ST		GROVE ST	314 GROVE ST	THOMPSON FALLS	59873			Mobile home
161	99089000.STR.1752	99089000	STR	1752		224	MADISON	ST	N	MADISON ST N	224 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
162	99089000.STR.1753	99089000	STR	1753		217	MADISON	ST	N	MADISON ST N	217 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
163	99089000.STR.1754	99089000	STR	1754		216	MADISON	ST	N	MADISON ST N	216 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
164	99089000.STR.1756	99089000	STR	1756		215	MADISON	ST	N	MADISON ST N	215 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
165	99089000.STR.1757	99089000	STR	1757		213	MADISON	ST	N	MADISON ST N	213 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
166	99089000.STR.1758	99089000	STR	1758		212	MADISON	ST	N	MADISON ST N	212 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
167	99089000.STR.1760	99089000	STR	1760		503	CEDAR	ST		CEDAR ST	503 CEDAR ST	THOMPSON FALLS	59873			Dwelling, multi-family
168	99089000.STR.1761	99089000	STR	1761		320	GALLATIN	ST	N	GALLATIN ST N	320 GALLATIN ST N	THOMPSON FALLS	59873			Commercial or retail site (generic)
169	99089000.STR.1762	99089000	STR	1762		317	GALLATIN	ST	N	GALLATIN ST N	317 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
170	99089000.STR.1763	99089000	STR	1763		105	PARK	ST		PARK ST	105 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
171	99089000.STR.1764	99089000	STR	1764		108	PARK	ST		PARK ST	108 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
172	99089000.STR.1765	99089000	STR	1765		220	WOOD	ST		WOOD ST	220 WOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
173	99089000.STR.1768	99089000	STR	1768		207	WOOD	ST		WOOD ST	207 WOOD ST	THOMPSON FALLS	59873			Commercial or retail site (generic)

FID	UNIQUEID	PROVIDERID	DATASETID	RECORDID	PARCELID	ADDNUM	ROADNAME	POSTTYPE	POSTDIR	FULLRDNAME	FULLADDRES	COMMUNITY	ZIPCODE	NAME	GNIS_ID	STRUCTTYPE
174	99089000.STR.1772	99089000	STR	1772		311	GALLATIN	ST	N	GALLATIN ST N	311 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
175	99089000.STR.1773	99089000	STR	1773		306	GALLATIN	ST	N	GALLATIN ST N	306 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
176	99089000.STR.1774	99089000	STR	1774		222	GALLATIN	ST	N	GALLATIN ST N	222 GALLATIN ST N	THOMPSON FALLS	59873			Mobile home
177	99089000.STR.1775	99089000	STR	1775		219	GALLATIN	ST	N	GALLATIN ST N	219 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
178	99089000.STR.1776	99089000	STR	1776		212	GALLATIN	ST	N	GALLATIN ST N	212 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
179	99089000.STR.1777	99089000	STR	1777		205	GALLATIN	ST	N	GALLATIN ST N	205 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
180	99089000.STR.1780	99089000	STR	1780		113	GALLATIN	ST	N	GALLATIN ST N	113 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
181	99089000.STR.1781	99089000	STR	1781		114	GALLATIN	ST	N	GALLATIN ST N	114 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
182	99089000.STR.1782	99089000	STR	1782		107	GALLATIN	ST	N	GALLATIN ST N	107 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
183	99089000.STR.1783	99089000	STR	1783		102	GALLATIN	ST	N	GALLATIN ST N	102 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
184	99089000.STR.1784	99089000	STR	1784		321	PARK	ST		PARK ST	321 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
185	99089000.STR.1785	99089000	STR	1785		315	PARK	ST		PARK ST	315 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
186	99089000.STR.1786	99089000	STR	1786		310	PARK	ST		PARK ST	310 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
187	99089000.STR.1787	99089000	STR	1787		305	PARK	ST		PARK ST	305 PARK ST	THOMPSON FALLS	59873			Mobile home
188	99089000.STR.1788	99089000	STR	1788		304	PARK	ST		PARK ST	304 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
189	99089000.STR.1789	99089000	STR	1789		222	PARK	ST		PARK ST	222 PARK ST	THOMPSON FALLS	59873			Mobile home
190	99089000.STR.1792	99089000	STR	1792		207	CHURCH	ST		CHURCH ST	207 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
191	99089000.STR.1793	99089000	STR	1793		214	CHURCH	ST		CHURCH ST	214 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
192	99089000.STR.1794	99089000	STR	1794		418	GROVE	ST		GROVE ST	418 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
193	99089000.STR.1796	99089000	STR	1796		421	GROVE	ST		GROVE ST	421 GROVE ST	THOMPSON FALLS	59873			Mobile home
194	99089000.STR.1797	99089000	STR	1797		427	GROVE	ST		GROVE ST	427 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
195	99089000.STR.1798	99089000	STR	1798		504	GROVE	ST		GROVE ST	504 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
196	99089000.STR.1800	99089000	STR	1800		206	PARK	ST		PARK ST	206 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
197	99089000.STR.1863	99089000	STR	1863		510	BIGHORN	DR		BIGHORN DR	510 BIGHORN DR	THOMPSON FALLS	59873			Dwelling, multi-family
198	99089000.STR.1864	99089000	STR	1864		525	BIGHORN	DR		BIGHORN DR	525 BIGHORN DR	THOMPSON FALLS	59873			Dwelling, single-family
199	99089000.STR.1865	99089000	STR	1865		530	BIGHORN	DR		BIGHORN DR	530 BIGHORN DR	THOMPSON FALLS	59873			Dwelling, single-family
200	99089000.STR.1866	99089000	STR	1866		538	BIGHORN	DR		BIGHORN DR	538 BIGHORN DR	THOMPSON FALLS	59873			Dwelling, single-family
201	99089000.STR.1867	99089000	STR	1867		546	BIGHORN	DR		BIGHORN DR	546 BIGHORN DR	THOMPSON FALLS	59873			Dwelling, single-family
202	99089000.STR.1868	99089000	STR	1868		104	KOO KOO SINT	CT		KOO KOO SINT CT	104 KOO KOO SINT CT	THOMPSON FALLS	59873			Dwelling, single-family
203	99089000.STR.1925	99089000	STR	1925		311	SPRUCE	ST		SPRUCE ST	311 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, multi-family
204	99089000.STR.1964	99089000	STR	1964		218	BOULDER	AVE		BOULDER AVE	218 BOULDER AVE	THOMPSON FALLS	59873			Mobile home
205	99089000.STR.1965	99089000	STR	1965		219	BOULDER	AVE		BOULDER AVE	219 BOULDER AVE	THOMPSON FALLS	59873			Dwelling, single-family
206	99089000.STR.1966	99089000	STR	1966		225	BOULDER	AVE		BOULDER AVE	225 BOULDER AVE	THOMPSON FALLS	59873			Dwelling, single-family
207	99089000.STR.1968	99089000	STR	1968		105	EDDY	ST		EDDY ST	105 EDDY ST	THOMPSON FALLS	59873			Dwelling, single-family
208	99089000.STR.1969	99089000	STR	1969		606	3RD	AVE	W	3RD AVE W	606 3RD AVE W	THOMPSON FALLS	59873			Dwelling, single-family
209	99089000.STR.1970	99089000	STR	1970		612	3RD	AVE	W	3RD AVE W	612 3RD AVE W	THOMPSON FALLS	59873			Dwelling, single-family
210	99089000.STR.1971	99089000	STR	1971		1214	HALEY	AVE	W	HALEY AVE W	1214 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
211	99089000.STR.1972	99089000	STR	1972		1210	HALEY	AVE	W	HALEY AVE W	1210 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
212	99089000.STR.1975	99089000	STR	1975		1206	HALEY	AVE	W	HALEY AVE W	1206 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
213	99089000.STR.1976	99089000	STR	1976		911	HALEY	AVE	W	HALEY AVE W	911 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
214	99089000.STR.1977	99089000	STR	1977		906	HALEY	AVE	W	HALEY AVE W	906 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
215	99089000.STR.1978	99089000	STR	1978		806	HALEY	AVE	W	HALEY AVE W	806 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
216	99089000.STR.1979	99089000	STR	1979		612	HALEY	AVE	W	HALEY AVE W	612 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
217	99089000.STR.1980	99089000	STR	1980		611	HALEY	AVE	W	HALEY AVE W	611 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
218	99089000.STR.1981	99089000	STR	1981		108	SPRUCE	ST		SPRUCE ST	108 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
219	99089000.STR.1982	99089000	STR	1982		107	SPRUCE	ST		SPRUCE ST	107 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
220	99089000.STR.1984	99089000	STR	1984		518	FERRY	ST	N	FERRY ST N	518 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
221	99089000.STR.1985	99089000	STR	1985		504	FERRY	ST	N	FERRY ST N	504 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
222	99089000.STR.1999	99089000	STR	1999		426	FERRY	ST	N	FERRY ST N	426 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
223	99089000.STR.2000	99089000	STR	2000		421	FERRY	ST	N	FERRY ST N	421 FERRY ST N	THOMPSON FALLS	59873			Mobile home
224	99089000.STR.2001	99089000	STR	2001		420	FERRY	ST	N	FERRY ST N	420 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
225	99089000.STR.2002	99089000	STR	2002		413	FERRY	ST	N	FERRY ST N	413 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
226	99089000.STR.2003	99089000	STR	2003		414	FERRY	ST	N	FERRY ST N	414 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
227	99089000.STR.2004	99089000	STR	2004		409	FERRY	ST	N	FERRY ST N	409 FERRY ST N	THOMPSON FALLS	59873			Mobile home
228	99089000.STR.2007	99089000	STR	2007		326	FERRY	ST	N	FERRY ST N	326 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
229	99089000.STR.2008	99089000	STR	2008		320	FERRY	ST	N	FERRY ST N	320 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
230	99089000.STR.2009	99089000	STR	2009		312	FERRY	ST	N	FERRY ST N	312 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
231	99089000.STR.2010	99089000	STR	2010		304	FERRY	ST	N	FERRY ST N	304 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
232	99089000.STR.2011	99089000	STR	2011		228	FERRY	ST	N	FERRY ST N	228 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
233	99089000.STR.2012	99089000	STR	2012		219	FERRY	ST	N	FERRY ST N	219 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
234	99089000.STR.2015	99089000	STR	2015		212	FERRY	ST	N	FERRY ST N	212 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
235	99089000.STR.2016	99089000	STR	2016		209	FERRY	ST	N	FERRY ST N	209 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
236	99089000.STR.2027	99089000	STR	2027		511	COLUMBIA	ST	N	COLUMBIA ST N	511 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
237	99089000.STR.2029	99089000	STR	2029		506	COLUMBIA	ST	N	COLUMBIA ST N	506 COLUMBIA ST N	THOMPSON FALLS	59873			Mobile home
238	99089000.STR.2032	99089000	STR	2032		428	COLUMBIA	ST	N	COLUMBIA ST N	428 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
239	99089000.STR.2033	99089000	STR	2033		427	COLUMBIA	ST	N	COLUMBIA ST N	427 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
240	99089000.STR.2034	99089000	STR	2034		418	COLUMBIA	ST	N	COLUMBIA ST N	418 COLUMBIA ST N	THOMPSON FALLS	59873			Mobile home
241	99089000.STR.2035	99089000	STR	2035		415	COLUMBIA	ST	N	COLUMBIA ST N	415 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
242	99089000.STR.2036	99089000	STR	2036		410	COLUMBIA	ST	N	COLUMBIA ST N	410 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
243	99089000.STR.2037	99089000	STR	2037		406	COLUMBIA	ST	N	COLUMBIA ST N	406 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
244	99089000.STR.2040	99089000	STR	2040		222	COLUMBIA	ST	N	COLUMBIA ST N	222 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
245	99089000.STR.2042	99089000	STR	2042		204	FERRY	ST	N	FERRY ST N	204 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
246	99089000.STR.2044	99089000	STR	2044		115	FERRY	ST	N	FERRY ST N	115 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
247	99089000.STR.2045	99089000	STR	2045		116	FERRY	ST	N	FERRY ST N	116 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
248	99089000.STR.2046	99089000	STR	2046		118	GREENWOOD	ST		GREENWOOD ST	118 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
249	99089000.STR.2048	99089000	STR	2048		111	GROVE	ST		GROVE ST	111 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
250	99089000.STR.2049	99089000	STR	2049		511	HALEY	AVE	W	HALEY AVE W	511 HALEY AVE W	THOMPSON FALLS	59873			Mobile home
251	99089000.STR.2050	99089000	STR	2050		225	SPRUCE	ST		SPRUCE ST	225 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
252	99089000.STR.2052	99089000	STR	2052		405	HALEY	AVE	W	HALEY AVE W	405 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
253	99089000.STR.2053	99089000	STR	2053		206	HALEY	AVE	W	HALEY AVE W	206 HALEY AVE W	THOMPSON FALLS	59873			Education facility (generic)
254	99089000.STR.2054	99089000	STR	2054		211	HALEY	AVE	W	HALEY AVE W	211 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
255	99089000.STR.2055	99089000	STR	2055		107	HALEY	AVE	E	HALEY AVE E	107 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
256	99089000.STR.2056	99089000	STR	2056		208	HALEY	AVE	E	HALEY AVE E	208 HALEY AVE E	THOMPSON FALLS	59873			Mobile home
257	99089000.STR.2057	99089000	STR	2057		1118	PRESTON	AVE	W	PRESTON AVE W	1118 PRESTON AVE W	THOMPSON FALLS	59873			Mobile home
258	99089000.STR.2058	99089000	STR	2058		1116	PRESTON	AVE	W	PRESTON AVE W	1116 PRESTON AVE W	THOMPSON FALLS	59873			Mobile home
259	99089000.STR.2059	99089000	STR	2059		1114	PRESTON	AVE	W	PRESTON AVE W	1114 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
260	99089000.STR.2060	99089000	STR	2060		1110	PRESTON	AVE	W	PRESTON AVE W	1110 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family

FID	UNIQUEID	PROVIDERID	DATASETID	RECORDID	PARCELID	ADDNUM	ROADNAME	POSTTYPE	POSTDIR	FULLRDNAME	FULLADDRES	COMMUNITY	ZIPCODE	NAME	GNIS_ID	STRUCTTYPE
261	99089000.STR.2061	99089000	STR	2061		1106	PRESTON	AVE	W	PRESTON AVE W	1106 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
262	99089000.STR.2062	99089000	STR	2062		1012	PRESTON	AVE	W	PRESTON AVE W	1012 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
263	99089000.STR.2064	99089000	STR	2064		804	PRESTON	AVE	W	PRESTON AVE W	804 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
264	99089000.STR.2065	99089000	STR	2065		802	PRESTON	AVE	W	PRESTON AVE W	802 PRESTON AVE W	THOMPSON FALLS	59873			Mobile home
265	99089000.STR.2066	99089000	STR	2066		710	PRESTON	AVE	W	PRESTON AVE W	710 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
266	99089000.STR.2076	99089000	STR	2076		413	WASHINGTON	ST		WASHINGTON ST	413 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
267	99089000.STR.2077	99089000	STR	2077		107	GREENWOOD	ST		GREENWOOD ST	107 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
268	99089000.STR.2080	99089000	STR	2080		216	WASHINGTON	ST		WASHINGTON ST	216 WASHINGTON ST	THOMPSON FALLS	59873			Mobile home
269	99089000.STR.2081	99089000	STR	2081		215	WASHINGTON	ST		WASHINGTON ST	215 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
270	99089000.STR.2105	99089000	STR	2105		213	WASHINGTON	ST		WASHINGTON ST	213 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
271	99089000.STR.2107	99089000	STR	2107		212	WASHINGTON	ST		WASHINGTON ST	212 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
272	99089000.STR.2108	99089000	STR	2108		209	WASHINGTON	ST		WASHINGTON ST	209 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
273	99089000.STR.2109	99089000	STR	2109		208	WASHINGTON	ST		WASHINGTON ST	208 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
274	99089000.STR.2110	99089000	STR	2110		203	WASHINGTON	ST		WASHINGTON ST	203 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
275	99089000.STR.2111	99089000	STR	2111		202	WASHINGTON	ST		WASHINGTON ST	202 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
276	99089000.STR.2112	99089000	STR	2112		605	OGDEN	AVE	W	OGDEN AVE W	605 OGDEN AVE W	THOMPSON FALLS	59873			Dwelling, single-family
277	99089000.STR.2113	99089000	STR	2113		110	WASHINGTON	ST		WASHINGTON ST	110 WASHINGTON ST	THOMPSON FALLS	59873			Mobile home
278	99089000.STR.2115	99089000	STR	2115		415	JEFFERSON	ST	N	JEFFERSON ST N	415 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
279	99089000.STR.2118	99089000	STR	2118		311	SPRUCE	ST		SPRUCE ST	311 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, multi-family
280	99089000.STR.2120	99089000	STR	2120		204	MADISON	ST	N	MADISON ST N	204 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
281	99089000.STR.2121	99089000	STR	2121		115	MADISON	ST	N	MADISON ST N	115 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
282	99089000.STR.2122	99089000	STR	2122		110	MADISON	ST	N	MADISON ST N	110 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
283	99089000.STR.2125	99089000	STR	2125		105	MADISON	ST	N	MADISON ST N	105 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
284	99089000.STR.2126	99089000	STR	2126		403	GALLATIN	ST	N	GALLATIN ST N	403 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
285	99089000.STR.2127	99089000	STR	2127		402	GALLATIN	ST	N	GALLATIN ST N	402 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
286	99089000.STR.2128	99089000	STR	2128		322	GALLATIN	ST	N	GALLATIN ST N	322 GALLATIN ST N	THOMPSON FALLS	59873			Mobile home
287	99089000.STR.2141	99089000	STR	2141		213	COLUMBIA	ST	N	COLUMBIA ST N	213 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
288	99089000.STR.2142	99089000	STR	2142		217	COLUMBIA	ST	N	COLUMBIA ST N	217 COLUMBIA ST N	THOMPSON FALLS	59873			Building (generic)
289	99089000.STR.2143	99089000	STR	2143		207	COLUMBIA	ST	N	COLUMBIA ST N	207 COLUMBIA ST N	THOMPSON FALLS	59873			Mobile home
290	99089000.STR.2144	99089000	STR	2144		214	COLUMBIA	ST	N	COLUMBIA ST N	214 COLUMBIA ST N	THOMPSON FALLS	59873			Church / place of worship
291	99089000.STR.2145	99089000	STR	2145		116	COLUMBIA	ST	N	COLUMBIA ST N	116 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
292	99089000.STR.2146	99089000	STR	2146		110	COLUMBIA	ST	N	COLUMBIA ST N	110 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
293	99089000.STR.2149	99089000	STR	2149		105	COLUMBIA	ST	N	COLUMBIA ST N	105 COLUMBIA ST N	THOMPSON FALLS	59873			Mobile home
294	99089000.STR.2150	99089000	STR	2150		427	SPRUCE	ST		SPRUCE ST	427 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
295	99089000.STR.2151	99089000	STR	2151		420	SPRUCE	ST		SPRUCE ST	420 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
296	99089000.STR.2152	99089000	STR	2152		411	SPRUCE	ST		SPRUCE ST	411 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
297	99089000.STR.2155	99089000	STR	2155		410	SPRUCE	ST		SPRUCE ST	410 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
298	99089000.STR.2156	99089000	STR	2156		323	SPRUCE	ST		SPRUCE ST	323 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
299	99089000.STR.2157	99089000	STR	2157		317	SPRUCE	ST		SPRUCE ST	317 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
300	99089000.STR.2159	99089000	STR	2159		321	GALLATIN	ST	N	GALLATIN ST N	321 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
301	99089000.STR.2160	99089000	STR	2160		202	PARK	ST		PARK ST	202 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
302	99089000.STR.2163	99089000	STR	2163		410	MADISON	ST	N	MADISON ST N	410 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
303	99089000.STR.2164	99089000	STR	2164		411	MADISON	ST	N	MADISON ST N	411 MADISON ST N	THOMPSON FALLS	59873			Mobile home
304	99089000.STR.2165	99089000	STR	2165		408	MADISON	ST	N	MADISON ST N	408 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
305	99089000.STR.2166	99089000	STR	2166		403	MADISON	ST	N	MADISON ST N	403 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
306	99089000.STR.2167	99089000	STR	2167		324	MADISON	ST	N	MADISON ST N	324 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
307	99089000.STR.2168	99089000	STR	2168		321	MADISON	ST	N	MADISON ST N	321 MADISON ST N	THOMPSON FALLS	59873			Mobile home
308	99089000.STR.2171	99089000	STR	2171		314	MADISON	ST	N	MADISON ST N	314 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
309	99089000.STR.2174	99089000	STR	2174		405	CEDAR	ST		CEDAR ST	405 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
310	99089000.STR.2348	99089000	STR	2348		425	WASHINGTON	ST		WASHINGTON ST	425 WASHINGTON ST	THOMPSON FALLS	59873			Building (generic)
311	99089000.STR.2349	99089000	STR	2349		419	WASHINGTON	ST		WASHINGTON ST	419 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
312	99089000.STR.2350	99089000	STR	2350		422	WASHINGTON	ST		WASHINGTON ST	422 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
313	99089000.STR.2351	99089000	STR	2351		418	WASHINGTON	ST		WASHINGTON ST	418 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
314	99089000.STR.2352	99089000	STR	2352		414	JEFFERSON	ST	N	JEFFERSON ST N	414 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
315	99089000.STR.2353	99089000	STR	2353		409	JEFFERSON	ST	N	JEFFERSON ST N	409 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
316	99089000.STR.2354	99089000	STR	2354		405	JEFFERSON	ST	N	JEFFERSON ST N	405 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
317	99089000.STR.2355	99089000	STR	2355		322	JEFFERSON	ST	N	JEFFERSON ST N	322 JEFFERSON ST N	THOMPSON FALLS	59873			Mobile home
318	99089000.STR.2356	99089000	STR	2356		305	JEFFERSON	ST	N	JEFFERSON ST N	305 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
319	99089000.STR.2357	99089000	STR	2357		221	JEFFERSON	ST	N	JEFFERSON ST N	221 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
320	99089000.STR.2359	99089000	STR	2359		222	JEFFERSON	ST	N	JEFFERSON ST N	222 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
321	99089000.STR.2360	99089000	STR	2360		213	JEFFERSON	ST	N	JEFFERSON ST N	213 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
322	99089000.STR.2363	99089000	STR	2363		210	JEFFERSON	ST	N	JEFFERSON ST N	210 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
323	99089000.STR.2364	99089000	STR	2364		113	JEFFERSON	ST	N	JEFFERSON ST N	113 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
324	99089000.STR.2365	99089000	STR	2365		108	CEDAR	ST		CEDAR ST	108 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
325	99089000.STR.2366	99089000	STR	2366		115	CEDAR	ST		CEDAR ST	115 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
326	99089000.STR.2367	99089000	STR	2367		114	CEDAR	ST		CEDAR ST	114 CEDAR ST	THOMPSON FALLS	59873			Building (generic)
327	99089000.STR.2368	99089000	STR	2368		202	CEDAR	ST		CEDAR ST	202 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
328	99089000.STR.2369	99089000	STR	2369		207	CEDAR	ST		CEDAR ST	207 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
329	99089000.STR.2370	99089000	STR	2370		219	CEDAR	ST		CEDAR ST	219 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
330	99089000.STR.2371	99089000	STR	2371		216	CEDAR	ST		CEDAR ST	216 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
331	99089000.STR.2372	99089000	STR	2372		414	CEDAR	ST		CEDAR ST	414 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
332	99089000.STR.2373	99089000	STR	2373		415	CEDAR	ST		CEDAR ST	415 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
333	99089000.STR.2375	99089000	STR	2375		422	CEDAR	ST		CEDAR ST	422 CEDAR ST	THOMPSON FALLS	59873			Commercial or retail site (generic)
334	99089000.STR.2376	99089000	STR	2376		419	CEDAR	ST		CEDAR ST	419 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
335	99089000.STR.2377	99089000	STR	2377		427	CEDAR	ST		CEDAR ST	427 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
336	99089000.STR.2378	99089000	STR	2378		428	CEDAR	ST		CEDAR ST	428 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
337	99089000.STR.2379	99089000	STR	2379		522	CEDAR	ST		CEDAR ST	522 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
338	99089000.STR.2383	99089000	STR	2383		303	SPRUCE	ST		SPRUCE ST	303 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
339	99089000.STR.2384	99089000	STR	2384		226	SPRUCE	ST		SPRUCE ST	226 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
340	99089000.STR.2385	99089000	STR	2385		219	SPRUCE	ST		SPRUCE ST	219 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
341	99089000.STR.2387	99089000	STR	2387		216	SPRUCE	ST		SPRUCE ST	216 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
342	99089000.STR.2388	99089000	STR	2388		207	SPRUCE	ST		SPRUCE ST	207 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
343	99089000.STR.2391	99089000	STR	2391		204	SPRUCE	ST		SPRUCE ST	204 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
344	99089000.STR.2393	99089000	STR	2393		116	SPRUCE	ST		SPRUCE ST	116 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
345	99089000.STR.2427	99089000	STR	2427		503	GROVE	ST		GROVE ST	503 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
346	99089000.STR.2428	99089000	STR	2428		520	GROVE	ST		GROVE ST	520 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
347	99089000.STR.2429	99089000	STR	2429		530	GROVE	ST		GROVE ST	530 GROVE ST	THOMPSON FALLS	59873			Mobile home

FID	UNIQUEID	PROVIDERID	DATASETID	RECORDID	PARCELID	ADDNUM	ROADNAME	POSTTYPE	POSTDIR	FULLRDNAME	FULLADDRES	COMMUNITY	ZIPCODE	NAME	GNIS_ID	STRUCTTYPE
348	99089000.STR.2432	99089000	STR	2432		604	GROVE	ST		GROVE ST	604 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
349	99089000.STR.2433	99089000	STR	2433		601	GROVE	ST		GROVE ST	601 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
350	99089000.STR.2434	99089000	STR	2434		111	5TH	AVE	W	5TH AVE W	111 5TH AVE W	THOMPSON FALLS	59873			Mobile home
351	99089000.STR.2435	99089000	STR	2435		324	CLAY	ST		CLAY ST	324 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
352	99089000.STR.2436	99089000	STR	2436		314	CLAY	ST		CLAY ST	314 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
353	99089000.STR.2437	99089000	STR	2437		306	CLAY	ST		CLAY ST	306 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
354	99089000.STR.2438	99089000	STR	2438		225	CLAY	ST		CLAY ST	225 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
355	99089000.STR.2462	99089000	STR	2462		117	GROVE	ST		GROVE ST	117 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
356	99089000.STR.2465	99089000	STR	2465		221	CLAY	ST		CLAY ST	221 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
357	99089000.STR.2466	99089000	STR	2466		219	CLAY	ST		CLAY ST	219 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
358	99089000.STR.2467	99089000	STR	2467		218	CLAY	ST		CLAY ST	218 CLAY ST	THOMPSON FALLS	59873			Mobile home
359	99089000.STR.2469	99089000	STR	2469		211	CLAY	ST		CLAY ST	211 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
360	99089000.STR.2470	99089000	STR	2470		210	CLAY	ST		CLAY ST	210 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
361	99089000.STR.2471	99089000	STR	2471		205	CLAY	ST		CLAY ST	205 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
362	99089000.STR.2472	99089000	STR	2472		201	CLAY	ST		CLAY ST	201 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
363	99089000.STR.2473	99089000	STR	2473		110	CLAY	ST		CLAY ST	110 CLAY ST	THOMPSON FALLS	59873			Mobile home
364	99089000.STR.2474	99089000	STR	2474		107	CLAY	ST		CLAY ST	107 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
365	99089000.STR.2475	99089000	STR	2475		108	WOODLAND	ST		WOODLAND ST	108 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
366	99089000.STR.2477	99089000	STR	2477		105	WOODLAND	ST		WOODLAND ST	105 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
367	99089000.STR.2478	99089000	STR	2478		114	WOODLAND	ST		WOODLAND ST	114 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
368	99089000.STR.2481	99089000	STR	2481		207	WOODLAND	ST		WOODLAND ST	207 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
369	99089000.STR.2482	99089000	STR	2482		211	WOODLAND	ST		WOODLAND ST	211 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
370	99089000.STR.2485	99089000	STR	2485		403	WOODLAND	ST		WOODLAND ST	403 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
371	99089000.STR.2486	99089000	STR	2486		413	WOODLAND	ST		WOODLAND ST	413 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
372	99089000.STR.2487	99089000	STR	2487		421	WOODLAND	ST		WOODLAND ST	421 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
373	99089000.STR.2489	99089000	STR	2489		427	WOODLAND	ST		WOODLAND ST	427 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
374	99089000.STR.2490	99089000	STR	2490		428	WOODLAND	ST		WOODLAND ST	428 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
375	99089000.STR.2491	99089000	STR	2491		507	WOODLAND	ST		WOODLAND ST	507 WOODLAND ST	THOMPSON FALLS	59873			Mobile home
376	99089000.STR.2493	99089000	STR	2493		207	GROVE	ST		GROVE ST	207 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
377	99089000.STR.2494	99089000	STR	2494		206	GROVE	ST		GROVE ST	206 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
378	99089000.STR.2495	99089000	STR	2495		215	GROVE	ST		GROVE ST	215 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
379	99089000.STR.2496	99089000	STR	2496		212	GROVE	ST		GROVE ST	212 GROVE ST	THOMPSON FALLS	59873			Mobile home
380	99089000.STR.2497	99089000	STR	2497		106	GREENWOOD	ST		GREENWOOD ST	106 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
381	99089000.STR.2498	99089000	STR	2498		202	CHURCH	ST		CHURCH ST	202 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
382	99089000.STR.2499	99089000	STR	2499		201	CHURCH	ST		CHURCH ST	201 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
383	99089000.STR.2500	99089000	STR	2500		208	CHURCH	ST		CHURCH ST	208 CHURCH ST	THOMPSON FALLS	59873			Commercial or retail site (generic)
384	99089000.STR.2501	99089000	STR	2501		524	WOODLAND	ST		WOODLAND ST	524 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
385	99089000.STR.2502	99089000	STR	2502		523	WOODLAND	ST		WOODLAND ST	523 WOODLAND ST	THOMPSON FALLS	59873			Mobile home
386	99089000.STR.2503	99089000	STR	2503		611	WOODLAND	ST		WOODLAND ST	611 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
387	99089000.STR.2505	99089000	STR	2505		616	WOODLAND	ST		WOODLAND ST	616 WOODLAND ST	THOMPSON FALLS	59873			Commercial or retail site (generic)
388	99089000.STR.2506	99089000	STR	2506		622	WOODLAND	ST		WOODLAND ST	622 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
389	99089000.STR.2507	99089000	STR	2507		617	WOODLAND	ST		WOODLAND ST	617 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
390	99089000.STR.2508	99089000	STR	2508		612	GREENWOOD	ST		GREENWOOD ST	612 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
391	99089000.STR.2509	99089000	STR	2509		607	GREENWOOD	ST		GREENWOOD ST	607 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
392	99089000.STR.2510	99089000	STR	2510		524	GREENWOOD	ST		GREENWOOD ST	524 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
393	99089000.STR.2511	99089000	STR	2511		517	GREENWOOD	ST		GREENWOOD ST	517 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
394	99089000.STR.2512	99089000	STR	2512		520	GREENWOOD	ST		GREENWOOD ST	520 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
395	99089000.STR.2513	99089000	STR	2513		508	GREENWOOD	ST		GREENWOOD ST	508 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
396	99089000.STR.2514	99089000	STR	2514		511	GREENWOOD	ST		GREENWOOD ST	511 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
397	99089000.STR.2515	99089000	STR	2515		425	GREENWOOD	ST		GREENWOOD ST	425 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
398	99089000.STR.2518	99089000	STR	2518		208	5TH	AVE	E	5TH AVE E	208 5TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
399	99089000.STR.2519	99089000	STR	2519		308	5TH	AVE	E	5TH AVE E	308 5TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
400	99089000.STR.2520	99089000	STR	2520		414	5TH	AVE	E	5TH AVE E	414 5TH AVE E	THOMPSON FALLS	59873			Mobile home
401	99089000.STR.2521	99089000	STR	2521		507	5TH	AVE	E	5TH AVE E	507 5TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
402	99089000.STR.2522	99089000	STR	2522		102	KANIKSU	CT		KANIKSU CT	102 KANIKSU CT	THOMPSON FALLS	59873			Dwelling, single-family
403	99089000.STR.2523	99089000	STR	2523		610	CLAY	ST		CLAY ST	610 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
404	99089000.STR.2524	99089000	STR	2524		617	CLAY	ST		CLAY ST	617 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
405	99089000.STR.2525	99089000	STR	2525		605	CLAY	ST		CLAY ST	605 CLAY ST	THOMPSON FALLS	59873			Mobile home
406	99089000.STR.2526	99089000	STR	2526		604	CLAY	ST		CLAY ST	604 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
407	99089000.STR.2527	99089000	STR	2527		528	CLAY	ST		CLAY ST	528 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
408	99089000.STR.2528	99089000	STR	2528		523	CLAY	ST		CLAY ST	523 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
409	99089000.STR.2529	99089000	STR	2529		520	CLAY	ST		CLAY ST	520 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
410	99089000.STR.2530	99089000	STR	2530		515	CLAY	ST		CLAY ST	515 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
411	99089000.STR.2533	99089000	STR	2533		421	CLAY	ST		CLAY ST	421 CLAY ST	THOMPSON FALLS	59873			Mobile home
412	99089000.STR.2534	99089000	STR	2534		415	CLAY	ST		CLAY ST	415 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
413	99089000.STR.2540	99089000	STR	2540		416	CLAY	ST		CLAY ST	416 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
414	99089000.STR.2541	99089000	STR	2541		537	GRIZZLY	DR		GRIZZLY DR	537 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
415	99089000.STR.2542	99089000	STR	2542		551	GRIZZLY	DR		GRIZZLY DR	551 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
416	99089000.STR.2543	99089000	STR	2543		556	GRIZZLY	DR		GRIZZLY DR	556 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
417	99089000.STR.2544	99089000	STR	2544		555	GRIZZLY	DR		GRIZZLY DR	555 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
418	99089000.STR.2545	99089000	STR	2545		600	GRIZZLY	DR		GRIZZLY DR	600 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
419	99089000.STR.2546	99089000	STR	2546		611	GRIZZLY	DR		GRIZZLY DR	611 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
420	99089000.STR.2547	99089000	STR	2547		777	GRIZZLY	DR		GRIZZLY DR	777 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
421	99089000.STR.2550	99089000	STR	2550		315	4TH	AVE	E	4TH AVE E	315 4TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
422	99089000.STR.2553	99089000	STR	2553		509	CLAY	ST		CLAY ST	509 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
423	99089000.STR.2554	99089000	STR	2554		506	WOODLAND	ST		WOODLAND ST	506 WOODLAND ST	THOMPSON FALLS	59873			Mobile home
424	99089000.STR.2555	99089000	STR	2555		217	4TH	AVE	E	4TH AVE E	217 4TH AVE E	THOMPSON FALLS	59873			Mobile home
425	99089000.STR.2556	99089000	STR	2556		108	4TH	AVE	E	4TH AVE E	108 4TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
426	99089000.STR.2557	99089000	STR	2557		111	4TH	AVE	W	4TH AVE W	111 4TH AVE W	THOMPSON FALLS	59873			Dwelling, single-family
427	99089000.STR.2558	99089000	STR	2558		112	4TH	AVE	W	4TH AVE W	112 4TH AVE W	THOMPSON FALLS	59873			Dwelling, single-family
428	99089000.STR.2559	99089000	STR	2559		412	4TH	AVE	W	4TH AVE W	412 4TH AVE W	THOMPSON FALLS	59873			Dwelling, single-family
429	99089000.STR.2569	99089000	STR	2569		610	BIGHORN	DR		BIGHORN DR	610 BIGHORN DR	THOMPSON FALLS	59873			Dwelling, single-family
430	99089000.STR.2573	99089000	STR	2573		106	BIG BUCK	DR		BIG BUCK DR	106 BIG BUCK DR	THOMPSON FALLS	59873			Dwelling, single-family
431	99089000.STR.2577	99089000	STR	2577		511	5TH	AVE	E	5TH AVE E	511 5TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
432	99089000.STR.2578	99089000	STR	2578		514	5TH	AVE	E	5TH AVE E	514 5TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
433	99089000.STR.2579	99089000	STR	2579		533	MAPLE	ST		MAPLE ST	533 MAPLE ST	THOMPSON FALLS	59873			Dwelling, single-family
434	99089000.STR.2641	99089000	STR	2641		108	PRESTON	AVE	W	PRESTON AVE W	108 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family

FID	UNIQUEID	PROVIDERID	DATASETID	RECORDID	PARCELID	ADDNUM	ROADNAME	POSTTYPE	POSTDIR	FULLRDNAME	FULLADDRES	COMMUNITY	ZIPCODE	NAME	GNIS_ID	STRUCTTYPE
435	99089000.STR.2645	99089000	STR	2645		210	WOOD	ST		WOOD ST	210 WOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
436	99089000.STR.2646	99089000	STR	2646		102	WOOD	ST		WOOD ST	102 WOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
437	99089000.STR.2647	99089000	STR	2647		211	SPRUCE	ST		SPRUCE ST	211 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
438	99089000.STR.2775	99089000	STR	2775		327	MADISON	ST	N	MADISON ST N	327 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
439	99089000.STR.2776	99089000	STR	2776		315	MADISON	ST	N	MADISON ST N	315 MADISON ST N	THOMPSON FALLS	59873			Mobile home
440	99089000.STR.2779	99089000	STR	2779		307	MADISON	ST	N	MADISON ST N	307 MADISON ST N	THOMPSON FALLS	59873			Commercial or retail site (generic)
441	99089000.STR.2780	99089000	STR	2780		306	MADISON	ST	N	MADISON ST N	306 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
442	99089000.STR.2784	99089000	STR	2784		310	JEFFERSON	ST	N	JEFFERSON ST N	310 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
443	99089000.STR.2787	99089000	STR	2787		218	JEFFERSON	ST	N	JEFFERSON ST N	218 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
444	99089000.STR.2788	99089000	STR	2788		203	JEFFERSON	ST	N	JEFFERSON ST N	203 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
445	99089000.STR.2950	99089000	STR	2950		420	WOODLAND	ST		WOODLAND ST	420 WOODLAND ST	THOMPSON FALLS	59873			Mobile home
446	99089000.STR.3128	99089000	STR	3128		211	GALLATIN	ST	N	GALLATIN ST N	211 GALLATIN ST N	THOMPSON FALLS	59873			Mobile home
447	99089000.STR.3129	99089000	STR	3129		204	GALLATIN	ST	N	GALLATIN ST N	204 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
448	99089000.STR.3133	99089000	STR	3133		210	PARK	ST		PARK ST	210 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
449	99089000.STR.3161	99089000	STR	3161		922	HALEY	AVE	E	HALEY AVE E	922 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
450	99089000.STR.3180	99089000	STR	3180		209	PARK	ST		PARK ST	209 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
451	99089000.STR.3181	99089000	STR	3181		205	PARK	ST		PARK ST	205 PARK ST	THOMPSON FALLS	59873			Dwelling, single-family
452	99089000.STR.3185	99089000	STR	3185		303	WOOD	ST		WOOD ST	303 WOOD ST	THOMPSON FALLS	59873			Church / place of worship
453	99089000.STR.3193	99089000	STR	3193		217	WOOD	ST		WOOD ST	217 WOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
454	99089000.STR.3200	99089000	STR	3200		215	WOOD	ST		WOOD ST	215 WOOD ST	THOMPSON FALLS	59873			Mobile home
455	99089000.STR.3216	99089000	STR	3216		214	HALEY	AVE	E	HALEY AVE E	214 HALEY AVE E	THOMPSON FALLS	59873			Mobile home
456	99089000.STR.3218	99089000	STR	3218		608	HALEY	AVE	E	HALEY AVE E	608 HALEY AVE E	THOMPSON FALLS	59873			Dwelling, single-family
457	99089000.STR.3219	99089000	STR	3219		516	PRESTON	AVE	W	PRESTON AVE W	516 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
458	99089000.STR.3220	99089000	STR	3220		502	PRESTON	AVE	W	PRESTON AVE W	502 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
459	99089000.STR.3225	99089000	STR	3225		300	PRESTON	AVE	W	PRESTON AVE W	300 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
460	99089000.STR.3241	99089000	STR	3241		112	PRESTON	AVE	W	PRESTON AVE W	112 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
461	99089000.STR.3284	99089000	STR	3284		329	ADAMS	ST		ADAMS ST	329 ADAMS ST	THOMPSON FALLS	59873			Dwelling, single-family
462	99089000.STR.3288	99089000	STR	3288		102	GOLF	ST		GOLF ST	102 GOLF ST	THOMPSON FALLS	59873			Dwelling, single-family
463	99089000.STR.3296	99089000	STR	3296		106	GOLF	ST		GOLF ST	106 GOLF ST	THOMPSON FALLS	59873			Dwelling, single-family
464	99089000.STR.3307	99089000	STR	3307		111	HILL	ST		HILL ST	111 HILL ST	THOMPSON FALLS	59873			Dwelling, single-family
465	99089000.STR.3308	99089000	STR	3308		108	ELK	ST		ELK ST	108 ELK ST	THOMPSON FALLS	59873			Dwelling, single-family
466	99089000.STR.3336	99089000	STR	3336		428	CLAY	ST		CLAY ST	428 CLAY ST	THOMPSON FALLS	59873			Mobile home
467	99089000.STR.3337	99089000	STR	3337		410	4TH	AVE	E	4TH AVE E	410 4TH AVE E	THOMPSON FALLS	59873			Mobile home
468	99089000.STR.3347	99089000	STR	3347		710	3RD	AVE	W	3RD AVE W	710 3RD AVE W	THOMPSON FALLS	59873			Mobile home
469	99089000.STR.3348	99089000	STR	3348		1111	HALEY	AVE	W	HALEY AVE W	1111 HALEY AVE W	THOMPSON FALLS	59873			Dwelling, single-family
470	99089000.STR.3349	99089000	STR	3349		507	FERRY	ST	N	FERRY ST N	507 FERRY ST N	THOMPSON FALLS	59873			Mobile home
471	99089000.STR.3352	99089000	STR	3352		407	WASHINGTON	ST		WASHINGTON ST	407 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
472	99089000.STR.3353	99089000	STR	3353		309	WASHINGTON	ST		WASHINGTON ST	309 WASHINGTON ST	THOMPSON FALLS	59873			Mobile home
473	99089000.STR.3357	99089000	STR	3357		304	WASHINGTON	ST		WASHINGTON ST	304 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
474	99089000.STR.3358	99089000	STR	3358		116	WASHINGTON	ST		WASHINGTON ST	116 WASHINGTON ST	THOMPSON FALLS	59873			Dwelling, single-family
475	99089000.STR.3366	99089000	STR	3366		420	JEFFERSON	ST	N	JEFFERSON ST N	420 JEFFERSON ST N	THOMPSON FALLS	59873			Dwelling, single-family
476	99089000.STR.3374	99089000	STR	3374		510	COLUMBIA	ST	N	COLUMBIA ST N	510 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
477	99089000.STR.3378	99089000	STR	3378		404	COLUMBIA	ST	N	COLUMBIA ST N	404 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
478	99089000.STR.3384	99089000	STR	3384		412	4TH	AVE	E	4TH AVE E	412 4TH AVE E	THOMPSON FALLS	59873			Mobile home
479	99089000.STR.3385	99089000	STR	3385		512	5TH	AVE	E	5TH AVE E	512 5TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
480	99089000.STR.3386	99089000	STR	3386		602	ASPEN	CT		ASPEN CT	602 ASPEN CT	THOMPSON FALLS	59873			Dwelling, single-family
481	99089000.STR.3395	99089000	STR	3395		317	OGDEN	AVE	W	OGDEN AVE W	317 OGDEN AVE W	THOMPSON FALLS	59873			Dwelling, single-family
482	99089000.STR.3396	99089000	STR	3396		212	3RD	AVE	W	3RD AVE W	212 3RD AVE W	THOMPSON FALLS	59873			Dwelling, single-family
483	99089000.STR.3399	99089000	STR	3399		407	FERRY	ST	N	FERRY ST N	407 FERRY ST N	THOMPSON FALLS	59873			Mobile home
484	99089000.STR.3407	99089000	STR	3407		403	FERRY	ST	N	FERRY ST N	403 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
485	99089000.STR.3411	99089000	STR	3411		227	FERRY	ST	N	FERRY ST N	227 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
486	99089000.STR.3415	99089000	STR	3415		216	FERRY	ST	N	FERRY ST N	216 FERRY ST N	THOMPSON FALLS	59873			Mobile home
487	99089000.STR.3418	99089000	STR	3418		205	FERRY	ST	N	FERRY ST N	205 FERRY ST N	THOMPSON FALLS	59873			Dwelling, single-family
488	99089000.STR.3419	99089000	STR	3419		106	GROVE	ST		GROVE ST	106 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
489	99089000.STR.3421	99089000	STR	3421		107	GROVE	ST		GROVE ST	107 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
490	99089000.STR.3422	99089000	STR	3422		904	PRESTON	AVE	W	PRESTON AVE W	904 PRESTON AVE W	THOMPSON FALLS	59873			Commercial or retail site (generic)
491	99089000.STR.3423	99089000	STR	3423		716	PRESTON	AVE	W	PRESTON AVE W	716 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, single-family
492	99089000.STR.3442	99089000	STR	3442		226	COLUMBIA	ST	N	COLUMBIA ST N	226 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
493	99089000.STR.3444	99089000	STR	3444		115	COLUMBIA	ST	N	COLUMBIA ST N	115 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
494	99089000.STR.3445	99089000	STR	3445		109	COLUMBIA	ST	N	COLUMBIA ST N	109 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
495	99089000.STR.3446	99089000	STR	3446		428	SPRUCE	ST		SPRUCE ST	428 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
496	99089000.STR.3448	99089000	STR	3448		417	SPRUCE	ST		SPRUCE ST	417 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
497	99089000.STR.3449	99089000	STR	3449		415	SPRUCE	ST		SPRUCE ST	415 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
498	99089000.STR.3450	99089000	STR	3450		405	SPRUCE	ST		SPRUCE ST	405 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
499	99089000.STR.3453	99089000	STR	3453		403	SPRUCE	ST		SPRUCE ST	403 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
500	99089000.STR.3455	99089000	STR	3455		203	MADISON	ST	N	MADISON ST N	203 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
501	99089000.STR.3457	99089000	STR	3457		106	MADISON	ST	N	MADISON ST N	106 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
502	99089000.STR.3458	99089000	STR	3458		312	GALLATIN	ST	N	GALLATIN ST N	312 GALLATIN ST N	THOMPSON FALLS	59873			Dwelling, single-family
503	99089000.STR.3460	99089000	STR	3460		214	WOOD	ST		WOOD ST	214 WOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
504	99089000.STR.3464	99089000	STR	3464		506	CEDAR	ST		CEDAR ST	506 CEDAR ST	THOMPSON FALLS	59873			Dwelling, single-family
505	99089000.STR.3467	99089000	STR	3467		515	CEDAR	ST		CEDAR ST	515 CEDAR ST	THOMPSON FALLS	59873			Mobile home
506	99089000.STR.3468	99089000	STR	3468		514	COLUMBIA	ST	N	COLUMBIA ST N	514 COLUMBIA ST N	THOMPSON FALLS	59873			Dwelling, single-family
507	99089000.STR.3472	99089000	STR	3472		220	SPRUCE	ST		SPRUCE ST	220 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
508	99089000.STR.3474	99089000	STR	3474		206	SPRUCE	ST		SPRUCE ST	206 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
509	99089000.STR.3475	99089000	STR	3475		115	SPRUCE	ST		SPRUCE ST	115 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
510	99089000.STR.3476	99089000	STR	3476		109	SPRUCE	ST		SPRUCE ST	109 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
511	99089000.STR.3478	99089000	STR	3478		112	SPRUCE	ST		SPRUCE ST	112 SPRUCE ST	THOMPSON FALLS	59873			Dwelling, single-family
512	99089000.STR.3551	99089000	STR	3551		118	GROVE	ST		GROVE ST	118 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
513	99089000.STR.3552	99089000	STR	3552		203	GROVE	ST		GROVE ST	203 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
514	99089000.STR.3553	99089000	STR	3553		303	GROVE	ST		GROVE ST	303 GROVE ST	THOMPSON FALLS	59873			Mobile home
515	99089000.STR.3556	99089000	STR	3556		312	GROVE	ST		GROVE ST	312 GROVE ST	THOMPSON FALLS	59873			Mobile home
516	99089000.STR.3557	99089000	STR	3557		315	GROVE	ST		GROVE ST	315 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
517	99089000.STR.3558	99089000	STR	3558		326	GROVE	ST		GROVE ST	326 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
518	99089000.STR.3560	99089000	STR	3560		106	3RD	AVE	W	3RD AVE W	106 3RD AVE W	THOMPSON FALLS	59873			Mobile home
519	99089000.STR.3561	99089000	STR	3561		402	GROVE	ST		GROVE ST	402 GROVE ST	THOMPSON FALLS	59873			Mobile home
520	99089000.STR.3562	99089000	STR	3562		417	GROVE	ST		GROVE ST	417 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
521	99089000.STR.3565	99089000	STR	3565		517	GROVE	ST		GROVE ST	517 GROVE ST	THOMPSON FALLS	59873			Mobile home

FID	UNIQUEID	PROVIDERID	DATASETID	RECORDID	PARCELID	ADDNUM	ROADNAME	POSTTYPE	POSTDIR	FULLRDNAME	FULLADDRES	COMMUNITY	ZIPCODE	NAME	GNIS_ID	STRUCTTYPE
522	99089000.STR.3566	99089000	STR	3566		527	GROVE	ST		GROVE ST	527 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
523	99089000.STR.3568	99089000	STR	3568		303	CLAY	ST		CLAY ST	303 CLAY ST	THOMPSON FALLS	59873			Mobile home
524	99089000.STR.3569	99089000	STR	3569		222	CLAY	ST		CLAY ST	222 CLAY ST	THOMPSON FALLS	59873			Mobile home
525	99089000.STR.3570	99089000	STR	3570		104	CLAY	ST		CLAY ST	104 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
526	99089000.STR.3572	99089000	STR	3572		117	WOODLAND	ST		WOODLAND ST	117 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
527	99089000.STR.3573	99089000	STR	3573		204	WOODLAND	ST		WOODLAND ST	204 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
528	99089000.STR.3574	99089000	STR	3574		208	WOODLAND	ST		WOODLAND ST	208 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
529	99089000.STR.3577	99089000	STR	3577		212	WOODLAND	ST		WOODLAND ST	212 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
530	99089000.STR.3578	99089000	STR	3578		222	WOODLAND	ST		WOODLAND ST	222 WOODLAND ST	THOMPSON FALLS	59873			Dwelling, single-family
531	99089000.STR.3589	99089000	STR	3589		507	WOODLAND	ST		WOODLAND ST	507 WOODLAND ST	THOMPSON FALLS	59873			Mobile home
532	99089000.STR.3590	99089000	STR	3590		505	GREENWOOD	ST		GREENWOOD ST	505 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
533	99089000.STR.3598	99089000	STR	3598		225	GREENWOOD	ST		GREENWOOD ST	225 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
534	99089000.STR.3612	99089000	STR	3612		117	GREENWOOD	ST		GREENWOOD ST	117 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
535	99089000.STR.3613	99089000	STR	3613		116	GREENWOOD	ST		GREENWOOD ST	116 GREENWOOD ST	THOMPSON FALLS	59873			Dwelling, single-family
536	99089000.STR.3614	99089000	STR	3614		313	CHURCH	ST		CHURCH ST	313 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
537	99089000.STR.3616	99089000	STR	3616		512	CHURCH	ST		CHURCH ST	512 CHURCH ST	THOMPSON FALLS	59873			Mobile home
538	99089000.STR.3617	99089000	STR	3617		521	CLAY	ST		CLAY ST	521 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
539	99089000.STR.3618	99089000	STR	3618		427	CLAY	ST		CLAY ST	427 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
540	99089000.STR.3672	99089000	STR	3672		205	KANIKSU	CT		KANIKSU CT	205 KANIKSU CT	THOMPSON FALLS	59873			Dwelling, single-family
541	99089000.STR.3679	99089000	STR	3679		605	BIGHORN	DR		BIGHORN DR	605 BIGHORN DR	THOMPSON FALLS	59873			Dwelling, single-family
542	99089000.STR.3684	99089000	STR	3684		511	4TH	AVE	E	4TH AVE E	511 4TH AVE E	THOMPSON FALLS	59873			Mobile home
543	99089000.STR.3687	99089000	STR	3687		426	CHURCH	ST		CHURCH ST	426 CHURCH ST	THOMPSON FALLS	59873			Dwelling, single-family
544	99089000.STR.3688	99089000	STR	3688		407	4TH	AVE	E	4TH AVE E	407 4TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
545	99089000.STR.3700	99089000	STR	3700		502	4TH	AVE	W	4TH AVE W	502 4TH AVE W	THOMPSON FALLS	59873			Dwelling, single-family
546	99089000.STR.3756	99089000	STR	3756		549	BIGHORN	DR		BIGHORN DR	549 BIGHORN DR	THOMPSON FALLS	59873			Dwelling, single-family
547	99089000.STR.4000	99089000	STR	4000		221	MADISON	ST	N	MADISON ST N	221 MADISON ST N	THOMPSON FALLS	59873			Dwelling, single-family
548	99089000.STR.4014	99089000	STR	4014		309	GROVE	ST		GROVE ST	309 GROVE ST	THOMPSON FALLS	59873			Mobile home
549	99089000.STR.4404	99089000	STR	4404		16	RIMROCK	LN		RIMROCK LN	16 RIMROCK LN	THOMPSON FALLS	59873			Dwelling, single-family
550	99089000.STR.4430	99089000	STR	4430		6	RIMROCK	LN		RIMROCK LN	6 RIMROCK LN	THOMPSON FALLS	59873			Commercial or retail site (generic)
551	99089000.STR.4797	99089000	STR	4797		713	SOUTHWOOD	CT		SOUTHWOOD CT	713 SOUTHWOOD CT	THOMPSON FALLS	59873			Dwelling, single-family
552	99089000.STR.5165	99089000	STR	5165		1124	PRESTON	AVE	W	PRESTON AVE W	1124 PRESTON AVE W	THOMPSON FALLS	59873			Mobile home
553	99089000.STR.5234	99089000	STR	5234		511	GRIZZLY	DR		GRIZZLY DR	511 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
554	99089000.STR.5236	99089000	STR	5236		520	GRIZZLY	DR		GRIZZLY DR	520 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
555	99089000.STR.5237	99089000	STR	5237		504	GRIZZLY	DR		GRIZZLY DR	504 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
556	99089000.STR.5263	99089000	STR	5263		408	FERRY	ST	N	FERRY ST N	408 FERRY ST N	THOMPSON FALLS	59873			Mobile home
557	99089000.STR.5326	99089000	STR	5326		525	GRIZZLY	DR		GRIZZLY DR	525 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
558	99089000.STR.5632	99089000	STR	5632		1229	MT SILCOX	DR		MT SILCOX DR	1229 MT SILCOX DR	THOMPSON FALLS	59873			Dwelling, single-family
559	99089000.STR.6801	99089000	STR	6801		542	GRIZZLY	DR		GRIZZLY DR	542 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
560	99089000.STR.6973	99089000	STR	6973		213	WOOD	ST		WOOD ST	213 WOOD ST	THOMPSON FALLS	59873			Mobile home
561	99089000.STR.6975	99089000	STR	6975		1808	PINE TREE HOLW			PINE TREE HOLW	1808 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
562	99089000.STR.6976	99089000	STR	6976		1810	PINE TREE HOLW			PINE TREE HOLW	1810 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
563	99089000.STR.6977	99089000	STR	6977		1900	PINE TREE HOLW			PINE TREE HOLW	1900 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
564	99089000.STR.6978	99089000	STR	6978		1902	PINE TREE HOLW			PINE TREE HOLW	1902 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
565	99089000.STR.7117	99089000	STR	7117		307	GOLF	ST		GOLF ST	307 GOLF ST	THOMPSON FALLS	59873			Dwelling, single-family
566	99089000.STR.7143	99089000	STR	7143		1910	PINE TREE HOLW			PINE TREE HOLW	1910 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
567	99089000.STR.7146	99089000	STR	7146		1800	PINE TREE HOLW			PINE TREE HOLW	1800 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
568	99089000.STR.7149	99089000	STR	7149		1802	PINE TREE HOLW			PINE TREE HOLW	1802 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
569	99089000.STR.7150	99089000	STR	7150		1812	PINE TREE HOLW			PINE TREE HOLW	1812 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
570	99089000.STR.7151	99089000	STR	7151		1814	PINE TREE HOLW			PINE TREE HOLW	1814 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
571	99089000.STR.7152	99089000	STR	7152		1816	PINE TREE HOLW			PINE TREE HOLW	1816 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
572	99089000.STR.7153	99089000	STR	7153		1818	PINE TREE HOLW			PINE TREE HOLW	1818 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
573	99089000.STR.7160	99089000	STR	7160		104	PRESTON	AVE	W	PRESTON AVE W	104 PRESTON AVE W	THOMPSON FALLS	59873			Dwelling, multi-family
574	99089000.STR.7368	99089000	STR	7368		1904	PINE TREE HOLW			PINE TREE HOLW	1904 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
575	99089000.STR.7450	99089000	STR	7450		511	CHURCH	ST		CHURCH ST	511 CHURCH ST	THOMPSON FALLS	59873			Mobile home
576	99089000.STR.7451	99089000	STR	7451		1908	PINE TREE HOLW			PINE TREE HOLW	1908 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
577	99089000.STR.7495	99089000	STR	7495		1906	PINE TREE HOLW			PINE TREE HOLW	1906 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
578	99089000.STR.7566	99089000	STR	7566		504	GREENWOOD	ST		GREENWOOD ST	504 GREENWOOD ST	THOMPSON FALLS	59873			Mobile home
579	99089000.STR.7645	99089000	STR	7645		417	GROVE	ST		GROVE ST	417 GROVE ST	THOMPSON FALLS	59873			Dwelling, single-family
580	99089000.STR.7698	99089000	STR	7698		102	CLAY	ST		CLAY ST	102 CLAY ST	THOMPSON FALLS	59873			Dwelling, single-family
581	99089000.STR.7736	99089000	STR	7736		721	SOUTHWOOD	CT		SOUTHWOOD CT	721 SOUTHWOOD CT	THOMPSON FALLS	59873			Dwelling, single-family
582	99089000.STR.7801	99089000	STR	7801		1806	PINE TREE HOLW			PINE TREE HOLW	1806 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
583	99089000.STR.7802	99089000	STR	7802		1804	PINE TREE HOLW			PINE TREE HOLW	1804 PINE TREE HOLW	THOMPSON FALLS	59873			Dwelling, multi-family
584	99089000.STR.7803	99089000	STR	7803		305	5TH	AVE	E	5TH AVE E	305 5TH AVE E	THOMPSON FALLS	59873			Dwelling, single-family
585	99089000.STR.8116	99089000	STR	8116		510	GROVE	ST		GROVE ST	510 GROVE ST	THOMPSON FALLS	59873			Mobile home
586	99089000.STR.8190	99089000	STR	8190		906	PRESTON	AVE	W	PRESTON AVE W	906 PRESTON AVE W	THOMPSON FALLS	59873			Commercial or retail site (generic)
587	99089000.STR.8272	99089000	STR	8272		711	GRIZZLY	DR		GRIZZLY DR	711 GRIZZLY DR	THOMPSON FALLS	59873			Dwelling, single-family
588	99089000.STR.8273	99089000	STR	8273		419	SPRUCE	ST		SPRUCE ST	419 SPRUCE ST	THOMPSON FALLS	59873			Mobile home
589	305115000.STR.253009	305115000	STR	253009	35309105301010000	518	COLUMBIA	ST	N	COLUMBIA ST N	518 COLUMBIA ST N	THOMPSON FALLS	59873	USFS Thompson Falls Fire Shop		Fire station
590	303501000.STR.1047	303501000	STR	1047	35309108209010000	315	COLUMBIA	ST	N	COLUMBIA ST N	315 COLUMBIA ST N	THOMPSON FALLS	59873	Thompson Falls Elem Schl		School (K-12)
591	303501000.STR.1764	303501000	STR	1764	35309108122200000	316	COLUMBIA	ST	N	COLUMBIA ST N	316 COLUMBIA ST N	THOMPSON FALLS	59873	Thompson Falls 7-8		School (K-12)
592	303501000.STR.1048	303501000	STR	1048	35309109201780000	601	GOLF	ST		GOLF ST	601 GOLF ST	THOMPSON FALLS	59873	Thompson Falls High Schl		School (K-12)

APPENDIX T

Sanders County Sanitarian Letter

SANDERS COUNTY

ENVIRONMENTAL HEALTH

To: Thompson Falls City Council
From: Shawn Sorenson, County Sanitarian
RE: Wastewater Permit Report
Date: September 21, 2015

This report summarizes information provided to the Thompson Falls City Council Monday, September 14, 2015. It also provides the initial monthly report of wastewater treatment system permits installed within Thompson Falls City limits.

Environmental Health has been concerned about of new and replacement wastewater systems on the "hill" for over two decades. Concerns include 1) lot size and ability to fit standard treatment systems, and 2) degradation of Montana's high quality surface and ground water.

Background

The Thompson Falls town site was developed in the late 1890's and early 1900's. Typical lot sizes are approximately 27 feet wide by 138 feet long. A crude count based on Sanders County rural addressing shows there are over 500 'homes' on the Thompson Falls hill. The entire community is served by a public water system and the lower town site, south of the railroad tracks, is served by a public wastewater system. Lots in the upper town site, north of the railroad tracks, are served by on-site subsurface wastewater systems.

Most owners own multiple lots due to small lot size and treat their multiple lots as a single parcel. In fact, the Department of Revenue issues property tax bills to a particular owner based on theoretical aggregation of the owner's contiguous lots rather than for each individually owned lot. There are a few cases of legally recorded modifications such as aggregations, boundary line adjustments, and divisions.

Small lot sizes, and the resulting informal aggregation, has resulted in owners building structures across lot lines, infringing upon setbacks, and otherwise rendering individual lots within the 'overall parcel' as unusable except for as an accessory parcel for the current owner.

Site conditions on the hill are challenging and it's generally accepted that the area was heavily impacted by scouring and material deposition from multiple Lake Missoula floods and both pre- and post glacial age runoff. Bedrock outcroppings, extremely large boulders, impermeable clay, widely variable soil in small areas, and steep slopes drive the placement and type of structures, including wastewater systems that can be constructed on a parcel.

Historical on-site wastewater treatment includes a variety of observed and reported solids settling and effluent discharge types including car bodies, fifty-five gallon drums, cesspools, and direct discharge into highly porous soils. Ice caves and large chasms under the community are commonly reported as discharge receptacles for wastewater systems.

Argument can be made that on-site wastewater treatment is a positive component of the hydrologic cycle, and especially when ground water is the potable water source. However, site conditions play an important role in whether on-site treatment can be used effectively. The Thompson Falls hill, generally speaking, does not offer conditions conducive to on-site wastewater treatment and disposal.

Potential for Contamination

The Montana Department of Environmental Quality focuses on protecting high quality surface and ground water from contamination by two nutrients found in residential wastewater; nitrate and phosphorus. Control measures include a process called non-degradation analysis, which is a method of modeling dilution potential for nutrients in receiving waters. The non-degradation analysis assumes an interface (mixing) occurs between wastewater nutrients and receiving waters after mediation by soil. It allows degradation based on a theoretical subsurface wastewater flow and time/distance model that approximates nutrient concentrations. Degradation is allowed on a given parcel if non-degradation analysis show nutrients are below established thresholds.

With more than 500 discharge sources on the hill, the potential for contamination likely exists. However, documentation of contamination is limited to infrequent acute surface discharge that is corrected relatively quickly. Long term contamination is unknown because data is limited, if available at all, that suggest large scale contamination of surface and ground water is occurring.

Wastewater Permitting Data

Sanders County, through interagency agreement, is responsible for on-site wastewater permitting in Thompson Falls. The Environmental Health office has issued approximately 193 wastewater system permits for the Thompson Falls "hill area" since 1995, which is when the County implemented a permitting system. Of these permits, 39 were new systems, 150 were failed systems, and 4 permits were not applicable. Thus, the effective number of permits is considered 189.

For simplicity of conversation, most on-site wastewater systems can be sorted into standard treatment and substandard non-treatment. Standard treatment systems include gravity and pressure dosed systems with a solids settling component and a soil discharge component. Soil discharge, or the drainfield, is sized to maximize treatment and requires soil conditions that provide aerobic and anaerobic conditions as well as physical filtering capacity. Drainfield size relative to soil type is critical. For substandard treatment, there is still a solids settling component, but the effluent discharge is limited to a small area, which overloads soil with microorganisms and nutrients, thus rendering the receiving soil incapable of adequate treatment.

Wastewater data indicate substandard systems, which are essentially "last resort" systems, make up more than 57% of all systems permitted since 1995. This includes 65% of replaced failed systems and 23% of new systems.

With 189 permits issued, the remaining 330+ homes on the hill have wastewater treatment systems that are of unknown origin, type, and condition. Replacement is a matter of time and it is reasonable to predict, based on past and current permitting data, we will install approximately 195 substandard systems in the coming years.

Summary
Installing substandard systems is entirely related to site and soil conditions. In areas with acceptable site and soil conditions there is an expectation that 100% of new and replacement systems provide adequate treatment.

Thompson Falls is an exception to the norm. In addition to geophysical issues, original planners and current owners contribute to the problem. Small lot sizes, informal aggregation, lot line infringement, selling parcels without considering sanitation, installation of mobile homes, living space additions to homes, and converting garages to living space are all examples of actions that directly impact on-site wastewater treatment.

Sanders County assumes substantial liability when permitting wastewater systems. Site and planning conditions on the Thompson Falls hill elevate the risk of system failure. Failure of permitted new and replaced systems is not only possible, it has happened in the past and will happen in the future.

These issues also impede growth potential for the community as new residences and businesses on the hill face difficulty in planning and installation of adequate on-site wastewater treatment systems.

Sanders County has proposed sharing wastewater permit information with the City on a regular basis. The County has also offered to assist the City, as possible, with community wastewater system planning and development. These actions are intended to keep all stakeholders aware of the challenges of providing on-site wastewater treatment in Thompson Falls and look towards long term solutions.

Council Recommendations

1. Sanders County Environmental Health to provide a written monthly report of wastewater permits issued within the City limits. Environmental Health staff to participate in-person quarterly.

2. Sanders County Environmental Health to consider obtaining water quality data from local monitoring wells at the Town Pump and Conoco.

Wastewater Permit Data

Monthly Summary, Calendar Year 2015

Month	Permits Issued	Detail
January	0	
February	0	
March	0	
April	0	
May	0	
June	2015-067	Replacement, 6/18/2015. Failed, overflowing system. Three bedroom house and 1 bedroom garage/living unit. Two 4 x 8 seepage pits and a 1,500 gallon septic tank installed. Variance to foundation and property line required due to lack of space.
July	2013-021	New system installed 6/11/2015. System was permitted in 2013. Soils were marginal, but approved. Owner placed fill on the site shortly after the permit was issued. Another soil profile was completed to ensure fill could be used rather than removed. Standard gravity system installed.
August	0	
September	0	

Historical Summary, 1995-2015

Total Permits – 189	
New Systems – 39	• 28 standard systems (gravity and pressure) • 1 ETA bed, which failed within 3 years and was replaced by seepage pits • 1 absorption bed • 9 seepage pits
Failed Systems Replaced – 150	• 47 standard systems (gravity and pressure) • 5 absorption beds • 32 tank only (assume seepage pit or less for drainfield) • 66 seepage pits

APPENDIX U

LEMNA Proposal

LemTec™ Biological Treatment Process

Proposal For: Thompson Falls, MT

Prepared for: Craig Pozega, PE
Great West Engineering, Inc.
Helena, Montana

Prepared by: Tom Birkeland
Director of Sales
LET

Proposal Number: 1604
Revision Number: 0
July 24, 2017

INTRODUCTION

Thank you for including the LemTec™ Biological Treatment Process (LBTP) in the planning of the treatment facility for the City of Thompson Falls, MT. Based on the information provided, we have developed a preliminary design and budget estimate for this project. The objective of our proposed system is to provide the best possible biological treatment solution capable of meeting or exceeding your requirements in the most efficient and cost effective way possible.

This proposal has been prepared for Mr. Craig Pozega, who is currently evaluating treatment alternatives for the City, and is interested in products/technologies that can provide improvements to the existing facility, in order to accommodate projected flows as well as meet BOD, TSS and ammonia limits.

Lemna Environmental Technologies' proposed process design is based upon the following design parameters and site data.

DESIGN PARAMETERS

	Influent Summer	Influent Winter		Effluent Summer	Effluent Winter	
Flow	0.181	0.181	MGD			
$CBOD_5$	260	260	mg/L	10	10	mg/L
TSS	300	300	mg/L	10	10	mg/L
Ammonia	30.5	30.5	mg/L	3.0	3.0	mg/L

The proposed LBTP design described below will achieve the basic requirements and provide a number of advantages to the end user which are unmatched by alternative technologies. The patented LBTP is an effective, reliable, and affordable aerated lagoon based biological treatment process which utilizes a series of aerobic treatment cells followed by a settling zone and a polishing reactor. The LemTec™ process is capable of achieving year-round effluent limits of 10 mg/l BOD, 10 mg/l TSS and 1.5 mg/l NH3-N at a fraction of the cost of other traditional wastewater treatment systems. With a reduced footprint, a process that is extremely reliable, and simple to operate, the LBTP is the highest performance lagoon-based package in the world and offers numerous advantages over other systems, including lower capital and operating costs, expandability and low maintenance.

DESIGN OVERVIEW

The proposed design utilizes two of the existing lagoons run in series to handle a total design flow of .181 MGD. The depth of the lagoons is considered to be 10' for the purposes of this design. Following the treatment lagoons, a Lemna Polishing Reactor will provide additional BOD removal and ammonia treatment.

For this design, the first lagoon in the series will be divided into two cells using Lemna's custom designed LemTec™ Reverse Miter Hydraulic Baffle, which will be installed to minimize short-circuiting between each cell. The first cell will be a complete mix cell utilizing high rate diffusers.

The complete mix zone of the LBTP process is an aerated, aggressively mixed cell that establishes an environment suitable for the rapid removal of BOD_5 by heterotrophic bacteria. The reduction of BOD_5 is calculated using state-of-the-art "mechanistic" models that relate to the growth of bacteria and removal of BOD_5 in relation to detention time and wastewater temperature. Similar models are currently used for the design of activated sludge plants.

In addition to BOD_5 removal, ammonia is also removed by heterotrophic bacteria present in the complete mix cell. Ammonia is utilized by the bacteria to support its nitrogen requirement for growth. Also, nitrifier growth will occur in the complete mix cell resulting in additional (and significant) ammonia reduction.

Following the complete mix cell, water will flow into a partial mix cell utilizing low-rate diffusers. Partial mix cells require lower levels of aeration and mixing in order to effectively achieve BOD_5 removal. Using low rate diffusers, air will be introduced to maintain optimal degradation of BOD_5. Mixing will also economically occur in order to achieve effective biological reaction rates and to maintain partial suspension of solids.

The second lagoon will also be divided into two cells. The first cell will be a partial mix cell utilizing low-rate diffusers. The second cell will be a settling cell with a detention time of 3.8 days. Low rate diffusers will be installed to provide additional aeration for sludge decay. All the cells in the proposed design will be covered by Lemna's LemTec™ Modular Insulated Cover rated at R8. The LemTec™ Cover prevents algae growth by eliminating sunlight below the cover and improves clarification in two ways: 1) it prevents wind action on the water surface thereby establishing a quiescent zone for solids to settle, and 2) the insulation minimizes seasonal and diurnal temperature fluctuations, thereby reducing stirring by thermal currents. The LemTec™ Cover improves TSS removal, provides algae prevention and encourages nitrification by regulating temperatures within the treatment system.

Following the treatment lagoons, the LemTec™ Polishing Reactor will provide additional BOD and ammonia treatment. The LemTec™ Polishing Reactor (LPR) consists of submerged, attached-growth media modules used for maintaining an adequate population of bacteria. The LPR enhances the growth of nitrification bacteria to encourage conversion of ammonia to nitrates in an aerobic environment. Aeration is provided by rack-mounted coarse-bubble diffusers located under the media, which evenly distribute the air and shear coarse bubbles into very fine bubbles. The LPR produces BOD and TSS effluent levels less than 10 mg/l and NH_3-N as low as 1 mg/l. Typically housed in a concrete or metal structure near the effluent of the pond, the LPR is the final stage of the lagoon based LemTec Biological Treatment Process. The approximate size of the proposed LPR for this option is 16'x48'12'. The oxygen requirements for this option will be met (3) 25 HP blowers, of which 2 will be in continuous operation. A schematic of the proposed design is attached for your reference.

DESIGN SUMMARY

	Water Depth (ft)	Freeboard (ft)	Slope	Waterline Length (ft)	Waterline Width (ft)	Volume (MG)	Detention Time (days)
Basin # 1	10	2.5	3	200	136.5	1.4	7.6
Basin # 2	10	2.5	3	200	136.5	1.4	7.6

	Mixing	Detention Time (days)	Winter Temp. (C)
Cell 1A	CM	3.8	9.4
Cell 1B	PM	3.8	8.9
Cell 2A	PM	3.8	8.3
Cell 2B	SC	3.8	7.8

A summary of the equipment supplied is provided in the table below:

EQUIPMENT SUMMARY

	Cover	**Baffle**		**Blower**		**Cubes**	**Diffusers**
	Sq. Ft.	**Qty.**	**Ft.**	**Qty.**	**HP**	**6'x6'x8'**	**Units**
Basin #1	27,300	1	141	3	25		
Complete Mix							32
Partial Mix							6
Basin #2	27,300	1	141				
Partial Mix							6
Settling Cell							4
LPR	675					12	

DESIGN LAYOUT/DRAWINGS

Layout drawings are attached.

LET PROJECT SUPPLY SCOPE

Engineering/Technical Services
- Lemna System Design Recommendations
- Lemna System Equipment Details
- Lemna System Plans and Specifications
- Lemna Design Calculations
- Regulatory Technical Support

Equipment Supply
- LemTec™ Insulated Cover
- LemTec™ Aeration System
- LemTec™ Polishing Reactor

Installation/Start-Up/Training
- Equipment Installation Supervision (Lemna Equip.)
- Process Start-Up/Training (Lemna Process)
- Ongoing Technical Support

By others: Civil Design, Electrical Design, Mechanical Design, Other Design Services (if required). Pond De-Sludging, Site Work/Improvements, Concrete Structures, Yard Piping (out of basin),Electrical Service to Site, Interconnect Wiring (Equipment to Equipment/ Remote Disconnect/MCCs/Control Panels).

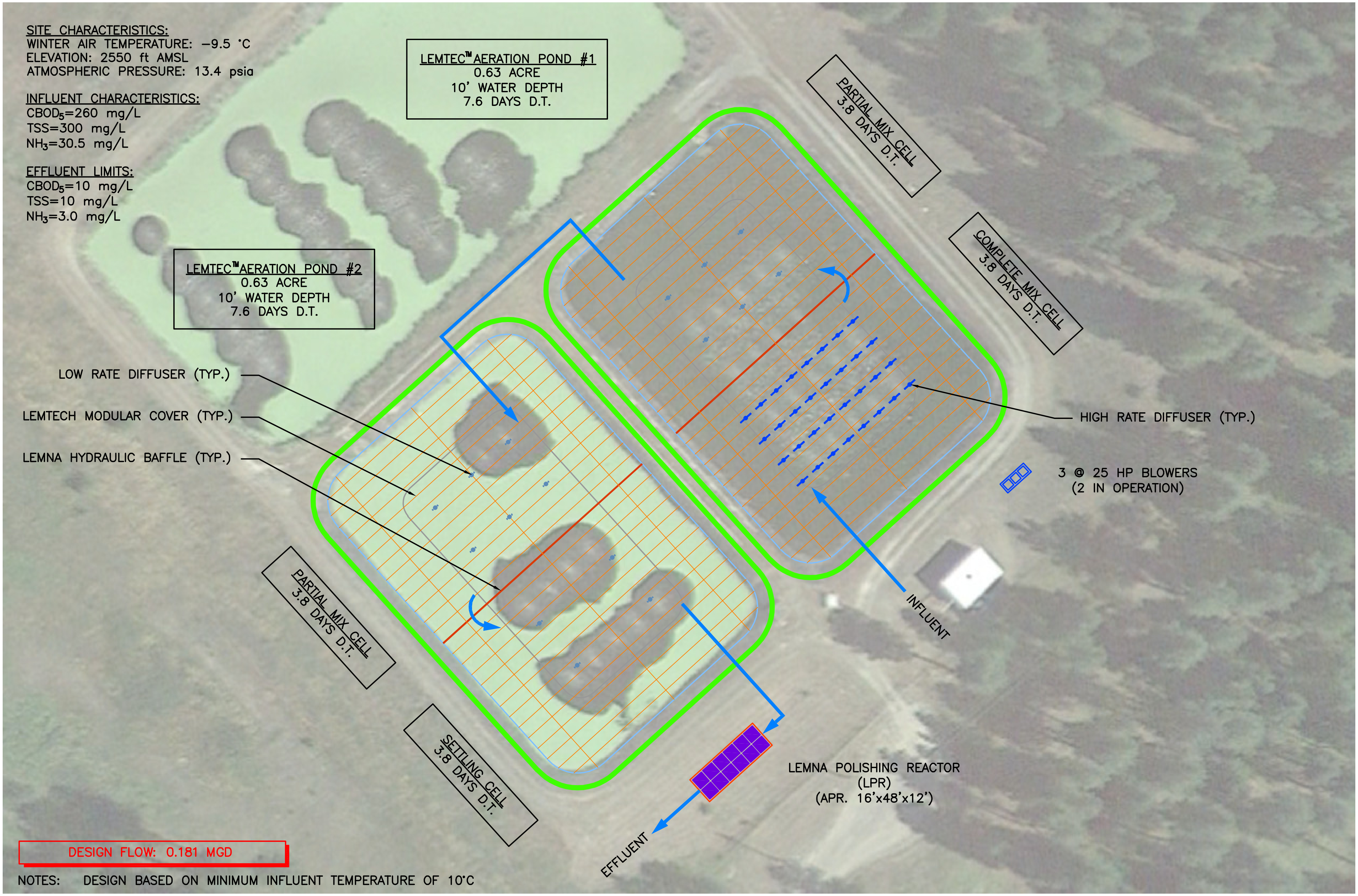
LET PROJECT PRICING

Equipment/Services	$ 448,192
Equipment Freight (estimate)	$ 38,808
Total Proposed Price	**$ 487,000**

Proposed pricing is based on available information and is valid for 60 days. Prices are in US funds and do not include any applicable taxes. All sales are subject to LET's standard terms and conditions. Proposed price subject to change based on changes in final design and final scope at time of bid or based on size changes at time of final survey. Typical equipment lead time is 6-12 weeks after approval of final submittals. Equipment lead time is subject to change based on size of project, complexity of design, customer requirements and shop-loading at time of order.

LIMITED WARRANTY

All LET supplied components are warranted against manufacturer's defects for a period of twelve months. This warranty does not cover wear or damage caused by improper installation, operation or maintenance. In the event of a manufacturer's defect, Lemna will repair or replace the damaged component. A process warranty based on the design parameters included as part of this proposal. This process warranty is contingent upon the full supply by LET of all equipment detailed in this proposal.



THIS DESIGN IS PROPIETARY TO LEMNA ENVIRONMENTAL TECHNOLOGIES, INC. AND IS SOLELY INTENDED FOR APPLICATION AT THOMPSON FALLS, MT BY LEMNA ENVIRONMENTAL TECHNOLOGIES, INC. THIS DESIGN CANNOT BE USED BY A THIRD PARTY NOR REPRODUCED, IN FULL OR IN PART, WITHOUT THE WRITTEN AUTHORIZATION OF LEMNA TECHNOLOGIES, INC.

DRAWN BY:	DTE
APPROVED BY:	TB
SCALE:	NOT TO SCALE
DATE:	JULY 2017
SHEET NO:	1 OF 1

LEMTEC™ BIOLOGICAL TREATMENT PROCESS THOMPSON FALLS, MT

LEMNA ENVIRONMENTAL TECHNOLOGIES, INC.
4215 WHITE BEAR PARKWAY, SUITE 200 • VADNAIS HEIGHTS, MN 55110
PHONE: 612-253-2000 FAX: 612-253-2003 WWW.LEMNATECHNOLOGIES.COM

APPENDIX V

Pump Hydraulic Calculations

East Preston Lift Station
Alternative C1

d	6	in				Flow is for Washington Ave East		
d	0.5	ft	0.19635			Q =	228.1557	gpm
C	120					Qavg	84888	gpd	58.95
L	3130	ft				Population	770	
Q	228.1557	gpm	0.3	MGD		Peaking	3.870325	
Q	0.508368	cfs	2.59	ft/s				
hf =	17.46822	ft	82.25108	psi				
	7.6	psi						

d	3	in						
d	0.25	ft						
C	120							
L	0	ft						
Q	228.1557	gpm				HGL		
Q	0.508368	cfs	GWE LS		2450			
			PumpOff	Z1	2440	2476.468	15.78711	
hf =	0	ft	GSE Outlet		2465			
	0.0	psi	Outlet	Z2	2459	2459		
				Static Head	19	ft		
Total	17.46822	ft						
				TDH	36.46822	ft		

Golf Street Lift Station
Alternative C1

d	4	in					Flow is for east of Golf/Hailey				
d	0.333333	ft	0.087266				Q =	46.53254	gpm		
C	120						Qavg	15850	gpd	11.00694	gpm
L	2050	ft					Population	114			
Q	46.53254	gpm	0.1	MGD			Peaking	4.227562			
Q	0.103682	cfs	1.19	ft/s							
hf =	4.339417	ft	82.25108	psi				72			
	1.9	psi									

d	3	in						
d	0.25	ft						
C	120							
L	0	ft						
Q	46.53254	gpm				HGL		
Q	0.103682	cfs	GWE LS		2410			
			PumpOff	Z1	2400	2488.339	38.24217	
hf =	0	ft	GSE Outlet		2490			
	0.0	psi	Outlet	Z2	2484	2484		
				Static Head	84	ft		
Total	4.339417	ft						
				TDH	88.33942	ft		

Main Lift Station Hydraulics
Alternative C2

d	8	in				Flow is for entire City			
d	0.666667	ft	0.349066			Peak Hour Flow			
C	120					Q =	461.2977	gpm	
L	5250	ft				Qavg	178932	gpd	124.2583
Q	461.2977	gpm	0.7	MGD		Population	1349		
Q	1.027847	cfs	2.94	ft/s		Peaking	3.712408		

hf =	26.58088	ft	82.25108	psi
	11.5	psi		

d	4	in						
d	0.333333	ft						
C	120							
L	200	ft						
Q	461.2977	gpm				HGL		
Q	1.027847	cfs	GWE LS		2395			
			PumpOff	Z1	2385	2596.2	91.42844	
hf =	29.61881	ft	GSE Outlet		2546			
	12.8	psi	Outlet	Z2	2540	2540		
				Static Head	155	ft		
Total	56.19969	ft						
				TDH	211.1997	ft		

West Preston Lift Station
Alternative C1

d	8	in			Flow is for entire unsewered section of the City				
d	0.666667	ft	0.349066		Peak Hour Flow				
C	120				Q =	327.7742	gpm		
L	1850	ft			Qavg	125393	gpd	87.07847	
Q	327.7742	gpm	0.472	MGD	Population	1134			
Q	0.730335	cfs	2.09	ft/s	Peaking	3.764125			

hf =	4.974564	ft	82.25108	psi
	2.2	psi		

d	3	in						
d	0.25	ft						
C	120							
L	0	ft						
Q	327.7742	gpm				HGL		
Q	0.730335	cfs	GWE LS		2466			
			PumpOff	Z1	2456	2544.975	38.51713	
hf =	0	ft	GSE Outlet		2546			
	0.0	psi	Outlet	Z2	2540	2540		
				Static Head	84	ft		
Total	4.974564	ft						
				TDH	88.97456	ft		

APPENDIX W

Meteorological Data

Montana Department of
ENVIRONMENTAL QUALITY

PLANNING, PREVENTION & ASSISTANCE
P.O. Box 200901
Helena, MT 59620-0901
406 444-6697

FAX TRANSMISSION

FAX NUMBER: 406 444-6836

To: Amy Deitchler
Great West

Fax #: 449-8631

Pages: 10

Date: 12/4/09

From: Mike A

Phone:

Subject: Evap & Precip. Data

Comments:

Put in a few other maps that show evap & precip data. Like I said I usually use 2 or 3 other estimates to get an average

Mike

APPENDIX B
AVERAGE ANNUAL EVAPORATION AND PRECIPITATION FOR MONTANA COMMUNITIES

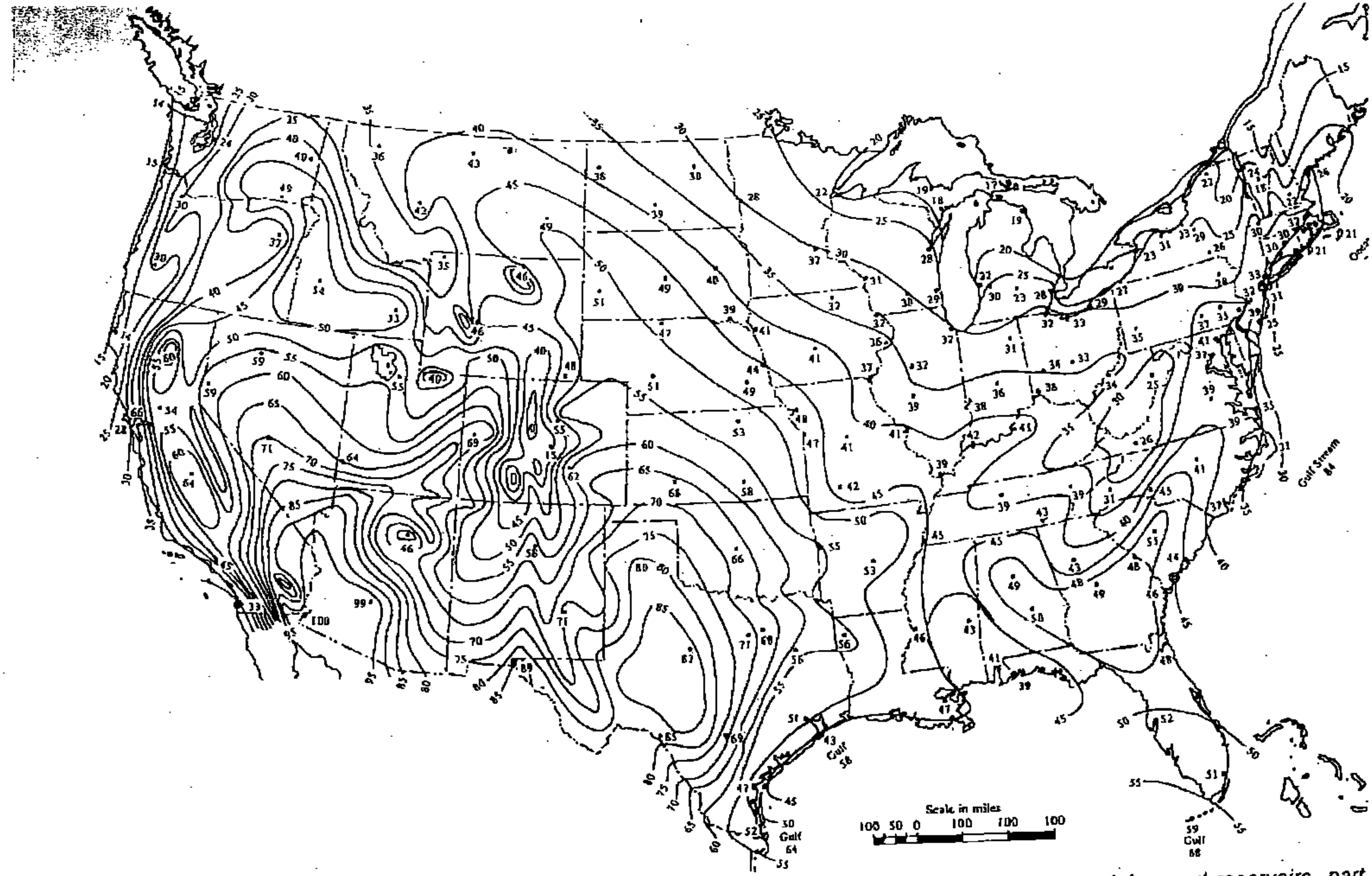
Community	Evaporation (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)		Community	Evaporation (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)
Absarokee	43	15	28		Big Sky Meadow	31	25	6
Alberton	32	19	13		Big Timber	41	15	26
Amsterdam	40	13	27		Boulder	36	11	25
Anaconda	29	13	16		Box Elder	38	11	27
Antelope	38	15	23		Brady	39	11	28
Ashland / St. Labre	44	13	31		Bridger	42	11	31
Augusta	40	15	25		Broadus	43	15	28
Bainville	37	13	24		Broadview	42	13	29
Baker	39	15	24		Brockton	38	13	25
Basin	34	15	19		Browning	35	19	16
Bear Creek	39	13	26		Busby	43	15	28
Belfry	40	7	33		Carter	40	13	27
Belgrade	41	15	26		Cascade	40	13	27
Belt	41	15	26		Chester	38	11	27
Big Sandy	39	13	26		Choteau	40	13	27

Community	Evaporation (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)	Community	Evaporation (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)
Circle	40	13	27	Ekalaka	40	15	25
Columbus	43	13	30	Ennis	40	11	29
Conrad	39	11	28	Eureka	31	17	14
Corvallis	35	11	24	Fairfield	40	13	27
Culbertson	38	13	25	Fairview	39	15	24
Custer	44	11	33	Fallon	41	11	30
Cut Bank	37	11	26	Flaxville	35	15	20
Darby	34	17	17	Fort Benton	41	15	26
Deer Lodge	33	11	22	Fort Peck	39	11	28
Denton	39	15	24	Frazer	40	13	27
Dillon	40	11	29	Froid	37	13	24
Dixon	35	15	20	Fromberg	42	11	31
Dodson	39	11	28	Gardiner	32	19	13
Drummond	32	11	21	Geraldine	42	15	27
Dutton	39	13	26	Geyser	39	17	22
East Glacier	31	25	6	Gildford	39	11	28
East Helena	41	9	32	Glasgow	39	11	28
Edgar	44	13	31	Glendive	40	13	27

Community	Evaporatio n (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)		Community	Evaporation (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)
Grass Range	41	17	24		Lodge Grass	44	15	29
Harlem	40	13	27		Malta	39	11	28
Harlowtown	40	13	27		Manhattan	41	13	28
Hays	35	25	10		Medicine Lake	38	15	23
Hingham	38	11	27		Melrose	38	11	27
Hobson	40	13	27		Melstone	43	13	30
Hot Springs	33	15	18		Moore	39	17	22
Hysham	44	13	31		Nashua	39	11	28
Inverness	38	11	27		Opheim	35	11	24
Joliet	42	15	27		Outlook	36	13	23
Joplin	38	11	27		Pablo	35	17	18
Jordan	41	11	30		Park City	45	13	32
Judith Gap	38	13	25		Philipsburg	32	15	17
Kevin	38	11	27		Plains	34	25	9
Lakeside	33	15	18		Plentywood	37	15	22
Lambert	38	13	25		Plevna	40	13	27
Lavina	42	13	29		Polson	34	15	19
Lincoln	31	19	12		Power	39	11	28

Community	Evaporation (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)	Community	Evaporation (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)
Rae	41	17	24	Shelby	38	11	27
Ramsay	32	11	21	Sheridan	40	13	27
Red Lodge	37	17	20	Sidney	39	13	26
Reserve	38	15	23	Simms	40	13	27
Rexford	30	17	13	St. Ignatius	36	19	17
Richey	39	13	26	St. Marie	37	11	26
Roberts	41	17	24	Stanford	39	15	24
Rocker	31	11	20	Stockett	40	15	25
Rocky Boy	35	25	10	Sun Prarie Village	41	13	28
Ronan	35	17	18	Sunburst	36	11	25
Rosebud	44	13	31	Superior	32	19	13
Roundup	42	11	31	Sweetgrass	38	15	23
Roy	40	15	25	Terry	41	11	30
Rudyard	38	11	27	Thompson Falls	30	25	5
Ryegate	42	13	29	Three Forks	41	11	30
Saco	38	11	27	Townsend	41	11	30
Savage	39	13	26	Troy	31	35	- 4
Scobey	37	13	24	Turner	37	11	26

Community	Evaporation (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)		Community	Evaporation (in./yr)	Precipitation (in./yr)	Net Evaporation (in./yr)
Twin Bridges	41	11	30		Wolf Point	39	13	26
Valier	38	13	25		Worden / Ballantine	43	13	30
Vaughn	41	13	28					
Victor	34	17	17					
Virginia City	36	17	19					
Warm Springs	33	13	20					
West Glendive	40	13	27					
West Yellowstone	34	25	9					
Westby	36	15	21					
White Sulphur Springs	37	17	20					
Whitefish	34	19	15					
Whitehall	40	11	29					
Wibaux	39	15	24					
Winifred	41	13	28					
Winnett	42	13	29					
Wisdom	34	15	19					



Mean annual evaporation from shallow lakes and reservoirs, in inches. Note: Evaporation from large deep lakes and reservoirs, part
ill be substantially less in spring and summer, greater in fall and winter, and less for the year than the values here shown. Evaporatio
oil and vegetation immediately after rains or irrigation will begin at greater rates and diminish rapidly with the supply of available r
rences in topography and climate in mountainous regions cause large local differences in evaporation not adequately shown here,
rn states. (U.S. Department of Agriculture, Soil Conservation Service.)

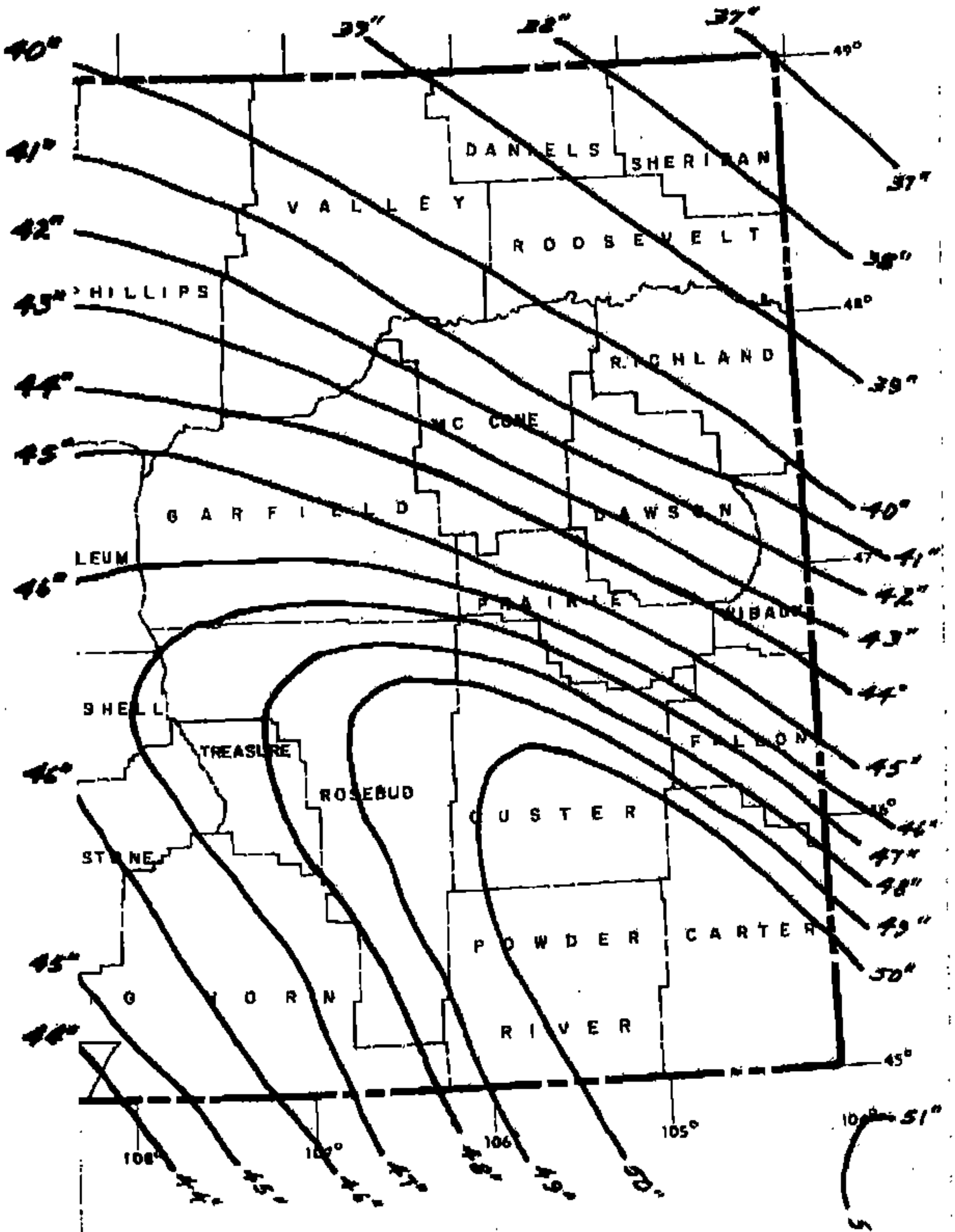
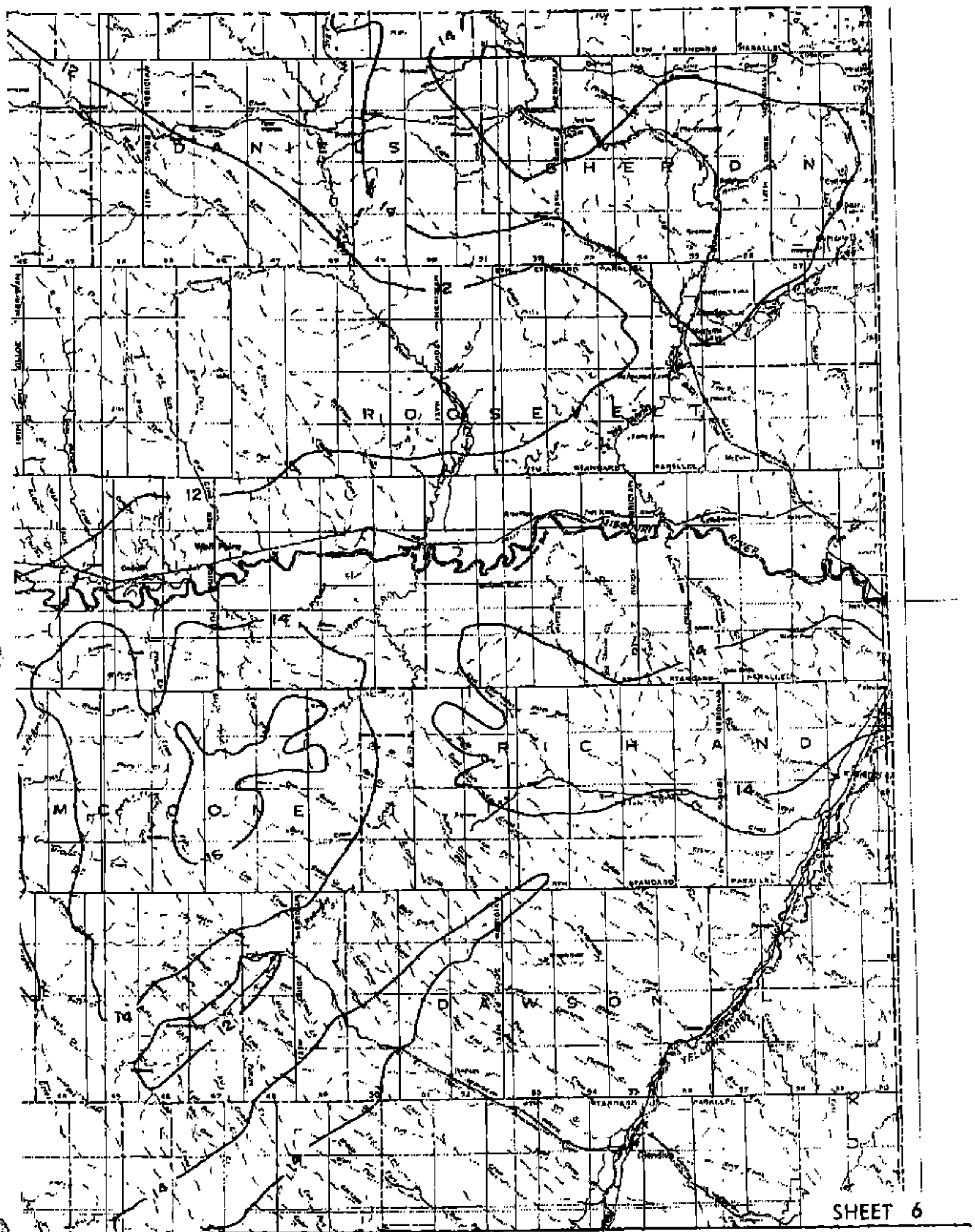


Fig. 3 MEAN ANNUAL EVAPORATION SHALLOW LAKES AND RESERVOIRS

APPENDIX B

Average Annual Precipitation

From Figure 4, locate the precipitation sheet for your location. The sheets show <u>total</u> precipitation.



For In-Service use only until map based on 1941-70 period is prepared and released by SCS, National Weather Service and Montana Water Resources Board.
Prepared by: SCS, Box 970, Bozeman, MT.

Scale: 1 inch equals approx. 16 miles
STATE OF MONTANA
AVERAGE ANNUAL PRECIPITATION
IN INCHES
Soil Conservation Service 1953-67 Base

IDAHO

MONTHLY AVERAGE PAN EVAPORATION (INCHES)

	RECORD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
ABERDEEN EXPERIMNT STN	1914-2005	0	0	0	0	7.46	8.95	10.28	9.4	6.41	3.85	0	0	46.35
ARROWROCK DAM	1916-2005	0	0	0	0	5.94	7.53	10.18	8.93	5.75	2.35	0	0	40.68
BLACKFOOT DAM	1948-1971	0	0	0	0	0	7.56	9.19	7.42	3.97	0	0	0	28.14
EMMETT 2 E	1948-2005	0	0	0	5.62	7.09	8.82	10.58	9.44	6.56	4.57	0	0	52.68
ISLAND PARK	1937-2005	0	0	0	0	0	4.9	6.58	5.69	0	0	0	0	17.17
LIFTON PUMPING STN	1935-2005	0	0	0	4.08	5.97	7.41	8.7	7.8	5.35	3.02	0	0	42.33
MACKAY 4 NW	1965-1988	0	0	0	0	6.81	8.39	10.23	8.73	6.39	0	0	0	40.55
MINIDOKA DAM	1947-2005	0	0	0	6.79	8.17	10.76	13.01	11.48	8.26	4.63	2.94	0	66.04
MOSCOW UNIV OF IDAHO	1893-2005	0	0	3.03	3.85	5.66	6.53	8.62	8.23	5.29	3.03	2.85	0	47.09
PALISADES	1947-1993	0	0	0	4.01	5.56	7.04	9.38	8.32	5.48	3.58	0	0	43.37
PARMA EXPERIMENT STN	1922-2005	0	0	0	6	8.26	9.05	10.41	9.47	6.3	0	0	0	49.49
REXBURG RICKS COLLEGE	1977-2005	0	0	0	0	6.59	7.29	8.06	7.36	5.23	0	0	0	34.53
SANDPOINT EXPERMNT STN	1910-2005	0	0	0	0	4.96	5.51	7.47	6.78	4.47	0	0	0	29.19
TWIN FALLS WSO	1963-2005	0	0	0	5.8	8.09	9.15	10.24	9.09	6.65	4.25	0.77	0	54.04

MONTANA

MONTHLY AVERAGE PAN EVAPORATION (INCHES)

	RECORD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
BABB 6 NE	1948-2005	0	0	0	0	5.23	5.91	6.87	5.9	4.06	0	0	0	27.97
BOZEMAN MONTANA ST UNIV	1892-2005	0	0	0	3.34	5.58	6.03	8.34	7.17	4.57	2.62	0	0	37.65
BOZEMAN 6 W EXP FARM	1966-2005	0	0	0	4.24	5.68	6.62	8.19	7.73	4.88	2.99	0	0	40.33
CANYON FERRY DAM	1948-1957	0	0	0	0	7.98	7.13	8.17	7.41	5.5	3.11	0	0	39.3
CANYON FERRY DAM	1907-1996	0	0	0	3.15	5.04	6.21	7.91	7.04	4.18	1.93	0	0	35.46
DILLON WMCE	1895-2005	0	0	0	3.05	4.72	5.32	6.41	5.45	3.48	2.84	0	0	31.27
FORT ASSINNIBOINE	1917-2005	0	0	0	4.54	6.43	7.3	8.86	8.12	5	0	0	0	40.25
FORT PECK	1948-1956	0	0	0	0	5.99	8.17	9.51	8.04	5.36	4.25	0	0	41.32
FORT PECK POWER PLANT	1956-2005	0	0	0	0	7.34	8.45	10.42	9.81	5.83	3.53	0	0	45.38
HUNGRY HORSE DAM	1948-2005	0	0	0	0	4.83	5.62	7.81	6.63	3.46	1.37	0	0	29.72
HUNTLEY EXPERIMENT STN	1911-2005	0	0	0	5.03	6.71	7.4	8.88	8.15	5.1	0	0	0	41.27
LONESOME LAKE	1948-1981	0	0	0	0	7.42	7.6	9.25	8.31	5.7	0	0	0	38.28
MALTA 7 E	1972-2005	0	0	0	4.67	6.5	6.51	7.61	6.84	4.17	1.34	0	0	37.64
MEDICINE LAKE 3 SE	1911-2005	0	0	0	0	7.44	7.69	9.62	9.19	5.36	0	0	0	39.3
MOCCASIN EXPERIMENT STN	1909-2005	0	0	0	4.35	6.59	7.72	9.66	9.21	6.39	0	0	0	43.92
SIDNEY	1910-2005	0	0	0	3.99	5.63	6.44	6.93	5.45	2.89	1.81	0	0	33.14
TIBER DAM	1952-2005	0	0	0	0	4.51	6.46	7.65	5.56	4.34	0	0	0	28.52
VALIER	1911-2005	0	0	0	0	5.37	6.49	7.33	5.62	4.72	0	0	0	29.53
WESTERN AG RESEARCH CNT	1965-2005	0	0	0	0	5.08	6.03	7.26	6.07	4.14	2.25	0	0	30.83
YELLOWTAIL DAM	1948-2005	0	0	0	0	6.94	8.84	10.6	9.74	6.58	4.86	0	0	47.56

THOMPSON FALLS P H, MT

Total of Precipitation (Inches)

-248211

File last updated on March 9, 2017
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1956	-----	2.44	2.7	1.43	1.33	1.49	1.01	1.73	1.08	2.19	1.41	2.8	19.61
1957	1.68	2.91	2.25	1.55	3.73	1.9	0.84	0.34	0.49	2.96	0.49	3.49	22.63
1958	1.85	1.45	0.46	2.51	1.48	2.88	2.14	0.38	1.15	1.56	5.97	3.45	25.28
1959	3.75	1.41	2.18	2.4	2.02	1.61	0.31	0.65	4.48	2.27	4.3	1.1	26.48
1960	1.25	1.43	2.21	2.44	1.93	1.18	0.14	2.6	0.46	1.7	3.82	1.33	20.49
1961	1.87	4.04	2.55	2.5	4.2	1.76	0.61	1.19	1.62	2.24	3.42	4.08	30.08
1962	1.92	1.13	2.68	1.5	2.84	0.94	1.11	1.24	1.21	2.9	2.93	2.62	23.02
1963	1.97	3.21	2.75	1.26	0.89	2.16	0.19	0.24	1.15	1.05	2.23	2.15	19.25
1964	2.85	1.04	1.96	2.64	1.36	3.54	1.38	2.38	1.46	2.26	2.5	6.43	29.8
1965	4.08	1.92	0.73	2.59	1.58	2.92	1.03	2.71	2.26	0.27	3.28	1.7	25.07
1966	3.56	1.59	2.4	0.41	1.62	2.72	0.44	3.32	0.44	1.4	4.25	2.29	24.44
1967	3.96	2.01	2.06	1.99	0.95	1.43	0.34	0	0.43	4.84	1.37	2.71	22.09
1968	2.23	2.58	1.19	0.63	0.9	1.57	0.36	2.27	3.74	2.82	2.05	3.58	23.92
1969	6.2	1.04	1.07	1.76	0.9	2.81	0.18	0	1.67	1.29	0.77	1.51	19.2
1970	4.82	1.59	1.85	3.44	1.61	1.37	1.89	0.35	0.91	1.5	2.57	1.95	23.85
1971	5.94	1.01	2.64	1.73	1.99	2.89	0.91	1.09	0.91	1.48	1.41	3.68	25.68
1972	5.13	4.55	3.02	1.26	0.73	1.5	1.34	0.93	1.21	1.28	0.99	2.63	24.57
1973	1.68	0.11	0.94	0.83	1.15	2.09	0	0.19	1.2	0.85	4.42	2.89	16.35
1974	6.61	2.44	2.36	1.05	1.08	1.45	0.64	0.34	0.64	0.17	2.44	1.86	21.08
1975	3.25	3.44	1.77	1.08	2.04	1.34	1.07	1.58	0.27	3.28	2.62	4	25.74
1976	2.54	2.54	1.73	1.28	1.52	1.88	0.92	3.06	0.41	0.61	2.01	1.04	19.54
1977	0.8	0.56	1.95	0.04	2.4	0.63	1.53	1.3	3.08	1.07	2.9	6.57	22.83
1978	1.87	1.51	1.55	1.64	2.77	1.36	1.69	2.96	1.21	0.35	2	2.98	21.89
1979	1.1	3.28	1.73	1.11	1.36	0.12	0.7	1.12	0.25	1.57	0.51	3.36	16.21
1980	2.95	0.94	1.89	1.1	5.37	3.94	1.06	1.13	2.15	1.07	2.41	4.43	28.44
1981	0.53	2.61	0.73	1.89	3.4	3.83	0.92	0.18	0.89	1.1	2.09	2.86	21.03
1982	4.25	4.29	3.28	2.53	1.44	2.86	1.88	0.52	1.59	1.85	2.4	2.97	29.86
1983	3.09	1.76	1.71	0.59	1.66	3.95	1.78	1.21	1.03	1.09	2.34	1.99	22.2
1984	1.68	0.71	1.62	1.88	3.17	1.97	0.83	0.9	1.18	2.02	2.61	4.04	22.61
1985	0.3	1.22	1.21	1.3	2.52	2.47	0	2.83	3.15	3.2	2.61	0.46	21.27
1986	1.76	4.69	1.71	1.05	1.74	1.5	0.74	1.12	2.81	0.64	4.31	0.67	22.74
1987	1.08	0.82	2.45	1.36	2.21	0.89	2.1	1.34	0.2	0.08	0.65	2.32	15.5
1988	1.82	1.73	2.99	1.86	1.91	2.14	1.42	0.12	0.71	1.36	3.51	1.12	20.69
1989	2.43	0.46	2.53	1.26	2.61	1.19	0.83	3.11	1.64	1.73	4.24	1.52	23.55
1990	4.57	1.39	0.74	1.48	3.18	1.07	1.18	1.2	0	3.93	4.45	3.65	26.84
1991	1.9	1.82	2.21	1.73	4.12	4.14	0.43	0.41	0.9	1.57	3.46	2.07	24.76
1992	2.08	2.23	0.68	2.13	1.47	4.53	3.22	1.75	1.53	1.05	1.34	1.79	23.8
1993	1.31	0.8	1.14	2.79	2.99	2.83	3.74	1.95	0.75	1.79	1.19	1.7	22.98
1994	1.27	1.54	0.9	1.59	1.19	1.99	1.03	0.19	0.61	3.06	2.45	1.68	17.5
1995	2.14	2.68	2.39	1.25	1.28	2.42	1.62	1.94	2.43	4.45	5.22	3.75	31.57
1996	3.97	4.76	1.05	3.67	2.72	1.42	1.13	0.55	1.06	1.78	3.75	6.68	32.54
1997	3.73	2.12	2.66	2.56	2.66	2.28	1.31	0.92	1.17	3.33	1.9	1.28	25.92
1998	3.14	0.57	1.83	1.34	4.51	3.62	0.25	2.03	1.04	0.72	4.56	4.67	28.28
1999	2.62	2.8	0.9	0.35	0.52	1.79	1.64	0.6	0.61	2.13	3.99	2.26	20.21
2000	2.28	1.72	1.09	1.5	2.73	1.05	0.7	0.15	1.23	1.2	1.06	1.69	16.4
2001	1.07	1.65	1.14	1.79	0.97	3.14	0.75	0.11	0.41	3.34	0.83	1.84	17.04
2002	3.15	2.21	3.51	1.13	2.91	2.61	0.15	1.03	0.71	0.24	-----	1.9	19.55
2003	2.53	1.16	2.84	1.54	0.95	0.89	0.19	0.34	0.88	1.32	2.95	1.55	17.14
2004	2.02	0.66	0.6	0.79	3.33	0.74	0.94	2.65	1.65	1.55	0.9	1.74	17.57
2005	1.31	0.3	1.5	1.91	1.55	2.63	0.23	0.32	1.13	3.35	2.01	1.93	18.17
2006	4.06	1.52	1.67	2.01	2.15	1.98	0.38	0.32	0.83	1.07	7.4	1.8	25.19
2007	1.55	2.47	2.02	0.76	1.01	0.88	0.04	0.18	1.01	2.04	2.98	4.3	19.24
2008	2.95	1.95	1.93	1.25	1.02	2.44	0.69	1.76	1.11	0.55	2.46	2.34	20.45
2009	3.84	1.5	2.35	0.75	2.28	1.52	1.05	1.59	0.1	2.48	1.43	0.76	19.65
2010	1	0.67	1.12	1.87	2.23	3.74	0.54	0.87	1.45	1.21	2.77	3.05	20.52
2011	2.32	0.93	2.15	2.67	2.08	2.08	0.23	0.04	0.46	3.31	2.7	1.63	19.67
2012	1.55	1.45	3.83	1.31	1.5	2.47	1.85	0	0	1.55	3.21	2.28	19.45
2013	0.78	0.62	1.57	2.71	1.76	1.87	0.11	2.21	2.65	0.45	1.72	1.65	18.1
2014	2.35	3.68	3.97	1.71	1.95	3.31	0.31	1.32	0.55	1.94	4.12	2.12	27.33
2015	2.22	1.44	2.42	0.49	1.31	0.91	0.59	0.52	0.42	1.38	2	2.69	16.39
2016	1.23	1.87	3.02	0.91	2.1	1.34	1.13	0.38	0.66	5.96	1.24	1.99	21.83
2017	1.24	3.88	0.78	-----	-----	-----	-----	-----	-----	-----	-----	-----	5.12
Period of Record Statistics													
MEAN	2.54	1.93	1.94	1.6	2.05	2.1	0.95	1.14	1.19	1.85	2.67	2.58	22.58
S.D.	1.41	1.14	0.82	0.75	1.01	0.99	0.74	0.94	0.9	1.2	1.4	1.34	4.17
SKEW	0.94	0.82	0.26	0.45	1.04	0.49	1.38	0.69	1.54	1.07	0.8	1.24	0.35
MAX	6.61	4.76	3.97	3.67	5.37	4.53	3.74	3.32	4.48	5.96	7.4	6.68	32.54
MIN	0.3	0.11	0.46	0.04	0.52	0.12	0	0	0	0.08	0.49	0.46	15.5
YRS	61	61	61	61	61	61	61	61	61	60	60	61	57
90 Percent	4.25	3.66	2.98	2.59	3.33	3.62	1.85	2.65	2.43	3.33	4.32	4.08	28.19
	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
10 year RP	4.5	3.81	3.01	2.63	3.38	3.71	1.87	2.7	2.6	3.34	4.41	4.25	28.4

APPENDIX X

Storage/Irrigation Calculations

Month-by-Month Water Balance
Facultative System with Spray Irrigation on Forestry

Primary Cell(s): Area = 0.0 acres Max Depth = 0.0 ft Min Depth = 0.0 ft

Storage Cell(s)[1]: Area = 9.2 acres Max Depth = 8.0 ft Min Depth = 1.0 ft

Average Inflow: 92,850 gpd

Irrigated Acres[2]: 21.1 acres

Month	Days in Month (days)	10 yr. Precipitation[3] (inches)	Average Evaporation (inches)	Irrigation Rate[4] (inches)	Start of Month Volume (gallons)	Inflow Volume (gallons)	Net Evaporation Loss (gallons)	Irrigation Application (gallons)	End of Month Volume (gallons)	Primary Cell Depth (feet)	Storage Cell Depth (feet)
November	30	3.36	0.00	0.00	2,998,000	2,786,000	(840,000)	0	6,624,000	0.00	2.21
December	31	3.25	0.00	0.00	6,624,000	2,879,000	(812,000)	0	10,315,000	0.00	3.44
January	31	3.20	0.00	0.00	10,315,000	2,879,000	(800,000)	0	13,994,000	0.00	4.67
February	28.25	2.43	0.00	0.00	13,994,000	2,624,000	(608,000)	0	17,226,000	0.00	5.75
March	31	2.44	0.00	0.00	17,226,000	2,879,000	(610,000)	0	20,715,000	0.00	6.91
April	30	2.02	0.00	0.00	20,715,000	2,786,000	(505,000)	0	24,006,000	0.00	8.01
May	31	2.58	4.96	11.97	24,006,000	2,879,000	595,000	6,858,000	19,432,000	0.00	6.48
June	30	2.65	5.51	11.58	19,432,000	2,786,000	715,000	6,633,000	14,870,000	0.00	4.96
July	31	1.20	7.47	11.97	14,870,000	2,879,000	1,567,000	6,858,000	9,324,000	0.00	3.11
August	31	1.44	6.78	11.97	9,324,000	2,879,000	1,335,000	6,858,000	4,010,000	0.00	1.34
September	30	1.50	4.47	11.58	4,010,000	2,786,000	742,000	6,633,000	(579,000)	0.00	(0.19)
October	31	2.33	0.00	0.00	(579,000)	2,879,000	(583,000)	0	2,883,000	0.00	0.96
								115,000			

[1] *Storage cell(s) area was adjusted until calculated storage cell depth never exceeded allowable maximum depth.*

[2] *Irrigation area was adjusted until "End of Month Volume" for October was approximately equal to"Start of Month Volume" in November.*

[3] *10 yr. Precipitation equals largest 10 year average annual precipitation on record distributed by month using ratio of average monthly to average annual precipitation.*

[4] *Irrigation rate based upon lower value of Lp and Ln according to DEQ-2 121.113.1*

Hydraulic and Nitrogen Loading Rate for Land Application
Forestry

Soil Permeability:	0.570	inches/hour	NRCS Web soil Survey-Ksat for Scotmont ashy fine sandy loam area 1, big arm gravelly loam
Nitrogen Uptake by Crop (U):	120	kg/ha-year	
Nitrogen Concentration in Wastewater (C_n):	10	mg/L	
Fraction of Applied Nitrogen Removed (f):	0.20		

Month	Days in Month	ET_c Evapotranspiration[1]		P 10 yr. Precipitation[2]		Pw Percolation[3]		U Nitrogen Uptake	L_h Hydraulic Loading[4]		L_n Nitrogen Loading[5]	
	(days)	(inches)	(cm)	(inches)	(cm)	(inches)	(cm)	(kg/ha)	(cm)	(inches)	(cm)	(inches)
April	30	0.00	0.00	2.02	5.13	10.94	27.80	0.00	22.67	8.92	0.00	0.00
May	31	4.27	10.85	2.58	6.55	11.49	29.19	24.32	33.48	13.18	30.40	11.97
June	30	4.13	10.49	2.65	6.73	10.94	27.80	23.52	31.56	12.42	29.40	11.58
July	31	4.27	10.85	1.20	3.05	11.49	29.19	24.32	36.99	14.56	30.40	11.97
August	31	4.27	10.85	1.44	3.66	11.49	29.19	24.32	36.38	14.32	30.40	11.97
September	30	4.13	10.49	1.50	3.81	10.94	27.80	23.52	34.48	13.57	29.40	11.58
October	31	0.00	0.00	2.33	5.92	11.49	29.19	0.00	23.27	9.16	0.00	0.00
Total		21.07	53.52	13.72	34.85	78.80	200.14	120.00	218.81	86.15	150.00	59.06

[1] *Evapotranspiration values supplied by NRCS office.*

[2] *10 yr. Precipitation equals largest 10 year average annual precipitation on record distributed by month using ratio of average monthly to average annual precipitation.*

[3] *Percolation is calculated by multiplying 4% of the soil permeability by 24 hrs/day and the days of the month assuming 10 days/month of downtime.*

[4] $L_h = ET_c - P + Pw$

area 4

APPENDIX Y

DEQ Annual Reports

City of Thompson Falls
Public Works Department
P.O. Box 99
Thompson Falls, Montana 59873
(406) 827-3557 fax (406) 827-3090
January 25, 2016

Jenny Chambers, Chief
Montana Department of Environmental Quality
Water Protection Bureau
Permitting and Compliance Division
P.O. Box 200901
Helena, Montana 59620-0901

RE: Annual Report for Special Conditions of General Permit #MTG580035

Dear Chief Chambers:

As required by the discharge permit for the City of Thompson I am submitting this report addressing the special conditions A.1, B.1, and B.2.

A.1 E. Coli

In 2015 E. Coli samples were taken twice monthly as required by the permit. Samples taken in February were 2420 cfu/100ml and 538 cfu/100ml. This gave a geometric mean of 1141cfu/100ml. The February 3rd sample exceeds the 1260 cfu/100ml weekly limit in the **Table 5. Final WQBEL** values for winter months. The September samples were 130 and 179 cfu/100ml which gives an average of 153 which exceeds the 126 cfu/100ml monthly average limit in **Table 5. Final WQBEL** values for summer months.

In 2016 the twice monthly sampling for E. coli will be continued. The City's consulting engineer, Shari Johnson Engineering is doing work to evaluate the need for and the best alternative for dis-infection for the WWTP.

B.1. Percent Removal of BOD and TSS

In 2015, manual composite sampling of the WWTP influent for BOD and TSS was done. This sampling showed the WWTP did not meet the 85% removal for TSS in May. Adjustments to the treatment process were made and the 85% removal requirement for TSS was met the rest of the months.

The City is working with the consulting engineer to evaluate the influent sampling and treatment processes to determine the best way to meet the removal requirement. Data loggers were installed on the lift station pumps to provide more accurate information for composite sampling.

B.2. Effluent flow monitoring

In 2014 an open channel flow monitor with totalizer was installed on the Parshall Flume. Sanderson Stewart's engineer Tony Banovich worked with DEQ to get approval for the installation of the Greyline OCF 5.0 Open Channel Flow Monitor. This monitor provides an accurate (calibrated to within 3%) measurement of flows throughout the 24 hours of the day instead of the once daily measurement of flow through the Parshall Flume.

The City is continuing to work toward upgrading of the collection and treatment systems to insure compliance with permit requirements. The collection and treatment facilities are inspected and maintained as specified in the O & M manuals. An infiltration and inflow investigation was done on a section of the collection system and repairs will be done this year to reduce the amount of inflow.

Sincerely,

Jerry Lacy

Jerry Lacy
Director of Public Works

DEQ
Montana Department of Environmental Quality

January 18, 2017

CARLA PARKS MAYOR
CITY OF THOMPSON FALLS
PO BOX 99
THOMPSON FALLS MT 59873

RE: Information Regarding Status of Changes to the *General Permit for Domestic Sewage Treatment Lagoons* (MTG580000)

Dear CARLA PARKS:

The Montana Pollutant Discharge Elimination System *General Permit for Domestic Sewage Lagoons* expires on December 31, 2017. The Montana Department of Environmental Quality (DEQ) is providing this update regarding current and upcoming efforts to update and reissue the General Permit. Please be reminded that all authorizations to discharge expire with the General Permit on December 31, 2017, therefore in order to maintain authorization to discharge under the General Permit DEQ will require a renewal application package later this year.

Current Permit – Status

1. **The final annual report is due January 28th**. This 2016 annual report should summarize all of the actions completed and progress made during the term of the current General Permit, regarding:
   a. Compliance with *E.coli* bacteria effluent limits. The *E.coli* bacteria effluent limits are now effective and enforceable.
   b. Compliance with percent removal requirements for both 5-day biochemical oxygen demand (BOD_5) and total suspended solids (TSS). These percent removal limits are also now effective and enforceable.
   c. Effluent flow monitoring that is representative of the nature and volume of the actual flow.

2. **Infiltration/inflow (I/I) Report.** Facilities with an average daily design flow at or above 0.1 million gallons per day (mgd) were required to evaluate the influences from I/I by January 1st of 2017. If you meet the size criteria, your report on I/I is due by January 28th. The report must include an estimate of the sources and amounts of I/I into the collection system and a summary of work accomplished and additional work planned to reduce any excessive I/I. If you have previously submitted this report, please provide a copy or reference the submittal date.

3. **Upstream Monitoring.** The General Permit required upstream monitoring through 2016 regardless whether the facility was discharging at that time. However, DEQ notes a number of facilities failed to submit all required upstream monitoring data. Please submit any missing upstream data as part of the annual report due January 28th; or commit to conducting the analysis in 2017.

Renewal Permit – Timeframe

DEQ is working to draft an updated General Permit prior to the expiration date of December 31, 2017. DEQ anticipates the following timeline:

meetings prior

- May/June 2017 - draft General Permit renewal released for public notice
- September 2017 - final permit issued and permittees requested to submit a complete renewal package
- November 2017 – complete renewal package due
- December 2017 – DEQ issues authorization letters to applicable facilities for the renewed General Permit, effective January 1, 2018

Renewal Permit Potential Changes or Updates

DEQ will evaluate the need for new water quality-based effluent limits for: oil & grease, ammonia, nitrate+nitrite, and nutrients (total nitrogen and total phosphorus). DEQ will also evaluate the need for a compliance schedule if new water quality-based effluent limits are included in the renewed General Permit that cannot be currently met by the covered facilities.

We will continue to work with you during the renewal process. Should you have any questions, feel free to contact me at (406) 444-3927 or email cweaver@mt.gov.

Sincerely,

Christe A Weaver

Christine A. Weaver – speak at spring water school abt GP
Environmental Science Specialist
Water Protection Bureau

Cc: JERRY LACY PWD

City of Thompson Falls

Mayor
Mark Sheets

Ward I
Linda McKahan
Raoul Ribeiro

Ward II
Dennis Newman
Earlene Powell

Ward III
Tom Eggensperger, Pres.
Jim Haughton

January 23, 2017

Carolina Davies
Montana Department of Environmental Quality
Water Protection Bureau
Permitting and Compliance Division
PO Box 200901
Helena, MT 59620-0901

RE: City of Thompson Falls (MPDES Permit No. MTG 580035)
2016 Annual Report

Ms. Davies:

This letter is submitted to meet the annual reporting requirements of Part III A.1., B.1. and B.2. included in the General Permit for Domestic Sewage Treatment Lagoons MTG 580000, and the written requirements of the confirmation letter for the City of Thompson Falls MPDES Permit No. MTG 580035.

A.1. Compliance Schedule E. Coli Bacteria

In 2016 the City of Thompson Falls took effluent samples twice monthly as required by the permit. The samples were analyzed for e. coli. Discharge monitoring reports (DMR) for the facility for 2016 indicate that the summer and winter Average Monthly Limit and Average Weekly Limit for E. Coli bacteria, included in Table 5: Final WQBEL were met by the treatment system.

In 2017 the City intends to continue effluent sampling for E. Coli as required by the permit. The City has also contracted with Great West Engineering to perform a Preliminary Engineering Report (PER) to evaluate the City's wastewater collection and treatment system. This report will include evaluation of effluent disinfection at the facility, if it is determined necessary.

B.1. Special Conditions Percent Removal of BOD and TSS

Manual composite sampling for BOD and TSS of the sewage lagoon influent was performed in 2016. The system did not discharge in the month of September 2016. No influent BOD and TSS was obtained in the month of May 2016. The treatment system did not meet the 85% removal of BOD in October 2016. For the remaining months, sampling indicated that the treatment facility met the 85% removal of influent BOD and TSS. The existing system functions effectively for removal of BOD and TSS; averaging 93% and 95% removal respectively. In addition, the average monthly effluent BOD and TSS concentrations during 2016 was 16 mg/l and 11 mg/l respectively.

In 2017 the City intends to continue sampling influent wastewater for BOD and TSS. The above-mentioned PER will evaluate the treatment system and proposed recommended improvements, if needed, to meet TBEL requirements.

B.2. Special Conditions Effluent Flow Monitoring

The City of Thompson Falls monitors the treatment facility discharge flow rate using an open channel flow monitor and totalizer installed in 2014 on the effluent Parshall Flume; in accordance with the self-monitoring requirements of Table 7 of Part II.B. of the permit. The City will continue to monitor and record treatment facility discharge flow rate.

E. Inflow/Infiltration

Based on DMR data for 2013-2016, the average discharge was 0.07 MGD from the City of Thompson Falls treatment facility. Per Part III.E. of the permit, the WWTF is not required to complete evaluation of infiltration/inflow to the facility. This is consistent with the determination included on page 2 of 4 of the MDEQ Compliance Evaluation Inspection Report dated October 28, 2015 by Lisa-kay Keen. However, the City would like to know the effects of inflow and infiltration within the collection system, and an evaluation will be included in the forthcoming PER.

General

As mentioned above, the City of Thompson Falls contracted with Great West Engineering to complete a Preliminary Engineering Report (PER) to evaluate the City's wastewater treatment and collection system. The PER will evaluate technically feasible alternatives to resolve issues within the existing system. These issues include the aging collection system infrastructure as well as

P. O. BOX 99, 108 FULTON STREET • THOMPSON FALLS, MONTANA • 59873-0099
PHONE: (406) 827-3557 • FAX: (406) 827-3090
TFL3557@BLACKFOOT.NET

accumulated sludge within the treatment system, identified in a 2015 sludge survey completed by Montana Rural Water Systems.

In addition, the PER will evaluate alternatives to provide sewer service to a large portion of the community currently on private on-site septic systems. The potential effects of these additional connections on the treatment system will also be evaluated.

Please contact us if you have any questions or need any additional information.

Sincerely,

City of Thompson Falls

Mark Sheets - Mayor

CC: Craig Pozega, PE – Great West Engineering

P. O. BOX 99, 108 FULTON STREET • THOMPSON FALLS, MONTANA • 59873-0099
PHONE: (406) 827-3557 • FAX: (406) 827-3090
TFL3557@BLACKFOOT.NET

City of Thompson Falls

Mayor	Ward I	Ward II	Ward III
Mark Sheets	Linda McKahan	Dennis Newman	Tom Eggensperger, Pres.
	Raoul Ribeiro	Earlene Powell	Jim Haughton

January 23, 2017

Carolina Davies
Montana Department of Environmental Quality
Water Protection Bureau
Permitting and Compliance Division
PO Box 200901
Helena, MT 59620-0901

RE: City of Thompson Falls (MPDES Permit No. MTG 580035)
2016 Annual Report

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B.2. Special Conditions Effluent Flow Monitoring

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E. Inflow/Infiltration

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In addition, the PER will evaluate alternatives to provide sewer service to a large portion of the community currently on private on-site septic systems. The potential effects of these additional connections on the treatment system will also be evaluated.

Please contact us if you have any questions or need any additional information.

Sincerely,

City of Thompson Falls

Mark Sheets - Mayor

CC: Craig Pozega, PE – Great West Engineering

January 20, 2017

Carolina Davies
Montana Department of Environmental Quality
Water Protection Bureau
Permitting and Compliance Division
PO Box 200901
Helena, MT 59620-0901

RE: City of Thompson Falls (MPDES Permit No. MTG 580035)
2016 Annual Report

Ms. Davies:

This letter is submitted to meet the annual reporting requirements of Part III A.1., B.1. and B.2. included in the General Permit for Domestic Sewage Treatment Lagoons MTG 580000, and the written requirements of the confirmation letter for the City of Thompson Falls MPDES Permit No. MTG 580035.

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Please contact us if you have any questions or need any additional information.

Sincerely,

City of Thompson Falls

Mark Sheets - Mayor

CC: Craig Pozega, PE – Great West Engineering

January 27, 2017

Carolina Davies
Montana Department of Environmental Quality
Water Protection Bureau
Permitting and Compliance Division
PO Box 200901
Helena, MT 59620-0901

RE: City of Thompson Falls (MPDES Permit No. MTG 580035)
2016 Annual Report – Follow Up – Upstream Monitoring Data

Ms. Davies:

This correspondence serves as a follow-up to a phone call that Great West Engineering had with you concerning upstream monitoring data for the City of Thompson Falls' permitted wastewater treatment facility that may have been missing.

After reviewing the DMR data, it was found that the 3rd quarter of 2016(09/30/2016) indicates "Analysis Not Conducted/No Sample" for the required instream monitoring constituents. Sampling for the 1st, 2nd and 4th quarter were included in the DMR. A forth grab sample was obtained; however, the sampling date was 10/17/2016, falling outside of the 3rd quarter. The results of that sample are presented below for that sampling date.

Parameter	Value (mg/L)
Nitrate + Nitrite, as N	0.01
Ammonia, as N	0.04
Total Kjeldahl Nitrogen (TKN)	ND
Total Nitrogen, as N (TN)	0.01
Total Phosphorus, as P (TP)	ND

In addition, the DMR indicates upstream pH and temperature on a quarterly basis. Monthly instantaneous sampling for pH and temperature were performed per the requirements of Table 9 of the permit. The additional sampling data is included below.

Year	2014		2015		2016	
Month	pH	Temp	pH	Temp	pH	Temp

January	8.23	3.8	8.18	2.9	8.13	3.9
February	7.84	6.3	8.14	7.3	7.51	6.6
March	8.15	7.4	8.20	7.4	8.17	6.9
April	7.95	9.4	8.00	6.4	8.02	9.0
May	8.10	8.0	7.93	14.7	8.21	13.1
June	7.92	13.2	8.39	16.9	7.92	15.7
July	8.16	20.4	8.43	20.8	8.68	18.6
August	8.37	20.0	8.27	21.9	8.42	20.7
September	8.46	18.4	8.37	17.48	8.72	14.6
October	8.52	14.8	8.02	12.77	8.21	12.9
November	8.23	1.5	7.87	6.5	8.20	8.6
December	8.04	3.8	8.12	3.4	8.04	3.8

Required upstream monitoring as outlined in the Table 9 of the permit will be continued in 2017

Please contact us if you have any questions, concerns or need any additional information.

Sincerely,

City of Thompson Falls

Mark Sheets - Mayor

CC: Craig Pozega, PE – Great West Engineering

APPENDIX Z

DEQ Violations and SSO Reports

City of Thompson Falls
Public Works Department
P.O. Box 99
Thompson Falls, Montana 59873
(406) 827-3557 fax (406) 827-3090
Email
November 14, 2016

Montana Department of Environmental Quality
Water Protection Bureau
P.O. Box 200901
Helena, Montana 59620-0901

RE: Noncompliance of General Discharge Permit MPDES MTG580035

Dear Sir or Madam:

This letter is to follow up on the verbal reporting of an exceedance of our discharge permit limit for BOD. The verbal report was made on November 14, 2016. On October 26, 2016 a sample was taken from the discharge of the City WWTP and sent to Montana Environmental Lab in Kalispell. The sample result which arrived at my desk on November 14th, 2016 showed that the BOD was 82 mg/L. Our permit limit for BOD is 30mg/L monthly average and 45mg/L weekly average. I am unsure of the cause of this exceedance. Samples taken on October 5th and November 1st were under the permit limit. We are continuing to operate the WWTP with maximum aeration to prevent this from happening again.

Sincerely,

Jerry Lacy

Jerry Lacy
Director of Public Works
City of Thompson Falls

Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

P. O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • Website: www.deq.mt.gov

February 27, 2014

JERRY LACY, PWD
CITY OF THOMPSON FALLS
PO BOX 99
THOMPSON FALLS MT 59873

Re: 2013 Calendar Year 617 Summary for Monitoring Parameter Exceedences of Permit MTG580035 CITY OF THOMPSON FALLS WWTF.

Dear Permittee:

The Department of Environmental Quality (DEQ) reviews the submittal of Discharge Monitoring Reports (DMRs) to assess compliance with the effluent requirements of your permit. DEQ has completed an annual file review of the monthly DMRs submitted by your facility. The reported values for the monitoring parameters listed below are in exceedence of the permit limits during 2013.

Outfall	001-A				
Date	**Parameter Description**	**DMR Limit**	**Stat Base**	**Rptd DMR Value**	**% Exceedance**
4/30/2013	BOD, 5-day, 20 deg. C	45 mg/L	WKLY AVG	53	18
4/30/2013	BOD, 5-day, 20 deg. C	30 mg/L	MO AVG	32	7

According to Section 75-5-617, MCA you are required to comply with all provisions in your permit. DEQ considers monitoring parameter exceedences to be an item of noncompliance. The exceedences have resulted in a violation of your permit. Section 75-5-605(1)(b) of the Montana Code Annotated (MCA) states it is unlawful to violate any provision in a permit.

A violation of a permit condition will result in the loss of eligibility for a 25% reduction in annual fees.This letter of violation fulfills the requirements of Sections 75-5-617 and 75-5-611 MCA, but does not create a right to appeal, pursuant to Section 75-5-611(4) MCA. There is no further action required unless you believe you received this notice in error.

If you have any questions, please contact me at (406) 444-0574.

Regards,

Gina Self

Gina Self
ICIS Data Tech, Compliance and Technical Support Section
Water Protection Bureau
Montana Department of Environmental Quality

MTG580035

Montana Department of ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor
Richard H. Opper, Director

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

June 16, 2012 VIOLATION LETTER **Certified Mail Return Receipt Requested**

7010 2780 0000 9973 2805

JERRY LACY, PWD
CITY OF THOMPSON FALLS
PO BOX 99
THOMPSON FALLS MT 59873

Re: 617 Letter of Violation for Monitoring Parameter Exceedences of MPDES Permit MTG580035 CITY OF THOMPSON FALLS WWTF.

Dear Permittee:

The Department has completed a file review of the monthly DMRs submitted by your facility. The reported values for the monitoring parameters listed below are in exceedence of the MPDES permit limits for the specified period.

Outfall	001-A				
Date	**Parameter Description**	**DMR Limit**	**Stat Base**	**Rptd DMR Value**	**% Exceedance**
4/30/2012	BOD, 5-day, 20 deg. C	30 mg/L	30DA AVG	34	13

This letter is written pursuant to Section 75-5-617(2), MCA. Section 75-5-605(1)(b), MCA, states it is unlawful to violate any provision set forth in a permit. The Department considers a monitoring parameter exceedences to be item of noncompliance and a violation of Section 75-5-605(1)(b).

If CITY OF THOMPSON FALLS WWTF believes that the facts stated above are not accurate, please contact the Water Protection Bureau. The Department will consider any documentation not previously submitted that indicates that the violation(s) did not occur or the violation(s) occurred differently than indicated above.

In accordance with 75-5-516(2) MCA, this letter of violation will result in the loss of eligibility for a 25% reduction in annual fees.

If you have any questions, contact the Water Protection Bureau's Compliance and Technical Support Section, Gina Reiss - (406) 444-0574 or Janie Petaja - (406) 444-5349.

Regards,

Lisa Tucker

Lisa Tucker

ICIS Data Coordinator, Compliance and Technical Support Section
Water Protection Bureau
Montana Department of Environmental Quality
ltucker@mt.gov

MTG580035

Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

P. O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • Website: www.deq.mt.gov

February 26, 2013

VIOLATION LETTER

Certified Mail Return Receipt Requested
7011 0470 0003 1312 2383

JERRY LACY, PWD
CITY OF THOMPSON FALLS
PO BOX 99
THOMPSON FALLS MT 59873

Re: Annual Summary for Monitoring Parameter Exceedences of MPDES Permit MTG580035 CITY OF THOMPSON FALLS WWTF for 2012.

Dear Permittee:

The Department of Environmental Quality (DEQ) reviews the submittal of Discharge Monitoring Reports (DMRs) to assess compliance with the effluent requirements of your dishcarge permit. The DEQ has completed an annual file review of the monthly DMRs submitted by your facility. The reported values for the monitoring parameters listed below are in exceedence of the MPDES permit limits during 2012.

Outfall	001-A				
Date	**Parameter Description**	**DMR Limit**	**Stat Base**	**Rptd DMR Value**	**% Exceedance**
4/30/2012	BOD, 5-day, 20 deg. C	30 mg/L	30DA AVG	34	13

According to Section 75-5-617, MCA you are required to comply with all provisions in your permit. The DEQ considers monitoring parameter exceedences to be an item of noncompliance. The exceedences have resulted in a violation of your permit. Section 75-5-605(1)(b) of the Montana Code Annotated (MCA) states it is unlawful to violate any provision in a permit.

A violation of a permit condition will result in the loss of eligibility for a 25% reduction in annual fees for permit compliance.This letter of violation fulfills the requirements of Sections 75-5-617 and 75-5-611 MCA, but does not create a right to appeal pursuant to Section 75-5-611(4) MCA. There is no further action required unless you believe you received this notice in error.

If you have any questions, please contact me at (406) 444-0574 .

Regards,

Gina Self

Gina Self
ICIS Data Tech, Compliance and Technical Support Section
Water Protection Bureau
Montana Department of Environmental Quality

MTG580035

AGENCY USE ONLY				
PERMIT NO.:	Date Rec'd.:	Amount Rec'd.:	Check No.:	Rec'd By:

Montana Department of

ENVIRONMENTAL QUALITY

WATER PROTECTION BUREAU

ORM
SO

Sanitary Sewer Overflow (SSO) Event Form

SO report form is to be used by municipalities that have experienced an SSO. SSOs are discharges of water (including that combined with rainfall induced infiltration/inflow) from a separate sanitary sewer o treatment at the wastewater treatment plant. SSOs typically release untreated sewage into basements or manholes and onto city streets, playgrounds, and into streams. SSOs can be attributed to the sanitary sewer tion system being improperly designed, operated and/or maintained. SSOs are a threat to public health and vironment. The submittal of this form will fulfill the five day written report requirement for your permit dministrative Rules of Montana (ARM) 17.30.1342(12)(f)(i) provided: 1) the form is completely filled out, the form is received by the Department within 5 days of the 24 hour oral report.

n A - Facility and Contact Information

Number: MTG580035

y Name City of Thompson Falls WWTP

g Address P.O. Box 99

tate, and Zip Code Thompson Falls, Montana 59873

and Title of Person Reporting the Noncompliance Jerry Lacy Director of Public Works

Number 406-827-3557 Email tfpworks@blackfoot.net

n B - SSO Reporting Information

f SSO August 17th and 18th Date Facility Became Aware of the SSO August 18th

ime of SSO 2100 End Time of SSO 0700 Duration of SSO (hours) 10 hours

) has not been corrected provide an anticipated time it is expected to continue

olume (gallons) 50 (An estimate is required if the actual volume is not known)

d for Determining SSO Volume Area of puddle, number of users and time of day.

r Oral Notification Provided to DEQ Date August 18th Time 1330

erson Contacted Lisa Kay

n C - SSO Location

Address of SSO South Ferry Street

de and Longitude of SSO (if available) Lat ______ Long ______

of Receiving Water N/A

le Number #6 East

Section D - SSO Description
Cause of SSO

Line was plugged with rags and "flushable" wipes.

Impact of SSO (check at least one)

- [ ] SSO Reached Receiving Water
- [x] SSO Reached Public Land Only
- [ ] SSO Affected Private Property
- [ ] Basement Backup
- [ ] SSO Occurred on Treatment Plant Grounds

System Component (If you check "Other" you must explain)

- [x] Manhole
- [ ] Storm Drain
- [ ] House Lateral
- [ ] Constructed Emergency Outfall
- [ ] Pipe Failure
- [ ] Other
- [ ] Pump Station Failure

Explain Other system Component

Section E – SSO Prevention and Mitigation

Steps Taken to Reduce, Prevent, and Mitigate (more than one can be checked. If you check "Other" you must explain)

- [x] Removed Blockage
- [ ] Repaired Pipe
- [ ] Repaired Pump Station
- [x] Other – please describe

Description in detail of steps taken to reduce, prevent, eliminate, and mitigate reoccurance of the noncompliance

City sewer collection lines are cleaned on an annnual basis, however this line is cleaned twice per year. Callout procedures have been updated with Sanders County dispatch center and City of Thompson Falls Police Department to provide a more timely response. Letters are being sent to City sewer system users reminding them that rags, flushable wipes and other items are prohibited from being flushed into the sewer system. The letter also informs them of the legal and financial consequences of putting prohibited items into the sewer.

Section F - CERTIFICATION

Reporting Authorization: This section must be signed by a principal executive officer, a ranking elected official, or a duly authorized representative of that person [ARM 17.30.1323].

All Applicants Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of a fine and imprisonment for knowing violations. [75-5-633, MCA]

A. Name (Type or Print) Jerry Lacy	
B. Title (Type or Print) Director of Public Works	**C. Phone No.** 406-827-3557
D. Signature Jerry Lacy	**E. Date Signed** Aug 19, 2015

Return this form to:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901
(406) 444-3080

DEQ

Montana Department
of Environmental Quality

September 7, 2016

Jerry Lacy
City of Thompson Falls
PO Box 99
Thompson Falls, MT 59873

RE: Sanitary Sewer Overflow (SSO) Event Report for City of Thompson Falls, Montana Pollutant Discharge Elimination System (MPDES) Permit #MTG580035: Thompson Falls Wastewater Treatment Facility

Dear Mr. Lacy:

The Department of Environmental Quality (DEQ) is in receipt of February 24, 2016, SSO Event Report. I have reviewed the SSO Event Report and determined there is no additional information required at this time; however, I am providing additional information for compliance assistance:

- SSOs have the potential to be a serious threat to human health and the environment. Please continue to report SSOs to DEQ within 24-hours of first becoming aware of the SSO event and be sure to provide a written report within five days.
- Please be sure to complete routine maintenance and necessary repairs to the sanitary sewer collection system to ensure optimal performance.

Additional information on SSOs, including the SSO reporting form, can be found at: www.deq.mt.gov. DEQ would like to thank you for your attention to this matter and for doing your part to protect water quality and human health.

If you have any questions, please contact me at (406) 431-9577.

Sincerely,

Lisa-kay Keen
Compliance Inspector
Technical & Financial Assistance Bureau
Planning, Prevention & Assistance Division
Montana Department of Environmental Quality
Lkeen@mt.gov

cc: permit #MTG580035 file

Montana Department of
ENVIRONMENTAL QUALITY
WATER PROTECTION BUREAU

Agency Use
Permit No.:
Date Rec'd
Rec'd By

FORM
SSO

Sanitary Sewer Overflow (SSO) Event Form

This SSO report form is to be used by municipalities that have experienced an SSO. SSOs are discharges of wastewater (including that combined with rainfall induced infiltration/inflow) from a separate sanitary sewer prior to treatment at the wastewater treatment plant. SSOs typically release untreated sewage into basements or out of manholes and onto city streets, playgrounds, and into streams. SSOs can be attributed to the sanitary sewer collection system being improperly designed, operated and/or maintained. SSOs are a threat to public health and the environment. The submittal of this form will fulfill the five day written report requirement for your permit and Administrative Rules of Montana (ARM) 17.30.1342(12)(f)(i) provided: 1) the form is completely filled out, and 2) the form is received by the Department within 5 days of the 24 hour oral report.

Section A - Facility and Contact Information

Permit Number: MT MTG580035

Facility Name City of Thompson Falls

Mailing Address P.O. Box 99

City, State, and Zip Code Thompson Falls, Montana 59873

Name and Title of Person Reporting the Noncompliance Jerry Lacy, Director of Public Works

Phone Number 406-827-3557 Email tfpworks@blackfoot.net

Section B - SSO Reporting Information

Date of SSO February 24, 2016 Date Facility Became Aware of the SSO February 24, 2016

Start Time of SSO 1350 End Time of SSO 1420 Duration of SSO(hours) 1/2

If SSO has not been corrected provide an anticipated time it is expected to continue

SSO Volume (gallons) 10 (An estimate is required if the actual volume is not known)

Method for Determining SSO Volume measurement of moist area around manhole

24 hour Oral Notification Provided to DEQ Date February 24, 2016 Time 1445

DEQ Person Contacted Lisa-Kay Keen

Section C - SSO Location

Street Address of SSO Intersection of Maiden Lane and Pond Street

Latitude and Longitude of SSO (if available) Lat ______ Long ______

Name of Receiving Water N/A

Manhole Number West 17

Section D - SSO Description

Cause of SSO

Accumulation of paper towels in sewer line.

Impact of SSO (check at least one)

- [ ] SSO Reached Receiving Water
- [x] SSO Reached Public Land Only
- [ ] SSO Affected Private Property
- [ ] Basement Backup
- [ ] SSO Occurred on Treatment Plant Grounds

System Component (If you check "Other" you must explain)

- [x] Manhole
- [ ] Storm Drain
- [ ] House Lateral
- [ ] Constructed Emergency Outfall
- [ ] Pipe Failure
- [ ] Other
- [ ] Pump Station Failure

Explain Other system Component

Section E – SSO Prevention and Mitigation

Steps Taken to Reduce, Prevent, and Mitigate (more than one can be checked. If you check "Other" you must explain)

- [x] Removed Blockage
- [ ] Repaired Pipe
- [ ] Repaired Pump Station
- [x] Other – please describe

Description in detail of steps taken to reduce, prevent, eliminate, and mitigate reoccurance of the noncompliance

Cleared line with sewer jet, removed prohibited materials. Mayor will send letters to customers in affected area that under city sewer regulations these materials are prohibited from being put into the city sewer system. The city will be checking for future violations. Violators will be held responsible for costs to city plus $100.00 per occurrence

Section F - CERTIFICATION

Reporting Authorization: This section must be signed by a principal executive officer, a ranking elected official, or a duly authorized representative of that person [ARM 17.30.1323].

All Applicants Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of a fine and imprisonment for knowing violations. [75-5-633, MCA]

A. Name (Type or Print) Jerry Lacy	
B. Title (Type or Print) Director of Public Works	**C. Phone No.** 406-827-3557
D. Signature Jerry Lacy	**E. Date Signed** February 29, 2016

Return this form to:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901
(406) 444-3080

DEQ
Montana Department
of Environmental Quality

August 24, 2016

Jerry Lacy
City of Thompson Falls
PO Box 99
Thompson Falls, MT 59873

RE: Sanitary Sewer Overflow (SSO) Event Report for City of Thompson Falls, Montana Pollutant Discharge Elimination System (MPDES) Permit #MTG580035: Thompson Falls Wastewater Treatment Facility

Dear Mr. Lacy:

The Department of Environmental Quality (DEQ) is in receipt of August 16, 2016, SSO Event Report. I have reviewed the SSO Event Report and determined there is no additional information required at this time; however, I am providing additional information for compliance assistance:

- SSOs have the potential to be a serious threat to human health and the environment. Please continue to report SSOs to DEQ within 24-hours of first becoming aware of the SSO event and be sure to provide a written report within five days.
- Please be sure to complete routine maintenance and necessary repairs to the sanitary sewer collection system to ensure optimal performance.

Additional information on SSOs, including the SSO reporting form, can be found at: www.deq.mt.gov. DEQ would like to thank you for your attention to this matter and for doing your part to protect water quality and human health.

If you have any questions, please contact me at (406) 431-9577.

Sincerely,

Lisa-kay Keen

Lisa-kay Keen
Compliance Inspector
Technical & Financial Assistance Bureau
Planning, Prevention & Assistance Division
Montana Department of Environmental Quality
Lkeen@mt.gov

cc: permit #MTG580035 file

Montana Department of
ENVIRONMENTAL QUALITY
WATER PROTECTION BUREAU

Agency Use
Permit No.:
Date Rec'd
Rec'd By

FORM
SSO

Sanitary Sewer Overflow (SSO) Event Form

This SSO report form is to be used by municipalities that have experienced an SSO. SSOs are discharges of wastewater (including that combined with rainfall induced infiltration/inflow) from a separate sanitary sewer prior to treatment at the wastewater treatment plant. SSOs typically release untreated sewage into basements or out of manholes and onto city streets, playgrounds, and into streams. SSOs can be attributed to the sanitary sewer collection system being improperly designed, operated and/or maintained. SSOs are a threat to public health and the environment. The submittal of this form will fulfill the five day written report requirement for your permit and Administrative Rules of Montana (ARM) 17.30.1342(12)(f)(i) provided: 1) the form is completely filled out, and 2) the form is received by the Department within 5 days of the 24 hour oral report.

Section A - Facility and Contact Information

Permit Number: MT MTG580035

Facility Name City of Thompson Falls

Mailing Address P.O. Box 99

City, State, and Zip Code Thompson Falls, Montana 59873

Name and Title of Person Reporting the Noncompliance Jerry Lacy, Director of Public Works

Phone Number 406-827-3557 Email tfpworks@blackfoot.net

Section B - SSO Reporting Information

Date of SSO August 8, 2016 Date Facility Became Aware of the SSO August 8, 2016

Start Time of SSO 0900 End Time of SSO 1200 Duration of SSO(hours) 3 hours

If SSO has not been corrected provide an anticipated time it is expected to continue

SSO Volume (gallons) 2500 (An estimate is required if the actual volume is not known)

Method for Determining SSO Volume Volume measured as pumped into contractor septic pumper truck.

24 hour Oral Notification Provided to DEQ Date August 8, 2016 Time 1445

DEQ Person Contacted Lisa-Kay Keen

Section C - SSO Location

Street Address of SSO 1037 Main Street West

Latitude and Longitude of SSO (if available) Lat ______ Long ______

Name of Receiving Water N/A

Manhole Number #8 West

Section D - SSO Description

Cause of SSO

Accumulation of prohibited materials being flushed into sanitary sewer by inmates of Sanders County Jail. Materials removed from manhole included tooth brushes, socks, tea bags tied together, and packaging from condiments, instant coffee etc.

Impact of SSO (check at least one)

- ☐ SSO Reached Receiving Water
- ☐ SSO Reached Public Land Only
- ☐ SSO Affected Private Property
- ☑ Basement Backup
- ☐ SSO Occurred on Treatment Plant Grounds

System Component (If you check "Other" you must explain)

- ☑ Manhole
- ☐ House Lateral
- ☐ Pipe Failure
- ☐ Other
- ☐ Storm Drain
- ☐ Constructed Emergency Outfall
- ☐ Pump Station Failure

Explain Other system Component

Section E – SSO Prevention and Mitigation

Steps Taken to Reduce, Prevent, and Mitigate (more than one can be checked. If you check "Other" you must explain)

☑ Removed Blockage ☐ Repaired Pipe ☐ Repaired Pump Station

☐ Other – please describe

Description in detail of steps taken to reduce, prevent, eliminate, and mitigate reoccurance of the noncompliance

Cleaned sewer line with sewer jet. Mayor met with Sheriff and sent letter to County Commissioners informing them that it is against City sewer regulations to put prohibited materials into the sanitary sewer and that they are responsible for any costs to the City related to damages from putting prohibited materials into the system.

Section F - CERTIFICATION

Reporting Authorization: This section must be signed by a principal executive officer, a ranking elected official, or a duly authorized representative of that person [ARM 17.30.1323].

All Applicants Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of a fine and imprisonment for knowing violations. [75-5-633, MCA]

A. Name (Type or Print) Jerry Lacy	
B. Title (Type or Print) Director of Public Works	**C. Phone No.** 406-827-3557
D. Signature Jerry Lacy	**E. Date Signed** 08/10/2016

Return this form to:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901
(406) 444-3080

APPENDIX AA

Water Usage Data

2013	Jan	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec		winter	summer
	31	28	31	30	31	30	31	31	30	31	30	31		181	184
														(avg gpd)	(avg gpd)
000000-02													0.00	0	0
100005-00													0.00	0	0
100010-00	1000	1000	1000	1700	1900	500	6900	20800	2500	29400	1900	1200	69800.00	43	337
100015-00	5200	1200		800	1100		7900	8200	1300	16500	4300	4100	50600.00	86	190
100020-00	9600	6000	5600	3700	7200	8100	14800	19100	25500	11000	7800	7600	126000.00	223	466
100030-00	5100	4000	5400	5900	4300	4300	6300	9000	3000	5900	15000	4400	72600.00	220	178
100040-00	1900	2200	2800	2500	1100	2500	3800	3200	6800	2200	1400	2900	33300.00	76	107
100050-00	2000	2400	2000	2100	1700	3300	9500	13000	25300	8300	1900	1600	73100.00	66	332
100050-01													0.00	0	0
100050-02													0.00	0	0
100050-03													0.00	0	0
100060-00	1900	1400	1600	1600	2300	4500	16100	15700	32600	5600	2900	3100	89300.00	69	417
100060-01													0.00	0	0
100065-00					2200	2600	8100	12300	14600	1000			40800.00	0	222
100070-00													0.00	0	0
100070-01													0.00	0	0
100080-00										11200			11200.00	0	61
100090-00													0.00	0	0
100090-01													0.00	0	0
100090-02	4500	3400	3300	5400	4600	4300	11000	8300	7200	4100		9100	65200.00	142	215
100100-00													0.00	0	0
100100-01	3300	3300	2300	2100	1200	2800	5400	15400	26800	8400	2900	3200	77100.00	94	326
100110-00	5000	3800	4100	4500	3400	4300	17400	28200	63800	19200	3600	3900	161200.00	138	741
100120-00	2400	2400	2200	2400	1600	2400	3300	6900	4500	3000	1800	2200	35100.00	74	118
100130-.0													0.00	0	0
100130-01													0.00	0	0
100130-03													0.00	0	0
100130-04													0.00	0	0
100140-.0													0.00	0	0
100140-01													0.00	0	0
100140-02													0.00	0	0
100140-03													0.00	0	0
100140-04													0.00	0	0
100150-00	2400	2000	2400	2600	2400	5400	9800	17900	42800	11700	1800	1700	102900.00	71	489
100160-00	12700	22800	10300	13900	8400	8200	15900	19600	22100	8200	7200	8000	157300.00	414	448
100170-00	3900	2100	1900	2800	2400	3000	6100	5900	17700	3600	2600	2600	54600.00	88	210
100170-01													0.00	0	0
100170-02													0.00	0	0
100170-03													0.00	0	0
100180-00													0.00	0	0
100180-01													0.00	0	0
100185-00	2700	5600	2300	2000	2300	800	2600	2300	24300	1900	2200	2400	51400.00	95	186
100190-00	3200	3400	2900	3800	1800	5300	7400	22400	20500	2800	1400	2100	77000.00	93	327
100200-00	200	900	1100	1400	1000	2000	3700	42600	16100	4300	1200	1400	75900.00	34	379
100210-00	1500	900	1500	1400	1500	2000	11500	15200	17700	1600	1000	1200	57000.00	41	269
100220-00	5000	4100	4400	6900	10600	20200	12600	29400	35400	7900	4000	5100	145600.00	163	631
100230-00	3700	2600	2800	3000	1100		5000	1900		100	1300	2900	24400.00	90	44
100230-01													0.00	0	0
100240-00	8400	7200	7200	9600	9000	19700	22100	38400	58000	26100	9600	7800	223100.00	275	942
100250-00													0.00	0	0
100260-00							3000						3000.00	0	16
100260-01													0.00	0	0
100260-02													0.00	0	0
100270-00	6800	5400	5300	8400	7200	12200	4000	35300	37200	12700	4200	5600	144300.00	197	590
100270-01													0.00	0	0
100270-02													0.00	0	0
100270-03													0.00	0	0
100280-00	3300	2400	2500	3500	2800	3000	3900	4900	12500	100	800	2700	42400.00	84	148
100290-00	800	700	1100	1000	1300	1200	1200	1400	2700	2800	1800	900	16900.00	35	58
100300-00	4200	3400	3200	5300	3800	3800	8400	6600	14300	6900	6100	10700	76700.00	182	238
100310-00	5200	4300	4600	5100	4400	4200	5000	11400	14400	4600	4500	4800	72500.00	157	239
100315-00	3700	2300	2700	3700	2500	2800	3800	2600	4200	3400	1900	3000	36600.00	96	105
100315-01													0.00	0	0
100317-00	6300	5000	4500	5600	5600	5700	4900	6700	4000	9100	3800	3900	65100.00	161	196
100320-00	4600	3500	3900	4400	4300	5200	5700	4900	4700	3100	4600	3500	52400.00	135	152
100330-00	2000	4700	3700	5100	2100	4300	3000	6400	3800	6300	3300	3700	48400.00	124	141
100340-00	6100	5200	7100	100	17600	100	12400	1400	1200	4200	4100	4600	64100.00	150	201
100340-01													0.00	0	0
100340-02													0.00	0	0
100351-00	1000	700	700	900	700	1900	10100	21900	32700	3100	700	700	75100.00	26	383
100360-00	100	2100	1300	1400	2200	3100	4300	7200	7900	2200	800	500	33100.00	34	146
100360-01													0.00	0	0
100370-00	2100	1500	1600	2200	2500	3000	3000	8000	5000	6900	1800	13700	51300.00	127	154
100380-00	4700	4600	3200	3400	3400	4100	3900	25300	11700	11900	3300	3500	83000.00	125	328
100380-01													0.00	0	0
100390-00	5400	4200	5700	6400	5600	5500	12200	11300	13400	8200	7800	7100	92800.00	202	305
100390-01													0.00	0	0
100400-00	3800	2600	1000	5100			8000	7000	1000	6900	6600	5900	47900.00	138	124
100400-01													0.00	0	0
100400-02													0.00	0	0
100400-03													0.00	0	0
100410-00	4200	3400	3200	3800	2600	3000	2500	2300	8800	100	300	3900	38100.00	104	105
100410-01													0.00	0	0
100410-02													0.00	0	0
100420-00	5400	4000	2300	4100	5100	13100	19100	21800	34500	10600	1500	3200	124700.00	113	566
100420-01													0.00	0	0
100430-00	3300	3100	3100	4000	3700	3700	5800	4500	7400	3500	2900	3500	48500.00	110	155
100440-00	4000	2100	2000	1800	2700	2200	19700	32900	31500	16400	2600	3100	121000.00	86	573
100450-00	9300	1000	1200	1400	1300	1100	6500	6200	8900	6100	2200	21600	66800.00	203	164
100460-00	4100	3000	3000	4000	3300	3100	3800	3000	6100	3100	3100	3100	42700.00	112	122
100470-00	3900	2800	3100	3600	3400	2900	400	800	3000	3700	3200	3700	34500.00	112	77
100470-01													0.00	0	0
100470-02													0.00	0	0
100470-03													0.00	0	0
100480-00	4700	4000	4400	5000	4400	6200	8700	8800	8900	4900	3500	4100	67600.00	142	228
100480-01													0.00	0	0
100490-00	300	6800	3200	400	3800	1800	1000	1200	1200	1000	700	400	21800.00	65	54
100510-00	3500	2200	2300	2500	1900	1400	3700	5600	3300	7700	3200	3000	40300.00	92	128

100005-00	THOMPSON FALLS ASSEMBLY OF GOD	08	00005	1124 PRESTON AVENUE W
100010-00	ASSEMBLY OF GOD CHURCH	08	00010	1120 PRESTON AVENUE W
100015-00	ASSEMBLY OF GOD CHURCH	08	00015	1122 PRESTON AVENUE W
100020-00	SKINNER MARK & SANDRA	08	00020	1106 PRESTON AVENUE W - HOUSE
100030-00	HENSYEL RICKEY	08	00030	1114 PRESTON AVENUE W
100040-00	MARICH, ADRIENNE	08	00040	102 WOOD STREET
100050-00	INGRAHAM, LYNN C & JUDY P	08	00050	207 WOOD STREET
100050-01	CHASE HOME FINANCE LLC	01	00050.01	207 WOOD STREET
100050-02	PISCITELLO, RICHARD	01	00050.02	207 WOOD STREET
100050-03	NORMAN, MELVIN D. & JOANN	01	00050.00	207 WOOD STREET
100060-00	SNYDER JOEL L	08	00060	214 WOOD STREET
100060-01	WIDNER, BILL & PAULA	01	00060.00	214 WOOD STREET
100065-00	RAYMOND, JOHN & JUDY	08	00065	213 WOOD STREET
100070-00	TOMAS, SAMUEL J & MARCELLA R	08	000700	210 WOOD STREET
100070-01	PARKER, NOLAN	01	00070.01	210 WOOD STREET
100080-00	TOMAS, SAMUEL & MARCELLA	08	00080	1014 OGDEN AVENUE W
100090-00	PAVLIK, MATTHEW & CRYSTAL	08	00090	217 WOOD STREET
100090-01	TAYLOR GARVIN	01	00090.01	217 WOOD STREET
100090-02	HAINES, FRED I & JUDY L	08	00090.01	217 WOOD STREET
100100-00	BROWN RAYMOND SCOTT AND BROWN ROBERT WILLIAM	08	00100	220 WOOD STREET
100100-01	BROWN, DOROTHY	01	00100.01	220 WOOD STREET
100110-00	COLE, BRIAN & NEYLA	08	00110	1210 HALEY AVENUE W
100120-00	MARGELIN, ELIZABETH	08	00120	1214 HALEY AVENUE W
100130-.0	PPL	01	00130	1111 HALEY AVENUE W
100130-01	MCNAIR JESSICA & CHAMBLIN NATE	01	00130.00	1111 HALEY AVENUE W
		10		
		10		
100140-.0	PPL	01	00140.00	215 1/2 WOOD STREET
100140-01	GRAZIER, AMANDA	01	00140.01	215 WOOD STREET
100140-02	MCCUAIG, JAMES M. & JOSIE	01	00140.02	215 1/2 WOOD STREET
100140-03	FIRST STATE BANK	01	00140.03	215 WOOD ST
100140-04	NICHOLS, WADE	01	00140.04	215 1/2 WOOD STREET
100150-00	ROCHELEAU, JOSEPH E.	08	00150	1206 HALEY AVENUE W
100160-00	ANDERSON, IRENE	08	00160	303 WOOD STREET
100170-00	SUND, FORREST D & LINDA M	08	00170	304 WOOD STREET
100170-01	SUND, DAVE	01	00170.00	304 WOOD STREET
100170-02	HALL, LARON & BETTY	01	00170.01	304 WOOD STREET
100170-03	PPL	01	00170.02	304 WOOD STREET
100180-00	ANDERSON, EARL & IRENE	08	00180	311 WOOD STREET
100180-01	SUND, DAVE	01	00180.00	311 WOOD STREET
100185-00	YURCZYK, FRANK	08	00185	314 WOOD STREET
100190-00	TOMAS, SAM & MARCIE	08	00190	1012 PRESTON AVENUE W
100200-00	HAYNES, PAUL C.	08	00200	102 PARK STREET
100210-00	WOLLASTON, TILLIE	08	00210	105 PARK STREET
100220-00	BROWNE, RICHARD & LINDA	08	00220	108 PARK STREET
100230-00	METHGEN, LORETTA	08	00230	205 PARK STREET
100230-01	FRIEL, SOPHIA	01	00230.01	205 PARK STREET
100240-00	THOMPSON, EDWARD R. & TERRY	08	00240	202 PARK STREET
100250-00	JOHNSON, DAVID S	08	00250	206 PARK STREET
100260-00	FITCHETT, TRAVIS R.	08	00260	210 PARK STREET
100260-01	MIGUEL BRIDGET	01	00260.01	210 PARK ST
100260-02	KREIS, ALLEN R.	01	00260.02	210 PARK ST
100270-00	KOSTKA, LUCAS RC & AUTUMN	08	00270	209 PARK STREET
100270-01	KREIS ALLEN	01	00270.01	209 PARK STREET
100270-02	HULL LAURANCE & KRISTI	01	00270.02	209 PARK ST
100270-03	RAVENCROFT, OLIN & MEGAN	01	00270-03	209 PARK STREET
100280-00	FRANKE, KAY	08	00280	911 HALEY AVE W
100290-00	FRANKE, KAY	08	00290	222 PARK STREET
100300-00	BRAY, BRITT	08	00300	305 PARK STREET
100310-00	LEGAULT, ROBERT & TONI	08	00310	304 PARK STREET
100315-00	DAUGHERTY, JAMES & KATHY	08	00315	310 PARK STREET
100315-01	KEGEL, JACKIE	01	00315.01	310 PARK STREET
100317-00	BORGMANN, WALTER	08	00317	315 PARK STREET
100320-00	BORGMANN, WALTER	08	00320	321 PARK STREET
100330-00	WHALEN, LINDA	08	00330	906 HALEY AVENUE W
100340-00	EGBERT PROPERTIES LLC	08	00340	904 PRESTON AVENUE W
100340-01	COFFELT-BUNCH FUNERAL SERVICE	01	00340.01	904 PRESTON
100340-02	T & S HOLDINGS LLC	01	00340.00	904 PRESTON AVENUE
100351-00	RELF, EDNA	08	00351	102 GALLATIN STREET N
100360-00	DAY, MELINDA	08	00360	107 GALLATIN STREET N
100360-01	BURNSIDE, RAY W. & MARIE A.	01	00360.00	107 GALLATIN STREET N
100370-00	GROSHONG BERNARD E. JR & RICE BETH R	08	00370	114 GALLATIN STREET N
100380-00	BESAW, KENNETH F & AMY E	08	00380	113 GALLATIN STREET N
100380-01	WARD, LARRY	01	00380.00	113 N GALLATIN STREET
100390-00	BROWN, JASON D.	08	00390	205 GALLATIN STREET N
100390-01	FREED J. L. & CELIA	01	00390.01	205 N GALLATIN ST
100400-00	SHEAR, JARED & JENNIFER	08	00400	204 GALLATIN STREET N
100400-01	CIK STEPHEN & CYNTHIA	01	00400.01	204 N GALLATIN ST
100400-02	GUTHALS, JENNIFER E.	01	00400.00	204 GALLATIN STREET N
100400-03	COSCIA, WILLIAM & CATHERINE	01	0040003	204 N GALLATIN STREET
100410-00	VERLANIC, LYNN R	08	00410	211 GALLATIN STREET N
100410-01	MCGRAW, WES	01	00410.01	211 N GALLATIN STREET
100410-02	COX, SAM N & SHARLENE M	01	00410.00	211 GALLATIN STREET N
100420-00	HERDEN, DAVID & VICKIE	08	00420	212 GALLATIN STREET N
100420-01	WIETING, SHONA & ROBERT	01	00420.01	212 N GALLATIN STREET
100430-00	SHERMIKUS, RANDY	08	00430	219 GALLATIN STREET N
100440-00	PAVLIK, LINDE	08	00440	222 GALLATIN STREET N
100450-00	CULLEN, JAMES	08	00450	306 GALLATIN STREET N
100460-00	MCKAHAN, LINDA	08	00460	311 GALLATIN STREET N
100470-00	TRAIN, ANTHONY & CHRISTINA	08	00470	312 GALLATIN STREET N
100470-01	KINCHELOE RENE	01	00470.01	312 N GALLATIN ST
100470-02	KINSER, LEE & MELISSA	01	00470.00	312 GALLATIN STREET N
100470-03	HOMESALES INC	01	00470.02	312 GALLATIN STREET N
100480-00	MILLER, JESSE & MISTY	08	00480	317 GALLATIN STREET N
100480-01	GUNN, GERALD	01	00480.01	317 N GALLATIN STREET
100490-00	GROSHONG, BERNIE	08	00490	322 GALLATIN STREET N
100510-00	BROWN, JILL	08	00510	321 GALLATIN STREET N

100510-01													0.00	0	0	100510-01	RODRIGUEZ ELI	01	00510.01	321 N GALLATIN ST
100520-00	5000	3400	5900	21800	17000	18300	19500	34700	40200	17100	3400	7400	193700.00	259	798	100520-00	LAY, HERBERT & LINDA	08	00520	403 GALLATIN STREET N
100530-00	4100	2800	3300	4300	4400	5300	3000	3700	3700	2700	2600	3200	43100.00	112	124	100530-00	LYGHT, DAVID H & DOROTHY	08	00530	402 GALLATIN STREET N
100530-01													0.00	0	0	100530-01	LYGHT, DAVE	01	0053001	402 N GALLATIN ST
100530-02													0.00	0	0	100530-02	CLARK, JAMES P.	01	00530.00	402 GALLATIN STREET N
100530-03													0.00	0	0	100530-03	BARSTOW, KARI L	01	00530.01	402 GALLATIN STREET N
100540-00	1100	1300	1200	1200	1100	1300	1400	1100	2700	1400	1200	3100	18100.00	50	49	100540-00	JOHNSON, DAVID & PATRICIA	08	00540	710 PRESTON AVENUE W
100540-01													0.00	0	0	100540-01	MCCURRY, ALBERT & LINDA	01	00540.01	710 PRESTON
100540-02													0.00	0	0	100540-02	PARKER, NOLAN & LINDA	01	00540.02	710 PRESTON AVENUE
100540-03													0.00	0	0	100540-03	PERRING, STEVE & ALLYSON M.	01	00540.03	710 PRESTON AVENUE
100550-00													0.00	0	0	100550-00	MOTT, ELIZABETH	08	00550	804 PRESTON AVENUE W
100550-01													0.00	0	0	100550-01	DAVIS, BETTY	01	00550.00	804 PRESTON Avenue W
100550-02	2400	1100	1300	1300	3800	4200	3700	8900	100	12100	1700	6900	47500.00	81	178	100550-02	RIDER, MARY ANN	08	00550.01	804 PRESTON Avenue W
100550-03													0.00	0	0	100550-03	LINZMAIER, PETER RES-MTR- 1X	08	00550.02	804 PRESTON Avenue W
100550-04													0.00	0	0	100550-04	LINZMAIER, PETER RES-MTR- 1X	08	00550.03	716 PRESTON Avenue W
100560-00	2600	2100	200	2400	2600	4200	1400	1100	1800	1500	1600	1900	23400.00	60	68	100560-00	PARROTT, JODY R. RES-MTR- 1X	08	00560	716 PRESTON Avenue W
100560-01													0.00	0	0	100560-01	1ST STATE BANK	01	00560.01	103 N MADISON STREET
100560-02													0.00	0	0	100560-02	OVITT, NORMAN L.	01	00560.02	716 PRESTON
100570-00	3500	2700	3000	3100	2600	2900	4300	20600	18000	6000	2500	3400	72600.00	101	296	100570-00	TURK, RON	08	00570	105 MADISON STREET N
100580-00	4900	3600	2400	4600	2400	3600	6100	5300	9900	4900	4000	4700	56400.00	134	175	100580-00	DEWITT, KATHRYN A.	08	00580	106 MADISON STREET N
100580-01													0.00	0	0	100580-01	MCKENZIE BONNIE	01	00580.01	106 N MADISON ST
100580-02													0.00	0	0	100580-02	CHAMBLIN, JOHN & CHERYL	01	00580.	106 N MADISON STREET
100580-03													0.00	0	0	100580-03	MCKENZIE, JODI & KELLY	01	00580.03	106 N MADISON STREET
100590-00													0.00	0	0	100590-00	HART, LYNETTE J	08	00590	110 MADISON STREET N
100590-01	2200	1500								400	2000	1900	8000.00	42	2	100590-01	LYGHT, TONY	01	00590.01	110 MADISON STREET N
100600-00													0.00	0	0	100600-00	SWANSON, DANIEL G & ANITA L	08	00600	115 MADISON STREET N
100600-01													0.00	0	0	100600-01	GILBERT, ROGER	01	00600.01	115 N MADISON STREET
100600-02		800	1400	2200	1900	1700							8000.00	24	20	100600-02	CHAMBLIN, JOHN & CHERYL	01	00600.02	115 MADISON STREET N
100610-00	2200	1800	2200	2400	2200	1900	2500	1800	2400	1800	1800	1900	24900.00	68	68	100610-00	COMPTON, JAMES R.	08	00610	114 MADISON STREET N
100610-01													0.00	0	0	100610-01	PIRKER RONNY B	01	00610.00	114 N MADISON ST
100610-02													0.00	0	0	100610-02	GAENZ, SUZETTE	01	00610.01	114 N MADISON STREET
100620-00													0.00	0	0	100620-00	SINK, WESLEY & THERESA	08	00620	715 ODGEN AVENUE W
100620-01													0.00	0	0	100620-01	DRAKE, PETE & BRENDA	08	00620.02	715 ODGEN AVENUE W
100620-02	2400	2300	2500	3500	3100	1800	3100	2400	62800	29300	2600	2400	118200.00	87	557	100620-02	CLAWSON, JOHN	08	00620.01	715 ODGEN AVENUE W
100630-00	2500	1900	2000	2600	2800	4500	6400	13000	11200	2900	1400	1900	53100.00	68	222	100630-00	CASSIDA, JOHN B & KATHERINE R	08	00630	204 MADISON STREET N
100630-01													0.00	0	0	100630-01	RUTZKE, FRANK	01	00630.00	204 MADISON STREET N
100630-02													0.00	0	0	100630-02	FIRST SECURITY BANK	01	00630.01	204 MADISON STREET N
100640-00	2700	1600	1600	1700	1600	2100	4800	3600	3900	2100	2400	2500	30600.00	69	98	100640-00	JCLB INVESTMENTS	08	00640	203 MADISON STREET N
100640-02													0.00	0	0	100640-02	COUNTRYWIDE FIELD SERVICE	01	00640.02	203 N MADISON ST
100640-03													0.00	0	0	100640-03	SCOTT, BRIAN & MISTY	01	00640.	203 N MADISON STREET
100660-00	800	400	700	600	1000	2600	7100	10300	15500	10200	400	800	50400.00	20	254	100660-00	MOORE, JO ANN	08	00660	213 MADISON STREET N
100660-01													0.00	0	0	100660-01	TURK ROBERT	01	00660.01	213 N MADISON ST
100670-00	7400	5900	5700	1400			1800	1100	2200	600	3700	7200	37000.00	173	31	100670-00	WAKEFIELD, TODD E	08	00670	212 MADISON STREET N
100670-01													0.00	0	0	100670-01	SMITH HARRY	01	00670.00	212 N MADISON ST
100670-02													0.00	0	0	100670-02	BESAW, KEN & AMY	01	00670.01	212 N MADISON STREET
100680-00	2200	1900	2000	2200	2400	7000	8300	14000	19100	5600	2000	2400	69100.00	70	307	100680-00	MAYFIELD, MICHELLE	08	00680	215 MADISON STREET N
100690-00													0.00	0	0	100690-00	HARNETT, JONATHAN O'NEIL	08	00690	217 MADISON STREET N
100690-01	4500	3900	6700	5000	4400	13400	16200	33500	39200	16000	8500	4300	155600.00	182	667	100690-01	WILLIAMS, LOY	01	00690.01	217 MADISON STREET N
100690-02													0.00	0	0	100690-02	MAYFIELD, MICHELLE M	01	00690.02	217 MADISON STREET N
100700-00	3100	2400	2700	3000	2600	4200	7200	10600	10700	1800	1000	2500	51800.00	81	202	100700-00	COX, SAM N	08	00700	216 MADISON STREET N
100700-01													0.00	0	0	100700-01	DENKE, MARK	01	00700.00	216 N MADISON STREET
100710-00	3400	3200	3800	4000	5000	7500	10100	16900	21400	13100	6300	4400	99100.00	139	402	100710-00	MARICH, ANDREW	08	00710	224 MADISON STREET N
100720-00	4800	4600	4500	5600	4900	4600	5400	10100	20300	11500	1100	4300	81700.00	138	309	100720-00	WHEELER, KELLY	08	00720	221 MADISON STREET N
100730-00													0.00	0	0	100730-00	VANELSWYK JR, ROBERT L & BRANDY L	08	00730	307 MADISON STREET N
100730-01													0.00	0	0	100730-01	GRAHAM, DIANE	01	00730.00	307 N MADISON STREET
100730-02	2800		4500	4700	4200	3800	5600	4000	1900	1900	1800	2700	37900.00	91	116	100730-02	WILLIAMS, HARRY C & JAIME M	01	00730.01	307 MADISON STREET N
100730-03													0.00	0	0	100730-03	WHEELER, JIM	01	00730.02	307 MADISON STREET N
100740-00													0.00	0	0	100740-00	COX, KYLE RAY	08	00740	306 MADISON STREET N
100740-01													0.00	0	0	100740-01	WORKMAN PAUL	01	00740.01	306 N MADISON ST
100740-02	4900	3700	2800	4100	3800	4100	8000	8000	8000	8000	8000	3000	66400.00	146	217	100740-02	MYERS, JOHN & WENDY	01	00740.02	306 MADISON STREET N
100740-03													0.00	0	0	100740-03	CASSELL, STONEY	01	00740.03	306 N MADISON STREET
100750-00							2300	2500				2000	6800.00	11	26	100750-00	BRUGGEMAN, RICK	08	00750	806 HALEY AVENUE W
100760-01													0.00	0	0	100760-01	IRWIN ELIZABETH BETTY	01	00760	309 N MADISON ST
100765-00	5000	2800	1600	1600	500	1500	1900	1600	1300	600	1100	3000	22500.00	83	40	100765-00	CZERWINSKI, BEVERLY	08	00765	315 MADISON STREET N
100770-00	1500	1300	1600	1900	1900	1400	2000	14300	17200	8400	1500	1400	54400.00	51	246	100770-00	ROHWER, MARGIE	08	00770	314 MADISON STREET N
100780-00	5500	3200	3000	3800	3100	3200	9200	15800	28600	15700	3400	4400	98900.00	129	411	100780-00	GRANT, GAIL	08	00780	321 MADISON STREET N
100790-00													0.00	0	0	100790-00	FRITZ, ROBERT	08	00790	327 MADISON STREET N
100790-01													0.00	0	0	100790-01	HAGERMAN, JOHN ESTATE OF	01	00790.00	327 N MADISON STREET
100790-02	1800	5500	5200	6900	6400	5500				100		800	32200.00	112	65	100790-02	HANSON, JONATHAN R & MARCY N.	08	00790.01	327 MADISON STREET N
100800-00	5700	4000	4500	4300	4300	6100	7000	11300	7300	6100	3900	4600	69100.00	149	229	100800-00	MAZUR, TOM	08	00800	324 MADISON STREET N
100810-00							7200	5800	1200	11300	1000	200	26700.00	7	139	100810-00	MCEWEN, ARTHUR	08	00810	403 MADISON STREET N
100810-01													0.00	0	0	100810-01	MASON, W.T.	01	00810.01	403 N MADISON STREET
100810-02													0.00	0	0	100810-02	HOWELL, MATHEW L. & TERESA A.	01	00810.02	403 N MADISON ST
100810-03													0.00	0	0	100810-03	HOWELL, MATT	01	00810.00	403 MADISON STREET N
100820-00	4600	4900	4400	5000	5200	4600		2500	5500	3200	3200	4800	47900.00	149	114	100820-00	PARKER, FRANK H.	08	00820	710 W 3RD AVENUE
100820-01													0.00	0	0	100820-01	SANDERS, HOLLY	01	00820.01	710 W 3RD AVENUE
100830-00	8100	6300	7000	8200	7900	13800	3000	3500	4000	26200	7300	4900	100200.00	231	317	100830-00	ABBOTT, GARY	08	00830	408 MADISON STREET N
100840-00	9200	6400	6700	7900	6700	7500	10100	7300	10400	5000	5400	9900	92500.00	251	255	100840-00	LYGHT, TRENT	08	00840	411 MADISON STREET N
100850-00				100	100	100	1600	1800	2100				5800.00	1	31	100850-00	GRAHAM, DIANE	08	00850	704 preston
100870-00	1800	2800	4000	2400	13900	4000	18600	16800	17200	14100	1100	1300	98000.00	74	460	100870-00	COMMUNITY CHURCH	08	00870	616 preston avenue w
100880-00	6900	4900	6800	7100	6200	5600	19200	31400	35500	18900	6700	6600	155800.00	215	635	100880-00	HOPKINS, PERRY	08	00880	113 JEFFERSON STREET N
100890-00													0.00	0	0	100890-00	CORDERO, SUSAN	08	00890	113 JEFFERSON STREET n
100890-01													0.00	0	0	100890-01	MURPHY, KARLA	01	00890.01	113 JEFFERSON STREET N
100890-02	6400	4700	5500	5000	1300	600	24200	51900	51400	16300	6300	6500	180100.00	190	792	100890-02	BARTON, DENISE K.	01	00890.02	611 ogden avenue w
100900-00	200	300	600	300	200	300	1000	8100	7100	1600	200	300	20200.00	10	99	100900-00	LUTHERAN CHURCH	08	00900	410 MADISON STREET N
100910-00													0.00	0	0	100910-00	BBNTMSCR DEPT	08	00910	203 JEFFERSON STREET N
100910-01													0.00	0	0	100910-01	SANDERS, DEREK	01	00910.00	203 JEFFERSON STREET N
100910-02	1000	800	1000	2800	900	1000	2200	3900	1800	900	1100	1200	18600.00	44	58	100910-02	HARRIMAN, GENE, JR & CAROL D	01	00910.01	203 JEFFERSON STREET N
100920-00	1400	900	1200	1100	1200	3700	2600	4200	2300	10300	1100	1000	31000.00	37	132	100920-00	DOTY MARY M / MARGARITA PHILLIPS, POA	08	00920	213 JEFFERSON STREET N
100930-00													0.00	0	0	100930-00	APPLEBY, JOSEPH P	08	00930	210 JEFFERSON STREET N
100930-01							400	2000	5500				7900.00	0	43	100930-01	GROSECLOSE, GENE	01	00930.00	210 JEFFERSON STREET N
100930-02	1700	800	900	900	1000	700				2700	1600	1300	11600.00	40	24	100930-02	ROWDEN LARRY & SHRIVER SHERRY	01	00930.01	210 JEFFERSON STREET N
100940-00	900	700	1100	1300	1200	1400	5800	4300	2000	1000	900	800	21400.00	31	85	100940-00	HUTZ, EUGENE F & SUSAN M	08	00940	218 JEFFERSON STREET N
100940-02													0.00	0	0	100940-02	HILTON, ROGER	01	00940.00	218 N JEFFERSON STREET
100950-00	3400	3800	3700	4600	4200	6100	18800	19400	23300	8500	4300	4000	104100.00	131	436	100950-00	SCHALLER, MARY	08	00950	221 JEFFERSON STREET N
100960-00	5400	4700	5500	5600	5100	5400	5000	5400	11700	6300	4000	4200	68300.00	162	211	100960-00	MCCLOY, PAT & COLLEEN	08	00960	222 JEFFERSON STREET N
100970-00	3700	1900	1800	2500	2000	3600	3600	6600	7000	10700	1800	2300	47500.00	77	182	100970-00	CROWDER, ROBERT	08	00970	611 HALEY AVENUE W
100980-00	1600	1100	1300	1200	400	400	3400	5000	6700	3200	1300	1400	27000.00	44	104	100980-00	FRIESZ, EMMANUEL	08	00980	305 JEFFERSON STREET N
100990-00	4600	4100	4900	4000	3600	4200	8000	17800	14100	4600	2700	2800	75400.00	128	284	100990-00	HAMILTON, JOHN	08	00990	612 HALEY AVENUE W
101000-00													0.00	0	0	101000-00	KENEADY, IDA	08	01000	310 JEFFERSON STREET N
101000-01													0.00	0	0	101000-01	BATTLES MIKE	01	01000.01	310 N JEFFERSON ST

101000-02	4300	11000	3300	4300	4000	4000	11600	2400	2300	6100	6100	4400	63800.00	185	165	101000-02	WOOD, ANNA	01	01000.02	310 JEFFERSON STREET N
101000-03													0.00	0	0	101000-03	GRENELL, MICHAEL & THERESA	08	01000.01	310 JEFFERSON STREET N
101010-00	2900	2200	2600	3100	4900	13200	14500	30200	51400	14900	2200	2500	144600.00	86	702	101010-00	DRASZT, GARY & JOAN	08	01010	314 JEFFERSON STREET N
101010-01													0.00	0	0	101010-01	GIDEON, ANDREW J. & DEBORAH A.	01	01010.00	314 JEFFERSON STREET N
101010-05													0.00	0	0	101010-05	HOLLERAN, TOM	01	01010.02	316 N JEFFERSON STREET
101020-00	3100	2400	2900	2800	5700	5000	12000	4200	25800	21400	3100	1700	90100.00	88	403	101020-00	COMMUNITY CHURCH	08	01020	315 JEFFERSON STREET N
101030-00	6500	3400	4200	3800	5000	6600	19000	2700	6900	3500	3400	4800	69800.00	144	238	101030-00	INGRAHAM, GERALD	08	01030	323 JEFFERSON STREET N
101034-01													0.00	0	0	101034-01	INGRAHAM, GERALD	01	01034	323 N JEFFERSON
101040-00	2200	1900	1900	2600	2100	2200	3200	5200	7300	3200	1900	2100	35800.00	70	126	101040-00	MATES, CLARE F.	08	01040	318 JEFFERSON STREET N
101050-00	1100	900	1000	1100	1200	1200	900	1200	1300	1200	1400	1000	13500.00	36	38	101050-00	ROCKWELL, RANDY ALLEN	08	01050	405 JEFFERSON STREET N
101050-01													0.00	0	0	101050-01	BURLINGAME, SANDRA	01	01050.01	405 N JEFFERSON STREET
101060-00													0.00	0	0	101060-00	YODER, MARK	08	01060	612 3RD AVE WEST
101060-01													0.00	0	0	101060-01	LAWS, HAROLD	01	01060.00	612 3RD AVE WEST
101060-02							15000	75800	87900	47800	12000		238500.00	66	1231	101060-02	LAWS, CLINT	01	01060.01	612 3RD AVE WEST
101060-03	2500	2100	3000	3100	2700	24700						1600	39700.00	68	149	101060-03	REITER, JESSE & REBECCA L	01	01060.02	612 3RD AVE WEST
101070-00		1800	4300	4900	10200	8000							29200.00	61	99	101070-00	LYGHT, DENNIS	08	01070	409 JEFFERSON STREET N
101070-01													0.00	0	0	101070-01	POFF EVERETT / DIANNE CRAWFORD	01	01070.00	409 N JEFFERSON
101080-00	1800	1800	1100	1500	1400	1700	4400	6500	8000	4400	1400	1400	35400.00	50	143	101080-00	KELLER, WILLIAM	08	01080	414 JEFFERSON STREET N
101090-00	17000	7000	13000	14000	7000	8000	40000	110000	105000	10000	7000	15000	353000.00	403	1522	101090-00	DWYER, KAREN	08	01090	415 JEFFERSON STREET N
101090-01													0.00	0	0	101090-01	TRULL JACOB	01	01090.00	415 N JEFFERSON
101100-00													0.00	0	0	101100-00	BISHOP, MICHAEL & TERESA	08	01100	420 JEFFERSON STREET N
101100-01													0.00	0	0	101100-01	WILSON, JOHNNIE	01	01100.01	420 N JEFFERSON STREET
101100-02	2600	2100	2000	2600	2600	2600	3300	9800	16700	2000	2000	2400	50700.00	76	201	101100-02	HELVEY, CLETE	01	01100.02	420 JEFFERSON STREET N
201105-00	2400	1700	2200	2000	2000	2600	2300	7700	8800	2200	2100	1700	37700.00	67	139	201105-00	RAMSEY, ROBERT & EVA	08	01105	608 PRESTON AVENUE W
201105-02													0.00	0	0	201105-02	WEIGAND ELSIE	02	01105.02	608 PRESTON
201110-00	4400	3300	3900	4000	5600	19200	13600	10500	8500	3400	3700	3500	83600.00	126	330	201110-00	NORMAN, MELVIN & JOANN	08	01110	602 PRESTON AVENUE W
201110-01													0.00	0	0	201110-01	CROWE EMMA	02	01110.01	602 PRESTON
201110-02													0.00	0	0	201110-02	BARKER, RONALD & LINDA	02	01110.00	602 PRESTON AVENUE W
201120-00	3900	2500	3300	3600	2900	3600	20600	23300	33400	3700	2800	3800	107400.00	110	476	201120-00	PARKER, NOLAN & LINDA	08	01120	516 PRESTON AVENUE W
201120-01													0.00	0	0	201120-01	VAUGHT WILBUR	02	01120.00	516 PRESTON
201120-02													0.00	0	0	201120-02	RABE RICHARD A	02	01120.01	516 PRESTON
201130-00			200	300	700	1000							2200.00	3	9	201130-00	BROWN, DAVID & KAREN	08	01130	110 WASHINGTON STREET
201130-01	100						4700	10400	15800	3500	600	100	35200.00	4	187	201130-01	MARICH, MIKE	02	01130.01	110 WASHINGTON STREET
201140-00	9300	6100	8400	4400	8500	3300	8100	37700	12300	10900	4000	7200	120200.00	218	439	201140-00	WHITTENBURG, SUE	08	01140	116 WASHINGTON STREET
201150-00	4900		5000	5900	2600	2400	1700	600	2500	3800	4300	3600	37300.00	131	74	201150-00	MORRIN, DIANE	08	01150	203 WASHINGTON STREET
201150-01													0.00	0	0	201150-01	STEVENS TRUST - STEVENS CHESTER AND HELEN	02	01150.00	203 WASHINGTON STREET
201150-02													0.00	0	0	201150-02	YOUNG BEA	02	01150.02	203 WASHINGTON
201155-00	5200	4000	4300	8500	4700	9100	15900	16000	38500	14400	5800	4300	130700.00	177	536	201155-00	LUTHERAN CHURCH PARSONAGE	08	01155	605 OGDEN AVENUE W
201160-00	1500	1000	1000	2000	1300	2700	2700	4300	19300	1400	1200	1200	39600.00	44	172	201160-00	PARKER, NOLAN F. & LINDA L.	08	01160	202 WASHINGTON STREET
201160-01													0.00	0	0	201160-01	ARTHUR, GEORGE	02	01160.01	202 WASHINGTON STREET
201170-00	500	300	500	600	400	4800	2600	3600	7800	500	300	400	22300.00	14	107	201170-00	RETTENMEIER, ROGER	08	01170	209 WASHINGTON STREET
201170-01													0.00	0	0	201170-01	STOUT JOSEPH	02	01170.01	209 WASHINGTON
201180-00													0.00	0	0	201180-00	WARME REVOCABLE TRUST, CHRISTOPHER J	08	01180	208 WASHINGTON STREET
201180-01													0.00	0	0	201180-01	WOMACK, JAMES	02	01180.00	208 WASHINGTON STREET
201180-02													0.00	0	0	201180-02	HOWELL, WENDY	02	01180.01	208 WASHINGTON STREET
201180-03													0.00	0	0	201180-03	WOMACK JAMES & MELCHER BARBARA	02	01180.02	208 WASHINGTON STREET
201180-04													0.00	0	0	201180-04	FORTIER, LUKE	02	01180.03	208 WASHINGTON STREET
201190-00													0.00	0	0	201190-00	TRAIN PROPERTIES LLC	08	01190	213 WASHINGTON STREET
201190-01													0.00	0	0	201190-01	REIBSOME, JANET	02	01190.01	213 WASHINGTON STREET
201190-02				4700	4600	6400							15700.00	26	60	201190-02	WARDIAN MARY & BRADLEY JERRY	08	01190.01	213 WASHINGTON STREET
201200-00													0.00	0	0	201200-00	FORTIER, LUKE	08	01200	212 WASHINGTON STREET
201200-01													0.00	0	0	201200-01	WOMACK, JAMES	02	01200.00	212 WASHINGTON STREET
201200-02													0.00	0	0	201200-02	WOMACK JAMES & MELCHER BARBARA	02	01200.01	212 WASHINGTON STREET
201200-03	2500	1600	1600	1700	800		2800	3400	3300	4300	1800	1600	25400.00	60	79	201200-03	HOWELL, WENDY	02	01200.02	212 WASHINGTON STREET
201210-00	100				600	1000	400	1200	9000	9700	1300	200	23500.00	9	119	201210-00	DIPPRE, KIMBERLY R	08	01210	216 WASHINGTON STREET
201210-01													0.00	0	0	201210-01	REIBSOME, JANET	02	01210.0	216 WASHINGTON
201210-02													0.00	0	0	201210-02	ROWE, CHARLOTTE	02	01210.00	216 WASHINGTON STREET
201210-03													0.00	0	0			10		
201210-04													0.00	0	0	201210-04	BENNETT, JEREMIAH	02	01210.02	216 WASHINGTON STREET
201210-05													0.00	0	0	201210-05	FRYXELL, TROY	02	01210.03	216 WASHINGTON STREET
201220-00	6200	7300	2600	1300	1300	1200	15400	8300	5600	1300	1000	2200	53700.00	114	180	201220-00	WATTS, JULIE	08	01220	215 WASHINGTON STREET
201230-00	4300	4600	6200	4600	4700	2900	13900	12800	17100	18700	5500	2500	97800.00	153	381	201230-00	SCHAEFER ENTERPRISES.	08	01230	221 WASHINGTON STREET
201230-01													0.00	0	0	201230-01	IVERS KEITH	02	01230.01	221 WASHINGTON
201235-00	2300	1400	2300	1800	3000	3400	6800	6000	10700	2500	2400	2500	45100.00	70	176	201235-00	CREEKMORE, ALBERT & DRINDA	08	01235	220 WASHINGTON STREET
201235-01													0.00	0	0	201235-01	CREEKMORE, ALBERT & DRINDA	02	01235.00	220 WASHINGTON STREET
201235-02													0.00	0	0	201235-02	CREEKMORE JR, ALBERT L	02	01235.01	220 WASHINGTON STREET
201240-00							2100	4000	2000	2000	5900		16000.00	33	55	201240-00	CREEKMORE, ALBERT & DRINDA	08	01240	511 HALEY AVENUE W
201240-01													0.00	0	0	201240-01	CREEKMORE, ALBERT & DRINDA	02	01240.00	511 W HALEY AVENUE
201240-02													0.00	0	0	201240-02	CREEKMORE JR, ALBERT L	02	01240.01	511 HALEY AVENUE W
201250-01													0.00	0	0	201250-01	ANDERSON, DORA	02	01250	303 WASHINGTON STREET
201260-00	4500	4300	5000	5200	5800	13500	10200	13900	8000	11200	5500	9600	96700.00	188	340	201260-00	NEWMAN, JESSE & AMIE	08	01260	304 WASHINGTON STREET
201270-01													0.00	0	0	201270-01	TAYLOR, STEVE	02	01270	307 WASHINGTON STREET
201290-00		48800					4600			11500			64900.00	270	88	201290-00	TAYLOR, STEVEN	08	01290	309 WASHINGTON STREET
201300-00	2100	1700	1800	2100	2100	1600	2900	5400	4000	1000	1600	1900	28200.00	62	92	201300-00	FRANCK, SHAWN	08	01300	312 WASHINGTON STREET
201310-00													0.00	0	0	201310-00	LEUFKENS, BUD & JUDY	08	01310	319 WASHINGTON STREET
201310-01													0.00	0	0	201310-01	HELUS, JOHN	02	01310.00	319 WASHINGTON
201310-02													0.00	0	0	201310-02	HELUS, JOHN	02	01310.02	319 WASHINGTON STREET
201310-03											1400		1400.00	8	0	201310-03	OTTESEN, MICHAEL & GAIL	02	01310.01	319 WASHINGTON STREET
201320-00	4700	4200	5100	4600	4300	4400	1100	13200	8000	12400	5500	3900	71400.00	155	236	201320-00	MOSHER, ROY L	08	01320	322 WASHINGTON STREET
201320-01													0.00	0	0	201320-01	SODERLIND, MARK	02	01320.00	322 WASHINGTON STREET
201330-00													0.00	0	0	201330-00	WIEGELE, JAMES L & DAGMAR R	08	01330	512 3RD AVE WEST
201330-01										100			100.00	0	1	201330-01	STARR, JACK	02	01330.01	512 3RD AVE WEST
201340-00													0.00	0	0	201340-00	HECHTMAN, CAROLL SUE	08	01340	606 3RD AVE W
201340-01													0.00	0	0	201340-01	BIERWAGEN LYNN	02	01340.01	606 3RD AVE WEST
201340-02	2600	1800	1700	1300			9400	500	8500	1300	2000	1700	30800.00	61	107	201340-02	COMBS, NANCY	02	01340.02	606 3RD AVE W
201340-04					1700	1600							3300.00	0	18	201340-04	VANICEK, JAMES MICHAEL	02	01340.04	606 3RD AVE W
201350-00													0.00	0	0	201350-00	MAPES, ARLENE	08	01350	407 WASHINGTON STREET
201350-01													0.00	0	0	201350-01	HOWARD JOE	02	01350.01	407 WASHINGTON
201360-00	5800	4000	4300	5200	4800	4900	18200	29600	24000	32500	4000	5100	142400.00	157	620	201360-00	BLOOM, DAN & WILLY	08	01360	410 WASHINGTON STREET
201370-00	2500	2200	2200	2600	3900	4000	12100	24200	20000	34400	2200	2400	112700.00	78	536	201370-00	NICOL, BONNIE	08	01370	413 WASHINGTON STREET
201370-01													0.00	0	0	201370-01	HARNETT J NEIL	02	01370.01	413 WASHINGTON
201380-00	2200	1700	2700	1100	800	4500	5200	8000	8000	16200		10400	60800.00	100	232	201380-00	MOSHER, BETTY	08	01380	419 WASHINGTON STREET
201390-00	4600	4000	4000	3400	4500	9000	15200	35200	20300	25500	3500	3600	132800.00	128	596	201390-00	KELLER, KIMBERLY	08	01390	418 WASHINGTON STREET
201390-01													0.00	0	0	201390-01	RUDE, ROBIN	02	01390.00	418 WASHINGTON STREET
201400-00	4000	2900	4100	3200	3000	4000	5000	4600	400	4400	2600	2300	40500.00	106	116	201400-00	MOSHER, JOHN	08	01400	425 WASHINGTON STREET
201410-00	2800	1900	2600	4600	3500	21600	15700	44600	40000	27600	2000	2500	169400.00	91	832	201410-00	BRUNER, SMITH	08	01410	422 WASHINGTON STREET
201420-00	2800	3100	3000	2700	2800	2600	69500	33200	64500	22500	2300	2600	211600.00	91	1060	201420-00	FAIRBANK, STEVE & JILL	08	01420	502 PRESTON AVENUE W
201420-01													0.00	0	0	201420-01	POWELL, ALICE	02	01420.00	502 PRESTON AVENUE
201430-00	300	300	300	300	300	300	400	1800	4700	300	300	300	9600.00	10	42	201430-00	CARTER JEAN ADELE & RICHARDSON STANLEY	08	01430	508 PRESTON AVENUE W
201430-01													0.00	0	0	201430-01	MARINELLI DENNIS / ELLER WILLIAM	02	01430.01	508 PRESTON
201430-03													0.00	0	0	201430-03	BREAW, LEO	02	01430.03	508 PRESTON AVENUE

201440-00	6300	7600	12400	7500	5200	14000	20600	20300	31200	4100	15600	5800	150600.00	305	518	201440-00	ST WILLIAMS CATHOLIC CHURCH	08	01440	416 PRESTON STREET
201450-00			200							100			300.00	1	1	201450-00	FAIRBANK, STEVE & JILL	08	01450	107 SPRUCE STREET
201450-01													0.00	0	0	201450-01	LEE, VANCE A. & BONNIE L.	02	01450.01	107 SPRUCE STREET
201450-02													0.00	0	0	201450-02	HOLYK, ALEX	02	01450.02	107 SPRUCE STREET
201450-03													0.00	0	0	201450-03	ELLER, WILLIAM	02	01450.00	107 SPRUCE
201460-00	1200	1200	1200	1000	900	2200	2700	15800	19600	1300	1100	1100	49300.00	38	231	201460-00	PHILLIPS, MICHAEL & TERESA	08	01460	112 SPRUCE STREET
201460-01													0.00	0	0	201460-01	LYGHT, DAVID & DOROTHY	02	01460.01	112 SPRUCE STREET
201460-02													0.00	0	0	201460-02	LA FRINIERE MATT	02	01460.02	112 SPRUCE
201470-00	7100	5500	6200	6700	8300	9800	10000	12900	9300	6200	5900	5900	93800.00	206	307	201470-00	RIBEIRO, RAOUL	08	01470	115 SPRUCE STREET
201470-01													0.00	0	0	201470-01	LYGHT, DAVID & DOROTHY	02	01470.01	115 SPRUCE
201480-00													0.00	0	0	201480-00	POMRENKE, DONALD & MICHAEL	08	01480	116 SPRUCE STREET
201480-01													0.00	0	0	201480-01	DEMENY, JOHN & BELLE	02	01480.01	116 SPRUCE STREET
201480-02													0.00	0	0	201480-02	PULLAN, CAMERON	02	01480.00	116 SPRUCE STREET
201480-03	10400	6900	12100	11600	900	9300	4600	7400	7000	10000	5000	7400	92600.00	295	213	201480-03	PETERSON, CHELSEA	02	01480.02	116 SPRUCE STREET
201480-04													0.00	0	0	201480-04	USDA, RURAL DEVELOPMENT	02	01480.03	116 SPRUCE STREET
201490-00													0.00	0	0	201490-00	RIBEIRO, RAOUL A & CHARLENE A	08	01490	109 SPRUCE STREET
201490-01													0.00	0	0	201490-01	KELLER KIMBERLY M	02	01490.01	109 SPRUCE
201490-02	13800	14300	3400	4000	3200	100	6400	14500	22300	1400	1300	2200	86900.00	215	260	201490-02	NEWMAN, DENNIS & MARIE	02	01490.02	109 SPRUCE STREET
201500-00	2700	2100	2300	2500	2700	11700	24400	34400	49000	11800	2000	2200	147800.00	76	728	201500-00	RIFFLE, CLARENCE	08	01500	204 SPRUCE STREET
201510-00	5600	3900	3800	2600	1900	2200	4400	3800	400	7600	3300	4300	43800.00	130	110	201510-00	NEWMAN, DENNIS L. & MARIE	08	01510	206 SPRUCE STREET
201510-01													0.00	0	0	201510-01	PAULSEN-WILLIAMS, PEGGY	02	01510.01	206 SPRUCE STREET
201520-00	5300	4600	5700	400	2500	4500	8000	5000	600	1800	51600	3900	93900.00	395	122	201520-00	MOLZHON, BRIAN & MARIA	08	01520	207 SPRUCE STREET
201530-00	3100	2300	2900	3400	4100	4700	16600	26100	26500	5400	4500	2400	102000.00	103	453	201530-00	WILSON, JOHN	08	01530	216 SPRUCE STREET
201540-00	15300	15200	12600	2000	1800	2800	12000	10900	10000	17600	8500	8500	117200.00	343	299	201540-00	NEWMAN, DENNIS & MARIE	08	01540	211 SPRUCE STREET
201540-01													0.00	0	0	201540-01	CORK, TERRY & KIM	02	01540.01	211 SPRUCE
201543-00	6900	4700	6200	6700	9400	10700	10900	20800	9200	5100	5600	6400	102600.00	202	359	201543-00	HUTZ, EUGENE F & SUSAN M	08	01543	219 SPRUCE STREET
201543-01													0.00	0	0	201543-01	TAYLOR, STEVE	02	01543.01	219 SPRUCE STREET
201545-00	2400	2400	2100	1800	1500	1500	1600	1900	2000	1000	1500	1800	21500.00	66	52	201545-00	HUTZ, EUGENE F & SUSAN M	08	01545	225 SPRUCE STREET
201545-01													0.00	0	0	201545-01	TAYLOR, STEVE	02	01545.00	225 SPRUCE STREET
201550-00	2400	2100	2300	2200	2300	2000	600	7500	5900	5400	1900	1700	36300.00	70	129	201550-00	FARLAN, MICAH J.	08	01550	220 SPRUCE STREET
201550-01													0.00	0	0	201550-01	SCOTT, BOBBIE	02	01550.01	220 SPRUCE STREET
201555-00	6300	4200	4300	5200	4200	8900	12700	15300	21800	20600	8700	5300	117500.00	188	454	201555-00	NEWMAN, DENNIS & MARIE	08	01555	226 SPRUCE STREET
201560-00	4900	3100	5000		3200		2400	4000	4700	5100	5000	5000	42400.00	127	105	201560-00	LAKE, DONALD & CAROL	08	01560	303 SPRUCE STREET
201560-02													0.00	0	0	201560-02	LAKE DONALD & CAROL	02	01560.02	303 SPRUCE
201560-03													0.00	0	0	201560-03	FRANCK RAY	02	01560.03	303 SPRUCE
201570-00													0.00	0	0	201570-00	WARME REVOCABLE TRUST, CHRISTOPHER J	08	01570	311 SPRUCE STREET APT. A
201570-01	1400	1100	100	3300	3600	3400	3200	2400	1800	1800	2300	2200	26600.00	57	88	201570-01	HILL, JEAN	02	01570.01	311 SPRUCE STREET APT. A
201574-00													0.00	0	0	201574-00	WARME REVOCABLE TRUST, CHRISTOPHER J	08	01574	311 SPRUCE STREET APT. B
201574-01	200	100	1500	400	100		2300	3500	2900	2500			13500.00	12	61	201574-01	HILL, JEAN	02	01574.01	311 SPRUCE STREET APT. B
201580-00	2200	1700	1500	1100	1100	1900	2200	1900	3500	500	2100	1700	21400.00	57	60	201580-00	BROWN, MICHAEL	08	01580	317 SPRUCE STREET
201590-00													0.00	0	0	201590-00	HENSLEY, GARY L	08	01590	323 SPRUCE STREET
201590-01													0.00	0	0	201590-01	LARSON, JAMES E	02	01590.01	323 SPRUCE STREET
201590-02							100	100					200.00	0	1	201590-02	LARSON, THOMAS M	02	01590.02	323 SPRUCE STREET
201600-00	94000	61000	57000	80000	40000	64000	160000	102000	100000	216000	112000	80000	1166000.00	2674	3707	201600-00	SCHOOL DISTRICT #2	08	01600	315 COLUMBIA STREET N - SCHOOL - G
201605-00													0.00	0	0	201605-00	SCHOOL DISTRICT #2	08	01605	306 HALEY AVE W - BASKET BALL COUR
201610-00	1900	2100	1900	2700	4600	2800	2900	2300	200	3400	2100	1800	28700.00	69	88	201610-00	JONES, GORDON P.	08	01610	403 SPRUCE STREET
201620-00	3700	2900	3200	3500	2500	4600	8100	14600	15000	2000	3000	3900	67000.00	112	254	201620-00	FARLAN, GLENDA	08	01620	412 3RD AVE WEST
201630-00	1500	8300	600		100	1000					1600	1500	14600.00	75	6	201630-00	CREEKMORE, ALBERT & DRINDA	08	01630	405 SPRUCE STREET
201630-01													0.00	0	0	201630-01	MINEMYER, JUDY	02	01630.01	405 SPRUCE STREET
201630-02													0.00	0	0	201630-02	LARGENT, ROBYN F. & RACHEL L.	02	01630.00	405 SPRUCE STREET
201630-03													0.00	0	0	201630-03	LEMBO, NATHAN N	02	01630.02	405 SPRUCE STREET
201640-00	100	2000	4000	800	100	1600	300	2000	2000	100	5000	800	18800.00	70	33	201640-00	OLSON, MARTHA	08	01640	410 SPRUCE STREET
201640-02													0.00	0	0			10		
201650-00	1900	1300	1700	1100	1100	800	100	200	600	1300	1200	900	12200.00	45	22	201650-00	ARRANTS, STAN & EVA	08	01650	411 SPRUCE STREET
201655-00													0.00	0	0	201655-00	ROBBINS, EVERETT	08	01655	415 SPRUCE STREET
201655-01													0.00	0	0	201655-01	MINEMYER, JUDY	02	01655.01	415 SPRUCE STREET
201655-02	1400	1100	1200	1100	1100	1100	3400	8700	6600	1200	1100	1200	29200.00	39	120	201655-02	LARGENT, RACHEL	02	01655.02	415 SPRUCE STREET
201657-00													0.00	0	0	201657-00	ROBBINS, EVERETT	08	01657	417 SPRUCE STREET
201657-01													0.00	0	0	201657-01	MINEMYER JUDY	02	01657.01	417 SPRUCE STREET
201657-03	2900	2100	600	1600	1600	1800	2600	2000	2000	2800	1600	1800	23400.00	59	70	201657-03	LARGENT, RACHEL	02	01657.03	417 SPRUCE STREET
201659-00													0.00	0	0	201659-00	ROBBINS, EVERETT	08	01659	419 SPRUCE STREET
201659-01	3700	3200	3500	3700	3300	3600	2100	2000	2300	2400	2200	2300	34300.00	103	85	201659-01	LARGENT, ROBYN & RACHEL	02	01659.01	419 SPRUCE STREET
201660-00	4200	3900	2100	2300	2700	12900	22500	23600	34500	9700	2400	3700	124500.00	103	576	201660-00	MINEMYER, J.	08	01660	420 SPRUCE STREET
201665-00	1500	1100	1300	1600	1200	3600	4600	10300	11800	3700	1200	1100	43000.00	43	191	201665-00	BURTNETT, JAMES	08	01665	428 SPRUCE STREET
201670-00	900	700	700	800	1200	10800	5700	12700	9400	2200	2200	700	48000.00	33	228	201670-00	BRAY, DON	08	01670	427 SPRUCE STREET
201680-00													0.00	0	0	201680-00	VAUGHN, VIRGINIA	08	01680	502 4TH AVENUE W
201680-01	5500	3100	6300	3700	1500	1600	400	5000	100	25500	3800	4500	61000.00	149	185	201680-01	DEACON, TARA LYNN	02	01680.01	502 4TH AVENUE W
201690-00	3400	6400	6000	4000	3600	7800	4000	2000	1300	2800	2000	134200	177500.00	862	117	201690-00	MILLER DONNA	08	01690	412 4TH AVE WEST
201690-01													0.00	0	0	201690-01	DUFFEL, DEWEY R	02	01690.00	412 4TH AVE WEST
201700-00													0.00	0	0	201700-00	ST. WILLIAM PARISH	08	01700	105 COLUMBIA STREET N
201700-01													0.00	0	0	201700-01	HOYT, TIM R.	02	01700.01	105 N COLUMBIA STREET
201710-00													0.00	0	0	201710-00	DENISON, REX & DONNA	08	01710	322 PRESTON AVENUE W
201710-01													0.00	0	0	201710-01	STIPE, GEORGE	02	01710.00	322 PRESTON AVENUE W
201710-02							100			1700			1800.00	0	10	201710-02	BINGHAM, MICHAEL & MICHELLE	08	01710.01	322 PRESTON AVENUE W
201720-00	3000	5100	4300	4400	3900	3300	4600	6700	5700	7500	3500	2900	54900.00	128	172	201720-00	FRANCK , COREY & ALYSHA	08	01720	109 COLUMBIA STREET N
201720-01													0.00	0	0	201720-01	LYGHT, DAVID & DOROTHY	02	01720.00	109 N COLUMBIA
201720-02													0.00	0	0	201720-02	EPPERSON, ZARACH	02	01720.01	109 N COLUMBIA STREET
201730-00		100				2100	3000	1200		400	200		7000.00	2	36	201730-00	ARRANTS, STAN & EVA	08	01730	110 COLUMBIA STREET N
201730-02													0.00	0	0	201730-02	MIKE CHENOWETH	02	01730.02	110 N COLUMBIA
201740-00	2300	800	1500	2300	1300	1500	2200	3000		5600	1200	1900	23600.00	55	74	201740-00	BUCHANAN, SHERLEY & DEBORAH	08	01740	116 COLUMBIA STREET N
201750-00	1300	1100	1200	1300	700	1300	1200	1200	2200	100	1000	1000	13600.00	38	36	201750-00	BUCHANAN, SHERLEY & DEBORAH	08	01750	317 OGDEN AVENUE W
201760-00	1300	600	600	900	1400	4000	3000	3500	1000	500	100	400	17300.00	22	73	201760-00	FLETCHER, ANDREW	08	01760	115 COLUMBIA STREET N
201760-01													0.00	0	0	201760-01	PARADIS, LEONARD	02	01760.01	115 N COLUMBIA STREET
201770-01													0.00	0	0	201770-01	ANDERSON, DORA	02	01770.01	203 N COLUMBIA
201780-00													0.00	0	0	201780-00	CLARK, RONALD H.	08	01780	214 COLUMBIA STREET N
201780-01												100	100.00	1	0	201780-01	THOMPSON FALLS LODGE NO 70	02	01780.01	214 COLUMBIA STREET N
201790-00	5100	3700	4500	5700	5000	6400	7900	9800	8000	11300	4700	4500	76600.00	156	263	201790-00	THOMAS, STEVE	08	01790	207 COLUMBIA STREET N
201800-00													0.00	0	0	201800-00	HUFF, ERNEST J & CHERYL A	08	01800	213 COLUMBIA STREET N
201800-01													0.00	0	0	201800-01	STRANG, DEANNA	02	01800.01	213 N COLUMBIA STREET
201800-02	800	600	800	700	1100	1000	700	800	1000	1200	600	600	9900.00	23	32	201800-02	THOMAS JR, STEVEN D.	02	01800.02	213 COLUMBIA STREET N
201810-00	4500	4200	4500	400	2000	3000	5300	4200	5000	3800	4200	4000	45100.00	120	127	201810-00	TRAIN, ANTHONY & CHRISTINA	08	01810	222 COLUMBIA STREET N
201810-01													0.00	0	0	201810-01	STRANG CLIFTON & JULIA	02	01810.01	222 N COLUMBIA ST
201810-02													0.00	0	0	201810-02	LARGENT, ROBYN F. & RACHEL L.	02	01810.00	222 COLUMBIA STREET N
201810-03													0.00	0	0	201810-03	RAMSEY, ALAN	02	01810.03	222 N COLUMBIA STREET
201810-04													0.00	0	0	201810-04	LARGENT, ROBYN & RACHEL	02	01810.04	222 N COLUMBIA STREET
201810-05													0.00	0	0	201810-05	FNMA	02	01810.02	222 COLUMBIA STREET N
201810-06													0.00	0	0	201810-06	AMERICAN DREAM REALTY	02	01810.05	222 COLUMBIA STREET N
201820-00								200		10400			10600.00	0	58	201820-00	GIBSON, SANDRA SUE	08	01820	226 COLUMBIA STREET N
201820-01													0.00	0	0	201820-01	WHITTENBURG, SUE	02	01820.01	226 N COLUMBIA ST
201820-02													0.00	0	0	201820-02	HARDING, DALE & TAMMY	02	01820.00	226 COLUMBIA STREET N
201825-00	2100	1400	1600	1800	1700	1800	7100	4000	1000	17800	3600	7500	51400.00	99	182	201825-00	GRIMM, DORIS	08	01825	405 HALEY AVENUE W

201825-01													0.00	0	0	201825-01	STEVENS, HELEN M.	02	01825.00	405 HALEY AVENUE W
201830-00	1500	1300	1700	1600	1200	1500	900	2200	2000	5000	1400	1500	21800.00	50	70	201830-00	HALPOP, JOHN	08	01830	406 3RD AVE WEST
201840-00													0.00	0	0	201840-00	JONES, NATAUSHA & TORTI, MARKUS	08	01840	404 COLUMBIA STREET N
201840-01													0.00	0	0	201840-01	CLAY, DAVID D.	02	01840.00	404 COLUMBIA STREET N
201840-02	3000	2100	3500	3200		5500	9900	2600	2500	23600	500	2000	58400.00	79	240	201840-02	CLAY CHRISTINE	08	01840.01	404 COLUMBIA STREET N
201850-00								3400	1400	2500			7300.00	0	40	201850-00	OVITT, NORMAN L & BETTY L	08	01850	406 COLUMBIA STREET N
201850-01													0.00	0	0	201850-01	BENTON, EARL	02	01850.00	406 COLUMBIA STREET N
201860-00													0.00	0	0	201860-00	GIEGLING, JOSEPH	08	01860	410 COLUMBIA STREET N
201860-01													0.00	0	0	201860-01	GUNN GERALD & VANEK SHERRIE	02	01860.00	410 COLUMBIA STREET N
201860-02													0.00	0	0	201860-02	FIRST SECURITY BANK	02	01860.01	410 COLUMBIA STREET N
201860-03	200							400	4700	300	700	200	6500.00	6	29	201860-03	TERRY, ROGER & NORMA JEAN	02	01860.02	410 COLUMBIA STREET N
201865-00	5300	4000	4000	3800	4100	3200	4200	4800	4900	6600	3600	4100	52600.00	137	151	201865-00	DONALDSON, BRUCE M & LAURA C	08	01865	415 COLUMBIA STREET N
201865-01													0.00	0	0	201865-01	GLOVER, DARLENE	02	01865.00	415 N COLUMBIA STREET
201870-00													0.00	0	0	201870-00	QUIMBY, LEINA GRACE	08	01870	418 COLUMBIA STREET N
201870-01													0.00	0	0	201870-01	ULVER, EDNA	02	01870.00	418 COLUMBIA STREET N
201870-02													0.00	0	0	201870-02	ULVER FAMILY TRUST % VICTOR ULVER	02	01870.01	418 COLUMBIA STREET N
201870-03	2300	1700	1200	2300	2300	1700	2300	11500	2000	1800	2000	1200	32300.00	59	117	201870-03	QUIMBY, JOSHUA	02	01870.02	418 COLUMBIA STREET N
201880-00	2700	1800	2200	2000	2200	3100	900	5900	5600	100	1100	2400	30000.00	67	97	201880-00	AUSTIN, ROD	08	01880	428 COLUMBIA STREET N
201890-00	5700	4000	4600	5700	8400	12600	9700	33000	27000	21000	5600	4100	141400.00	164	607	201890-00	KOKER, DENNIS & LISA	08	01890	427 COLUMBIA STREET N
201890-01													0.00	0	0	201890-01	JOHNSON, GARY	02	01890.00	427 COLUMBIA STREET N
201900-00	2700	2400	2400	2300	2500	5800	7400	15400	35600	10800	3900	3100	94300.00	93	421	201900-00	ROBINSON, NINA	08	01900	503 COLUMBIA STREET N
201901-00	4900	4300	4900	5000	5000	9400	9800	23900	19000	28600	4300	4500	123600.00	154	520	201901-00	ROBINSON, NINA	08	01901	511 COLUMBIA STREET N
201905-00	4200	2200	2000	2400	2300	2200	8000	5200	3200	2200	2800	1500	38200.00	83	126	201905-00	CHENOWETH, DARRELL & SHAWNA RAE	08	01905	514 COLUMBIA STREET N
201905-02													0.00	0	0	201905-02	CHL	02	01905.02	514 COLUMBIA
201910-00		100						39300			1000		40400.00	6	214	201910-00	GRIMM, DARRELL	08	01910	506 COLUMBIA STREET N
201920-00													0.00	0	0	201920-00	CHENOWETH, DARRELL & SHAWNA RAE	02	019200	510 COLUMBIA STREET N
201920-01													0.00	0	0	201920-01	PARKER, NOLAN	02	01920.	516 N COLUMBIA
201920-02													0.00	0	0	201920-02	CHEYNEY LENNY D	02	01920	516 N COLUMBIA
201920-03													0.00	0	0	201920-03	PASSALAQUA FAMILY TRUST	02	019200.00	510 COLUMBIA STREET N
201925-00	200						1000	1300	1300	1100	500		5400.00	4	26	201925-00	PLAINS RANGER DISTRICT	08	01925	518 COLUMBIA STREET N
201930-00	100	100	100	200	100	400	200	100		300	100	200	1900.00	4	6	201930-00	MT FISH, WILDLIFE & PARKS	08	01930	601 COLUMBIA STREET N
201935-01													0.00	0	0	201935-01	USDA - PLAINS RANGER DISTRICT	02	01935	TREE ORCHARD
201940-01													0.00	0	0	201940-01	COEN RONALD	02	01940	402 gallatin
201950-00	4700	6000	6000	7400	5900	5900	4000	17900	14800	13900	3800	4300	94600.00	178	339	201950-00	LYGHT, DAVID & DOROTHY	08	01950	308 PRESTON
201950-01													0.00	0	0	201950-01	TURK, MRS RAMONA	02	01950.00	312 PRESTON
201960-00	4100	3000	3800	3700	3300	8300	4100	7300	5900	17600	3200	3200	67500.00	116	253	201960-00	WELLS, DICK	08	01960	300 PRESTON
201970-00													0.00	0	0			10		
201970-01	5900	4800	5400	6600	7600	5400	9200	4500	2400	7500	5800	5800	70900.00	190	199			10		
201980-00	2100	1800	2300	2300	2100	2000	2000	1800	1800	2300	1900	1800	24200.00	67	65	201980-00	PARKER, NOLAN	08	01980	108 Cedar Street
201990-00													0.00	0	0	201990-00	TRAIN PROPERTIES LLC	08	01990	PRESTON
201990-01	5600	4700	5200	6300	2000	10400	4400	4400	2600	7300	5700	5600	64200.00	183	169	201990-01	MCAULIFFE, JIM & ROSELLA	08	01990.01	108 CEDAR STREET
202000-00	5700	4300	5700	5200	5900	9300	15100	24300	26200	11000	4700	4900	122300.00	169	499	202000-00	CARMAN, NEIL	08	02000	115 CEDAR STREET
202010-00	200	100	200	300	700	5400	7100	8000	21000	3700	3200	200	50100.00	23	249	202010-00	CARMAN, NEIL	08	02010	114 CEDAR STREET
202020-00					2400	10800	20500	28200	31800	12900	900		107500.00	5	579	202020-00	CARMAN, NEIL & DIXIE	08	02020	
202020-02													0.00	0	0			10		309 OGDEN AVENUE W
202030-00					800		800	2700	1900	7800			14000.00	0	76	202030-00	NOWAK, CHRISTINE T	08	02030	202 CEDAR STREET
202030-01													0.00	0	0	202030-01	TORGRIMSON, KENNETH	02	02030.00	202 CEDAR STREET
202040-00	16600	12300	14700	14700	14600	25500	15200	17700	4900	55400	10200	12800	214600.00	449	724	202040-00	HILL, DIXIE	08	02040	207 CEDAR STREET
202050-00							500			2600	300		3400.00	2	17	202050-00	PREVIS, ARTHUR	08	02050	216 CEDAR STREET
202060-00						800	700	800	100	200			2600.00	0	14	202060-00	BOESPFLUG MICHAEL & HOLO MARY LYNN	08	02060	219 CEDAR STREET
202060-01													0.00	0	0	202060-01	KNUTH, RONALD D. & JOELLEN	02	02060.01	219 CEDAR STREET
202060-02													0.00	0	0	202060-02	KATANA, RAYLENE F.	02	02060.00	219 CEDAR STREET
202060-03													0.00	0	0	202060-03	WHITEFISH CU	02	02060.02	219 CEDAR STREET
202070-00													0.00	0	0	202070-00	WHITTENBURG, KEVIN & SUE	08	02070	211 HALEY AVENUE W
202070-01	6400	5100	5400	6300	5800	5900	6900	38700	12500	5200	4700	4400	107300.00	178	408	202070-01	NORMANDEAU, BECKI	02	02070.01	211 HALEY AVENUE W
202070-02													0.00	0	0	202070-02	WHITTENBURG DANIEL	02	02070.02	211 WEST HALEY AVE.
202080-00	50000	30000	30000	30000	25000	310000	225000	375000	610000	470000	25000	25000	2205000.00	1050	10951	202080-00	SCHOOL DISTRICT #2 - JR HIGH SCHOOL	08	02080	212 HALEY AVE W
202090-00	8500	7400	8400	10700	9500	16400	3000	7400	7500	400	53500	5800	138500.00	521	240	202090-00	ROGERS, BARBARA	08	02090	212 3RD AVE WEST
202090-01													0.00	0	0	202090-01	KONOPKA LATASHA	02	02090.01	212 3RD AVE WEST
202100-00	2000	4100	2900	1900	3500		19400	6900	6500	2500	20700	1700	72100.00	184	211	202100-00	BROWN, RAYMOND C	08	02100	405 CEDAR STREET
202100-01													0.00	0	0	202100-01	HILL, JEAN	02	02100.01	405 CEDAR STREET
202100-02													0.00	0	0	202100-02	MILLER, WILLIAM N.	02	02100.02	405 CEDAR STREET
202105-00	4200	3100	4000	1000	3600	4300	1500	4700	8000	16800	3600	1300	56100.00	95	211	202105-00	WINE, LEROY & KAYLEEN	08	02105.0	411 CEDAR STREET
202105-01													0.00	0	0	202105-01	BROYHILL, TIFFANY	02	02105.00	411 CEDAR STREET
202105-03													0.00	0	0	202105-03	FIRST SECURITY BANK	02	02105.01	411 CEDAR STREET
202110-00	4700	3200	4000	3800	4700	3700	6200	3200	200	12100	3000	4100	52900.00	126	164	202110-00	ANDERSON, JAMES E.	08	02110	415 CEDAR STREET
202110-01													0.00	0	0	202110-01	MCGREGGOR PAT	02	02110.01	415 CEDAR
202120-00	8600	3800	3900	4100	3800	5600	9100	12000	4100	23400	4700	4500	87600.00	164	315	202120-00	CREEKMORE, ALBERT & DRINDA	08	02120	419 CEDAR STREET
202130-00	2400	1800	2300	2000	2200	5500	5000	8200	7000	5500	2000	1900	45800.00	69	182	202130-00	BRIETENBACH, KATHLEEN	08	02130	414 CEDAR STREET
202140-01													0.00	0	0	202140-01	T.C.I. CABLEVISION	02	02140	422 CEDAR
202150-00	2000	2000	3200	2400	1900	4000	100	2600	2400	30600	1600	2900	55700.00	78	226	202150-00	FLEMMER, PAUL & RHONDA	08	02150	428 CEDAR STREET
202150-01													0.00	0	0	202150-01	KOSTKA, KATHY	02	02150.00	426 CEDAR STREET
202150-03													0.00	0	0	202150-03	BYCZEK, TODD S & ELIZABETH J	02	02150.01	428 CEDAR STREET
202160-00													0.00	0	0	202160-00	SHULTZ, DANIEL G & DELLA M	08	02160	427 CEDAR STREET
202160-01													0.00	0	0	202160-01	KNUDSON, NORMAN	02	02160.00	427 CEDAR - 425 CUSTOM CUTTING
202160-02							3000	2100	2900	5200	1400	2400	17000.00	21	72	202160-02	LIGHT, CARL & SHIRLEY	02	02160.01	427 CEDAR STREET
202170-00							7100	30600	7400		16000		61100.00	88	245	202170-00	SCHAEFER ENTERPRISES	08	02170	506 CEDAR STREET
202170-01													0.00	0	0	202170-01	JORDON MARION	02	02170.01	506 CEDAR
202170-02													0.00	0	0	202170-02	JONES LUTHER E	02	02170.02	506 CEDAR
202180-00													0.00	0	0	202180-00	PULFER, CHAD	08	02180	503 CEDAR STREET
202180-01	10200	8400	7900	10800	10600	10800	8000	7100	6900	13100	7000	6900	107700.00	283	307	202180-01	PETRI, BRUCE	02	02180.01	503 CEDAR STREET
202190-01													0.00	0	0	202190-01	BORDEN JAMES	02	02190	509 CEDAR
202200-01													0.00	0	0	202200-01	BORDEN JAMES	02	02200	511 CEDAR
202210-01													0.00	0	0	202210-01	BORDEN JAMES	02	02210	513 CEDAR
202220-00	5200	4000	4400	7600	12700	14300	9300	7900	5600	7100	4000	4000	86100.00	161	309	202220-00	BORDEN, JAMES M.	08	02220	515 CEDAR STREET
202230-00	5200	3700	6900	5800	7100	6000	12800	15700	25900	11400	4500	4500	109500.00	169	429	202230-00	ANDERSEN, DAN	08	02230	522 CEDAR STREET
202240-00	7600	6300	7000	8200	9900	9700						9400	58100.00	213	107	202240-00	FOWLE, MICHAEL	08	02240	202 PRESTON AVENUE W
202240-01							9300	6500	5700	8500	9500		39500.00	52	163	202240-01	ELLER, WILLIAM	02	02240.01	202 PRESTON AVENUE W
202250-00	6100	4200	5000	5300	4900	8100	9700	17700	17000	26600	5100	4700	114400.00	168	457	202250-00	PARKER NOLAN & LINDA	08	02250	120 PRESTON AVENUE W
202250-02													0.00	0	0	202250-02	GILMORE ROBERT & BILLIE JEAN	02	02250.01	120 PRESTON
202260-00	7000	5400	6300	6700	6700	7200	10800	11700	2900	17500	5500	6100	93800.00	204	309	202260-00	BROWN, JASON D. & JENNA J. S.	08	02260	112 PRESTON AVENUE W
202260-01													0.00	0	0	202260-01	MANFRE MICHAEL	02	02260.01	112 PRESTON
202260-02													0.00	0	0	202260-02	MICHAELS, STEVE & CHRISTINE L.	02	02260.00	112 PRESTON AVENUE
202270-00	10800	9400	10600	9700	8800	7800	11000	19900	20100	13800	6800	9000	137700.00	311	442	202270-00	SHUTTLE, STEVE	08	02270	108 PRESTON AVENUE W
202270-01													0.00	0	0	202270-01	COURTNEY LAWRENCE G	02	0227001	108 PRESTON
202270-02													0.00	0	0	202270-02	GIBSON, SANDRA S.	02	02270.00	108 PRESTON AVENUE
202280-00	1300		1000	1200	900	1400	2000	700	600	4800	1300	100	15300.00	27	57	202280-00	WOLLASTON, JEFF	08	02280	116 FERRY STREET N
202290-00	1700	1300	1800	2300	2400	2700	6200	13600	13000	12800	17200	1800	76800.00	144	276	202290-00	DOWELL, JAY & TERRI	08	02290	115 FERRY STREET N
202300-00													0.00	0	0	202300-00	MATTHEW, KATHERIN F.	08	02300	205 FERRY STREET N
202300-01													0.00	0	0	202300-01	JOHNSON KAREN J	02	02300.01	205 N FERRY
202300-02	2700	1800	2100	2400	2300	2200	800				9000	3800	27100.00	120	29	202300-02	PHILLIPPI, MEGHAN	08	02300.01	205 FERRY STREET N

202310-00	4500	2600	3700	5000	3400	4700	16100	31400	29900	3900	3200	3100	111500.00	122	486	202310-00	MOSELEY JR, DAVID M	08	02310	204 FERRY STREET N
202310-01													0.00	0	0	202310-01	THOMAS JR., STEVEN & JENNIFER SWANSON	02	02310.01	204 N FERRY
202310-02													0.00	0	0	202310-02	MUNSON, ROBERTA	02	02310.00	204 N FERRY STREET
202320-00													0.00	0	0	202320-00	SCOTT, ROY & TINA	08	02320	209 FERRY STREET N
202320-01													0.00	0	0	202320-01	BOSTWICK, WILLIAM & BARBARA	02	02320.00	209 N FERRY STREET
202320-02	8300	8700	9700	15200	8300	15000	7200	10500	8800	5800	3900	5700	107100.00	285	302	202320-02	SHANNON, JUSTIN & KIMBERLY	02	02320.01	209 FERRY STREET N
202320-03													0.00	0	0	202320-03	FLATHEAD LAND & HOME INC	08	02320.01	209 FERRY STREET N
202330-00	500	1800	5700	3200	100		2000		5600	12400	14000	12000	57300.00	206	109	202330-00	SANFORD, KENNETH	08	02330	212 FERRY STREET N
202330-01													0.00	0	0	202330-01	TURK ROBERT & ROSALIE	02	02330.00	212 N FERRY
202340-00	3200	2300	3000	3500	2600	3500	6400	13100	13000	6900	3500	2700	63700.00	101	247	202340-00	PEELE, JAKI	08	02340	219 FERRY STREET N
202350-00	6400	4800	6100	5900	4500	7000	5600	6500	6000	10100	5000	5400	73300.00	186	216	202350-00	THORPE, WANDA L.	08	02350	216 FERRY STREET N
202360-00	3500	3000	3400	3400	3200	3000	6200	6900	6600	4400	3200	2700	49500.00	106	165	202360-00	SUSIC, JACOB & DEANNE	08	02360	227 FERRY STREET N
202360-01													0.00	0	0	202360-01	BROWN JASON	02	02360.01	227 N FERRY
202360-02													0.00	0	0	202360-02	TERRY, MICHAEL ANDREW	02	0236002	227 N FERRY STREET
202360-03													0.00	0	0	202360-03	PULLAN, CAMERON	02	02360.00	227 FERRY STREET N
202370-00													0.00	0	0	202370-00	FRANCK, COREY & ALYSHA	08	02370	228 FERRY STREET N
202370-01	1000	1500	1500	1900	2000	500	1200	16300	1500	3600	1200	1400	33600.00	47	136	202370-01	TRAVER, FRANCES	02	02370.01	228 FERRY STREET N
202380-00	6200	4700	5200	6200	5300	5500	7800	19700	7600	8000	5300	5700	87200.00	184	293	202380-00	JONES, CHARLES & BRIDGET	08	02380	304 FERRY STREET N
202380-01													0.00	0	0	202380-01	LARSEN, STERLING	02	02380.01	304 N FERRY STREET
202390-00	500	500	300					1400	1900		200	400	5200.00	10	18	202390-00	ARRANTS, STANLEY & EVA	08	02390	312 FERRY STREET N
202400-01													0.00	0	0	202400-01	SMITH CHARLES E	02	02400	316 N FERRY
202410-00	6000	4900	6500	11000	5900	5700	11100	12800	12000	8000	4100	5100	93100.00	208	302	202410-00	SMITH, SAIRA	08	02410	320 FERRY STREET N
202440-00													0.00	0	0	202440-00	CROWDER, JAMES R & SUSAN A	08	02440	326 FERRY STREET N
202440-01													0.00	0	0	202440-01	BRAUER AVERAL	02	02440.00	326 N FERRY
202440-02													0.00	0	0	202440-02	MINEMYER JUDY	02	02440.02	326 N FERRY STREET
202440-03													0.00	0	0	202440-03	TALBOOM, ERICK & ELLEN A.	02	02440.01	326 FERRY STREET N
202440-04													0.00	0	0	202440-04	AMERICAN DREAM REALTY	02	02440.03	326 FERRY STREET N
202440-05	3500	2800	3100	3300	3500	3800	8600	16600	16000	7000	2800	2600	73600.00	100	302	202440-05	WHITTENBURG, DANIEL W & MARGARET A	02	02440.04	326 FERRY STREET N
202440-06													0.00	0	0	202440-06	MCMASTER, VALERIE	02	02440.05	326 FERRY STREET N
202450-01													0.00	0	0	202450-01	MUHN MARK	02	02450	206 3RD AVE WEST
202450-02													0.00	0	0	202450-02	SCHAEFER ENTERPRISES	02	02450TW	206 3RD AVE WEST
202461-00	5500	4800	5000	5400	4100	3900	9900	37000	29800	49200	5000	5600	165200.00	173	728	202461-00	SCHAEFER ENTERPRISES	08	02461	403 FERRY STREET N
202461-01													0.00	0	0	202461-01	MUHN MARK	02	02461.01	403 N FERRY
202462-01													0.00	0	0	202462-01	RIFFLE, MARK & ELIZABETH	02	02462	404 FERRY
202470-00													0.00	0	0	202470-00	SCHAEFER ENTERPRISES	08	02470	407 FERRY STREET N
202470-01													0.00	0	0	202470-01	MUHN MARK	02	02470.01	407 N FERRY
202475-00	8400	6100	7000	13200	10900	7000	7600	6100	5500	7600	6500	6300	92200.00	262	243	202475-00	RIFFLE, MARK & ELIZABETH	08	02475	408 FERRY STREET N
202480-00	1500	4000		1100			3000			2700	2200	20200	34700.00	160	31	202480-00	SCHAEFER ENTERPRISES	08	02480	409 FERRY STREET N
202480-01													0.00	0	0	202480-01	MUHN MARK	02	02480.01	409 N FERRY
202490-00	4100	2700	2600	3100	2400	3600	5000	4200	4000	5700	2200	3400	43000.00	100	135	202490-00	WEDEL, MARK	08	02490	414 FERRY STREET N
202500-00													0.00	0	0	202500-00	ALBANO, SETH & TASHA	08	02500	413 FERRY STREET N
202500-01													0.00	0	0	202500-01	HENDRICKSON, MIKE & JUDY	02	02500.00	413 FERRY STREET N
202500-02													0.00	0	0	202500-02	DAMASKOS, TODD & DORALENE	02	02500.01	413 FERRY STREET N
202500-03													0.00	0	0	202500-03	HENDRICKSON, JUDITH	02	02500.02	413 FERRY STREET N
202500-04	3800	4000	4000	3200	3800	3200	4000	4700	5000	2800	3500	3000	45000.00	119	128	202500-04	ALBANO, SETH & TASHA	08	02500.01	413 FERRY STREET N
202510-00	3100	2600	3000	2600	3000	2900	3400	9800	8900	5600	2200	2400	49500.00	88	183	202510-00	GREGORY, LISA M. & SHAYNE	08	02510	420 FERRY STREET N
202510-01													0.00	0	0	202510-01	FRANCK FAITH	02	02510.01	420 N FERRY
202520-00	13000	10200	12200	10900	9200	7100	8000	6600	6600	11700	10200	11900	117600.00	378	267	202520-00	MCGANN, KEVIN & TRACY	08	02520	421 FERRY STREET N
202530-00	900	3100	2400	2000	1100	800	2000	3600	3900	2900	2600	900	26200.00	66	78	202530-00	PARKER, NOLAN	08	02530	426 FERRY STREET N
202540-00													0.00	0	0	202540-00	GREENOUGH, LANA	08	02540	111 4TH AVE W
202540-01													0.00	0	0	202540-01	LAWS, LILLIAN	02	02540.01	111 4TH AVE WEST
202540-02	3700	4000	2800	3800	3200	3800	8600	14900	15000	1300	3300	3300	67700.00	115	254	202540-02	KELLY, CHRISTINA	02	02540.02	111 4TH AVE W
202550-00	6100	4900	5600	6100	5500	5500	9900	12100	10000	10900	5400	5300	87300.00	185	293	202550-00	LEFORCE, CLINT & JUDITH	08	02550	425 FERRY STREET N
202550-01													0.00	0	0	202550-01	PARKER, FRANK	02	02550.01	425 N FERRY
202550-02													0.00	0	0	202550-02	BROWN CARLA	02	02550.02	425 N FERRY
202550-03													0.00	0	0	202550-03	WAKEFIELD, CHRISTY	02	02550.03	425 N FERRY STREET
202560-01													0.00	0	0	202560-01	SOULE IRA	02	02560	503 N FERRY
202570-01													0.00	0	0	202570-01	COLE, SHERI	02	02570	504 FERRY N
202580-00	6400	4700	5900	5700	3300	3000	2300	4000	2300		32600	4800	75000.00	332	81	202580-00	SOULE, VONA	08	02580	507 FERRY STREET N
202590-00	3400	2600	3300	2700	3000	3400	12600	30000	13900	3300	2800	2800	83800.00	97	360	202590-00	WRIGHT, RONALD C. SR & RONI	08	02590	518 FERRY STREET N
202590-01													0.00	0	0	202590-01	HAASE, DAVID	02	02590.00	518 N FERRY STREET
202600-00	8600	7000	12000	5500	7000	6700	1200	20200	16400	26300	6500	8000	125400.00	263	423	202600-00	GUNDERSON, DOUGLAS K & CONNIE DEE	08	02600	112 4TH AVE WEST
202600-01													0.00	0	0	202600-01	COLE, SHERI	02	02600.01	112 4TH AVE WEST
302610-00	8600	7600	7400	7300	6500	5900	7600	21500	18000	10000	6500	7000	113900.00	245	378	302610-00	PARKER, NOLAN	08	02610	104 PRESTON AVENUE W
302620-00	8500	11000	18300	3000	3400	3000	75600	2200	2400	6100	4200	7500	145200.00	290	504	302620-00	CONTRERAS, EUGENE	08	02620	106 GROVE STREET
302620-01													0.00	0	0	302620-01	MCFARLAND JOHN	03	02620.00	106 GROVE
302630-00	600	400	600	500	1600	200	600	500	800	2200	600	500	9100.00	18	32	302630-00	THOMPSON, GINGER RENEE'	08	02630	107 GROVE STREET
302630-01													0.00	0	0	302630-01	DENSON, CHARLES	03	02630.01	107 GROVE STREET
302630-02													0.00	0	0	302630-02	PIERCE, ROBERTA ANN	03	02630.00	107 GROVE STREET
302640-00	5700	3200	4100	4300	3600	4800	14700	18300	17000	18100	3500	3500	100800.00	134	416	302640-00	MAGDALENE, CHRISTINE	08	02640	111 GROVE STREET
302650-00	3600	2800	3000	3900	3900	3400	4700	8800	8000	8300	3400	3100	56900.00	109	202	302650-00	GRIMM, DOUG	08	02650	117 GROVE STREET
302660-00	1200	900	1200	800	900	700	1300	1000	700	2600	1200	1300	13800.00	36	39	302660-00	JOHNSON, HELEN M.C.	08	02660	118 GROVE STREET
302670-00													0.00	0	0	302670-00	TERRAZAS, MARC	08	02670	203 GROVE STREET
302670-01													0.00	0	0	302670-01	BARKER VIRGIL K	03	02670.00	203 GROVE
302670-02													0.00	0	0	302670-02	GRAZIER, AMANDA	03	02670.01	203 GROVE
302670-03													0.00	0	0	302670-03	BARNES, SHANE	03	02670.03	203 GROVE STREET
302670-04													0.00	0	0	302670-04	HARLOW, MELINDA C.	03	02670.02	203 GROVE STREET
302670-05													0.00	0	0	302670-05	MAJESTIC MONTANA PROPERTIES	03	02670.04	203 GROVE STREET
302670-06							300	300	1100				1700.00	0	9	302670-06	JEWELL, MALLARD & SUSAN	03	02670.05	203 GROVE STREET
302670-08													0.00	0	0	302670-08	FARR, MARK RANDALL	08	02670.07	203 GROVE STREET
302680-00	7400	5900	3700	3300	4600	13000	12400	19700	18000	11500	7000	4500	111000.00	176	430	302680-00	TORGRIMSON, DARRELL	08	02680	207 GROVE STREET
302690-00	1700	1200	1200	2200	1700	7100	5700	14800	13000	41400	1100	1600	92700.00	50	455	302690-00	WHITE, JOHN	08	02690	206 GROVE STREET
302700-00	3100	2300	3500	3500	2900	2100	2500	7800	500	11800	1500	2700	44200.00	92	150	302700-00	WHITE, JOHN	08	02700	212 GROVE STREET
302700-01													0.00	0	0	302700-01	WHITE JOHN	03	02700.	212 GROVE STREET
302710-00	3900	3500	3800	4500	4100	4300	3600	6900	7000	7800	4100	1500	55000.00	118	183	302710-00	SHEETS, MARK L.	08	02710	215 GROVE STREET
302720-00													0.00	0	0	302720-00	WHITE, JOHN	08	02720	216 GROVE STREET
302720-01													0.00	0	0	302720-01	WHITE, J.	03	02720.00	216 GROVE STREET
302720-02													0.00	0	0	302720-02	WHITE, JOHN	03	02720.02	216 GROVE
302720-03													0.00	0	0	302720-03	KASSAHN, KRISTINE	03	02720.01	216 GROVE STREET
302720-04	3100	5100	2400	3600	2200	2600	3100	3900	3700	2500	3000	5700	40900.00	127	98	302720-04	HANFORD, GEORGE D	03	02720.03	216 GROVE STREET
302730-00	1300	3000	2000	1500	1800	3000	3000	2000	2000	2000	1000	1200	23800.00	55	75	302730-00	GRANTHAM, BOYD	08	02730	219 GROVE STREET
302740-00	7500	4500	4700	4300	3800	6700	7600	16500	12000	32900	4100	2800	107400.00	154	432	302740-00	PETERSON, JASON S.	08	02740	224 GROVE STREET
302740-01													0.00	0	0	302740-01	GARRISON MAUDE	03	02740.01	224 GROVE
302750-00							1300	900	900	900	600	500	5100.00	6	22	302750-00	MILLIGAN, LAWRENCE & BARBARA	08	02750	303 GROVE STREET
302750-01													0.00	0	0	302750-01	CLARK DAVID	03	02750.01	303 GROVE
302750-02													0.00	0	0	302750-02	MORKERT HAROLD-DECEASED	03	02750.00	303 GROVE
302760-00	4900	4000	4000	4500	4000	4500	5000	7500	7000	11400	4000	4100	64900.00	141	214	302760-00	LOFTHUS, OBERT JR	08	02760	107 HALEY AVENUE E
302770-00	6500	6500	6400	7900	6500	6100	8300	10100	8000	7800	6000	6200	86300.00	218	254	302770-00	NEWBY, BILL R. & SHIRLEY A.	08	02770	309 GROVE STREET
302770-01													0.00	0	0	302770-01	JONES, CHARLES J.	03	02770.01	309 GROVE STREET
302780-00	2100	600	700	5000	5100	4200	2000	1500	1200	79200	7200	900	109700.00	91	507	302780-00	BROWN, JASON D. & JENNA J.S.	08	02780	315 GROVE STREET
302780-01													0.00	0	0	302780-01	SNIEZAK STEVE	03	02780.00	315 GROVE

302780-02													0.00	0	0	302780-02	BROWN, SHANE	03	02780.02	315 GROVE STREET
302790-01													0.00	0	0	302790-01	LOFTHUS, OBERT JR	03	02790	312 GROVE STREET
302800-00	3500	700	600	800	800	600	1300	2000	100	100	100	1400	12000.00	39	27	302800-00	LOFTHUS, OBERT JR	08	02800	314 GROVE STREET
302805-00													0.00	0	0	302805-00	SCOTT, MICHAEL	08	02805	322 GROVE STREET
302805-01	1800	300				2800	7800	5800	6300	15900	1100	900	42700.00	23	210	302805-01	WISWELL, JANIS	03	02805.01	322 GROVE STREET
302805-02													0.00	0	0	302805-02	VERLANIC, LYNN R	08	02805.01	322 GROVE STREET
302810-00	2700	2500	2800	2900	3000	2000	3700	2900	2900	3000	1500	2300	32200.00	81	95	302810-00	BURRESE, ROBERT L.	08	02810	323 GROVE STREET
302815-00	19500	13700	17600	15500	6900		9100	21100	8000	74800	16600	13600	216400.00	533	652	302815-00	CASIDA, M. MICHAEL	08	02815	326 GROVE STREET
302815-01													0.00	0	0	302815-01	THOMPSON, MICHAEL & KARI	03	02815.01	326 GROVE STREET
302815-02													0.00	0	0	302815-02	MCCUAIG, JAMES M. & JOSIE	03	02815.00	326 GROVE STREET
302820-00	400	1700	2600	2700	2300	4900	8500	1900	2000	9000	1700	3300	41000.00	69	155	302820-00	MOSHER, RICHARD	08	02820	402 GROVE STREET
302823-00													0.00	0	0	302823-00	PATTERSON, MELVIN	08	02823	106 3RD AVENUE W
302823-01													0.00	0	0	302823-01	SHANNON, DANNY	03	02823.01	403 GROVE STREET
302823-02													0.00	0	0	302823-02	KNOEPKE, JON & LARRY	08	02823.01	106 3RD AVENUE W
302830-00							8100	10900	10000	23300	3700		56000.00	20	284	302830-00	SCOTT, PAMELA J	08	02830	410 GROVE STREET
302830-01													0.00	0	0	302830-01	HURST, ROWENA	03	02830.00	410 GROVE STREET
302840-00	4600	3800	3900	4400	3800	3400	3400	11100	11000	13300	2700	3000	68400.00	124	250	302840-00	MAGOFFIN, RICHARD	08	02840	417 GROVE STREET
302850-00	7300	5100	5800	6800	2600	11600	8000	23200	25000	6100	5800	5400	112700.00	200	416	302850-00	O'NEILL, WILLIAM & MARILYN	08	02850	418 GROVE STREET
302860-00						8000		9100	9000	4000			30100.00	0	164	302860-00	HAMMETT, CHARLES	08	02860	421 GROVE STREET
302860-01													0.00	0	0	302860-01	ROBSON, EVERARD	03	028600.00	421 GROVE STREET
302860-02													0.00	0	0	302860-02	GREVEN, THEODORUS F	03	02860.02	421 GROVE
302860-03													0.00	0	0	302860-03	CHADWICK, LARK L.	03	028600.01	421 GROVE STREET
302870-00													0.00	0	0	302870-00	SMITH, JAMES W & MARTHA-JO	08	02870	108 4TH AVE EAST
302870-01	2500	1500	1900	2000	1800	1900	2900	5700	5000	4900	1900	1600	33600.00	63	121	302870-01	CRADDICK, WARREN	03	02870.01	108 4TH AVE EAST
302880-00	3300	3200	6000	3000	5100	6400	10900	14800	14000	48000	5200	3000	122900.00	131	539	302880-00	HAMMETT, CHARLES	08	02880	427 GROVE STREET
302890-00													0.00	0	0	302890-00	DEATON, WILLIAM	08	02890	504 GROVE STREET
302890-01													0.00	0	0	302890-01	HARPER TIMOTHY AND CATHY	03	02890.01	
302890-02													0.00	0	0			10		504 GROVE STREET
302890-03													0.00	0	0	302890-03	SHEAR, BRYCE G.	03	02890.03	504 GROVE STREET
302890-04	2600	2100	2400	2600	2300	3000	4700	16300	11400	19100	2000	2100	70600.00	76	309	302890-04	HAINES, FRED I. & JUDY L.	03	02890.02	504 GROVE STREET
302900-00	6100	4500	5500	5900	4700	6400	18300	22100	20100	11600	4100	4400	113700.00	169	452	302900-00	MILNER, PAT	08	02900	503 GROVE STREET
302910-01													0.00	0	0	302910-01	WAKEFIELD ALICE	03	02910	516 GROVE
302915-00	3800	3300	4000	4700	4500	7200	5300	7000	200	10200	2900	3500	56600.00	123	187	302915-00	HALL, DAVID & TRISTA	08	02915	510 GROVE STREET
302920-00													0.00	0	0	302920-00	CULLEN, JAMES	08	02920	513 GROVE STREET
302930-00													0.00	0	0	302930-00	CULLEN, JAMES	08	02930	517 GROVE STREET
302940-00	7000	4800	4800	8800	9300	20300	21400	28600	28000	26000	7300	6500	172800.00	217	726	302940-00	SHEAR, E. W.	08	02940	527 GROVE STREET
302950-00	2200	5100	3500	4100	2400	4400	7600	6000	6000	1100	6200	3100	51700.00	134	149	302950-00	HAASE, DAVE	08	02950	111 5TH AVENUE W.
302955-00	1600	1500	1900	1600	2800	3600	2900	4300	4300	4000	1500	1800	31800.00	55	119	302955-00	HALL, MARY LYNN	08	02955	518 GROVE STREET
302960-00	5900	6000	6100	6200	4700	8500	6800	6600	7000	100	18400	5200	81500.00	264	183	302960-00	HALL, DAVID & TRISTA	08	02960	520 GROVE STREET
302965-00	1100	900			900	2200	4800	6400	6500			1000	23800.00	17	113	302965-00	FROST, BILL	08	02965	530 GROVE STREET
302970-00	4200	4200	4100	4000	5300	5600	5200	8100	8000	2900	4000	3300	58900.00	131	191	302970-00	THOMPSON, GINGER RENEE'	08	02970	604 GROVE STREET
302970-01													0.00	0	0	302970-01	YOUNG, MAYNARD	03	02970.01	604 GROVE STREET
302970-02													0.00	0	0	302970-02	BESAW, JOHN & CHARLOTTE	03	02970.02	604 GROVE STREET
302970-03													0.00	0	0	302970-03	PIERCE, ROBERTA ANN	03	02970.00	601 grove street
302980-00	8000	2400	3200	2600	1900	2000	3000	2800	900	900	2400		30100.00	103	63	302980-00	BRASS, LAURIE	08	02980	107 GREENWOOD STREET
302990-00	2300	1700	1800	2100	1700	1700	4100	46900	35000		10100	1200	108600.00	106	486	302990-00	TAYLOR, CLINTON	08	02990	326 grove street
303000-00	12200	7700	8600	9400	7500	8500	11200	16000	17300	9600	9200	7900	125100.00	304	381	303000-00	MCCUAIG, JAMES M. & JOSIE	03	02815.00	604 GROVE STREET
303000-01													0.00	0	0	303000-01	LENTZ, HAROLD	03	03000.01	104 GREENWOOD - TRLR - 106 TRLR
303010-01													0.00	0	0	303010-01	LENTZ, HAROLD	03	03010.01	110 GREENWOOD
303014-01													0.00	0	0	303014-01	LENTZ, HAROLD	03	03014	112 GREENWOOD
303015-00													0.00	0	0	303015-00	VERLANIC, LYNN R	08	03015	117 GREENWOOD STREET
303015-01													0.00	0	0	303015-01	KAZMIERCZAK, RONALD & SANDRA	03	03015.01	117 GREENWOOD
303015-02	3800	3000	3500	3400	3300	3400	6800				8000	8600	43800.00	167	73	303015-02	FISHER, BRANDON & KRISTEN	03	03015.02	117 GREENWOOD STREET
303015-03													0.00	0	0	303015-03	VERLANIC, ORVILLE E & LYNN	03	03015.03	117 GREENWOOD STREET
303015-04													0.00	0	0	303015-04	WASHBURN, STACEY	03	03015.04	117 GREENWOOD STREET
303020-00	2800	2200	3400	3200	3700	4300	5200	2600	2500	1700	2000	2300	35900.00	88	109	303020-00	MCCUAIG, JAMES M. & JOSIE	08	03020	116 GREENWOOD STREET - HOUSE
303020-01													0.00	0	0	303020-01	LENTZ, HAROLD	03	03020.01	116 GREENWOOD - HOUSE - 118 TRLR.
303030-00	6300	5700	6900	12300	2100	10400	10600	1200	1200	11700	5000	4000	77400.00	222	202	303030-00	DEXTER, SHARON	08	03030	202 GREENWOOD STREET
303030-01													0.00	0	0	303030-01	BESAW, WM	03	03030.00	202 GREENWOOD STREET
303035-00													0.00	0	0	303035-00	BRIGHT, CANDACE	08	03035	214 GREENWOOD STREET
303035-02	5600	5000	5200	5300	4800	3700	5000	4300	4200	5700	4000	4300	57100.00	162	151	303035-02	BILL BESAW	03	03035.01	214 GREENWOOD STREET
303035-03													0.00	0	0	303035-03	BRIGHT, CANDACE	03	03035TW.02	214 GREENWOOD STREET
303037-00													0.00	0	0	303037-00	KNUTSON, RODNEY A & RISHELLE O	08	03037	216 GREENWOOD STREET - SHOP
303037-01							600	600	600	600	100		2500.00	1	13	303037-01	BESAW, WILLIAM D.	03	03037.01	216 GREENWOOD STREET - SHOP
303040-00													0.00	0	0	303040-00	TAYLOR, TERESA K.	08	03040	201 GREENWOOD STREET
303040-01													0.00	0	0	303040-01	TAYLOR, STEVEN	03	03040.00	201 GREENWOOD STREET
303041-00							3000						3000.00	0	16	303041-00	TAYLOR, STEVE	08	03041	205 GREENWOOD STREET
303070-00	7300	4600	900	1000	1400	6200	1900	7100	8000	19700	4100	4800	67000.00	125	241	303070-00	HILLCREST RANCH INC.	08	03070	211 spruce
303080-00	8000	2000	8000	2000	2500	2200	3000	1900	2000	2000	2500	1500	37600.00	133	74	303080-00	CORK, TERRY & KIM	08	03080	305 GREENWOOD STREET
303090-00	6900	5700	5900	6000	6200	9400	5400	14800	28700	14200	5300	6200	114700.00	199	428	303090-00	LACY, JERRY	08	03090	323 GREENWOOD STREET
303095-00	1600	1100	1800	1200		200	19300	26400	22000	1300	1000	1400	77300.00	45	376	303095-00	MOSHER, JOHN	08	03095	414 greenwood street
303100-00	7000	3500	3200	5800	5700	11300	23600	3000	3000	78900	5300	4700	155000.00	163	682	303100-00	DAMASKOS, BARBIE	08	03100	208 HALEY AVENUE E
303110-01													0.00	0	0	303110-01	GRANTHAM ALVIRA	03	03110	411 GREENWOOD
303120-00													0.00	0	0	303120-00	WHITE, JOHN	08	03120	417 GREENWOOD STREET
303120-01	1000	300	200	1000	400		3000	1400	1200	800	1000	5100	15400.00	48	37	303120-01	GRANTHAM, CHARLES	03	03120.01	417 GREENWOOD STREET
303120-02													0.00	0	0	303120-02	GRANTHAM, BOYD	03	03120.02	417 GREENWOOD STREET
303120-03													0.00	0	0	303120-03	ST MT DOJ AGENCY LEGAL SERVICES BUREAU	03	03120.03	417 GREENWOOD STREET
303121-00	4600	3700	3700	3900	2900		7300	19100	5000	42600	3500	3500	99800.00	127	418	303121-00	DOTY, JESSE	08	03121	403 GREENWOOD STREET
303130-00	3400	3100	3600	3500	1200	4200	5200	15500	500	12700	2800	2700	58400.00	106	214	303130-00	BEITZ, VICKIE	08	03130	424 GREENWOOD STREET
303140-00	3000	1700	2500	4000	2100	12400	12500	38300	61100	17500	2900	2100	160100.00	90	782	303140-00	BASHAM, JOHN	08	03140	425 GREENWOOD STREET
303145-00													0.00	0	0	303145-00	GAMBREL, ROBERT D & CAROL A	08	03145	504 GREENWOOD STREET
303145-01													0.00	0	0	303145-01	MCDONALD, JOHN	03	03145.00	504 GREENWOOD STREET
303145-02											100		100.00	1	0	303145-02	DOTY, JAMES & RHETA	03	03145.01	504 GREENWOOD STREET
303150-00	3800	2200	2000	2400	1100						8000	2500	22000.00	115	6	303150-00	WILLIAMS, BLANCHE	08	03150	505 GREENWOOD STREET
303150-01													0.00	0	0	303150-01	MARTIN, LEE	03	03150.01	505 GREENWOOD STREET
303160-00													0.00	0	0	303160-00	HALL, ROBERT J	08	03160	511 GREENWOOD STREET
303160-01													0.00	0	0	303160-01	TERRY, MATTHEW LEE	03	03160.01	511 GREENWOOD STREET
303160-02													0.00	0	0	303160-02	COMPTON, JIM	03	03160.02	511 GREENWOOD
303160-03													0.00	0	0	303160-03	WARD, ANGELA	03	03160.03	511 GREENWOOD STREET
303160-04		5600	11900	12700	12000		2300	4000	300	9100	1800	200	59900.00	178	151	303160-04	TERRY, MICHAEL A.	03	03160.04	511 GREENWOOD STREET
303170-00		1600											1600.00	9	0	303170-00	BLOUIN, DENNIS	03	03170	520 GREENWOOD
303170-02													0.00	0	0	303170-02	BLOUIN DANIEL SR	03	03170.01	520 GREENWOOD
303180-00	2200	100	1500	1700	2000	1100	1400			4500	3500	1200	19200.00	56	49	303180-00	JORGENSON, JAMI D	08	03180.00	508 GREENWOOD STREET
303180-01													0.00	0	0	303180-01	KINGDOM HALL	03	03180.01	508 GREENWOOD
303180-02													0.00	0	0	303180-02	VONSEGGERN, KIMBERLY	03	03180.02	508 GREENWOOD STREET
303180-03													0.00	0	0	303180-03	HAYES, LINDA J.	03	03180.03	508 GREENWOOD STREET
303180-04													0.00	0	0	303180-04	HAYES, LINDA	03	03180.04	508 GREENWOOD STREET
303190-00	2900	2300	2000	1900	2200	5200	4500	9000	8000	9800	1800	2300	51900.00	73	210	303190-00	KEITH CHERYL A AND THORNTON SHANNON L	08	03190	517 GREENWOOD STREET
303200-00	4400	3400	3700	3900	3900	3800	4200	5900	6000	6300	3400	3000	51900.00	120	164	303200-00	THOMAS, JAMES & TRACY	08	03200	524 GREENWOOD STREET
303200-01													0.00	0	0	303200-01	HARTMAN JOAN	03	03200.00	524 GREENWOOD
303200-02													0.00	0	0	303200-02	THOMAS, STEVE & KATHERINE	03	03200.01	524 GREENWOOD STREET

303210-00	700	1300	900	1200	1700	5900	16000	25900	28400	7900	1100	700	91700.00	33	466	303210-00	RICHMOND, LISA	08	03210	208 5TH AVE EAST
303210-01													0.00	0	0	303210-01	STAMM, ROD	03	03210.00	208 5TH AVE EAST
303210-02													0.00	0	0	303210-02	FRANCK & DAY, RYAN E & SUMMER L	03	03210.01	208 5TH AVE EAST
303220-00			900	3900	2900	10400							18100.00	27	72	303220-00	SHAFFORD, JED & KARRIE	08	03220	607 GREENWOOD STREET
303220-01	700						3900	14600	16700	9400	1100	600	47000.00	13	242	303220-01	HOAGLAND, BRUCE AND CAROL	03	03220.01	607 GREENWOOD STREET
303230-00	1000	700	700	1600	7100	7700	8300	8100	9200	8000	7000	1100	60500.00	67	263	303230-00	THOME, CLINT	08	03230	612 GREENWOOD STREET
303240-00	8300	3800	4800	5600	7400	21900	4000	4700	5000	8200	3900	5900	83500.00	178	278	303240-00	REICHERT, BETTY ANN	08	03240	105 WOODLAND STREET
303250-00	2500	1500	1700	1500	1400	1900	17100	24300	2100	42700	2000	2100	100800.00	62	486	303250-00	GREAVES JAMES M. & CHADWICK LARK L.	08	03250	108 WOODLAND STREET
303250-01													0.00	0	0	303250-01	HAYES, LINDA	03	03250.01	108 WOODLAND
303260-01													0.00	0	0	303260-01	CURRAN HARVEY	03	03260	WOODLAND - VACANT LOT
303270-00	4200	3300	4200	4000	3600	3700	4800	8600	3000	9500	3400	3800	56100.00	127	180	303270-00	HILL, ROBB & ALICIA	08	03270	114 WOODLAND STREET
303270-01													0.00	0	0	303270-01	OWENS CHRYSTAL	03	03270.01	114 WOODLAND
303280-00	1600	1300	1300	1200	800	1200	1700	1900	2000	1800	1200	1500	17500.00	45	51	303280-00	MILES, DAN & GEORGIA	08	03280	117 WOODLAND STREET
303290-00													0.00	0	0	303290-00	THOMPSON, GINGER RENEE'	08	03290	207 WOODLAND STREET
303290-01													0.00	0	0	303290-01	KIRKLAND, PAUL	03	03290.01	207 WOODLAND
303290-02													0.00	0	0	303290-02	BESAW, JOHN & CHARLOTTE	03	03290.02	207 WOODLAND STREET
303300-00	2800	3400	4100	4100	2800		6800	7200	8000	18200	4900	3900	66200.00	128	234	303300-00	PARKER, NOLAN	08	03300	211 WOODLAND STREET
303305-00													0.00	0	0	303305-00	BARRUS, TRAVIS	08	03305	215 WOODLAND STREET
303305-01	5100	3400	4400	5400	4300	4300	5500	12900	11000	100	2500	4000	62900.00	137	207	303305-01	ROWE, CHARLOTTE	03	03305.01	215 WOODLAND STREET
303310-00													0.00	0	0	303310-00	FRANK, JUDITH	08	03310	204 WOODLAND STREET
303310-01													0.00	0	0	303310-01	MILLS KENNETH	03	03310.00	204 WOODLAND
303310-02	2500	4200	2600	3000	1700	3100	8000	3200	3500	5000		2900	39700.00	84	133	303310-02	SAKUSKI JOSHUA & WRIGHT AIMEE	03	03310.01	204 WOODLAND STREET
303320-00	5500	4100	5400	5300	6200	5400					4000	2700	38600.00	149	63	303320-00	VALLEY BANK OF THOMPSON FALLS	08	03320	208 WOODLAND STREET
303320-01													0.00	0	0	303320-01	TURK ROBERT	03	03320.00	208 WOODLAND
303320-02													0.00	0	0	303320-02	HERMANN, MARDA F.	03	03320.02	208 WOODLAND STREET
303320-03													0.00	0	0	303320-03	MILLER, WILLIAM N. & KAREN H.	03	03320.01	208 WOODLAND STREET
303330-00	4000	2600	2800	3500	3000	3500	3500	7300	8000	8800	3800	3200	54000.00	110	185	303330-00	KULAWINSKI, STEPHEN	08	03330	212 WOODLAND STREET
303340-01													0.00	0	0	303340-01	JOHNSON JAMES SR	03	03340	215 WOODLAND
303350-00	7900	7000	7100	6300	6900	7300	8200	8400	8500	11300	5800	5900	90600.00	221	275	303350-00	FRANK, ROBERT & ANGELA	08	03350	222 WOODLAND STREET
303350-01													0.00	0	0	303350-01	LOVELL RANDY	03	03350.01	222 WOODLAND
303360-00													0.00	0	0	303360-00	WILSON, VICKIE SUE	08	03360	214 HALEY AVENUE E
303360-01													0.00	0	0	303360-01	BESAW, WILLIAM	03	03360.01	214 E HALEY
303360-02	2500	1000	1400	1300	1700	4900	11900	25200	25000	30900	2000	2300	110100.00	58	541	303360-02	VAN VALKENBURG, THOMAS & DELLA	03	03360.02	214 HALEY AVENUE E
303365-00													0.00	0	0	303365-00	FRATERNAL CEMETERY	08	03365	300 BLOCK WOODLAND
303370-00					900	1600	3300	3500	3200	3300			15800.00	0	86	303370-00	WIDNER, RUTH	08	03370	307 3RD AVE EAST
303380-00	2300	900	3000	2400	1200	3500	3200	5600	5000	16300	1800	1900	47100.00	68	189	303380-00	STOUT, JOE	08	03380	403 WOODLAND STREET
303380-01													0.00	0	0	303380-01	LUNDY, FRANK	03	03380.00	403 WOODLAND STREET
303390-00	100			400	200		7900	18600	16000	13300	8500		65000.00	50	304	303390-00	GARCIA, ALISA & LUIS III	08	03390	413 WOODLAND STREET
303390-01													0.00	0	0	303390-01	BOWDEN, WALTER JR	03	03390.01	413 WOODLAND STREET
303390-02													0.00	0	0	303390-02	MAJESTIC MONTANA PROPERTIES	03	03390.00	413 WOODLAND STREET
303390-03													0.00	0	0	303390-03	SIMMS, DANIEL M.	03	03390.03	413 WOODLAND STREET
303395-00	3600	2500	3400	4200	4300	4600	4400	3400	3100	3500	2900	2900	42800.00	108	127	303395-00	CLARK, STEVE	08	03395	420 WOODLAND STREET
303400-00	7800	6600	8900	9200	7200	7300	15300	29200	15000	42300	6800	6900	162500.00	255	632	303400-00	DENSON, CHARLES & KRISTI	08	03400	421 WOODLAND STREET
303400-01													0.00	0	0	303400-01	BOWDEN III, WALTER	03	03400.00	421 WOODLAND STREET
303400-02													0.00	0	0	303400-02	DENSON, TIMOTHY & DACEY	03	03400.01	421 WOODLAND STREET
303410-00	200	3000	4100	3400	2500	1800	14600	34600	19800	24900	3300	6400	118600.00	113	534	303410-00	WITTERS, JEAN M	08	03410	427 WOODLAND STREET
303410-01													0.00	0	0	303410-01	PERKINS, JUDY	03	03410.00	427 WOODLAND STREET
303420-00	3700	800	1300	1200	4400	16100	14700	8700	9000	8800	8000	41700	118400.00	313	335	303420-00	MORRISON, LORRAINE	08	03420	428 WOODLAND STREET
303430-00	3600	2800	3100	3600	1200	5400	3600	3700	4000	8000	2900	3100	45000.00	106	141	303430-00	FRANK, DOROTHY	08	03430	506 WOODLAND STREET
303430-02													0.00	0	0			10		
303435-00	4500	4200	900	1400	10400	3400	8900	7400	8000	8300	4400	3500	65300.00	104	252	303435-00	THOMPSON, GINGER	08	03435	217 4TH AVE EAST
303435-01													0.00	0	0	303435-01	CHENEY, JOYCE	03	03435.01	217 4TH AVE EAST
303435-02													0.00	0	0	303435-02	PIERCE, ROBERTA ANN	03	03435.00	217 4TH AVE EAST
303435-03													0.00	0	0	303435-03	RADCILFFE, SUSAN F	03	03435.02	217 4TH AVE EAST
303440-01													0.00	0	0	303440-01	MITCHELL, LONNIE	03	03440.01	505 WOODLAND STREET
303440-02													0.00	0	0	303440-02	CARROLL MATT	03	03440.02	507 WOODLAND
303440-03													0.00	0	0	303440-03	PIERCE, ROBERTA ANN	03	03440	505 WOODLAND STREET
303450-00	2700	2200	2500	2000	2300	2000	8000				8000	700	30400.00	100	67	303450-00	LEISZ, NAOMI	08	03450	507 WOODLAND STREET
303450-02													0.00	0	0	303450-02	WHITNEY, DARL G.	03	03450.01	505 WOODLAND STREET
303460-00	2200	1500	2000	1600	1600	1900	1300	2000	3000	800	1000	1500	20400.00	54	58	303460-00	MELOY WILLIAM F & WEST MICHAEL D	08	03460	507 1/2 WOODLAND STREET
303460-01													0.00	0	0	303460-01	LOTERBAUER ESTELLA	03	03460.01	507 1/2 WOODLAND
303460-02													0.00	0	0	303460-02	ROHRER, VERNON D. & BRENDA S.	03	03460.00	507 1/2 WOODLAND STREET
303470-00	3400	2700	2900	3300	2100	4300	3600	3800	4000	2900	2400	3100	38500.00	98	113	303470-00	HEISE, RONDA	08	03470	524 WOODLAND STREET
303480-00	5700	4500	6200	7000	5200	4900	3800	8400	9000	7400	3000	4000	69100.00	168	210	303480-00	DOTY, BRYCE	08	03480	523 WOODLAND STREET
303490-00	9400	6500	7400	7000	2500	11100	5600	2500	3000	6000	6400	7100	74500.00	242	167	303490-00	HART, MITZI LEE	08	03490.00	308 5TH AVE EAST
303490-01													0.00	0	0	303490-01	SPARKS, AMY SUE	03	03490.01	308 5TH AVE EAST
303490-02													0.00	0	0	303490-02	FISHER KENNETH	03	03490.02	308 5TH AVE EAST
303490-03													0.00	0	0	303490-03	SPARKS, KEVIN	03	03490.03	308 5TH AVE EAST
303490-05													0.00	0	0	303490-05	STEINWEDEN, KELLY L	03	03490.05	308 5TH AVE EAST
303495-00	5200	3900	3500	3400	3600	3300	5800	4200	5000	5400	3800	4500	51600.00	134	148	303495-00	CZERWINSKI DOUGLAS J & ROPER SARA A	08	03495	305 5TH AVE EAST
303495-01													0.00	0	0	303495-01	QUINN, AARON	03	03495.00	305 5TH AVE EAST
303495-02													0.00	0	0	303495-02	HOMESALES INC	03	03495.01	305 5TH AVE EAST
303500-00													0.00	0	0	303500-00	STIMPFLING, ELISE M	08	03500	611 WOODLAND STREET
303500-01													0.00	0	0	303500-01	WILHELMSEN DENNIS	03	03500.01	607 WOODLAND
303500-02													0.00	0	0	303500-02	RAYNOR, LESLIE & MICHELL	03	03500.02	611 WOODLAND STREET
303500-03													0.00	0	0	303500-03	MAJESTIC MONTANA PROPERTIES	03	03500.03	611 WOODLAND STREET
303500-04													0.00	0	0	303500-04	JOHNSON, TERRY L	03	03500.00	611 WOODLAND STREET
303500-05	6700	6400	7600	6700	7000	6100	8000			75800	6800	7700	138800.00	231	527	303500-05	DEACON, TARA LYNN	03	03500.04	611 WOODLAND STREET
303510-00													0.00	0	0	303510-00	BRONSON, CLARK D & SHARON M	08	03510	617 WOODLAND STREET
303510-01							1400	2500	3000	200	1600		8700.00	9	39	303510-01	FULLERTON, PATRICIA	03	03510.01	617 WOODLAND STREET
303520-00	5600	4800	5000	5200	4500	4500	8300	23000	20000	14900	4300	5700	105800.00	169	409	303520-00	CAMPBELL, GARY	08	03520	622 WOODLAND STREET
303530-00													0.00	0	0	303530-00	TRAIN, ANTHONY & CHRISTINA	08	03530	107 CLAY STREET
303530-01	800	700	1100	800	800	800	1300	1300	1700	800	1200	1100	12400.00	31	36	303530-01	LA ROCK, LOUIS	03	03530.01	107 CLAY STREET
303530-02													0.00	0	0	303530-02	BANK OF AMERICA/FANNY MAE	03	03530.02	107 CLAY STREET
303540-00	6600	9100	1600	16700	9900	7600	10600	9300	10000	4300	6000	7000	98700.00	260	281	303540-00	THOMPSON, GINGER	08	03540	104 CLAY STREET
303540-01													0.00	0	0	303540-01	PIERCE, ROBERTA ANN	03	03540.00	104 CLAY STREET
303540-02													0.00	0	0	303540-02	NUESSLE, JERALD	03	03540.01	104 CLAY STREET
303550-00													0.00	0	0	303550-00	THOMPSON, GINGER	08	03550	110 CLAY STREET
303550-01													0.00	0	0	303550-01	PIERCE, ROBERTA ANN	03	03550.00	110 CLAY STREET
303550-03	4400	4800	1400	8500	4900	4800	4600	3600	4000	13900	4300	4000	63200.00	151	195	303550-03	MERRIMAN, TROY & APRIL	03	03550.02	110 CLAY STREET
303560-00	4100	2800	6200	6700	2900	9600	35100	12400	10100	54300	3800	3200	151200.00	148	676	303560-00	SCHAEFER ENTERPRISES	08	03560	204 CLAY STREET
303560-01													0.00	0	0	303560-01	GRAVIER GILBERT	03	03560.01	204 CLAY
303560-02													0.00	0	0	303560-02	CLAYTON NATIONAL INC	03	03560.02	204 CLAY
303580-00	4700	3400	4200	4200	3800	3900	9100	8700	11500	4800	3800	3300	65400.00	130	227	303580-00	HAUGHTON, JIM	08	03580	210 CLAY STREET
303580-01													0.00	0	0	303580-01	FRANCK, CHARLES L. AND DEBBY	03	03580.01	210 CLAY STREET
303580-02													0.00	0	0	303580-02	POWELL, ALICE	03	03580.00	210 CLAY STREET
303580-03													0.00	0	0	303580-03	GMAC MORTGAGE LLC	03	03580.03	210 CLAY STREET
303590-00													0.00	0	0	303590-00	JOHNSTON , GREG	03	03590	201 CLAY STREET
303590-02													0.00	0	0	303590-02	COMMERS, STEVE	03	03590.01	201 CLAY STREET
303600-00	2800	1800	2500	2100	2100	2300	2900	2300	2500	3300	2300	3500	30400.00	83	84	303600-00	KOEPPLIN, DAVID L & SHERRY L	08	03600	205 CLAY STREET
303600-01													0.00	0	0	303600-01	VAUGHT, HAROLD	03	03600.00	205 CLAY STREET

303610-00	4700	3200	4200	4600	4000	9500	9500	6700	8000	8100	3800	4100	70400.00	136	249	303610-00	SMITH, CLAYTON	08	03610	211 CLAY STREET
303620-00	1500	1300	1400	1700	1300	1400	1500	1000	1200	1600	1200	1300	16400.00	46	43	303620-00	WILBURN, CLYDE	08	03620	218 CLAY STREET
303620-01													0.00	0	0	303620-01	HELUS, JOHN	03	03620.01	218 CLAY
303630-00	3200	1700	2200	2900	2800	7000		400	600	8500	8700	2600	40600.00	118	105	303630-00	ELLIOTT, GEORGE & LINDA	08	03630	221 CLAY STREET
303630-01							1600						1600.00	0	9	303630-01	HAMMERBERG KENNETH % ROGER HAMMERBERG	03	03630.00	221 CLAY STREET
303635-00	2000	1500	1800	1600	1900	1900	2300	2400	2500	2000	1400	1800	23100.00	56	71	303635-00	CHUBB, BILLIE	08	03635	219 CLAY STREET
303640-00													0.00	0	0	303640-00	CAMPBELL, STEFANEY	08	03640	222 CLAY STREET
303640-01	1800	1600	2500	1800			16600	17100	16000	35000	2000	2200	96600.00	66	460	303640-01	MCGRAW, LINDA	03	03640.01	222 CLAY STREET
303650-00	3600	3000	3000	3200	2700	2400	4800	12400	8100	7500	3100	3800	57600.00	109	206	303650-00	SWOPE, ROY & ALICE & FLOYD	08	03650	228 CLAY STREET
303650-01													0.00	0	0	303650-01	JANES JOSEPH & SHELLEY	03	03650.01	228 CLAY
303650-02													0.00	0	0	303650-02	STARK DAN	03	03650.02	228 CLAY
303660-00	3500	2900	1300	3600	2200	2800	16300	2600	3000	33600	6900	3300	82000.00	119	329	303660-00	DODGE, RONALD L.	08	03660	225 CLAY STREET
303670-00													0.00	0	0	303670-00	BUTLER, JOHN & DONNA	08	03670	303 CLAY STREET
303670-01							1600	3000					4600.00	0	25	303670-01	FRITSCH, H.E.	03	03670.00	303 CLAY STREET
303670-02	400	400	400	600	400	400				8800	400	400	12200.00	14	52	303670-02	LACK, SANDRA K	08	03670.01	303 CLAY STREET
303680-00													0.00	0	0	303680-00	GOETZ, PAUL F. & VIOLA M.	08	03680	306 CLAY STREET
303680-01	1400	1500	2600	1500	1500	1600	2500	7300	8000	21200	1700	1600	52400.00	57	229	303680-01	HEBERLINE, DENICE	03	03680.01	306 CLAY STREET
303690-00	2400	2700	2900	2900	5000	10700	11300	4800	5000	35700	2000	23400	108800.00	201	394	303690-00	CARTER, MIKE	08	03690	314 CLAY STREET
303700-00	100	500	1600	1900	1800	1700	2500	7500	11000	100	700	800	30200.00	31	134	303700-00	MCGUIGAN, ALBERT L	08	03700	324 CLAY STREET
303710-00	2600	1800	3000	3300	2200	2800	400	700	900	1700	2500	1800	23700.00	83	47	303710-00	HUNTLEY, HARLEY H.	08	03710	311 3RD AVE EAST
303715-00													0.00	0	0	303715-00	LANIER, LINDA L	08	03715	405 3RD AVE E
303718-00													0.00	0	0	303718-00	KNERR, JOHN & BRIDGET	08	03718	412 CLAY STREET
303720-00	400	1900	1100	1200	1800	1400	2200	5200	6000	3800	1500	1100	27600.00	40	111	303720-00	FRANZWA, DARLENE E.	08	03720	415 CLAY STREET
303730-00													0.00	0	0	303730-00	KNERR, JOHN & BRIDGET	08	03730	416 CLAY STREET
303730-01	2600	1600	2200	1800	1400	1500	12000	19100	400	500	1500	3700	48300.00	74	190	303730-01	KNERR, BRUCE & GAIL	03	03730.02	416 CLAY STREET
303730-02													0.00	0	0	303730-02	COMMERS, S.	03	03730.01	416 CLAY STREET
303734-00													0.00	0	0	303734-00	KNERR, JOHN & BRIDGET	08	03734	420 CLAY STREET
303735-00	1600	1600	2100	400	3400	12900	13500	5400	6000	15800	2200	900	65800.00	49	310	303735-00	BAYLOR, CAROL	08	03735	421 CLAY STREET
303740-00	15000	11500	12100	13100	4800	16300	16300	20400	20000	14000	10300	10400	164200.00	400	499	303740-00	SNELL, STEVEN	08	03740	427 CLAY STREET
303750-00	5900	5100	5800	7100	6700	6100	6600	7300	8000	18800	5600	4000	87000.00	185	291	303750-00	MCEWEN, ARTHUR	08	03750	428 CLAY STREET
303750-01													0.00	0	0	303750-01	COMMERS, S.	03	03750.00	428 CLAY STREET
303760-00	4200	300	1600	2000	2700	900	6000	6500	6000	8000	500	1700	40400.00	57	164	303760-00	CURRY, SCOTT & CELESTE	08	03760	509 CLAY STREET
303760-01													0.00	0	0	303760-01	FANNY MAE	03	03760.00	509 CLAY STREET
303770-00	5400	4500	4800	5400	6000	8700	7300	9900	8100	33500	4300	4500	102400.00	160	399	303770-00	CHRISTIAN, MARJORIE	08	03770	315 4TH AVE EAST
303780-00	2800	2600	2700	2700	3400	12700	16400	35600	33000	45600	3700	3300	164500.00	98	797	303780-00	JUNGE, GUNNER	08	03780	407 4TH AVE EAST
303800-00	2600	1700	2200	2500	2900	5000	6200	9900	8000	18200	2000	2400	63600.00	74	273	303800-00	HEDAHL, WESLEY A.	08	03800	515 CLAY STREET
303810-00	3000	3000	3600	3700	3300	3900	7200	4700	5000	4500	1900	1900	45700.00	94	155	303810-00	WIECKOWSKI, SHERRY	08	03810	520 CLAY STREET
303820-00													0.00	0	0	303820-00	BUTLER, CHARLES V & DONNA M	08	03820	521 CLAY STREET
303820-01													0.00	0	0	303820-01	ALBAN, DENISE A.	03	03820.00	521 CLAY STREET
303820-02	400	1300	1700	1500	1500	1800	4700	11900	8000	7200	700	200	40900.00	32	191	303820-02	FINGAR, PHILIP L & JEANNE M	03	03820.01	521 CLAY STREET
303830-00	900	1000	1500	1800	1800	2000	7500	25800	22000	3000	2300	2600	72200.00	56	338	303830-00	GROH, KAREN	08	03830	523 CLAY STREET
303840-00													0.00	0	0	303840-00	BARAJAS, JESU C	08	03840	528 CLAY STREET
303840-01	6900	3000	5300	3500			4000	8000	8000	8000	6500	5500	58700.00	170	152	303840-01	TILLMAN, MAYME	03	03840.01	528 CLAY STREET
303850-01													0.00	0	0	303850-01	ANDERSON, DORA	03	03850	605 CLAY STREET
303860-00	3200	2900	3300	4600	7000	7600	3300	14300	13000	6200	2400	2700	70500.00	106	279	303860-00	THOMPSON, GARY & JAN	08	03860	610 CLAY STREET
303870-00													0.00	0	0	303870-00	ELLUL, MICHAEL & JAMIE	08	03870	604 CLAY STREET
303870-01													0.00	0	0	303870-01	REID ROGER AND LINDA	03	03870.01	604 CLAY
303870-02													0.00	0	0	303870-02	CALKINS, BRIAN & CINDY	03	03870.00	604 CLAY STREET
303870-03						100	4700	4800	5000	2100			16700.00	0	91	303870-03	MOREHOUSE, GARY	08	03870.01	604 CLAY STREET
303880-00	100	300	100	100	100	400		4600	5000	100	900		11700.00	8	55	303880-00	ANDERSON, DORA	08	03880	617 CLAY STREET
303890-00						3200							3200.00	0	17	303890-00	LEIVESTAD, RUSSLYN A	08	03890	614 CLAY STREET
303890-01				4800			4400	7600	700	13900	3100	300	34800.00	45	145	303890-01	EPLIN, EVELYN	03	03890.01	614 CLAY STREET
303900-00	5300	2100	4400	3700	1700	2400	3600	1600	2000	1800	4100	4200	36900.00	131	71	303900-00	VICK, KENNETH & PHYLLIS	08	03900	622 CLAY STREET
303910-00	4000	4400	4500	4400	4300	3400	5000	5000	6000	5400	3900	4900	55200.00	144	158	303910-00	HERREID, TODD & ANITA	08	03910	625 CLAY STREET
303910-01													0.00	0	0	303910-01	CHURCH, LARRY	03	03910.00	625 CLAY STREET
303910-02													0.00	0	0	303910-02	MAJESTIC MONTANA PROPERTIES	03	03910.01	625 CLAY STREET
303921-00													0.00	0	0	303921-00	CONWAY, RICHARD	08	03921	626 CLAY STREET
303930-00	2700	2500	2400	1500	2500	1800	2000	2000	1500	1600	4000	2200	26700.00	85	62	303930-00	HAMEL, RON	08	03930	202 CHURCH STREET
303940-00													0.00	0	0	303940-00	DYKSTRA, DAVID	08	03940	201 CHURCH STREET
303950-00	4400	3700	1200	9700	2100	8500	9800	17400	18000	10400	5200	3600	94000.00	154	360	303950-00	SHEAR, CATHY	08	03950	208 CHURCH STREET
303960-00	10900	7300	2700	10900	3100	9600	14400	36900	36000	40900	9600	8600	190900.00	276	766	303960-00	SAINT, STEVEN G. & BARBARA L.	08	03960	214 CHURCH STREET
303960-01													0.00	0	0	303960-01	FANNIE MAE	03	03960.00	214 CHURCH
303960-02													0.00	0	0	303960-02	DAWSON, WALTER	03	03960.02	214 CHURCH STREET
303970-00	300	1900	600	2800	2000	3100	9300	17500	18000	100	100		55700.00	31	272	303970-00	LILLY, MICHAEL	08	03970	207 CHURCH STREET
303970-01													0.00	0	0	303970-01	WILSON, WILLIAM C.	03	03970.00	207 CHURCH STREET
303980-01													0.00	0	0	303980-01	PENTECOSTAL CHURCH OF GOD	03	03980	215 CHURCH (TRAILER)
303990-00	700	1900	400	1700	1000	900	1600	400	500	4100	900	1700	15800.00	40	46	303990-00	PENTECOSTAL CHURCH OF GOD	08	03990	414 HALEY AVENUE E
304000-00													0.00	0	0	304000-00	VOLD, JOY NICOLE	08	04000	307 CHURCH STREET
304000-01	2500	1700	2100	1300	1200	100	8000	9800	15000	11000	38000	1800	92500.00	262	245	304000-01	CARTER, JEAN ADELE	03	04000.01	307 CHURCH STREET
304010-00	1200	800	1100	900	800	1200	1400	700	700	2600	1000	1200	13600.00	34	40	304010-00	CHRISTIAN CHURCH	08	04010	306 CHURCH STREET
304020-00	5000	4600	5600	4300	4500	5200	3800	5000	8000	6100	3100	3900	59100.00	146	177	304020-00	KEEFE, RHODA	08	04020	313 CHURCH STREET
304025-00	3000	2600	1800	1400	1600	600	9700	9800	3200	700	600	1600	36600.00	61	139	304025-00	KEEFE, RHODA (APARTMENT)	08	04025	313 1/2 CHURCH STREET
304030-00													0.00	0	0	304030-00	YODER, JOEL & ERMA	08	04030	318 CHURCH STREET
304030-01													0.00	0	0	304030-01	TRIPLETT JUDY	03	04030.01	318 CHURCH
304030-02	5600	5500	7400	6800	6000	5700	6000	4800	2000	10200	4200	4800	69000.00	190	189	304030-02	ROWE, CHARLOTTE	03	04030.03	318 CHURCH STREET
304030-03													0.00	0	0	304030-03	TRIPLETT, JACK & MARGARET	03	04030.02	318 CHURCH STREET
304040-00	3300	2800	3600	4900	2800	9000	10900	11300	1200	33400	2900	2800	88900.00	112	373	304040-00	HAMILTON, JUNE	08	04040	319 CHURCH STREET
304050-00													0.00	0	0	304050-00	PARDEE, CHAD & LEANNA	08	04050	330 CHURCH STREET
304050-01													0.00	0	0	304050-01	WULFEKUHLE AL	03	04050.01	330 CHURCH
304050-02													0.00	0	0	304050-02	JCLB INVESTMENTS	03	04050.00	330 CHURCH STREET
304050-03													0.00	0	0	304050-03	BELLUSCI, CARMEN	03	04050.03	330 CHURCH STREET
304050-04	2300	1700	2500	2200	2200	2000	6100	12100	13000	5700	1900	2700	54400.00	73	223	304050-04	WILTSE, JACQUE & SHIRLEY	08	04050.01	330 CHURCH STREET
304060-00													0.00	0	0	304060-00	EPPERSON, ZACHARY	08	04060	403 CHURCH STREET
304060-01													0.00	0	0	304060-01	HENDRICKSON-SWARTHOUT SANDY	03	04060.01	403 CHURCH
304060-02													0.00	0	0	304060-02	SNYDER, BRUCE	03	04060.00	403 CHURCH STREET
304060-03	3000	800	3200	2700	2100	3300	5800	8000	8600	5000	2500	2300	47300.00	80	178	304060-03	WINE, LEROY N. & KAYLEEN R.	08	04060.01	403 CHURCH STREET
304070-01													0.00	0	0	304070-01	FAULKNER, WALT	03	04070	406 CHURCH
304080-00									2700				2700.00	0	15	304080-00	FAULKNER, WALT	08	04080	408 CHURCH STREET
304090-00	5400	4700	6000	4700	4500	4400	4100	6200	7500	4900	4300	4300	61000.00	162	172	304090-00	STONE, EILEEN	08	04090	415 CHURCH STREET
304100-01													0.00	0	0	304100-01	NORTON, KEN	03	04100	416 CHURCH STREET
304111-00	6300	4200	5600	4900	5100	11200						3000	40300.00	133	89	304111-00	WILSON, JOHN & MELISSA	08	04111	426 CHURCH STREET
304111-01													0.00	0	0	304111-01	CRISTALDI, TERI	03	04111.00	426 CHURCH STREET
304111-02													0.00	0	0	304111-02	JANES J. MATHEW & SHELLEY RAYE	03	04111.01	426 CHURCH
304111-03							275100	191400	300				466800.00	0	2537	304111-03	AMERICAN DREAM REALTY	03	04111.02	426 CHURCH STREET
304115-00	1100	800	1000	1000	1000	3000	1900	9900	1000	20200	1300	1000	43200.00	34	201	304115-00	LACY, GLENN	08	04115	511 4TH AVE EAST
304120-00	2700	2000	2600	2400	2300	2300	2400	2300	3000	2500	2200	1900	28600.00	76	80	304120-00	BURRELL, DON	08	04120	504 CHURCH STREET
304130-00													0.00	0	0	304130-00	FARGHER, RICHARD AND VALERIE	08	04130	509 CHURCH STREET
304130-01													0.00	0	0	304130-01	ALDRICH EVELYN	03	04130.01	509 CHURCH
304130-02	1200	7900	3000	6900	800	2000	3000	200	500	1500	3200	600	30800.00	126	43	304130-02	ELLIOTT, GEORGE & LINDA	08	04130.01	509 CHURCH STREET
304135-00	1900	1300	2200	1500	1400	2700	2100	3500	4000	2800	1400	1600	26400.00	55	90	304135-00	ELLIOTT, GEORGE & LINDA	08	04135	511 CHURCH STREET
304135-01													0.00	0	0	304135-01	ALDRICH EVELYN	03	04135.01	511 CHURCH

304140-00	7700	9800	5700	16400	13500	12000					8000	9200	82300.00	314	139	304140-00	STEWART, NANNIE R.	08	04140	512 CHURCH STREET
304140-01													0.00	0	0	304140-01	SEEK-A-WAY INC	03	04140.01	512 CHURCH STREET
304150-00													0.00	0	0	304150-00	MERRIMAN, TROY & APRIL	08	04150	519 CHURCH STREET
304150-01	3000	800	2600	2700	2700	1700	3200	4500	5000	5800	2600	2500	37100.00	78	124	304150-01	MONROE, KAREN	03	04150.01	519 CHURCH STREET
304150-02													0.00	0	0	304150-02	CROWE, CHRIS	03	04150.02	519 CHURCH STREET
304160-00	9800	7700	8400	9100	8100	6900	10800	9700	9400	10100	6200	6100	102300.00	261	299	304160-00	COX, TOOTIE	08	04160	414 5TH AVE EAST
304170-00													0.00	0	0	304170-00	FRANCK, BRANDEN & ERICA	08	04170	507 5TH AVE EAST
304170-01													0.00	0	0	304170-01	BASHAM, MIKE & WANDA	03	04170.01	507 5TH AVE EAST
304170-02							1200						1200.00	0	7	304170-02	STEWART CASANDRA & CARLSON BRAD D.	03	04170.02	507 5TH AVE EAST
304170-03													0.00	0	0	304170-03	HANDFORD, DANIEL E. & BETTY JO	03	04170.03	507 5TH AVE EAST
304170-04													0.00	0	0	304170-04	BANK OF AMERICA N.A.	03	04170.04	507 5TH AVE EAST
304180-00	4900	4100	4000	4100	3200	8000	12300	22200	22500	14600	3700	4000	107600.00	137	450	304180-00	DELONG, PAUL & DONNA	08	04180	603 CHURCH STREET
304190-00	3200	2200	2700	2400	2300	2800	23400	33500	34000	30000	2500	3000	142000.00	88	685	304190-00	SPARKS, DAVID G.	08	04190	610 CHURCH STREET
304195-00	8900	5100	6200	4800	5300	3600	5300	6400	6700	6700	5100	4500	68600.00	191	185	304195-00	SHARP, GREG	08	04195	609 CHURCH STREET
304200-00													0.00	0	0	304200-00	KELLY, TIMOTHY J	08	04200	617 CHURCH STREET
304200-01					3800	5700	1700	1800	2000	3900	1400		20300.00	8	103	304200-01	MARICH, JAMES	03	04200.01	617 CHURCH STREET
304210-00	9000	6900	10500	8800	9100	9500	10400	6700	7000	6200	5000	5500	94600.00	252	266	304210-00	BENNETT DAVE - SALEESH	08	04210	510 BIGHORN DRIVE
304220-00	10900	9000	11100	9500	9300	10800	7700	6600	7500	12800	8400	35700	139300.00	467	297	304220-00	BENNETT DAVID - MOUNTAIN HOUSE	08	04220	507 BIGHORN DRIVE
304220-M1	5600	4900	6400	5400	5000	5500	4300	3900	4500	6600	4300	5600	62000.00	178	162	304220-M1	BENNETT DAVE - MOUNTAIN HOUSE	08	0422001	507 BIGHORN DRIVE
304220-M2	5300	4100	4700	4100	4300	5300	3400	2700	3000	6200	4100	4500	51700.00	148	135	304220-M2	BENNETT DAVE - MOUNTAIN HOUSE	08	0422002	507 BIGHORN DRIVE
304225-00	1800	1400	1900	2000	2100	9700	9800	32100	45800	18200	2500	1900	129200.00	64	640	304225-00	FARRINGTON, HAROLD & BARBARA	08	04225	525 BIGHORN DRIVE
304230-00	7300	3900	5500	4600	4200	4000	7700	13800	16300	6300	4100	3800	81500.00	161	284	304230-00	WADSWORTH, LARRY	08	04230	530 BIGHORN DRIVE
304240-00	2100	6200	2000	1900	1500	1900	7800	14500	16200	7900	2300	2500	66800.00	94	271	304240-00	PARKS, DAN	08	04240	538 BIGHORN DRIVE
304246-00	5600	3900	5200	4000	6000	9900	26600	49200	50000	8600	3800	3700	176500.00	145	817	304246-00	ROBINSON, DUSTIN & CHRISTINE	08	04246	549 BIGHORN DRIVE
304246-01													0.00	0	0	304246-01	NORMANDEAU, BECKI	03	04246.01	549 BIGHORN DRIVE
304250-00	2500	2300	2600	2700	2700	4200	10800	14500	14000	17600	1600	2000	77500.00	76	347	304250-00	DERENBURGER LONNA & ROBERTS RANDY	08	04250	546 BIGHORN DRIVE
304253-00	1700	1900	2500	2100	1800	3000	1900	1400	1600	1900	2000	1900	23700.00	67	63	304253-00	DARBY JR, ORVILLE L	08	04253	102 KOO KOO SINT COURT
304253-01													0.00	0	0	304253-01	SHRYNE, TIM & JO	03	04253.00	102 KOO KOO SINT COURT
304257-00				300	2100	2100	3100	6000	7000	7000	6600	2700	36900.00	53	148	304257-00	MCEWEN, ARTHUR	08	04257	205 KANIKSU CT
304260-00	8400	4700	5900	8200	2400	12300	17000	24800	25000	12000	11700	10900	143300.00	275	508	304260-00	HOEKEMA, STAN & EMERYL	08	04260	104 KOOKOO SINT COURT
304261-00			1300	4400	4700	4800							15200.00	31	52	304261-00	CORK, COURTNEY B	08	04261	105 KANIKSU CT
304261-01													0.00	0	0	304261-01	FRY, NATHANIEL & CHELLE	03	0426101	105 KANIKSU CT
304261-02													0.00	0	0	304261-02	WOOD, RANDY A.	03	04261.00	105 KANIKSU CT
304261-03													0.00	0	0	304261-03	US BANK NATIONAL ASSN ND	03	04261.01	105 KANIKSU CT
304261-04													0.00	0	0	304261-04	ORCHARD TERRACE ESTATES LLC % LAMCO	03	04261.02	105 KANIKSU CT
304261-05												200	200.00	1	0	304261-05	AMERICAN DREAM REALTY	03	04261.03	105 KANIKSU CT
304262-00	1300	1000	1700	500	700	1400	1500	5900	600	8000	900	800	24300.00	34	98	304262-00	STEPHENS, TRAVIS D.	08	04262	605 BIGHORN DRIVE
304262-01													0.00	0	0	304262-01	MILLS CHUCK	03	04262.01	605 BIGHORN DRIVE
304262-02													0.00	0	0	304262-02	CONRAD, DALE	03	04262.02	605 BIGHORN DRIVE
304262-03													0.00	0	0	304262-03	WOOD, DEBBIE DION	03	04262.03	605 BIGHORN DRIVE
304262-04													0.00	0	0	304262-04	LOWE, JOHN & AMANDA	03	04262.00	605 BIGHORN DRIVE
304262-05													0.00	0	0	304262-05	WELLS FARGO HOME MTG CO	03	04262.04	605 BIGHORN DRIVE
304262-06													0.00	0	0	304262-06	HUD	03	04262.05	605 BIGHORN DRIVE
304264-00	1300	800	1200	700	1000	900	5100	10100	10000	11500	1200	500	44300.00	31	210	304264-00	TURK, CAROL	08	04264	101 KOOKOO SINT COURT
304266-00													0.00	0	0	304266-00	WHITEFISH CREDIT UNION	08	04266	108 KANIKSU CT
304266-01	6300	5000	5600	5000	1800	8400	9000	6700	8000	39900	4600	4300	104600.00	170	401	304266-01	SCHILLING, DAVID & CATHY	08	04266.01	
304266-02													0.00	0	0			10		108 KANIKSU CT
304267-00	8400	6200	8600	5500	6700	7300	14000	30100	32000	33200	6700	5500	164200.00	226	670	304267-00	VAUGHT, KEVIN	08	04267	106 KANIKSU CT
304268-00	3600	2000	2600	1800	1700	15500	14300	17100	18500	37600	1700	1300	117700.00	72	569	304268-00	EGGENSPERGER, TOM	08	04268	102 KANIKSU CT
304280-00	9100	7100	9600	6500	4300	5400	8600	9900	10000	17400	4800	3700	96400.00	225	302	304280-00	KEPPNER, THOMAS & MILDRED	08	04280	610 BIGHORN DRIVE
304280-01													0.00	0	0	304280-01	BONNES RICHARD & JEAN	03	04280.01	610 BIGHORN DRIVE
304290-00	7300	5600	6900	5500	6100	5100	10500	10100	12000	24200	5000	4600	102900.00	193	370	304290-00	PIRKER, RANDY	08	04290	106 BIG BUCK DRIVE
304310-00	5000	100	300		1600	33900	36900	54300	57000	48000	7600	1000	245700.00	77	1259	304310-00	NEAL, GERALD & DONNA	08	04310	777 GRIZZLY DRIVE
313110-00	1900	1000	2600	2900	1600	7300	5900	8000	8500	6800	2500	2000	51000.00	71	207	313110-00	WILSON, GLENN	08	13110	611 GRIZZLY DRIVE
313130-00	6600	4900	6700	5900	5300	7200	5800	5800	1800	16700	4600	4200	75500.00	182	232	313130-00	MILNER, LARRY & THERESA	08	13130	600 GRIZZLY DRIVE
313140-00						13200	13900	32700	43400	20200	1000		124400.00	6	671	313140-00	TALLANT DAVID L & DRESSEL LAURA	08	13140	555 GRIZZLY DRIVE
313140-01													0.00	0	0	313140-01	BUTCHER THOMAS	03	13140.00	555 GRIZZLY DRIVE
313150-00													0.00	0	0	313150-00	HINCK, TROY & ALICE	08	13150	551 GRIZZLY DRIVE
313150-01													0.00	0	0	313150-01	THOMPSON, MICHAEL & KARI	03	13150.00	551 GRIZZLY DRIVE
313150-02	1400	1200	1500	1800	600	1100	1000	900	1000	1600	1100	800	14000.00	43	34	313150-02	RATTRAY , LARRY D. & ELIZABETH P.	03	13150.01	551 GRIZZLY DRIVE
313160-00	3000	2500	3200	2800	2100	3100	3000	2700	3000	2700	3100	2300	33500.00	93	90	313160-00	CUDDY, WILLIAM & LOIS	08	13160	556 GRIZZLY DRIVE
313170-00													0.00	0	0	313170-00	BRUSE, PATRICK M	08	13170	543 GRIZZLY DRIVE
313170-01	3300	2500	3000	2500	3000	3300	9200	15400	13200	2100	1400	2800	61700.00	86	251	313170-01	BACHMANN, KENT	03	13170.01	543 GRIZZLY DRIVE
313171-00	4700	3600	5000	3000	3400	7000	3500	3700	3000	17600	3100	3000	60600.00	124	208	313171-00	WORTH, LAURIE & EARL	08	13171	542 GRIZZLEY DRIVE
313210-00													0.00	0	0	313210-00	JACOBSON, CLETUS A.	08	13210	537 GRIZZLY DRIVE
313210-01													0.00	0	0	313210-01	UNITED STATES OF AMERICA, ACTING	03	13210.01	537 GRIZZLY DRIVE
313215-00		4000	2700	4500	3400	5000				1600			21200.00	62	54	313215-00	WEBSTER KELLY AND ABERCROMBIE KATHRYN	08	13215	525 GRIZZLY DRIVE
313215-01													0.00	0	0	313215-01	EPPERSON, ZARACH	03	13215.01	525 GRIZZLY DRIVE
313215-02													0.00	0	0	313215-02	SHEPHERD, JAILEEN	03	13215.02	525 GRIZZLY DRIVE
313215-03							25700	7000	6000				38700.00	0	210	313215-03	HAGEMO, THEODORE J	03	13215.03	525 GRIZZLY DRIVE
313220-00													0.00	0	0	313220-00	BOON, BLAKE E	08	13220	511 GRIZZLY DRIVE
313220-01													0.00	0	0	313220-01	BRIGHT, NATHAN	03	13220.01	511 GRIZZLY DRIVE
313220-02													0.00	0	0	313220-02	BREITHAUPT, KURT & PAULA	03	13220.00	511 GRIZZLY DRIVE
313220-03	2900	1600	2200		500	400	21800	41800	59700	14500	2000	900	148300.00	53	754	313220-03	PETTIS, ROBERT D & GAYE J	03	13220.02	511 GRIZZLY DRIVE
313400-00	1800	1400	1900	1400	1200	1600	1500	1400	1200	2300	1400	1300	18400.00	51	50	313400-00	CURRY, DONNA J.	08	13400	504 GRIZZLY DRIVE
313400-01													0.00	0	0	313400-01	NETZ, ALAN	03	13400.01	504 GRIZZLY DRIVE
313420-00	6500	4900	6000	5200	4700	5100	5900	4900	4500	7000	4400	5000	64100.00	177	174	313420-00	HADDIX, JEFFREY L & PATRICIA G	08	13420	520 GRIZZLEY DRIVE
313420-01													0.00	0	0	313420-01	GORDON, JAMES E.	03	13420.00	520 GRIZZLEY DRIVE
404270-00	10600	7500	11100	9900	9400	16300	26900	41800	56000	14800	7000	8200	219500.00	300	898	404270-00	DAHLKE, GARY	08	04270	511 5TH AVE EAST
404280-00				3500	5100	3700							12300.00	19	48	404280-00	BARTLETT, ROLAND E & WHITNEY N	08	042801	533 MAPLE STREET
404280-01													0.00	0	0	404280-01	ISHAM, DONALD	04	04280.01	533 MAPLE STREET
404290-00													0.00	0	0	404290-00	LEIVESTAD, RUSSLYN A	08	042901	534 MAPLE STREET
404290-01	300		800	2500	3700	3400	33400	4400	4500	364400	29200	3200	449800.00	199	2249	404290-01	CHENEY, RUTH	08	042901.01	534 MAPLE STREET
404300-00	6500	3800	5100	4100	3400	5200	15500	36700	48100	12800	4300	3500	149000.00	151	661	404300-00	KINKADE, RUSTY	08	04300	526 MAPLE STREET
404305-00	8100	6500	7900	6500	6800	5900	12600	21400	29200	9500	6300	6000	126700.00	228	464	404305-00	GILBERT, AMY J	08	04305	512 5TH AVENUE E
404305-01													0.00	0	0	404305-01	BENNETT, GLORIA D.	04	04305.00	512 5TH AVENUE E
404310-00	6800	4200	5000	4300	5000	4800	4800	4100	4100	100	3800	4400	51400.00	157	124	404310-00	CONLIN, JAMES	08	043101	514 5TH AVE EAST
404320-00	5200	3100	4300	3200	3200	2200	4000	4000	4000	6200	2900	2800	45100.00	119	128	404320-00	MOREHOUSE, GARY	08	04320	520 MAPLE STREET
404330-00	3500	3600	200	100	1500	600	7100			9800	9000	2400	37800.00	104	103	404330-00	HOEFT, JERRILEE SQUIRE	08	04330	515 MAPLE STREET
404440-00	1100	1800	1900	1400	1400	1700	2000	2700	2500	1800	1000	1200	20500.00	46	66	404440-00	SCOTT, FRANCES	08	04440	215 ADAMS STREET
404440-01													0.00	0	0	404440-01	DENISON, LOIS J.	04	04440.00	215 ADAMS STREET
404450-00													0.00	0	0	404450-00	VULLES, MICHAEL B	08	04450	216 ADAMS STREET
404455-01													0.00	0	0	404455-01	VULLES MICK	04	04455	218 ADAMS STREET
404460-00													0.00	0	0	404460-00	STOVER, JEREMY & SARAH	08	04460	221 ADAMS STREET
404460-01													0.00	0	0	404460-01	LADD JAMES & LOIS	04	04460.01	221 ADAMS STREET
404460-02													0.00	0	0	404460-02	POWELL, ALICE	04	04460.00	221 ADAMS STREET
404470-00													0.00	0	0	404470-00	ARRANTS STAN & EVA	08	04470	608 HALEY AVENUE E
404480-00							1000			100			1100.00	0	6	404480-00	THORNHILL, ROBERT & BRENDA	08	04480	514 HALEY AVENUE E
404480-01													0.00	0	0	404480-01	SCHWINCK, ALAN	04	04480.01	514 E HALEY AVENUE
404490-00	1200	1400	1900	1300	1200	1000	2300	1500	1500	1800	3700	1000	19800.00	58	51	404490-00	LA FRINIERE, JOYCE	08	04490	305 ADAMS STREET
404500-00	4300	3800	2800	4000	1800	4300	15200	16300	10000	7000	3000	2800	75300.00	114	297	404500-00	SHARP, RONALD & BONNIE	08	04500	607 HALEY AVENUE E

404505-00						1100	30300	43900	58400	20600			154300.00	0	839	404505-00	SHARP RONALD & BONNIE	08	04505	308 ADAMS STREET
404510-00	1100	5900	4300	600			3400	2000	1100	8000	3200	3300	32900.00	102	79	404510-00	HARRIS, TOM	08	04510	317 ADAMS STREET
404520-00	4800	2000	5200	2500	2500	6800	5200	3600	4500	19700	2900	4800	64500.00	123	230	404520-00	TAYLOR, JANE	08	04520	329 ADAMS STREET
404520-01													0.00	0	0	404520-01	SULLIVAN M J	04	04520.01	329 ADAMS STREET
404520-02													0.00	0	0	404520-02	LARSEN, WANDA K.	04	04520.00	329 ADAMS STREET
404530-00	7700	5400	7800	3600	6000	5800	8400	10600	10000	2800	5500	5300	78900.00	195	237	404530-00	NELSON, WILLIAM A. & TERESA J.	08	04530	409 ADAMS STREET
404530-01													0.00	0	0	404530-01	HOOTEN CHERIE	04	04530.00	409 ADAMS STREET
404530-02													0.00	0	0	404530-02	HOOTEN, DANIEL & LEANN	04	04530.02	409 ADAMS STREET
404540-00													0.00	0	0	404540-00	ALDERETE, ANGELO & SABRE	08	04540	708 HALEY AVENUE E
404540-01	1400	1100	1500	900	1200	12300	31100	33400	44600	6700	1300	1100	136600.00	40	703	404540-01	HOFF, MAYNARD	08	04540.01	708 HALEY AVENUE E
404550-00	7100	4800	3200	2200	3800	4800	12700	16900	15000	5700	4500	4600	85300.00	146	320	404550-00	LEAF, BODIE	08	04550	102 GOLF STREET
404550-01													0.00	0	0	404550-01	GAMETT, HOWARD	04	04550.01	102 GOLF STREET
404550-02													0.00	0	0	404550-02	INTRASPECT INVESTMENTS, LLC	04	0455002	102 GOLF STREET
404560-00	5300	3800	4500	3900	4000	5100	4200	10700	10000	22900	4100	3600	82100.00	139	309	404560-00	FEWKES, DOUGLAS & SUEANNE	08	04560	106 GOLF STREET
404560-01													0.00	0	0	404560-01	PLUMMER, BILL	04	04560.01	106 GOLF STREET
404560-02													0.00	0	0	404560-02	MCKINNEY, SHAWNA	04	04560.00	106 GOLF STREET
404560-03													0.00	0	0	404560-03	MALEY, TOM	04	04560.02	106 GOLF STREET
404570-00	5200	3000	3900	4100	3900	5200	4700	5800	4500	4800	3000	2900	51000.00	122	157	404570-00	SHARP, RONALD	08	04570	109 GOLF STREET
404580-00													0.00	0	0	404580-00	FREEMAN, RONALD & FLORENCE	08	04580	108 GOLF STREET
404580-01													0.00	0	0	404580-01	YOUNG BEA	04	04580.00	108 GOLF STREET
404580-02													0.00	0	0	404580-02	THOMPSON, KIMBERLY R.	04	04580.01	108 GOLF STREET
404580-03													0.00	0	0	404580-03	HURD-BUSH REALTORS	04	04580.02	108 GOLF STREET
404580-04	1400	1200	1700				100		87300	16900	500	500	109600.00	29	567	404580-04	BRYANT, TERRANCE R	04	04580.03	108 GOLF STREET
404580-05													0.00	0	0	404580-05	BARE, VERNON L	04	04580.04	108 GOLF STREET
404580-06													0.00	0	0	404580-06	WELLS FARGO BANK & NORTHWEST TRUSTEE SERVICES	04	04580.05	108 GOLF STREET
404580-07													0.00	0	0	404580-07	VA % MAJESTIC MONTANA PROPERTIES	04	04580.06	108 GOLF STREET
404590-00		100		100	100	2000	3900	13100	11100	16700		100	47200.00	2	255	404590-00	THE CHURCH OF JESUS CHRIST OF LATTER-DAY SANITS	08	04590	210 GOLF STREET
404600-00	3500	3100	4400	3600	3900	26000	32100	35100	8500	2500	2600	3300	128600.00	113	588	404600-00	LOFTHUS, JOSHUA & GILLIAN	08	04600	306 GOLF STREET
404600-01													0.00	0	0	404600-01	FLOTRE, TIMOTHY & TAMARA	04	04600.01	306 GOLF STREET
404605-00						600							600.00	0	3	404605-00	BOUKAL, RUDOLF GEORG	08	04605	307 GOLF STREET
404605-01	1100	1200	1100	600	600		500	400	100	1200	1000	1000	8800.00	33	15	404605-01	DUFFY, CASEY & STEPHANIE	04	04605.01	307 GOLF STREET
404610-00	6000	4100	5600	4800	4500	39500	67000	38900	53900	22300	4300	4100	255000.00	160	1229	404610-00	KELLEY, ROBERT W.	08	04610	310 GOLF STREET
404620-00	3500	2800	3600	3000	3100	2900	10600	19600	18900	26000	2700	2500	99200.00	100	441	404620-00	PAINTER, WINIFRED M	08	04620	211 EDDY STREET
404630-01													0.00	0	0	404630-01	CITY OF THOMPSON FALLS	04	04630	506 GOLF STREET
404640-00	26000	37000	25000	23000	22000	22000	7000	4000	25000	42000	19000	15000	267000.00	801	663	404640-00	SCHOOL DISTRICT #2 - HIGH SCHOOL	08	04640	601 GOLF STREET
404645-00	2500	1800	3000	2100	2300	20200		4500	8000	8000	2100	2300	56800.00	76	234	404645-00	BOWDINO LAND LLC	08	04645	1199 BEARPAW TRAIL
404645-01							16000						16000.00	0	87	404645-01	BASHAM, MIKE & WANDA	04	04645.00	1199 BEARPAW TRAIL
404650-00	1600	900	1200	700	1000	1900	5900	12900	12000	14300	900	1000	54300.00	35	261	404650-00	WILLIAMS, PEGGY	08	04650	101 HILL STREET
404658-00	3400	2000	1500	3400	2200	3100	10900	14500	14900	16000	1400	2800	76100.00	80	335	404658-00	CLARK STEVE	08	04658	102 HILL STREET
404660-00	5200	3500	4100	3300	4100	5000	5100	4900	5000	4800	5400	4300	54700.00	143	157	404660-00	FIELDS, JIM & DEBRA	08	04660	107 HILL STREET
404670-00	6900	4600	7400	4700	5600	4500	6200	7800	8000	3300	4400	6400	69800.00	190	192	404670-00	MCQUEEN, KENNETH K. & DONNA	08	04670	111 HILL STREET
404670-01													0.00	0	0	404670-01	EGOSQUE JODIE	04	04670.00	111 HILL STREET
404680-00	2600	1900	3300	2000	2400	8600	6500	7000	6000	7700	1800	1700	51500.00	73	208	404680-00	LACY, GLENN	08	04680	116 HILL STREET
404690-01													0.00	0	0	404690-01	LACY, GLENN	04	04690	106 HILL STREET
404700-00	7100	4600	6000	5000	3800	5700	9300	6300	15800	5600	3000	6100	78300.00	176	253	404700-00	FAUSETT JADE & FAUSETT SCARLETT	08	04700	105 ELK STREET
404700-01													0.00	0	0	404700-01	FAUSETT, J. DOUGLAS & TINA M.	04	04700.00	105 ELK STREET
404710-00	4200	2400	3300	3100	3400	6400	9000	14800	28500	10600	3100	2600	91400.00	103	395	404710-00	CRAIG, FRANCIS & MARLENE	08	04710	104 ELK STREET
404720-00	3800	2700	3300	3000	2600	6100	15800	31600	37400	10900	2600	1800	121600.00	95	567	404720-00	RELLER, PEGGY	08	04720	111 ELK STREET
404730-00	5400	3100	4800	3100	3500	4100	5800	10500	16700	4800	3800	3600	69200.00	131	247	404730-00	MARTIN STEPHANIE L & LLYR KRISTIN M	08	04730	108 ELK STREET
404730-01													0.00	0	0	404730-01	FARRINGTON, HAROLD & BARBARA	04	04730.01	108 ELK STREET
404730-02													0.00	0	0	404730-02	FARRINGTON HAROLD	04	04730.02	108 ELK STREET
404730-03													0.00	0	0	404730-03	JOHNSON, DENNIS	04	04730.00	108 ELK STREET
404740-00	4500	2900	4300	3000	3100	4400	6800	14600	24800	9700	3400	3200	84700.00	118	345	404740-00	JOHNSTON, SANFORD L. & LILA A.	08	04740	115 ELK STREET
404740-01													0.00	0	0	404740-01	EMMONS, MARY J.	04	04740.01	115 ELK STREET
404750-00	12300	8200	8000	5500	8100	11600	25200	47000	62200	19100	7800	7400	222400.00	272	941	404750-00	KAZMIERCZAK, RONALD V. & SANDRA L.	08	04750	116 ELK STREET
404760-00	4200	2800	3900	3200	2800	6600	12100	38200	32600	8600	2700	2900	120600.00	109	548	404760-00	WAKEFIELD, LARRY & LINDA	08	04760	118 ELK STREET
404770-00	3300	2200	3200	2700	2600	2900	4700	18900	38800	9300	2500	2400	93500.00	90	420	404770-00	OWENS, RICHARD F & SHAUNA J	08	04770	119 ELK STREET
404770-01													0.00	0	0	404770-01	DENSON, CHARLES III	04	04770.00	119 ELK STREET
404770-02													0.00	0	0	404770-02	HURD-BUSH REALTORS	04	04770.01	119 ELK STREET
404780-00	1100	1600	1800	1200	1100	1400			8400	1100	2200	1100	21000.00	50	65	404780-00	WOODEN, ANN M	08	04780	123 ELK STREET
404780-01													0.00	0	0	404780-01	MODLIN, HARRY & RUTH	04	04780.01	123 ELK STREET
404780-02							100	100					200.00	0	1	404780-02	LADD, JAMES	04	04780.00	123 ELK STREET
404785-00	5400	3200	3800	2600	3600	4300	7600	7200	6600	7800	6900	6000	65000.00	154	202	404785-00	SPAULDING, ROBERT K	08	04785	202 204 BOULDER AVENUE
404785-01													0.00	0	0	404785-01	GAYNOR, DON & NANCY	04	04785.01	202 204 BOULDER AVENUE
404786-00													0.00	0	0	404786-00	HUTCHINGS, CODY	08	04786	206 208 BOULDER AVENUE
404786-01													0.00	0	0	404786-01	GAYNOR, DON & NANCY	04	04786.01	206 208 BOULDER AVENUE
404786-02	3900	2800	3900	3000	3400	3700	7100	6400	8000	5800	4200	3600	55800.00	118	187	404786-02	SPAULDING, ROBERT K	08	04786.01	206 208 BOULDER AVENUE
404790-00	5600	4000	5500	4300	5200	6200	5600	9400	5600	5100	3900	4400	64800.00	153	202	404790-00	DVOROZNAK, DONALD S.	08	04790	122 ELK STREET
404800-00					200	200							400.00	0	2	404800-00	TRAIN, ANTHONY	08	04800	212 BOULDER AVENUE
404800-01													0.00	0	0	404800-01	CRABTREE TOM	04	04800.01	212 BOULDER AVENUE
404800-02							1300	100					1400.00	0	8	404800-02	WHEELER, SHERRY M.	04	04800.00	212 BOULDER AVENUE
404800-03													0.00	0	0	404800-03	FIRST INTERSTATE BANK	04	04800.02	212 BOULDER AVENUE
404800-04													0.00	0	0	404800-04	US DEPARTMENT OF HUD	04	04800.04	212 BOULDER AVENUE
404800-05													0.00	0	0	404800-05	ASSET MANANGEMENT SPECIALISTS	04	04800.03	212 BOULDER AVENUE
404810-00													0.00	0	0	404810-00	BODALY, ROBERT	08	04810	218 BOULDER AVENUE
404820-00	7800	2700	2200	2900	3100		79900	80000	50000	40100	3700	2000	274400.00	118	1376	404820-00	PAULI, JERRY	08	04820	219 BOULDER AVENUE
404840-00													0.00	0	0	404840-00	VAN HUSS, MARK & ANDREA	08	04840	226 BOULDER AVENUE
404840-01													0.00	0	0	404840-01	STICKNEY, WALTER & DELORES	04	04840.00	226 BOULDER AVENUE
404840-02	4600	3000	5000	2900	3900	6000	3300	13200	14000	4500	4400	2900	67700.00	126	244	404840-02	GRIFFITHS, HUGH & SUSAN	04	04840.01	226 BOULDER AVENUE
404850-00	5700	5700	6500	4900	5200	6000	1600				6200	5000	46800.00	188	70	404850-00	MCJUNKIN, DANIEL & MELISSA	08	04850.00	225 BOULDER AVENUE
404850-01													0.00	0	0	404850-01	GILBERT, SHARI L.	04	04850.01	225 BOULDER AVENUE
404850-02													0.00	0	0	404850-02	BENNETT, DAVID S	04	04850.02	225 BOULDER AVENUE
404850-03													0.00	0	0	404850-03	MILLER, WILLIAM NEIL & KAREN H.	04	04850.03	225 BOULDER AVENUE
404855-00	2000	1400	2100	900	1600	31800	35300	46800	48000	45000	2300	1300	218500.00	55	1133	404855-00	HARPER, RITA	08	04855	229 BOULDER AVENUE
404857-01													0.00	0	0	404857-01	CAMPBELL, GARY & SHIRLEY	08	04857	848 HALEY AVENUE E
404860-00	3300	4300	2400	3200	3400	4300	4000	3900	4000	7000	2800	400	43000.00	91	145	404860-00	LANTZ, LESLIE D & JOANN	08	04860	908 HALEY AVENUE E
404860-01													0.00	0	0	404860-01	CHISENHALL ESTATE, ALMA E.	04	04860.00	908 HALEY AVENUE E
404860-02													0.00	0	0	404860-02	SHEPHERD, JAILEEN &	04	04860.01	908 HALEY AVENUE E
404870-00	6400	5800	10500	8100	1500	20200			7700	4600	4400	4500	73700.00	219	185	404870-00	DOOLING, TOM R.	08	04870	916 HALEY AVENUE E
404870-01													0.00	0	0	404870-01	BRAUER VERNETTE	04	04870.00	916 E HALEY AVENUE
404880-00	6300	4300	5600	4300	4300	6700	6000	5800	6500	14400	6000	5000	75200.00	174	238	404880-00	STEFFES-EWEN, JO	08	04880	922 HALEY AVENUE E
404880-01													0.00	0	0			10		
404880-02													0.00	0	0	404880-02	WOOD, RICHARD & LILLY	04	04880.	922 E HALEY AVENUE
404880-03													0.00	0	0			10		
404882-00													0.00	0	0	404882-00	LYONS, RICHARD	08	04882.00	926 HALEY AVE E
404882-01	2700	1700	2600	1200	2300	1900	400	1500	1600	1800	1700	1200	20600.00	61	52	404882-01	PETERS, DALE	08	04882.01	926 HALEY AVE E
404883-00	2100	1600	300	4200	1300	2800	5600	6700	7500	11200	1700	2600	47600.00	69	191	404883-00	GRIFFITHS, HUGH & SUSAN	08	04883	905 HALEY AVENUE E
404883-02													0.00	0	0	404883-02	STICKNEY, WALTER CLINT	04	04883.01	905 E HALEY AVENUE
404885-00													0.00	0	0	404885-00	MAJERUS, GERARD & YVETTE	08	04885	925 HALEY AVENUE E
404885-01													0.00	0	0	404885-01	MARQUES JIM	04	04885.01	925 E HALEY AVENUE
404885-02							34100	41400	10000	900			86400.00	0	470	404885-02	NICHOLS, CHRISTOPHER	04	04885.02	925 HALEY AVENUE E

404890-00					2700	2500							5200.00	0	28	404890-00	CHEESMAN HENRY	08	04890	104 EDDY STREET
404890-01	300	200					200	600	800	300	600	500	3500.00	9	10	404890-01	LAPHAM, ELWOOD	04	04890.01	104 EDDY STREET
404900-00	5300	3200	2000	6300	1800	3900		2200	100	1400	2100	4300	32600.00	128	51	404900-00	LEUFKENS, BUDDY J & JUDY A	08	04900	105 EDDY STREET
404900-01													0.00	0	0	404900-01	WULFEKUHLE, JERRY	04	04900.00	105 EDDY STREET
404904-00	10400	6200	9300	5900	7200	6600	4500	6400	8000	11100	8100	7000	90700.00	259	238	404904-00	SCHOOL DISTRICT #2 - HIGH SCHOOL - NEW ADDITION	08	04904	601 1/2 GOLF STREET
504900-00	500	400	900	400	500	400	800	2900	3500	600	100	400	11400.00	15	47	504900-00	THOMPSON FALLS RURAL FIRE HALL	08	049001	1811 MAIN STREET W
504910-00	1000	200	1300	400	600	200	300	900	1000	200	300	500	6900.00	20	17	504910-00	BLACKFOOT TELEPHONE COOPERATIVE	08	04910	1805 MAIN STREET W
504920-00						200		100	200	100		300	900.00	2	3	504920-00	MUSTER, JOHN & SANDRA - SHOP	08	04920	1705 MAIN STREET W
504930-00													0.00	0	0	504930-00	MUSTER, JOHN & SANDRA	01	04930	1715 MAIN STREET W
504940-00	700	400	600	300	300	300	500	400	600	300	500	300	5200.00	15	13	504940-00	MUSTER'S SHOP	08	04940	1709 MAIN STREET W
504950-01													0.00	0	0	504950-01	DOUGLASS HARLAN	05	04950	1615 W MAIN STREET
504951-01													0.00	0	0	504951-01	HARLAN DOUGLASS	05	04951	815 E ROSEWOOD
504954-00	1400	1600	1300	1100	900	1000	1900	1800	2000	8100	1600	200	22900.00	40	85	504954-00	THOMPSON FALLS AMBULANCE	08	04954	1520 MAIN STREET W
504955-00	100		100	100		200	7500	14800	18000	4900	100	100	45900.00	3	247	504955-00	US POSTAL SERVICE	08	04955	1611 MAIN STREET W
504960-01													0.00	0	0	504960-01	HARLAN D DOULASS	05	04960	104 S POND STREET
504965-00	300	100	300	600	200	200	3500	15300	18700	2500	200	100	42000.00	9	220	504965-00	THOMPSON FALLS MEDICAL CLINIC	08	04965	120 POND STREET S
504970-00													0.00	0	0	504970-00	WHITEFISH CREDIT UNION	05	04970	107 POND STREET S HOUSE
504970-01													0.00	0	0	504970-01	SULARZ, PATRICIA	05	04970.01	107 POND STREET
504975-00			100		6700	10500	13200	21100	27100	14100		100	92900.00	1	504	504975-00	WHITEFISH CREDIT UNION	08	04975	107 POND STREET S - CU
504980-01													0.00	0	0	504980-01	TOWN PUMP INC/LUCKY LIL'S	05	04980	1315 MAIN STREET
504990-00	300	200	300	300	400	500	700	800	1000	500	300	300	5600.00	9	21	504990-00	TOWN PUMP INC.	08	04990	1301 MAIN STREET W
505000-00	1200	3300	2700	2900	1000	3300	2200	1400	6500	4000	1100	1200	30800.00	69	100	505000-00	DOUG'S TRUE VALUE/HEALTH	08	05000	1221 MAIN STREET W
505000-01													0.00	0	0			10		
505000-03													0.00	0	0			10		
505015-00	400	200	400	300	400	300	300	200	200	400	300	200	3600.00	10	10	505015-00	ELLIOTT REALTY	08	05015	1219 MAIN STREET W
505015-01													0.00	0	0	505015-01	LINDA'S GIFTS	05	05015.00	1219 MAIN STREET W
505020-00	800	800	900	1000	900	1000	1200	900	1000	1800	1800	700	12800.00	33	37	505020-00	MANLEY INC	08	05020	1211 MAIN STREET W
505020-01													0.00	0	0	505020-01	FIRST AMERICAN TITLE CO.	05	05020.00	1211 MAIN STREET W
505030-00	77500	55000	83300	61000	61000	41300	40600	44800	48000	48900	119400	41200	722000.00	2417	1547	505030-00	THOMPSON FALLS FEED & FUEL LLP	08	05030	1201 MAIN STREET W
505040-00	1000	400	700	700	600	3200	2600	2900	3200	4300	500	500	20600.00	21	91	505040-00	SANDERS CO CLERK & RECORDER	08	05040	1111 MAIN STREET W
505045-01													0.00	0	0	505045-01	SANDERS CO COURTHOUSE LAWN	05	05045	1111 MAIN
505050-00	2300	1200	1500	1400	2600	1500	1900	1400	2000	2600	1800	1700	21900.00	55	65	505050-00	JOHNSON, RODNEY K.	08	05050	1037 MAIN STREET W
505050-01													0.00	0	0	505050-01	LARRY WADSWORTH	05	05050.01	101 S JEFFERSON STREET
505051-01													0.00	0	0	505051-01	JOHNSON, RODNEY K.	05	05051	1037 MAIN STREET W
505060-00	600	700	1000	300	100	200	600	400	500	400	300	700	5800.00	20	12	505060-00	REX'S THEATER	08	05060	1033 MAIN STREET W
505060-02													0.00	0	0			10		
505070-00	6100	4700	5800	5700	1200	8500	4100	6400	7000	4700	5200	4500	63900.00	177	173	505070-00	CLARK FORK TITLE INC.	08	05070	1029 MAIN STREET W
505070-01													0.00	0	0	505070-01	BURLINGAME, CLAUDE I.	05	05070.01	1029 W MAIN STREET
505080-00		100		100			100	100	200	500	100		1200.00	2	5	505080-00	BLACKFOOT TELEPHONE COOPERATIVE	08	05080	1025 MAIN STREET W
505090-00	3500	2600	3600	2400	2400	2500	5400	2500	3000	2400	1800	2000	34100.00	88	99	505090-00	EGGENSPERGER, TOM	08	05090	1017 MAIN STREET W
505101-00	1400	1800	8100	3200	1500	1300	2400	2700	3000	1200	900	1100	28600.00	91	66	505101-00	PROSPECT PROPERTIES	08	05101	1013 MAIN STREET W
505101-01													0.00	0	0	505101-01	BURLINGAME, CLAUDE I.	05	05101.01	1013 W MAIN STREET
505101-02													0.00	0	0	505101-02	SENNE, GENE D. & NANCY K.	05	05101.02	1013 W MAIN STREET - OLD BANK BUILDing
505110-00													0.00	0	0	505110-00	FIRST SECURITY BANK	08	05110	1003 MAIN STREET W
505110-01													0.00	0	0	505110-01	THOMPSON FALLS HOLDING CO.	05	05110.01	1003 W MAIN STREET
505120-00													0.00	0	0	505120-00	BUCHANAN, SHERLEY & DEBORAH	08	05120	925 MAIN STREET W
505120-01													0.00	0	0	505120-01	METWEST MORTGAGE SERVICES, INC.	05	05120.01	925 MAIN
505130-00	26900	19900	30500	24300	28300	35200	49100	60000	53500	30600	28400	24700	411400.00	855	1395	505130-00	SEXTON INC. DBA MINNIE'S MONTANA CAFE	08	05130	921 MAIN STREET W
505130-01													0.00	0	0	505130-01	BOOMTOWN CAFE, INC.	05	05130.01	921 MAIN
505140-00	13500	8800	9100	11400	8800	9800	8700	10500	1100	18800	9600	7400	117500.00	330	314	505140-00	PARKER NOLAN & LINDA	08	05140	913 MAIN STREET W
505150-00	100		100	300	1600	300	300	400	400	300	100	100	4000.00	4	18	505150-00	MONTANA RAIL LINK - LOCAL	08	05150	902 MAIN STREET W
505160-01													0.00	0	0	505160-01	THOMPSON FALLS PUBLIC LIBRARY DISTRICT	05	05160	911 MAIN STREET W
505170-00	3500	2800	4700	3700	5400	1900	4000	4500	2000	2900	2800	2500	40700.00	110	113	505170-00	DOUG'S TRUE VALUE - BGC CORP	08	05170	907 MAIN STREET W
505180-00	1000	800	1100	900	1200	800	1900	2100	2500	1200	800	800	15100.00	30	53	505180-00	DOUG'S TRUE VALUE/HEALTH	08	05180	901 MAIN STREET W - DOUG'S TRUE VAL
505190-00	1200	1300	1400	1100	800	500	1100	1100	1200	800	700	600	11800.00	35	30	505190-00	MANLEY, SUE	08	05190	811 MAIN STREET W - FALLS FLORAL
505200-00													0.00	0	0	505200-00	MOSHER, JOHN W & BARBARA L	08	05200	809 MAIN STREET W
505200-01	29900	20900	28000	25500	20100	25200	56800	21300	22000	29700	21600	22400	323400.00	819	952	505200-01	MOTHER LODE	05	05200.01	809 MAIN STREET W
505210-00	5600	5700	15500	10100	13000	12900	5500	4600	5000	2300	1500	14400	96100.00	292	235	505210-00	PLASTER VALERIE E. & HANNAN JEFFREY J.	08	05210	807 MAIN STREET W
505220-00	1300	1000	1300	3300	1300	1400	2800	1300	1500	1500	1200	900	18800.00	50	53	505220-00	KARLIN, JAMES	08	05220	801 MAIN STREET W
505220-01													0.00	0	0	505220-01	BOONDOGGLERS	05	05220.00	801 MAIN STREET W
505230-00	13600	9200	6400	3900	6600	4500	27300	2100	2500	71900	14500	10900	173400.00	323	624	505230-00	LAI, JERRY	08	05230	709 MAIN STREET W
505230-01													0.00	0	0	505230-01	NEW ASIA	05	05230.00	709 MAIN
505230-02													0.00	0	0	505230-02	NICHOLSON ANNETTE	05	05230.02	709 MAIN
505230-03													0.00	0	0	505230-03	PING LAI	05	05230.03	709 MAIN
505240-00	1100	900	1300	1100	1100	400	1400	1500	1500	21900	600	2000	34800.00	39	151	505240-00	FIRST BAPTIST CHURCH	08	05240	705 MAIN STREET W
505250-01													0.00	0	0	505250-01	TRIPLETT - RUMMEL, DIANNE F.	05	05250	701 W MAIN STREET
505260-01	1400	1200	2000	1500	1900	1400	1000	2500	3000	1500	1600	1300	20300.00	50	61	505260-01	RON'S CHEVRON	05	05260	606 MAIN STREET W
505265-00	7400	5200	7800	6900	7300	11200	15000	13500	14000	11100	6400	5900	111700.00	219	392	505265-00	TOTZAUER, DAVID	08	05265	105 BROAD STREET S
505265-02													0.00	0	0	505265-02	BURGER EXPRESS	05	05265.01	105 S BROAD STREET
505270-00	3000	800	1800	3000	100	500	8000	800	1000	2500	6800	1400	29700.00	93	70	505270-00	LITTLE BITTERROOT SERVICES INC.	08	05270	607 MAIN STREET W
505270-01													0.00	0	0	505270-01	EGGENSPERGER, JACK	05	05270.01	607 W MAIN STREET
505275-00	1100	1300	1600	1400	1300	1300	4700	4200	2000	2900	1200	1400	24400.00	44	89	505275-00	THOMPSON, GINGER	08	05275	110 HILL STREET S
505275-01													0.00	0	0	505275-01	MCMURRAY, ANGELA	05	05275.00	110 S HILL STREET
505275-02													0.00	0	0			10		
505278-00	1100	800	1000	800	900	2100	3100	8400	7900	11500	2700	900	41200.00	40	184	505278-00	LEUFKENS, BUD & JUDY	08	05278	111 BROAD STREET S
505280-00	4000	3300	3900	3000	2300	1800	3000	3300	3500	4000	3600	3200	38900.00	116	97	505280-00	EGGENSPERGER, TOM & BINA	08	05280	603 MAIN STREET W
505290-00	100	100		300	200	200	100	200	300		100	100	1700.00	4	5	505290-00	EGGENSPERGER, TOM & BINA	08	05290	601 MAIN STREET W
505290-01													0.00	0	0	505290-01	FRANKE, ERNIE	05	05290.00	601 W MAIN STREET
505300-00													0.00	0	0	505300-00	THOMPSON, GINGER R	08	05300	105 HILL STREET S
505300-01													0.00	0	0	505300-01	PIERCE ANN	05	05300.00	105 HILL STREET S
505300-02													0.00	0	0	505300-02	THOMPSON, GINGER RENEE'	05	05300.01	105 HILL STREET S
505300-03													0.00	0	0	505300-03	WELLS FARGO HOME MORTGAGE	05	05300.02	105 HILL STREET S
505310-00	1500	8000	900	7600	2400	6200	12100	2800	3000		1500	3700	49700.00	128	144	505310-00	LEUFKENS, BUDDY & JUDY	08	05310	109 HILL STREET S
505320-00	8300	5500	7400	5700	6800	6700	8900	9300	9500	10200	7400	7500	93200.00	231	279	505320-00	THOMPSON, GINGER RENEE'	08	05320	511 MAIN STREET W
505320-01													0.00	0	0	505320-01	PIERCE, ROBERTA ANN	05	05320.01	511 MAIN
505320-02													0.00	0	0	505320-02	PIERCE, ROBERTA ANN	05	05320.00	511 MAIN STREET W
505321-00	5500	4200	5100	3600	3500	3600	3700	3600	7400	3900	4600	4400	53100.00	151	140	505321-00	THOMPSON, GINGER RENEE'	08	05321	103 HILL ST
505321-01													0.00	0	0	505321-01	PIERCE, ROBERTA ANN	05	05321.00	511 MAIN STREET W
505330-00													0.00	0	0	505330-00	STOLZ, COURTNEY	08	05330	505 MAIN STREET W
505330-02	2800	2000	2500	2000	2600	4800	8400	9900	7500	12000	3200	2400	60100.00	82	246	505330-02	WIEGELE JAMES L & MOORE-WIEGELE DAGMAR R	05	05330.02	505 MAIN STREET W
505331-00													0.00	0	0	505331-00	STOLZ, COURTNEY	08	05331	507 MAIN STREET W
505331-01													0.00	0	0	505331-01	VALLEY BANK	05	05331.02	507 MAIN STREET
505331-02													0.00	0	0	505331-02	MUD ENTERPRISES, LLC.	05	05331.01	507 MAIN STREET
505331-03													0.00	0	0	505331-03	PLANTS GALORE	05	05331.03	507 MAIN STREET W
505340-00	700	700	900	700	700	600	700	2900	2700	500	600	600	12300.00	23	44	505340-00	LONE STAR LODGE	08	05340	501 MAIN STREET W
505350-00	1400	4000	2000	2200	300	3000	4000	3900	4000	4000	1900	2600	33300.00	78	104	505350-00	PARKER, NOLAN	08	05350	108 FERRY STREET S
505360-00	3600	3000	2500	2500	2700	3100	8100	20500	26400	2700	1800	3800	80700.00	95	345	505360-00	GARRISON, GLENN & SUZANNE	08	05360	409 MAIN STREET W
505370-00	3700	2400	3300	2400	2200	3800	4300	3800	3900	3300	3800	2900	39800.00	102	116	505370-00	NELSON, PAULA	08	05370	405 MAIN STREET W
505380-00													0.00	0	0	505380-00	STOLTZ, STEVEN LEE & TERRILEE	08	05380	401 MAIN STREET W
505380-02	400	400	500	400	300	300	700	700	600	1000	500	500	6300.00	15	20	505380-02	KELLEY, ROBERT	05	05380.01	401 MAIN STREET W
505390-00													0.00	0	0	505390-00	VINKEY, RAY S.	08	05390	109 PINE STREET S

505390-01													0.00	0	0	505390-01	DEACON, JESSE & ANGELA	05	05390.00	109 PINE STREET
505390-02													0.00	0	0	505390-02	PARKS, DAN & CARLA	05	05390.02	109 S PINE STREET
505390-03													0.00	0	0	505390-03	HENDRICKSON, ALTON P.	05	05390.01	109 PINE STREET
505390-04	2200					200	900	6100	5900	3100	300	900	19600.00	19	88	505390-04	COVINGTON, KELLY M & JENNIFER E	08	05390.01	109 PINE STREET S
505400-00	9000	6800	8700	6700	6800	6200	3000	3400	3000	8500	8000	7900	78000.00	260	168	505400-00	GUTIERREZ, THERESA	01	05400	309 MAIN STREET W
505410-00	4700	3300	4600	3900	4100	3200	3100	2800	2000	4200	2100	3000	41000.00	119	105	505410-00	PARKS, DAN & CARLA	08	05410	303 MAIN STREET W
505420-00	3200	2600	2600	1000	4800	6700	2400	1100	400	5000	2300	2700	34800.00	80	111	505420-00	SCHAEFER ENTERPRISES	08	05420	301 MAIN STREET W
505420-01													0.00	0	0	505420-01	CABRERA RAY & MONA CLAIRE	05	05420.00	301 MAIN STEET
505422-00	200	300	300	200	300	300	400	200	300	300	200	300	3300.00	8	10	505422-00	HAGEDORN LAND SURVEYING INC	08	05422	108 PEARL STREET S
505422-01													0.00	0	0	505422-01	MAKING A WAY	05	05422.01	108 PEARL STREET
505422-02													0.00	0	0	505422-02	CHAMBLIN JOHN	05	05422.02	108 PEARL
505425-00						700	900			900	400	200	3100.00	3	14	505425-00	RINALDI, MICHAEL S	08	05425	109 PEARL STREET S
505425-01													0.00	0	0	505425-01	CHAMBLIN, JOHN S. & CHERYL L.	05	05425.01	109 PEARL STREET
505425-03													0.00	0	0	505425-03	CULBERTSON, DAVE	05	05425.03	109 PEARL STREET
505427-00													0.00	0	0	505427-00	HUTCHINGS, CODY	08	05427	111 PEARL STREET S
505427-01	6400	7900	5700	4000	3700	7100	11700	14700	10500	14000	2900	3500	92100.00	168	335	505427-01	CHEETHAM, CHARLES L.	05	05427.01	111 PEARL STREET S
505427-02													0.00	0	0	505427-02	WHEELER, JIM	05	05427.02	111 PEARL STREET S
505430-00	10700	7000	11400	8200	4800	7100	15300	14000	10000	19900	8400	8500	125300.00	299	386	505430-00	CHEETHAM, CHARLES T.	08	05430	229 MAIN STREET W - LITTLE BEAR
505440-00	1300	1000	1300	1200	1300	2100	1900	900	1000	2400	1000	900	16300.00	37	52	505440-00	ENERGY PARTNERS	08	05440	224 MAIN STREET W
505440-01													0.00	0	0	505440-01	MOUNTAIN WEST COOPERATIVE	05	05440.00	224 MAIN STREET W
505441-00													0.00	0	0	505441-00	CAMPBELL, MARK W & KATRINA W	08	05441	219 MAIN STREET W
505442-00													0.00	0	0	505442-00	CAMPBELL, MARK & KATRINA	01	05442	215 MAIN STREET W
505442-01													0.00	0	0	505442-01	KATO JEAN	05	05442.00	215 MAIN
505442-02													0.00	0	0	505442-02	BRONNER, MARK R. & CYNTHIA L.	05	05442-02	215 W MAIN STREET
505442-03													0.00	0	0	505442-03	WHITEFISH CREDIT UNION	01	05442.01	215 MAIN STREET W
505444-00													0.00	0	0	505444-00	CAMPBELL, MARK & KATRINA	01	05444	201 MAIN STREET W
505444-01													0.00	0	0	505444-01	KELGARD, ROBERT AND JULIE	05	05444.01	201 MAIN
505444-02													0.00	0	0	505444-02	PIERCE, ROBERTA ANN	05	05444.02	201 W MAIN STREET
505444-03													0.00	0	0	505444-03	WHITEFISH CREDIT UNION	01	05444.01	201 MAIN STREET W
505460-00	300	600	900	700	900	500	800	400	100	1200	300	300	7000.00	17	21	505460-00	BENNETT DAVID - OFFICE	08	05460	223 MAIN STREET W
505470-01													0.00	0	0	505470-01	MONTANA RAIL LINK	05	05470	101 EAST CROSSING
505480-00													0.00	0	0	505480-00	NORTHWESTERN ENERGY	08	05480	1625 MAIDEN LANE
505480-01	44000	25000	7000	7000	5000	10000	22000	27000	40000	12000	4000	15000	218000.00	564	630	505480-01	PPL	05	05480.01	1625 MAIDEN LANE
505481-00													0.00	0	0	505481-00	NORTHWESTERN ENERGY	08	05481	1517 MAIDEN LANE
505481-01					100	1300	1800	2600	16700	500			23000.00	0	125	505481-01	PPL	05	05481.01	1517 MAIDEN LANE
505482-00	5500	3700	5300	5800	4600	7500	20100	27700	39300	9200	3600	3700	136000.00	152	589	505482-00	BURKY, BRIAN & COURTNEY	08	05482	1611 MAIDEN LANE
505490-00	200	400	400	200	300	1600	4400	10900	800	46800	800	900	67700.00	16	352	505490-00	DEMMONS, HENRY T.	08	05490	1622 MAIDEN LANE
505490-01													0.00	0	0	505490-01	PHILLIPS, CRAIG	05	05490.01	1622 MAIDEN LANE
505500-00	1300	1000	1100	1000	1100	1200	2000	2200	2000	2800	600	900	17200.00	33	61	505500-00	LIONS MANOR BUS & PROPERTY	08	05500	1600 MAIDEN LANE
505510-00	3100	800	7600	1400	1700	13200	24800	49200	71000	11300	2800	3200	190100.00	104	930	505510-00	BKP PROPERTIES	08	05510	1520 MAIDEN LANE
505510-01													0.00	0	0	505510-01	MCROBERTS GARY	05	05510.01	1520 MAIDEN LANE
505520-00													0.00	0	0	505520-00	GIFFIN, NICHOLAS E.	08	05520	115 POND STREET S
505520-01	4000	3500	3200	4000	5000	4500	8000	6000	5900	5100	7500	6700	63400.00	160	188	505520-01	STRANG, DARYL	05	05520.01	115 POND STREET S
505520-02													0.00	0	0	505520-02	USDA, RURAL DEVELOPMENT	08	05520.01	115 POND STREET S
505530-01													0.00	0	0	505530-01	MONTANA POWER COMPANY	05	05530	124 S POND
505540-01													0.00	0	0	505540-01	MONTANA POWER COMPANY	05	05540	114 S POND & 118 S POND
505550-00	3400	2000	3200	3400	2600	6000	3000	2700	2500	2800	2700	1800	36100.00	91	107	505550-00	LOVELL, RANDY L.	08	05550	1507 MAIDEN LANE
505550-01													0.00	0	0	505550-01	MORROW GARY	05	05550.01	1507 MAIDEN LANE
505560-00	4300	3400	4400	3000		1900	5600	7100	7000	15600	3200	200	55700.00	102	202	505560-00	FREEMAN, WILLIAM C & CHERYL	08	05560	1506 MAIDEN LANE
505560-01													0.00	0	0	505560-01	GRIFFIN, KENT & MARJORIE	05	05560.00	1506 MAIDEN LANE
505570-01													0.00	0	0	505570-01	PARKER, FRANK	05	05570	1510 1/2 MAIDEN LANE
505580-00	5900	4100	1100	8400	1900	6500	6000	16200	15000	12800	5300	4600	87800.00	162	317	505580-00	PARKER, FRANK	08	05580	1512 1/2 MAIDEN LANE
505590-00													0.00	0	0	505590-00	FREED, CELIA	08	05590	1417 MAIDEN LANE
505590-01	400	400		200	1200	700	20200	84700	107700	15600	800	400	232300.00	12	1251	505590-01	MOORE, MYRTLE	05	05590.01	1417 MAIDEN LANE
505600-00	7200	5900	8300	6000	10600	6600	7700	8600	8000	15200	6200	5800	96100.00	218	308	505600-00	HAGEDORN, RICKY & ROBIN	08	05600	204 LINCOLN STREET S
505600-03													0.00	0	0	505600-03	MCKENZIE BONNIE	05	05600.03	204 S LINCOLN
505610-00	3900	2600	3600	3000	2900	11100	17900	8000	8000	8000	3800	3400	76200.00	112	304	505610-00	FISHER, A. RONALD	08	05610	208 LINCOLN STREET S
505620-00		1000						4000	400		4000		9400.00	28	24	505620-00	BLAIR, IRENE SANSOM	08	05620	214 LINCOLN STREET S
505630-00						300	1800	2000	1900	100			6100.00	0	33	505630-00	BAXTER, ROBERT T & SUSAN J	08	05630	211 LINCOLN STREET S
505630-01													0.00	0	0	505630-01	BAXTER, MICHAEL R. & ELSIE K.	05	05630.00	211 LINCOLN STREET S
505640-01													0.00	0	0	505640-01	COX, BEN & VIOLA	05	05640	212 1/2 LINCOLN STREET S
505650-00	4400	2700	4100	3100	3400	3300	4500	3600	5500	3200	2800	3200	43800.00	112	128	505650-00	BLAIR, IRENE SANSOM	08	05650	216 LINCOLN STREET S
505660-01													0.00	0	0	505660-01	ARNOLD, RODNEY E.	05	05660.00	1319 MAIDEN LANE
505660-02													0.00	0	0	505660-02	BRICKZIN, ROBERT K & WILLIAMETTE	05	05660.02	1319 MAIDEN LANE
505670-00	3100	2800	3500	2700	2500	3000	4600	3300	3500	3900	2600	2600	38100.00	96	113	505670-00	BRICKZIN, BOB	08	05670	1309 MAIDEN LANE
505690-01													0.00	0	0			10		
505690-04	20300	14400	18600	16900	16100	33800	65300	116300	127700	70300	17900	20300	537900.00	599	2334	505690-04	FALLS MOTEL	05	05690	112 GALLATIN STREET S
505690-M1	2000	2600	2300	1800	2400	15200	31600	84100	80300	45900	3000	2600	273800.00	79	1410	505690-M1	FALLS MOTEL	08	0569001	112 GALLATIN STREET S
505690-M2	10100	8200	11300	11000	9800	14400	28500	27700	38100	19900	10800	11700	201500.00	349	752	505690-M2	FALLS MOTEL	08	0569002	112 GALLATIN STREET S
505690-M3	8200	3600	5000	4100	3900	4200	5200	4500	9300	4500	4100	6000	62600.00	171	172	505690-M3	FALLS MOTEL	08	0569003	112 GALLATIN STREET S
505700-00													0.00	0	0	505700-00	HOWE, BETTY J	08	05700	200 GALLATIN STREET S
505700-01	4400	3700	3600	3500	4400	6800	4800	1800	2000	9100	3300	2900	50300.00	118	157	505700-01	SHARP, RONALD S (SCOTT)	05	05700.01	200 GALLATIN STREET S
505710-00	6200	2900	6400	1200	1100	400	5500	5100	4500	8100	4400	4000	49800.00	139	134	505710-00	HICKOK, CAROLYN	08	05710	206 GALLATIN STREET S
505720-00	900	800	1300	1300	1100	2600	15300	8000	7600	4800	1100	700	45500.00	34	214	505720-00	MUSTER, JOHN	08	05720	215 GALLATIN STREET S
505730-00	1100	600	1600	400	800	2900	5600	5100	4600	10200	1200	1300	35400.00	34	159	505730-00	MUSTER, JOHN & SANDRA - SHOP	08	05730	213 1/2 GALLATIN STREET S
505740-00	3900	3100	4200	3500	3800	4400	9500	8900	1500	16700	2800	3400	65700.00	115	243	505740-00	OSWALD STEVE & NOVAK LINDA	08	05740	203 GALLATIN STREET S
505745-00	37400	27400	37900	31000	33100	38800	27600	26600	36100	28600	28900	30100	383500.00	1065	1037	505745-00	VALLEY BANK	08	05745	1222 MAIDEN LANE
505750-00	4900	3700	7000	4500	5000	3900	4700	4000	5000	4500	4000	3900	55100.00	155	147	505750-00	MUSTER, JOHN	08	05750	1215 MAIDEN LANE
505760-01													0.00	0	0	505760-01	BARNES SALLY	05	05760	110 1/2 & 112 1/2 MADISON
505770-00	4500	2300	2500	2300	2000	1400	5600	3900	4000	13600	3900	3300	49300.00	104	166	505770-00	SMITH, MARILYN	08	05770	1211 MAIDEN LANE
505780-00	2000	1500	2100	1600	1600	1500	2300	5300	5000	900	300	1300	25400.00	49	90	505780-00	OTTEN, DOUGLAS C	08	05780	1203 MAIDEN LANE
505790-00	3800	3000	3800	3200	2900	3800	4200	4100	4000	5400	2600	3400	44200.00	109	133	505790-00	STYGER, CAROL	08	05790	1204 MAIDEN LANE
505800-00	800	500	900	700	1000	500	1000	1000	1000	700	800	700	9600.00	24	28	505800-00	KERSTEN, LYNNE	08	05800	206 MADISON STREET S
505800-01													0.00	0	0	505800-01	LEUFKENS, BUDDY & JUDY	05	05800.01	206 S MADISON
505800-02													0.00	0	0	505800-02	ELLIOTT, GEORGE & LINDA	05	05800.02	206 S MADISON
505800-03													0.00	0	0	505800-03	ROBERTS, DENNIS R. & KATHERINE C.	05	05800.03	206 S MADISON STREET
505811-00	11200	10900	11300	9300	9700	9400	13200	17400	18400	9200	9700	8400	138100.00	336	420	505811-00	MY INVESTMENTS (YURCZYK/ MUSTER)	08	05811	210 MADISON STREET S
505820-00	300	500		6700			6800	600	1200	100	400	100	16700.00	44	47	505820-00	YURCZYK, FRANCIS	08	05820	207 MADISON STREET S
505830-00	1300	1300	2100	1600	1200	1500	1300	2900	3000	3500	1200	2200	23100.00	54	73	505830-00	MORRIN, DIANE	08	05830	1119 MAIDEN LANE
505850-00													0.00	0	0	505850-00	JENKS ENTERPRISES INC	08	05850	108 MADISON STREET S
505850-01													0.00	0	0	505850-01	MORRISON ALEX - ESTATE	05	05850.01	108 S MADISON STREET
505850-02	700	300	500	300	400	200	1100					1800	5300.00	20	9	505850-02	RUMMEL, JIM E. & DIANE F.	05	05850.02	108 MADISON STREET S
505850-03													0.00	0	0	505850-03	FIRST SECURITY BANK OF MISSOULA	05	05850.03	108 MADISON STREET S
505860-00	6000	5600	9800	7200	7100	6800	4100	2600	2700	6200	4600	4100	66800.00	206	160	505860-00	SANDERS COUNTY JAIL	08	05860	1115 MAIN STREET W
505870-00	7700	5000	8400	6900	6600	7700	25200	11000	10500	14600	8400	6200	118200.00	235	411	505870-00	LEUFKENS, BUDDY & JUDY	08	05870	1111 MAIDEN LANE
505870-02													0.00	0	0	505870-02	MORRIN, DIANE	05	05870.02	1111 MAIDEN LANE
505880-00	9900	7000	9000	8000	8000	8300	9800	14800	13000	12200	7300	6500	113800.00	264	359	505880-00	ELLIOTT GEORGE & LINDA	08	05880	1105 MAIDEN LANE
505880-01													0.00	0	0	505880-01	BAXTER ELSIE	05	05880.01	1105 MAIDEN LANE
505890-00													0.00	0	0	505890-00	LEUFKENS, BUD & JUDY	08	05890	1101 MAIDEN LANE
505890-01	6000	5100	7700	8000	8200	12100	15400	20500	20000	36300		6300	145600.00	183	611	505890-01	HEATER, RICHARD	08	05890.01	1101 MAIDEN LANE
505900-00						2100	1400	2000	1900	3000			10400.00	0	57	505900-00	SANDERS CO COURTHOUSE LAWN	08	05900	1111 MAIN STREET W

505901-00													0.00	0	0	505901-00	SANDERS COUNTY OLD JAIL / MUSEUM	08	05901	109 MADISON STREET S
505910-00													0.00	0	0	505910-00	VAUGHN, VIRGINIA M	08	05910	107 JEFFERSON STREET S
505910-01	4800	3600	5200	4400	5100	6200	10300	19500	12400	17300	3200	3900	95900.00	139	385	505910-01	SHOEMAKER, MAURICE	05	05910.01	107 JEFFERSON STREET S
505920-00													0.00	0	0	505920-00	VAUGHN, VIRGINIA M	08	05920	107 1/2 JEFFERSON STREET S
505920-01	2200	100	1500		1200			2000	8000	2200	3000		20200.00	38	73	505920-01	SHOEMAKER, MAURICE	05	05920.01	107 1/2 JEFFERSON STREET S
505930-00							1300	15000	8000	2100			26400.00	0	143	505930-00	PODRAT, GARY A.	08	05930	1020 MAIDEN LANE
505940-00	4600	3700	4500	3500	3700	3700	1600	3300	3000	5300	3500	3200	43600.00	127	112	505940-00	DICKMAN, LYNNE ROSDAHL ET ALL	08	05940	1015 MAIDEN LANE
505950-00													0.00	0	0	505950-00	SAKASKE, STEPHEN	08	05950	1016 MAIDEN LANE
505950-01													0.00	0	0	505950-01	JENSEN, HAROLD	05	05950.01	1016 MAIDEN LANE
505950-02	800	500	900	1000	2400	5000	2500	2900	3000	5200	800	800	25800.00	27	114	505950-02	MOREHOUSE, GARY E.	05	05950.02	1016 MAIDEN LANE
505960-00		100				1300		7500	7000	8800	100		24800.00	1	134	505960-00	ELLIOTT, LYNETTE K	08	05960	1014 MAIDEN LANE
505960-01													0.00	0	0	505960-01	HUXFORD, JEAN T.	05	05960.01	1014 MAIDEN LANE
505960-02							1900						1900.00	0	10	505960-02	BURWELL, ERNEST	05	05960.00	1014 MAIDEN LANE
505970-00	5800	4500	5600	3600	4400	4800	800	4500	4000	7300	4500	5400	55200.00	162	140	505970-00	CALVERT, RON	08	05970	1003 MAIDEN LANE
505990-01													0.00	0	0	505990-01	CITY OF THOMPSON FALL	05	05990	1006 MAIDEN LANE
506000-00	700	300	400	300	200	4300	600	8400	8000	5300	300	400	29200.00	13	146	506000-00	FIRST SECURITY BANK	08	06000	107 FULTON STREET S
506000-01													0.00	0	0	506000-01	FIRST STATE BANK OF THOMPSON FALLS	05	06000.01	107 FULTON STREET
506010-00													0.00	0	0	506010-00	FIRST SECURITY BANK	01	06010	917 919 MAIDEN LANE
506010-01													0.00	0	0	506010-01	THOMPSON FALLS HOLDING CO.	05	06010.01	917 919 MAIDEN LANE
506020-00	5000	3600	1700	6700	2200	14300	22600	2800	2800	53600	3400	4500	123200.00	138	534	506020-00	HOYT, TIM	08	06020	905 MAIDEN LANE
506030-01													0.00	0	0	506030-01	NELSON JESSE	05	06030	109 MILL,SHOP-107
506040-01													0.00	0	0	506040-01	NELSON JESSE	05	06040	114 S COLUMBIA
506050-01													0.00	0	0	506050-01	SCHROEDER DAVE	05	06050	103 S MILL STREET
506052-00	5000	5600	1500	9800	5000	4700	9600	5000	4600	6900	4800	4900	67400.00	175	195	506052-00	SCOTT, RICHARD & MAVIS	08	06052	107 MILL STREET S
506053-00	2800	3000	4000	3200	2900	3700	1400	900	500	5100	3500	3000	34000.00	108	79	506053-00	BRONNER, MARK R, & CYNTHIA L.	08	06053	109 MILL STREET S
506053-01													0.00	0	0	506053-01	WOOD DALE	05	06053.01	109 MILL STREET
506053-02													0.00	0	0	506053-02	SIMPSON, LINDA M.	05	06053.02	109 MILL STREET
506055-00													0.00	0	0	506055-00	BRONNER, MARK R. & CYNTHIA L.	08	06055	108 BROAD STREET S
506055-01													0.00	0	0	506055-01	PARKER, NOLAN	05	06055.01	108 S BROAD STREET
506060-00	1500	3800	1200	2800	2500	900	3000	2000	2100	2600	1500	1500	25400.00	68	71	506060-00	BOWER JOSEPH M & BAYHON ANNA LIZA	08	06060	109 COLUMBIA STREET S
506060-01													0.00	0	0	506060-01	MCCUAIG, JAMES	05	06060.01	109 S COLUMBIA STREET
506060-02													0.00	0	0	506060-02	SPARKS, AMY SUE	05	06060.02	109 S COLUMBIA
506060-03													0.00	0	0	506060-03	THOMAS, MICHAEL L	05	06060.00	109 S COLUMBIA STREET
506060-04													0.00	0	0	506060-04	MCCUAIG, JAMES M. & JOSIE	05	06060.03	109 COLUMBIA STREET S
506070-00													0.00	0	0	506070-00	TERRY, MICHAEL A.	08	06070	110 COLUMBIA STREET S
506070-01													0.00	0	0	506070-01	KINDRED, SANDRA	05	06070.01	110 S COLUMBIA STREET
506070-02													0.00	0	0	506070-02	SHEAR MIKE	05	06070.02	110 S COLUMBIA
506075-00													0.00	0	0	506075-00	HANNUM, MARK P	08	06075	114 COLUMBIA STREET S
506075-01	4100	3500	3400	3100	3100	3300	100	1700	1500	500	600	900	25800.00	86	55	506075-01	SCOTT, RICHARD & MAVIS	05	06075.01	114 COLUMBIA STREET S
506080-00	2400	1900	2800	2200	2300	2400	4500	5200	2300	10600	3500	2400	42500.00	84	148	506080-00	SHEAR, MICHAEL	08	06080	712 MAIDEN LANE
506100-00	1000	600	800	700	1100	2000	700	500	200	900	800	500	9800.00	24	29	506100-00	WESTERN MONTANA MENTAL HEALTH	08	06100	704 MAIDEN LANE
506110-00	3000	2200	2900	2000	2200	1900	2300	2300	2100	12700	8200	7300	49100.00	141	128	506110-00	LEUFKENS, BUDDY & JUDY	08	06110	115 BROAD STREET S
506110-01													0.00	0	0	506110-01	MARTIN R E	05	06110.00	115 S BROAD ST
506120-00	800	500	700		4400	2800					4000	600	13800.00	36	39	506120-00	LORD, DONALD E & VIRGINIA S	08	06120	109 BROAD STREET S
506120-01													0.00	0	0	506120-01	LORD, DAN	05	06120.00	109 BROAD STREET S
506150-00													0.00	0	0	506150-00	SCHILLING, DAVID & CATHY	08	06150	1006 CHURCH STREET
5804951-01													0.00	0	0	5804951-01	HARLAN DOUGLASS	00	NONE	FIRE HYDRANT- CORNER OF HWY 200 & P
600091-01													0.00	0	0			10		
600093-01													0.00	0	0			10		
600095-01													0.00	0	0	600095-01	TWO RIVERS DEVELOPMENT LLC	06	00095	995 MOUNT SILCOX DRIVE
600097-01													0.00	0	0	600097-01	TWO RIVERS DEVELOPMENT LLC	06	00097	997 MOUNT SILCOX DRIVE
600240-01													0.00	0	0	600240-01	OLIVER DAVID	06	00240	1199 MT SILCOX DRIVE
600255-01													0.00	0	0	600255-01	JOKERST CHARLES	06	00255.00	708 SOUTHWOOD COURT
600263-01													0.00	0	0	600263-01	KONEN TOM	06	00263.01	715 SOUTHWOOD COURT
600268-01													0.00	0	0	600268-01	HANSON, TODD & CHERYL	06	00268.01	720 SOUTHWOOD COURT
600270-00			200	200	100	200					100	100	900.00	3	2	600270-00	SHEPHERD OF THE VALLEY LUTHERAN CHURCH	08	002701	1192 MOUNT SILCOX DRIVE
600270-01													0.00	0	0	600270-01	SAGE WOOD INC. / LARSEN, BARBARA	06	00270.00	1192 MOUNT SILCOX DRIVE
600270-02													0.00	0	0	600270-02	SANDERS COUNTY	06	00270.01	1192 MOUNT SILCOX DRIVE
600270-03													0.00	0	0	600270-03	LARSEN BARBARA & LARSEN STEVE J	06	00270.02	1192 MOUNT SILCOX DRIVE
600410-02													0.00	0	0	600410-02	HAAS, JARED	06	00410	604 ASPEN COURT
600602-00													0.00	0	0	600602-00	COLEMAN, AVERY & ROXANNE	08	00602	602 ASPEN COURT
600602-01	7200	4800	7600	5500	5700	15300	32900	58600	58000	41300	5000	4200	246100.00	190	1151	600602-01	REIMER, JASON & THERESA	06	00602.01	602 ASPEN COURT
600604-00	2900	2200	2800	2300	2800	3200	8000	19700	19800	3600	2200	23100	92600.00	196	310	600604-00	WALWER, GREGG	08	00604	608 ASPEN COURT
600605-00													0.00	0	0	600605-00	RICKERT, KENNETH A & BABETTE Y	08	00605	605 Aspen
600605-01	3100	1600	2000	2000	3300	7400	19300	43600	42000	63300	1400	1100	190100.00	62	972	600605-01	ZANDER, LYNETTE	06	00605.01	617 church street
600708-00	3400	2600	2900	2600	3200	21100	33600	66600	89800	27700	2600	4500	260600.00	103	1315	600708-00	MARICH, KAY OR MIKE	03	04200.01	713 SOUTHWOOD COURT
600711-00	3600	2500	3100	2900	3900	21500	46300	62000	81500	23200	2600	2700	255800.00	96	1296	600711-00	MARKQUART, WAYNE & JULAINE	08	00711	605 ASPEN COURT
600712-00													0.00	0	0	600712-00	FISHER, KRISTEN M & BRANDON B	08	00712	712 SOUTHWOOD COURT
600712-01	1700	1900	1700	1100	1700	1500	5100	15400	2000	1600	1300	1100	36100.00	49	148	600712-01	MCKEEN, JERRY	06	00712.01	712 SOUTHWOOD COURT
600715-00													0.00	0	0	600715-00	PARDEE, SCOTT & SUNNY	08	00715	715 SOUTHWOOD COURT
600715-01	7300	4900	7600	4700	4600	25900	21600	61900	77800	23400	4700	3800	248200.00	182	1170	600715-01	HOJEM, RANDY R. & KATHEE M.	06	00715.01	715 SOUTHWOOD COURT
600716-00	12100	5400	10900	8100	6300	9600	18200	34500	44000	12700	5900	5200	172900.00	263	681	600716-00	MORGAN, SHAWN & JODI	08	00716	716 SOUTHWOOD COURT
600716-01													0.00	0	0	600716-01	FRIEDMAN, CURT & CAROL	06	00716.00	716 SOUTHWOOD COURT
600720-00													0.00	0	0	600720-00	ENGEBERG, CRYSTAL & THOMAS	08	00720.1	720 SOUTHWOOD COURT
600720-01			100		800	200	27500	39200	59700	59000	6100	100	192700.00	35	1013	600720-01	MCGUYER, MARK P. & NANCY G.	06	00720.01	720 SOUTHWOOD COURT
600720-02													0.00	0	0	600720-02	TAYLOR, RICHARD B	06	00720.02	720 SOUTHWOOD COURT
600720-03													0.00	0	0	600720-03	MCGUYER, MARK & NANCY	08	00720.01	720 SOUTHWOOD COURT
600721-00				100	1100	1200							2400.00	1	13	600721-00	FAIRBANK, RACHEL ANN	08	00721	721 SOUTHWOOD COURT
600721-01							4600	3700	5200	2200			15700.00	0	85	600721-01	VANTASSEL CONSTRUCTION	06	00721.01	721 SOUTHWOOD COURT
600723-00	8000	7700	8400	7400	7300	8400	11700	29800	21800	6400	6400	5800	129100.00	241	464	600723-00	HANLEY, RYAN & KERRY	08	00723	723 SOUTHWOOD COURT
601107-00	1600	1200	1500	3500	6900	6200	2400	9300	8600	9000	1400	1200	52800.00	57	230	601107-00	JEHOVAH'S WITNESSES	08	01107	1107 MOUNT SILCOX DRIVE
601191-00	200	300	300	200	200	400	300	200	200	500	200	200	3200.00	8	10	601191-00	THOMPSON FALLS SENIOR CITIZENS CENTER	08	01191	1191 MOUNT SILCOX DRIVE
601199-00													0.00	0	0	601199-00	WILHITE, DAVID	08	01199	1199 MOUNT SILCOX DRIVE
601199-01													0.00	0	0	601199-01	CLARIDGE, DANIEL R. & JENNY N.	06	01199.01	1199 MOUNT SILCOX DRIVE
601199-02	12100	9200	12800	10300	10300	11800	10200	9300	14300	9200	9900	8100	127500.00	345	354	601199-02	WILHITE, DAVID R. & TERESA	06	01199.02	1199 MOUNT SILCOX DRIVE
601199-03													0.00	0	0	601199-03	JP MORGAN CHASE BANK, NATIONAL ASSN	06	01199.03	1199 MOUNT SILCOX DRIVE
601209-00	5100	4600	6000	4800	4600	9400			51200	49000	6000	5600	146300.00	177	621	601209-00	LEISCHNER, BLAINE L & CHRISTINE	08	01209	1209 MOUNT SILCOX DRIVE
601209-01							18300	60500					78800.00	0	428	601209-01	ENGEBRETSON, GUY & ANN	06	01209.00	1209 MOUNT SILCOX DRIVE
601219-00													0.00	0	0	601219-00	HOFF, RAYMOND	08	01219	1219 MOUNT SILCOX DRIVE
601219-01	2500	4200	5000	4000	4500	20300	64400	66900	85800	48700	10000	5700	322000.00	173	1579	601219-01	SYMON, RANDY	08	01219.01	1219 MOUNT SILCOX DRIVE
601220-00			300	3300	3500	21500	28400	47000	69600	26600	2300		202500.00	33	1068	601220-00	SLAGLE, JAMES	08	012201	704 SOUTHWOOD COURT
601229-00													0.00	0	0	601229-00	FRANCK, NICHOLAS	08	01229	1229 MOUNT SILCOX DRIVE
601229-01	1100	3300	1700	3300	1800	1900	18000	24100	27700	6500	1900	2200	93500.00	75	435	601229-01	BROWN, SHANE	06	01229.01	1229 MOUNT SILCOX DRIVE
601229-02													0.00	0	0	601229-02	WHITEFISH CREDIT UNION	06	01229.02	1229 MOUNT SILCOX DRIVE
601800-00													0.00	0	0	601800-00	HANDFORD, DANIEL E & BETTY JO	08	018001	1800 PINE TREE HOLLOW
601800-01	1500	1500	2100	1900	1800	2100	3800	3200	3200	2200	1700	1600	26600.00	57	89	601800-01	HURST, JAMES	06	01800.01	1800 PINE TREE HOLLOW
601801-00						17400	22900	30600	42000	26400			139300.00	0	757	601801-00	PINE TREE HOLLOW HOMEOWNERS ASSN	08	01801	1801 PINE TREE HOLLOW - GREENS
601802-00	1700	1500	1800	1600	1300	2700	2300	2300	7000	7100	1200	1100	31600.00	49	123	601802-00	BROWN, NANCY A	08	01802	1802 PINE TREE HOLLOW
601802-01													0.00	0	0			10		
601804-01													0.00	0	0			10		
601806-01													0.00	0	0			10		

601808-00					400	500	200	400	500	800	200		3000.00	1	15	601808-00	LINZMAIER, PETER	08	01808	1808 PINE TREE HOLLOW
601810-00				1900	2100	7900							11900.00	10	54	601810-00	SOLLIE, BARBARA	08	018101	1810 PINE TREE HOLLOW
601810-01	2700	1800	2700				3600	2300	2200	8100	1500	1800	26700.00	58	88	601810-01	WOLF, KAREN L.	06	01810.01	1810 PINE TREE HOLLOW
601812-00													0.00	0	0	601812-00	SHOEMAKER, MAURICE W & ALBERTA I	08	01812	1812 PINE TREE HOLLOW
601812-01	4100	2900	3600	3300	5000	15400	600	2100	2100	3400	300	3000	45800.00	95	155	601812-01	MORBELLA, JEAN	06	01812.01	1812 PINE TREE HOLLOW
601814-00	4100	2700	3900	2900	3200	4200	8100	8500	7400	4300	3100	2500	54900.00	106	194	601814-00	ARNOLD, RODNEY E & EDRALINE M	08	01814	1814 PINE TREE HOLLOW
601814-01													0.00	0	0	601814-01	TWO RIVERS DEVELOPMENT LLC	06	01814.00	1814 PINE TREE HOLLOW
601816-00	1500	1000	1300	1200	900	900	1700	1900	2000	3800	1000	1000	18200.00	39	61	601816-00	ALDRICH, FRANCES E	08	01816	1816 PINE TREE HOLLOW
601816-02													0.00	0	0	601816-02	SHEPHERD, JAILEEN	06	01816.01	1816 PINE TREE HOLLOW
601818-00	5200	4300	5200	4800	5200	9100	15900	10300	9900	21200	7700	4200	103000.00	173	389	601818-00	TRUDGEN, DALE E & MARTHA DIANNE	08	01818	1818 PINE TREE HOLLOW
601818-01													0.00	0	0			10		
601900-00	2300	1800	2400	1800	1800	2100	2500	3500	1300	5200	1800	1600	28100.00	65	89	601900-00	BARNES, BRUCE M. & ANDREA M.	08	019001	1900 PINE TREE HOLLOW
601900-01													0.00	0	0	601900-01	TWO RIVERS DEVELOPMENT	06	01900.01	1900 PINE HOLLOW
601902-00													0.00	0	0	601902-00	THURMAN, WILLIS C & PENNY L	08	01902	1902 PINE TREE HOLLOW
601902-01													0.00	0	0	601902-01	KOSTKA, KATHY	06	01902.00	1902 PINE TREE HOLLOW
601902-02							16	43	63				122.00	0	1	601902-02	DUNBAR SAM L	06	01902.01	1902 PINE TREE HOLLOW
601904-00													0.00	0	0	601904-00	GLADE, SHIRLEY	08	01904	1904 PINE TREE HOLLOW
601904-02													0.00	0	0			10		
601906-00						2000						1100	3100.00	6	11	601906-00	NETZ, ALAN & MARY	08	01906	1906 PINE TREE HOLLOW
601906-02													0.00	0	0	601906-02	TWO RIVERS DEVELOPMENT LLC	06	01906.02	1906 PINE TREE HOLLOW
601908-00													0.00	0	0	601908-00	BLOOM, ROSEMARIE	08	01908	1908 PINE TREE HOLLOW
601908-01													0.00	0	0	601908-01	PINE TREE HOLLOW HOMEOWNERS ASSN	06	01908.00	1908 PINE TREE HOLLOW
601908-02	4100	3500	4400	3800			8100	6500	6500	8100	2100	3000	50100.00	115	159	601908-02	GERALD, JEFFREY & JILL	06	01908.01	1908 PINE TREE HOLLOW
601908-03					2300	3400							5700.00	0	31	601908-03	MC CLINTOCK, BETTY J	06	01908.02	1908 PINE TREE HOLLOW
601910-00													0.00	0	0	601910-00	WALKER, JIMMY M & FIONA C	08	01910.1	1910 PINE TREE HOLLOW
601910-01													0.00	0	0	601910-01	TWO RIVERS DEVELOPMENT LLC	06	01910.00	1910 PINE TREE HOLLOW
601910-02	5600	5000	6400	5400	5900	7000	4400	7300	7000	11300	4200	4200	73700.00	170	233	601910-02	JONES, BRUCE & JOAN	06	01910.01	1910 PINE TREE HOLLOW
700012-00								500	100	200			800.00	0	4	700012-00	NEBEKER, CLINT & TRACI	08	00012	2414 CAPSTONE COURT
700012-01													0.00	0	0	700012-01	CHAMBERS, PAUL	07	00012.00	2414 CAPSTONE COURT
700012-02													0.00	0	0	700012-02	SENN, MARILEE	07	00012.01	2414 CAPSTONE COURT
700012-03													0.00	0	0	700012-03	HURD-BUSH REALTORS FOR FNMA	07	00012.02	2414 CAPSTONE COURT
700012-04													0.00	0	0	700012-04	AMERICAN DREAM REALTY	07	00012.03	2414 CAPSTONE COURT
700040-00													0.00	0	0	700040-00	SCHUBERT, RUSSELL	08	00040.1	2413 CAPSTONE COURT
700040-01							10100						10100.00	0	55	700040-01	CHAMBERS, LUKE	07	00040.00	2413 CAPSTONE COURT
700040-02								12900	13500	12200	5400	100	44100.00	30	210	700040-02	AMERICAN DREAM REALTY	07	00040.01	2413 CAPSTONE COURT
700040-03		100	300	2700	1600	3200							7900.00	17	26	700040-03	BENSON, MICHAEL & CHRISTIE	08	00040.01	2413 CAPSTONE COURT
700041-00							2100	2700	3000				7800.00	0	42	700041-00	YEAGER, ERNEST W & JANET L	08	00041	2419 CAPSTONE COURT
700050-00	1700	1400	1800	2200	1500	1200				3400	1300	1400	15900.00	54	33	700050-00	INKS JR, HOWARD R	08	00050.1	2503 MOSSY ROCK COURT
700050-01							5700	15300	16000				37000.00	0	201	700050-01	NEMES, WILLIAM	07	00050.01	2503 MOSSY ROCK COURT
700053-00													0.00	0	0	700053-00	LAWRENCE, ROBERT G & MARILYN I	08	00053	2620 CORNERSTONE ROAD
700053-01	6000	1600	4100	4600	5000	4800	7100	4900	6000	5300	3500	4500	57400.00	134	180	700053-01	THORNTON, BILL & CAROL	07	00053.01	2620 CORNERSTONE ROAD
700054-00						200	400	300	400	800	400		2500.00	2	11	700054-00	CARMOUCHE, RAINA	08	00054	2611 CORNERSTONE ROAD
700060-00	5700	1900	3900	1400	6900	5200	12500	30100	32000	5300	4200	2700	111800.00	109	500	700060-00	FIELDS, SHERMAN & NANCY	08	00060.1	2715 CORNERSTONE ROAD
700061-00													0.00	0	0	700061-00	TAYLOR, GAYLE	08	00061	2719 CORNERSTONE ROAD
700061-01													0.00	0	0	700061-01	MOONEY, RICHARD A. & JOAN C.	07	00061.00	2719 CORNERSTONE ROAD
700061-02	1900	1600	1800	1600	400	1400	5200	10800	12000	2300	1700	1400	42100.00	55	174	700061-02	ASCHER, THOMAS R	07	00061.01	2719 CORNERSTONE ROAD
700063-00	1300		400			900	6800	9500	1200	6900	3100	2600	32700.00	41	138	700063-00	KNUTSON, ROD & RISHELLE	08	00063	2727 CORNERSTONE ROAD
700075-01													0.00	0	0			10		
700080-00	2900	3200	4000	3200	1800	11100	10300	11200	11800	6700	4200	3500	73900.00	116	288	700080-00	RIMROCK LODGE	08	000801	4946 HWY 200
Month Total	2718500	2202200	2436500	2429800	2243400	3654600	5863816	8076243	8581363	7501400	2635200	2483400	50826422	56	134					
Avg day (gpd)	87693.55	78650	78596.77	80993.33	72367.74	121820	189155.4	260524	286045.4	241980.6	87840	80109.68	#DIV/0!							
PerConnection (gpd)	148.9	133.8	134.1	137.7	121.8	203.4	301.2	418.8	464.4	389.0	144.2	133.7								

Account	2014	Jan	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec		winter	summer					
		31	28	31	30	31	30	31	31	30	31	30	31	365	181	184					
															(avg gpd)	(avg gpd)					
	000000-02													0.00	0	0					
	100005-00													0.00	0	0	100005-00	THOMPSON F	08	00005	1124 PRESTON AVENUE W
	100010-00	1200	2000	1400	1300	1600	1200	1500	32500	43400	5200		3400	94700.00	51	464	100010-00	ASSEMBLY O	08	00010	1120 PRESTON AVENUE W
	100015-00	11300						2600		900	2000	700	1700	19200.00	76	30	100015-00	ASSEMBLY O	08	00015	1122 PRESTON AVENUE W
	100020-00	8200	9000	8000	7300	6700	9300	22100	29000	15700	9000	5000	6500	135800.00	243	499	100020-00	SKINNER MA	08	00020	1106 PRESTON AVENUE W - HOUSE
	100030-00	3400	4500	3200	3100	3100	4200	5900	15100	5700	4400	3300	4200	60100.00	120	209	100030-00	HENSYEL RI	08	00030	1114 PRESTON AVENUE W
	100040-00	2300	2400	2700	2100	2500	4100	3100	5600	5800	3000	2200	1900	37700.00	75	131	100040-00	MARICH, AD	08	00040	102 WOOD STREET
	100050-00				1400	1300	9100	11700	20400	16500	6900	500		67800.00	10	358	100050-00	INGRAHAM, L	08	00050	207 WOOD STREET
	100050-01													0.00	0	0	100050-01	CHASE HOME	01	00050.01	207 WOOD STREET
	100050-02													0.00	0	0	100050-02	PISCITELLO,	01	00050.02	207 WOOD STREET
	100050-03													0.00	0	0	100050-03	NORMAN, ME	01	00050.00	207 WOOD STREET
	100060-00	1700	3700	2800	1400	4200	5900	11100	20800	17300	3700	5300	4300	82200.00	106	342	100060-00	SNYDER JOE	08	00060	214 WOOD STREET
	100060-01													0.00	0	0	100060-01	WIDNER, BILL	01	00060.00	214 WOOD STREET
	100065-00						4800	8400	10800	2900	5500			32400.00	0	176	100065-00	RAYMOND, J	08	00065	213 WOOD STREET
	100070-00													0.00	0	0	100070-00	TOMAS, SAM	08	000700	210 WOOD STREET
	100070-01													0.00	0	0	100070-01	PARKER, NO	01	00070.01	210 WOOD STREET
	100080-00							4100	13700	9000				26800.00	0	146	100080-00	TOMAS, SAM	08	00080	1014 OGDEN AVENUE W
	100090-00													0.00	0	0	100090-00	PAVLIK, MATT	08	00090	217 WOOD STREET
	100090-01													0.00	0	0	100090-01	TAYLOR GA	01	00090.01	217 WOOD STREET
	100090-02	4100	5900	6100	3900	1200	7200	4100	5900	12900	4900	4200	4900	65300.00	161	197	100090-02	HAINES, FRE	08	00090.01	217 WOOD STREET
	100100-00													0.00	0	0	100100-00	BROWN RAY	08	00100	220 WOOD STREET
	100100-01	23900	2500	1500	2000	1700	2900	1800	6500	14500	1900	22300	29000	110500.00	449	159	100100-01	BROWN, DO	01	00100.01	220 WOOD STREET
	100110-00	5200	4800	4200	4600	4400	5500	30000	66000	38500	12900	4900	4500	185500.00	156	855	100110-00	COLE, BRIAN	08	00110	1210 HALEY AVENUE W
	100120-00	2700	1600	1200	1100	1200	1200	2600	7700	2900	3500	2000	2400	30100.00	61	104	100120-00	MARGELIN, E	08	00120	1214 HALEY AVENUE W
	100130-.0													0.00	0	0	100130-.0	PPL	01	00130	1111 HALEY AVENUE W
	100130-01													0.00	0	0	100130-01	MCNAIR JESS	01	00130.00	1111 HALEY AVENUE W
	100130-03													0.00	0	0			10		
	100130-04													0.00	0	0			10		
	100140-.0													0.00	0	0	100140-.0	PPL	01	00140.00	215 1/2 WOOD STREET
	100140-01													0.00	0	0	100140-01	GRAZIER, AM	01	00140.01	215 WOOD STREET
	100140-02													0.00	0	0	100140-02	MCCUAIG, JA	01	00140.02	215 1/2 WOOD STREET
	100140-03													0.00	0	0	100140-03	FIRST STATE	01	00140.03	215 WOOD ST
	100140-04													0.00	0	0	100140-04	NICHOLS, WA	01	00140.04	215 1/2 WOOD STREET
	100150-00	2200	2500	1000	1000	800	1400	12400	40900	13900	6400	1700	1700	85900.00	56	412	100150-00	ROCHELEAU,	08	00150	1206 HALEY AVENUE W
	100160-00	7800	8500	11700	3400	5500	10300	18900	39400	22900	13100	8200	6800	156500.00	256	598	100160-00	ANDERSON,	08	00160	303 WOOD STREET
	100170-00	3500	3200	3000	6100	6000	8500	7700	13000	7400	4000	2900	2200	67500.00	115	253	100170-00	SUND, FORRE	08	00170	304 WOOD STREET
	100170-01													0.00	0	0	100170-01	SUND, DAVE	01	00170.00	304 WOOD STREET
	100170-02													0.00	0	0	100170-02	HALL, LARON	01	00170.01	304 WOOD STREET
	100170-03													0.00	0	0	100170-03	PPL	01	00170.02	304 WOOD STREET
	100180-00	8000	8000	8000	8000	8000	8000				8000	8500	4000	68500.00	246	130	100180-00	ANDERSON, E	08	00180	311 WOOD STREET
	100180-01													0.00	0	0	100180-01	SUND, DAVE	01	00180.00	311 WOOD STREET
	100185-00	11600	19900	14100	1600	1800	2500	1900	2300	4700	2200	1900	2700	67200.00	286	84	100185-00	YURCZYK, F	08	00185	314 WOOD STREET
	100190-00	3500	2300	6000	2100	3900	7100	20600	33400	20600	4100	3200	3600	110400.00	114	488	100190-00	TOMAS, SAM	08	00190	1012 PRESTON AVENUE W
	100200-00	900	1000		1200	1000	2600	3200	11300	6900	2300	1600	1700	33700.00	35	148	100200-00	HAYNES, PA	08	00200	102 PARK STREET
	100210-00	1200	2400	900	1100	1300	2000	12200	16300	8800	2900	1100	1100	51300.00	43	236	100210-00	WOLLASTON,	08	00210	105 PARK STREET
	100220-00	4200	5800	4400	4700	5500	7400	27600	29800	22700	11900	4600	4600	133200.00	156	570	100220-00	BROWNE, RI	08	00220	108 PARK STREET
	100230-00	4600	5300	4200	3900	5800	5500	3100	12100	5300	3900	4400	5100	63200.00	152	194	100230-00	METHGEN, L	08	00230	205 PARK STREET
	100230-01													0.00	0	0	100230-01	FRIEL, SOPH	01	00230.01	205 PARK STREET
	100240-00	9000	9400	8000	8300	10200	20600	33300	45700	37700	15500	9800	9600	217100.00	299	886	100240-00	THOMPSON,	08	00240	202 PARK STREET
	100250-00													0.00	0	0	100250-00	JOHNSON, DA	08	00250	206 PARK STREET
	100260-00													0.00	0	0	100260-00	FITCHETT, T	08	00260	210 PARK STREET
	100260-01													0.00	0	0	100260-01	MIGUEL BRID	01	00260.01	210 PARK ST
	100260-02													0.00	0	0	100260-02	KREIS, ALLEN	01	00260.02	210 PARK ST
	100270-00	7000	6400	6400	5400	6200	9600	22300	44100	17200	6900	4800	5600	141900.00	197	578	100270-00	KOSTKA, LU	08	00270	209 PARK STREET
	100270-01													0.00	0	0	100270-01	KREIS ALLEN	01	00270.01	209 PARK STREET
	100270-02													0.00	0	0	100270-02	HULL LAURA	01	00270.02	209 PARK ST
	100270-03													0.00	0	0	100270-03	RAVENCROFT	01	00270-03	209 PARK STREET
	100280-00	2800	2800	2400	1800	1800	3200	4700	6500	3800	3600	2400	2600	38400.00	82	128	100280-00	FRANKE, KAY	08	00280	911 HALEY AVE W
	100290-00	800	700	500	700	600	500	1200	1200	5500	3100	500	500	15800.00	20	66	100290-00	FRANKE, KAY	08	00290	222 PARK STREET
	100300-00	5200	4900	2800	3400	2500	4300	5400	13800	8900	5500	4000	4000	64700.00	134	220	100300-00	BRAY, BRITT	08	00300	305 PARK STREET
	100310-00	5000	5000	3900	4000	4000	4600	11500	14900	10400	6000	4500	4900	78700.00	151	279	100310-00	LEGAULT, RC	08	00310	304 PARK STREET
	100315-00	2400	1800	1600	2200	1300	1800	3100	6100	4800	2500	1300	1800	30700.00	61	107	100315-00	DAUGHERTY,	08	00315	310 PARK STREET
	100315-01													0.00	0	0	100315-01	KEGEL, JACK	01	00315.01	310 PARK STREET
	100317-00	6200	5800	4700	5700	6300	6600	11900	12100	13300	6400	5500	5600	90100.00	185	308	100317-00	BORGMANN,	08	00317	315 PARK STREET
	100320-00	4500	4800	3900	4200	4500	6100	4100	7800	7200	10100	4600	5300	67100.00	151	216	100320-00	BORGMANN,	08	00320	321 PARK STREET
	100330-00	8100	9800	2500	6800	9700	5500	2500	4700	9600	6000	6300	9100	80600.00	235	207	100330-00	WHALEN, LIN	08	00330	906 HALEY AVENUE W
	100340-00	500	100		400	3200	1800	11800	500		100	1000	2500	21900.00	25	95	100340-00	EGBERT PRO	08	00340	904 PRESTON AVENUE W
	100340-01													0.00	0	0	100340-01	COFFELT-BU	01	00340.01	904 PRESTON
	100340-02													0.00	0	0	100340-02	T & S HOLDIN	01	00340.00	904 PRESTON AVENUE
	100351-00	700	700	700	500	600	800	11700	26900	11600	6900	500	600	62200.00	20	318	100351-00	RELF, EDNA	08	00351	102 GALLATIN STREET N
	100360-00	2000	2100	1500	1600	3100	3800	8400	7900	6900	2900	1500	1800	43500.00	58	179	100360-00	DAY, MELINDA	08	00360	107 GALLATIN STREET N
	100360-01													0.00	0	0	100360-01	BURNSIDE, F	01	00360.00	107 GALLATIN STREET N
	100370-00	2200	2000	500	1500	1400	2200	4800	8000	2000	1400	700	5000	31700.00	66	108	100370-00	GROSHONG	08	00370	114 GALLATIN STREET N
	100380-00	4900	5600	4200	4500	4500	4900	3000	7300	43600	3400	3600	4600	94100.00	151	363	100380-00	BESAW, KENN	08	00380	113 GALLATIN STREET N
	100380-01													0.00	0	0	100380-01	WARD, LARR	01	00380.00	113 N GALLATIN STREET
	100390-00	7400	8800	7000	7900	8700	11000	6000	7000	9500	8100	3800	5600	90800.00	224	273	100390-00	BROWN, JAS	08	00390	205 GALLATIN STREET N
	100390-01													0.00	0	0	100390-01	FREED J. L. &	01	00390.01	205 N GALLATIN ST
	100400-00	11100	2200	4800	7300	6000	7400			3000		2000		43800.00	151	89	100400-00	SHEAR, JARE	08	00400	204 GALLATIN STREET N
	100400-01													0.00	0	0	100400-01	CIK STEPHEN	01	00400.01	204 N GALLATIN ST
	100400-02													0.00	0	0	100400-02	GUTHALS, JE	01	00400.00	204 GALLATIN STREET N
	100400-03													0.00	0	0	100400-03	COSCIA, WIL	01	0040003	204 N GALLATIN STREET
	100410-00	3700	4400	3100	3100	2800	3600	3600	3000	3400	4100	3600	3100	41500.00	116	111	100410-00	VERLANIC, LY	08	00410	211 GALLATIN STREET N
	100410-01													0.00	0	0	100410-01	MCGRAW, W	01	00410.01	211 N GALLATIN STREET
	100410-02													0.00	0	0	100410-02	COX, SAM N	01	00410.00	211 GALLATIN STREET N
	100420-00	6500	6900	5100	5100	6500	2300	28300	41700	21000	9400	5600	6000	144400.00	194	593	100420-00	HERDEN, DAV	08	00420	212 GALLATIN STREET N
	100420-01													0.00	0	0	100420-01	WIETING, SH	01	00420.01	212 N GALLATIN STREET
	100430-00	2100	1900	2100	1900	2000	2600	5200	1400	20800	2200	2400	2100	46700.00	69	186	100430-00	SHERMIKUS,	08	00430	219 GALLATIN STREET N
	100440-00	2400	1900	300	1300	1600	3300	9400	56700	6500	2600	2700	4500	93200.00	72	435	100440-00	PAVLIK, LIND	08	00440	222 GALLATIN STREET N
	100450-00	1600	1700	1200	1500	1300	1200	2200	3000	1600	1600	1500	1300	19700.00	49	59	100450-00	CULLEN, JAM	08	00450	306 GALLATIN STREET N
	100460-00	3400	3700	4000	3000	3000	3700	3900	11200	5500	3600	3500	3000	51500.00	114	168	100460-00	MCKAHAN, LI	08	00460	311 GALLATIN STREET N
	100470-00	2300	7800	6800	6900	7600	9500	3100	3000	2800	3400	3100	1700	58000.00	158	160	100470-00	TRAIN, ANTH	08	00470	312 GALLATIN STREET N
	100470-01													0.00	0	0	100470-01	KINCHELOE F	01	00470.01	312 N GALLATIN ST
	100470-02													0.00	0	0	100470-02	KINSER, LEE	01	00470.00	312 GALLATIN STREET N
	100470-03													0.00	0	0	100470-03	HOMESALES	01	00470.02	312 GALLATIN STREET N
	100480-00	5000	5000	4900	5100	5200	5800	7500	14400	7200	5300	4700	4700	74800.00	162	247	100480-00	MILLER, JESS	08	00480	317 GALLATIN STREET N
	100480-01													0.00	0	0	100480-01	GUNN, GERA	01	00480.01	317 N GALLATIN STREET
	100490-00	900	900	800	300	10400	1600	1300	900	1500	700	800	400	20500.00	23	89	100490-00	GROSHONG,	08	00490	322 GALLATIN STREET N
	100510-00	1300					2600	2000	6200	11800	3000	1000	1300	29200.00	20	139	100510-00	BROWN, JILL	08	00510	321 GALLATIN STREET N

100510-01													0.00	0	0	100510-01	RODRIGUEZ	01	00510.01	321 N GALLATIN ST
100520-00	4700	4000	2800	3200	3800	5600	29800	49400	23500	10800	4500	3600	145700.00	126	668	100520-00	LAY, HERBEF	08	00520	403 GALLATIN STREET N
100530-00	4100	4500	2800	2300	2200	7000	8600	8000	8000	1600	3000	3700	55800.00	113	192	100530-00	LYGHT, DAVII	08	00530	402 GALLATIN STREET N
100530-01													0.00	0	0	100530-01	LYGHT, DAVE	01	0053001	402 N GALLATIN ST
100530-02													0.00	0	0	100530-02	CLARK, JAME	01	00530.00	402 GALLATIN STREET N
100530-03													0.00	0	0	100530-03	BARSTOW, K/	01	00530.01	402 GALLATIN STREET N
100540-00	1900	2200	2100	1300	1400	1200	1100	1900	7000	1900	2200	1700	25900.00	63	79	100540-00	JOHNSON, D.	08	00540	710 PRESTON AVENUE W
100540-01													0.00	0	0	100540-01	MCCURRY, A	01	00540.01	710 PRESTON
100540-02													0.00	0	0	100540-02	PARKER, NO	01	00540.02	710 PRESTON AVENUE
100540-03													0.00	0	0	100540-03	PERRING, ST	01	00540.03	710 PRESTON AVENUE
100550-00													0.00	0	0	100550-00	MOTT, ELIZAE	08	00550	804 PRESTON AVENUE W
100550-01													0.00	0	0	100550-01	DAVIS, BETT'	01	00550.00	804 PRESTON Avenue W
100550-02	7600	6200	4800	3900	3700	5200	8500	15100	10200	3100	1400	1800	71500.00	142	249	100550-02	RIDER, MARY	08	00550.01	804 PRESTON Avenue W
100550-03													0.00	0	0	100550-03	LINZMAIER, P	08	00550.02	804 PRESTON Avenue W
100550-04													0.00	0	0	100550-04	LINZMAIER, P	08	00550.03	716 PRESTON Avenue W
100560-00	1900	3200	500	2200	1500	3300	5000	1300	5600	2800	2800	2400	32500.00	72	106	100560-00	PARROTT, JO	08	00560	716 PRESTON Avenue W
100560-01													0.00	0	0	100560-01	1ST STATE B/	01	00560.01	103 N MADISON STREET
100560-02													0.00	0	0	100560-02	OVITT, NORM	01	00560.02	716 PRESTON
100570-00	3700	3800	3300	3400	3100	5500	17900	22000	10700	6000	2900	3400	85700.00	113	354	100570-00	TURK, RON	08	00570	105 MADISON STREET N
100580-00	6800	3200	2200	2100	2300	4500	7000	8600	4800	2800	2200	2200	48700.00	103	163	100580-00	DEWITT, KATI	08	00580	106 MADISON STREET N
100580-01													0.00	0	0	100580-01	MCKENZIE B	01	00580.01	106 N MADISON ST
100580-02													0.00	0	0	100580-02	CHAMBLIN, .	01	00580.	106 N MADISON STREET
100580-03													0.00	0	0	100580-03	MCKENZIE, J	01	00580.03	106 N MADISON STREET
100590-00													0.00	0	0	100590-00	HART, LYNET	08	00590	110 MADISON STREET N
100590-01	149100	25200									100		174400.00	964	0	100590-01	LYGHT, TON'	01	00590.01	110 MADISON STREET N
100600-00													0.00	0	0	100600-00	SWANSON, D.	08	00600	115 MADISON STREET N
100600-01													0.00	0	0	100600-01	GILBERT, RO	01	00600.01	115 N MADISON STREET
100600-02	4700	5600	4200	4600	4500	4700	19800	58800	32200	2300	1800	1100	144300.00	122	665	100600-02	CHAMBLIN, J(	01	00600.02	115 MADISON STREET N
100610-00	2500	1100	2100	1700	1800	3200	3200	2600	2000	2000	2000	2300	26500.00	65	80	100610-00	COMPTON, J.	08	00610	114 MADISON STREET N
100610-01													0.00	0	0	100610-01	PIRKER RON	01	00610.00	114 N MADISON ST
100610-02													0.00	0	0	100610-02	GAENZ, SUZI	01	00610.01	114 N MADISON STREET
100620-00													0.00	0	0	100620-00	SINK, WESLE'	08	00620	715 ODGEN AVENUE W
100620-01													0.00	0	0	100620-01	DRAKE, PETE	08	00620.02	715 ODGEN AVENUE W
100620-02							1700	1000					2700.00	0	15	100620-02	CLAWSON, J	08	00620.01	715 ODGEN AVENUE W
100630-00	1800	2900	2000	2000	2600	1800	14700	23000	13400	5400	1800	2600	74000.00	72	331	100630-00	CASSIDA, JOI	08	00630	204 MADISON STREET N
100630-01													0.00	0	0	100630-01	RUTZKE, FR/	01	00630.00	204 MADISON STREET N
100630-02													0.00	0	0	100630-02	FIRST SECUR	01	00630.01	204 MADISON STREET N
100640-00	1400	1800	1400	1600	1300	2000	3900	5100	2600	2700	1400	1400	26600.00	50	96	100640-00	JCLB INVESTI	08	00640	203 MADISON STREET N
100640-02													0.00	0	0	100640-02	COUNTRYWII	01	00640.02	203 N MADISON ST
100640-03													0.00	0	0	100640-03	SCOTT, BRIA	01	00640.	203 N MADISON STREET
100660-00	800	700	600	1100	2400	14300	15100	17100	10100	5400	500	500	68600.00	23	350	100660-00	MOORE, JO /	08	00660	213 MADISON STREET N
100660-01													0.00	0	0	100660-01	TURK ROBEF	01	00660.01	213 N MADISON ST
100670-00	1200	1500	1300	1400	1000	1400		200	1400	1100	1300	1200	13000.00	44	28	100670-00	WAKEFIELD, '	08	00670	212 MADISON STREET N
100670-01													0.00	0	0	100670-01	SMITH HARR	01	00670.00	212 N MADISON ST
100670-02													0.00	0	0	100670-02	BESAW, KEN	01	00670.01	212 N MADISON STREET
100680-00	2300	2800	2200	1900	2500	8300	13300	13900	9400	4100	2200	2100	65000.00	75	280	100680-00	MAYFIELD, M	08	00680	215 MADISON STREET N
100690-00													0.00	0	0	100690-00	HARNETT, JO	08	00690	217 MADISON STREET N
100690-01	4200	5100	3700	3200	2700	6800	30200	44700	31800	10500	4500	3700	151100.00	135	689	100690-01	WILLIAMS, L(	01	00690.01	217 MADISON STREET N
100690-02													0.00	0	0	100690-02	MAYFIELD, M	01	00690.02	217 MADISON STREET N
100700-00	4200	4200	2800	2200	2600	5600	14100	14700	6600	3100	3000	2200	65300.00	103	254	100700-00	COX, SAM N	08	00700	216 MADISON STREET N
100700-01													0.00	0	0	100700-01	DENKE, MAR	01	00700.00	216 N MADISON STREET
100710-00	1500	3400	2600	2700	2800	8600	19800	33200	15900	9000	4800	3400	107700.00	102	485	100710-00	MARICH, ANI	08	00710	224 MADISON STREET N
100720-00	4300	5200	4400	3600	3700	5600	8800	13900	9400	5100	3900	4400	72300.00	143	253	100720-00	WHEELER, K	08	00720	221 MADISON STREET N
100730-00													0.00	0	0	100730-00	VANELSWYK	08	00730	307 MADISON STREET N
100730-01													0.00	0	0	100730-01	GRAHAM, DIA	01	00730.00	307 N MADISON STREET
100730-02							4200	3800					8000.00	0	43	100730-02	WILLIAMS, HA	01	00730.01	307 MADISON STREET N
100730-03													0.00	0	0	100730-03	WHEELER, JI	01	00730.02	307 MADISON STREET N
100740-00													0.00	0	0	100740-00	COX, KYLE R/	08	00740	306 MADISON STREET N
100740-01													0.00	0	0	100740-01	WORKMAN P	01	00740.01	306 N MADISON ST
100740-02	1700	3400	2700	2700	2700	2900	18400	21100	16500	11300	5000	3700	92100.00	106	396	100740-02	MYERS, JOHI	01	00740.02	306 MADISON STREET N
100740-03													0.00	0	0	100740-03	CASSELL, ST	01	00740.03	306 N MADISON STREET
100750-00	2100	2200	1300	1100	500	1500	1200	3000	1600	1900	1500	1400	19300.00	53	53	100750-00	BRUGGEMAN	08	00750	806 HALEY AVENUE W
100760-01													0.00	0	0	100760-01	IRWIN ELIZAI	01	00760	309 N MADISON ST
100765-00	4600	2500	4700	1100	1200	1200	1700	1200	1200		1600	5600	26600.00	111	35	100765-00	CZERWINSKI,	08	00765	315 MADISON STREET N
100770-00	1700	1500	1300	1200	1000	1900	9000	23800	10400	3900	1600	1600	58900.00	49	272	100770-00	ROHWER, M/	08	00770	314 MADISON STREET N
100780-00	5400	4600	3700	2700	3300	6600	12400	30800	17800	9200	3700	4300	104500.00	135	435	100780-00	GRANT, GAIL	08	00780	321 MADISON STREET N
100790-00													0.00	0	0	100790-00	FRITZ, ROBEF	08	00790	327 MADISON STREET N
100790-01													0.00	0	0	100790-01	HAGERMAN,	01	00790.00	327 N MADISON STREET
100790-02	18100	18600	13900	15500	16100	27300	6500	1000	16400	11400	13000	17800	175600.00	535	428	100790-02	HANSON, JON	08	00790.01	327 MADISON STREET N
100800-00	5000	6500	4400	4100	4500	5300	6100	5900	6100	5200	4900	4800	62800.00	164	180	100800-00	MAZUR, TOM	08	00800	324 MADISON STREET N
100810-00													0.00	0	0	100810-00	MCEWEN, AR	08	00810	403 MADISON STREET N
100810-01													0.00	0	0	100810-01	MASON, W.T.	01	00810.01	403 N MADISON STREET
100810-02													0.00	0	0	100810-02	HOWELL, MA'	01	00810.02	403 N MADISON ST
100810-03													0.00	0	0	100810-03	HOWELL, MA'	01	00810.00	403 MADISON STREET N
100820-00	5500	6900	7100	10000	11000	15600	4900	4400	2900	1000	4400	5000	78700.00	215	216	100820-00	PARKER, FRA	08	00820	710 W 3RD AVENUE
100820-01													0.00	0	0	100820-01	SANDERS, H	01	00820.01	710 W 3RD AVENUE
100830-00	3200	2800	2300	1800	2000	3800	13200	11600	7600	2500	2700	2400	55900.00	84	221	100830-00	ABBOTT, GAI	08	00830	408 MADISON STREET N
100840-00	8200	7100	6400	6300	6600	8600	8100	9500	7500	6500	6500	6800	88100.00	228	254	100840-00	LYGHT, TREI	08	00840	411 MADISON STREET N
100850-00							600	2100	1500				4200.00	0	23	100850-00	GRAHAM, DI/	08	00850	704 preston
100870-00	1400	2200	1800	7200	23600	4400	21600	17200	19600	20900	5200	2300	127400.00	111	583	100870-00	COMMUNITY	08	00870	616 preston avenue w
100880-00	7400	7200	7200	6100	6000	8200	38100	40100	29500	11500	7900	5300	174500.00	227	725	100880-00	HOPKINS, PE	08	00880	113 JEFFERSON STREET N
100890-00													0.00	0	0	100890-00	CORDERO, SI	08	00890	113 JEFFERSON STREET n
100890-01													0.00	0	0	100890-01	MURPHY, KA	01	00890.01	113 JEFFERSON STREET N
100890-02					400	200	7100	7400	800	1000	700	400	18000.00	6	92	100890-02	BARTON, DEI	01	00890.02	611 ogden avenue w
100900-00	300	500	300	300	500	300	2200	14000	12000	2100	400	200	33100.00	11	169	100900-00	LUTHERAN CI	08	00900	410 MADISON STREET N
100910-00													0.00	0	0	100910-00	BBNTMSCR D	08	00910	203 JEFFERSON STREET N
100910-01													0.00	0	0	100910-01	SANDERS, DI	01	00910.00	203 JEFFERSON STREET N
100910-02							1000						1000.00	0	5	100910-02	HARRIMAN, G	01	00910.01	203 JEFFERSON STREET N
100920-00	900	1200	900	1000	1100	1300	2500	11200	2500	500	1200	900	25200.00	34	104	100920-00	DOTY MARY	08	00920	213 JEFFERSON STREET N
100930-00													0.00	0	0	100930-00	APPLEBY, JO:	08	00930	210 JEFFERSON STREET N
100930-01													0.00	0	0	100930-01	GROSECLOSI	01	00930.00	210 JEFFERSON STREET N
100930-02	1900	3000	2800	1200	900	700	900	700	700	700	700	700	14900.00	57	25	100930-02	ROWDEN LAI	01	00930.01	210 JEFFERSON STREET N
100940-00	1500	1200	1400	1100	1100	3800	1400	16200	2500	6900	900	900	38900.00	39	173	100940-00	HUTZ, EUGEN	08	00940	218 JEFFERSON STREET N
100940-02													0.00	0	0	100940-02	HILTON, ROC	01	00940.00	218 N JEFFERSON STREET
100950-00	3400	4900	4100	3900	4300	3700	22000	21800	13300	3000	2400	4700	91500.00	129	370	100950-00	SCHALLER, N	08	00950	221 JEFFERSON STREET N
100960-00	5000	5100	4900	3900	4200	3400	9000	7000	6100	5500	4600	4700	63400.00	156	191	100960-00	MCCLOY, PA'	08	00960	222 JEFFERSON STREET N
100970-00	1900	2300	1700	1500	2300	3100	9500	13700	6600	1700	2600	2100	49000.00	67	201	100970-00	CROWDER, F	08	00970	611 HALEY AVENUE W
100980-00	800	200		100	400	500	2700	3700	600	700	200	200	10100.00	8	47	100980-00	FRIESZ, EMN	08	00980	305 JEFFERSON STREET N
100990-00	7300	8100	6800	6400	5400	9700	9800	9100	4000	5000	5300	6500	83400.00	223	234	100990-00	HAMILTON, J	08	00990	612 HALEY AVENUE W
101000-00													0.00	0	0	101000-00	KENEADY, ID/	08	01000	310 JEFFERSON STREET N
101000-01													0.00	0	0	101000-01	BATTLES MIK	01	01000.01	310 N JEFFERSON ST

101000-02	4800	5400	4700	5300	4200	7700	8200	21500	4300	6000	4700	4100	80900.00	160	282	101000-02	WOOD, ANNA	01	01000.02	310 JEFFERSON STREET N
101000-03													0.00	0	0	101000-03	GRENELL, MI	08	01000.01	310 JEFFERSON STREET N
101010-00	2800	2500	2700	2400	3300	19800	28400	36600	20000	5300	1900	1800	127500.00	78	616	101010-00	DRASZT, GAF	08	01010	314 JEFFERSON STREET N
101010-01													0.00	0	0	101010-01	GIDEON, ANI	01	01010.00	314 JEFFERSON STREET N
101010-05													0.00	0	0	101010-05	HOLLERAN, 1	01	01010.02	316 N JEFFERSON STREET
101020-00	400	500	400	400	400	300	6300	6300	8000	38400		600	62000.00	13	324	101020-00	COMMUNITY	08	01020	315 JEFFERSON STREET N
101030-00	7200	7900	6200	5900	5100	8500	17200	17300	12700	4200	4200	7000	103400.00	212	353	101030-00	INGRAHAM, (	08	01030	323 JEFFERSON STREET N
101034-01													0.00	0	0	101034-01	INGRAHAM, (	01	01034	323 N JEFFERSON
101040-00	2100	2400	1800	2300	2100	2900	4600	4100	9700	9600	3300	2600	47500.00	80	179	101040-00	MATES, CLAI	08	01040	318 JEFFERSON STREET N
101050-00	1300	1500	1400	1200	1600	1400	1700	1000	1200	1300	1100	1200	15900.00	43	45	101050-00	ROCKWELL,	08	01050	405 JEFFERSON STREET N
101050-01													0.00	0	0	101050-01	BURLINGAME	01	01050.01	405 N JEFFERSON STREET
101060-00					3100	4700							7800.00	0	42	101060-00	YODER, MARI	08	01060	612 3RD AVE WEST
101060-01													0.00	0	0	101060-01	LAWS, HARO	01	01060.00	612 3RD AVE WEST
101060-02													0.00	0	0	101060-02	LAWS, CLINT	01	01060.01	612 3RD AVE WEST
101060-03	2000	1800					71000	67500	41600	3700	2300	3200	193100.00	51	999	101060-03	REITER, JESS	01	01060.02	612 3RD AVE WEST
101070-00	5100	5200	4100	4400	5700	9900	10500	13600	11600	9100	5700	4400	89300.00	160	328	101070-00	LYGHT, DENI	08	01070	409 JEFFERSON STREET N
101070-01													0.00	0	0	101070-01	POFF EVERE	01	01070.00	409 N JEFFERSON
101080-00	200	1300		2200	1000		1400	23400	26500	11700	1800	1300	70800.00	38	348	101080-00	KELLER, WIL	08	01080	414 JEFFERSON STREET N
101090-00	1600	1800	800	900	1000	1200	13000	109000	21000	16000	7000	15000	188300.00	150	876	101090-00	DWYER, KAR	08	01090	415 JEFFERSON STREET N
101090-01													0.00	0	0	101090-01	TRULL JACOE	01	01090.00	415 N JEFFERSON
101100-00				900	2000	2900							5800.00	5	27	101100-00	BISHOP, MICH	08	01100	420 JEFFERSON STREET N
101100-01													0.00	0	0	101100-01	WILSON, JOH	01	01100.01	420 N JEFFERSON STREET
101100-02	4800	3300	5300	900			6000	13800	4700	2300	2600	2400	46100.00	107	146	101100-02	HELVEY, CLE	01	01100.02	420 JEFFERSON STREET N
201105-00	3200	4400	2400	1400	1200	1600	6700	18900	2600	2600	2400	2200	49600.00	88	183	201105-00	RAMSEY, RO	08	01105	608 PRESTON AVENUE W
201105-02													0.00	0	0	201105-02	WEIGAND EL	02	01105.02	608 PRESTON
201110-00	4100	4200	1700	3200	3300	10000	20200	52900	37900	7100	3300	3400	151300.00	110	714	201110-00	NORMAN, ME	08	01110	602 PRESTON AVENUE W
201110-01													0.00	0	0	201110-01	CROWE EMM.	02	01110.01	602 PRESTON
201110-02													0.00	0	0	201110-02	BARKER, RO	02	01110.00	602 PRESTON AVENUE W
201120-00	5600	5500	2800	2500	3000	4000	11100	33000	18300	5100	2700	4300	97900.00	129	405	201120-00	PARKER, NO	08	01120	516 PRESTON AVENUE W
201120-01													0.00	0	0	201120-01	VAUGHT WIL	02	01120.00	516 PRESTON
201120-02													0.00	0	0	201120-02	RABE RICHA	02	01120.01	516 PRESTON
201130-00	1900	1700	1600	1200	1000	700	1200	3600	1300	1000	1400	1500	18100.00	51	48	201130-00	BROWN, DAV	08	01130	110 WASHINGTON STREET
201130-01													0.00	0	0	201130-01	MARICH, MIK	02	01130.01	110 WASHINGTON STREET
201140-00	6800	7900	42100	7900	11700	37400	1900	15200	13400	13300	13200	5500	176300.00	461	505	201140-00	WHITTENBUR	08	01140	116 WASHINGTON STREET
201150-00	3300	3800	2900	2500	5300	6000	3400	3500	3600	3900	3200	2600	44000.00	101	140	201150-00	MORRIN, DIA	08	01150	203 WASHINGTON STREET
201150-01													0.00	0	0	201150-01	STEVENS TRU	02	01150.00	203 WASHINGTON STREET
201150-02													0.00	0	0	201150-02	YOUNG BEA	02	01150.02	203 WASHINGTON
201155-00	5800	6400	2900				15700	17200	15600	8800	8000	4600	85000.00	153	311	201155-00	LUTHERAN CI	08	01155	605 OGDEN AVENUE W
201160-00	6400	6400	5100	4500	4800	5800	2000	10500	4000	1400	1900	5700	58500.00	166	155	201160-00	PARKER, NO	08	01160	202 WASHINGTON STREET
201160-01													0.00	0	0	201160-01	ARTHUR, GE	02	01160.01	202 WASHINGTON STREET
201170-00	900	400	200	300	300	900	2100	2400	5700	1600	300	300	15400.00	13	71	201170-00	RETTENMEIE	08	01170	209 WASHINGTON STREET
201170-01													0.00	0	0	201170-01	STOUT JOSE	02	01170.01	209 WASHINGTON
201180-00													0.00	0	0	201180-00	WARME REV(	08	01180	208 WASHINGTON STREET
201180-01													0.00	0	0	201180-01	WOMACK, JAI	02	01180.00	208 WASHINGTON STREET
201180-02													0.00	0	0	201180-02	HOWELL, WEI	02	01180.01	208 WASHINGTON STREET
201180-03													0.00	0	0	201180-03	WOMACK JAI	02	01180.02	208 WASHINGTON STREET
201180-04													0.00	0	0	201180-04	FORTIER, LUI	02	01180.03	208 WASHINGTON STREET
201190-00													0.00	0	0	201190-00	TRAIN PROPE	08	01190	213 WASHINGTON STREET
201190-01													0.00	0	0	201190-01	REIBSOME, J	02	01190.01	213 WASHINGTON STREET
201190-02	5200	6200	6600	5000	4700	7100	8300	13600	8400	4900	5100	5200	80300.00	184	255	201190-02	WARDIAN MA	08	01190.01	213 WASHINGTON STREET
201200-00													0.00	0	0	201200-00	FORTIER, LUI	08	01200	212 WASHINGTON STREET
201200-01													0.00	0	0	201200-01	WOMACK, JAI	02	01200.00	212 WASHINGTON STREET
201200-02													0.00	0	0	201200-02	WOMACK JAI	02	01200.01	212 WASHINGTON STREET
201200-03													0.00	0	0	201200-03	HOWELL, WEI	02	01200.02	212 WASHINGTON STREET
201210-00	900	500	600	300	8200		9900	9000	12900	13200	14800	1300	71600.00	102	289	201210-00	DIPPRE, KIME	08	01210	216 WASHINGTON STREET
201210-01													0.00	0	0	201210-01	REIBSOME, J	02	01210.0	216 WASHINGTON
201210-02													0.00	0	0	201210-02	ROWE, CHAR	02	01210.00	216 WASHINGTON STREET
201210-03													0.00	0	0			10		
201210-04													0.00	0	0	201210-04	BENNETT, JE	02	01210.02	216 WASHINGTON STREET
201210-05													0.00	0	0	201210-05	FRYXELL, TR(	02	01210.03	216 WASHINGTON STREET
201220-00	7100	6900	11400	1800	1300	1900	24800	31000	1100	1400	1300	2100	92100.00	169	334	201220-00	WATTS, JULIE	08	01220	215 WASHINGTON STREET
201230-00	4200	3500	4300	3500	2500	6500	6400	21700	12100	5100	4000	4300	78100.00	131	295	201230-00	SCHAEFER EI	08	01230	221 WASHINGTON STREET
201230-01													0.00	0	0	201230-01	IVERS KEITH	02	01230.01	221 WASHINGTON
201235-00							4800	4600	1800				11200.00	0	61	201235-00	CREEKMORE	08	01235	220 WASHINGTON STREET
201235-01													0.00	0	0	201235-01	CREEKMORE	02	01235.00	220 WASHINGTON STREET
201235-02													0.00	0	0	201235-02	CREEKMORE	02	01235.01	220 WASHINGTON STREET
201240-00	300	300	100	300	200				1700		100	100	3100.00	7	10	201240-00	CREEKMORE	08	01240	511 HALEY AVENUE W
201240-01													0.00	0	0	201240-01	CREEKMORE	02	01240.00	511 W HALEY AVENUE
201240-02													0.00	0	0	201240-02	CREEKMORE	02	01240.01	511 HALEY AVENUE W
201250-01													0.00	0	0	201250-01	ANDERSON,	02	01250	303 WASHINGTON STREET
201260-00	8700	8900	14900	4400	4100	9600	16400	18700	11500	7400	1000	4000	109600.00	231	368	201260-00	NEWMAN, JE	08	01260	304 WASHINGTON STREET
201270-01													0.00	0	0	201270-01	TAYLOR, STE	02	01270	307 WASHINGTON STREET
201290-00													0.00	0	0	201290-00	TAYLOR, STE	08	01290	309 WASHINGTON STREET
201300-00	1400	1600	1500	1200	1400	2600	2900	1900	2200	1900	1500	1200	21300.00	46	70	201300-00	FRANCK, SH/	08	01300	312 WASHINGTON STREET
201310-00		3100	3400	4200	4500	4800							20000.00	59	51	201310-00	LEUFKENS, B	08	01310	319 WASHINGTON STREET
201310-01													0.00	0	0	201310-01	HELUS, JOHI	02	01310.00	319 WASHINGTON
201310-02													0.00	0	0	201310-02	HELUS, JOHI	02	01310.02	319 WASHINGTON STREET
201310-03											2300		2300.00	13	0	201310-03	OTTESEN, MI	02	01310.01	319 WASHINGTON STREET
201320-00	6500	11200	19700	13300	17100	18700	9100	37400	16100	18100	1300	13600	182100.00	362	633	201320-00	MOSHER, RO	08	01320	322 WASHINGTON STREET
201320-01													0.00	0	0	201320-01	SODERLIND,	02	01320.00	322 WASHINGTON STREET
201330-00													0.00	0	0	201330-00	WIEGELE, JAI	08	01330	512 3RD AVE WEST
201330-01	11100	500				100							11700.00	64	1	201330-01	STARR, JACK	02	01330.01	512 3RD AVE WEST
201340-00	2000	1600	1400	1300	1700	1800				2200	1600	1100	14700.00	50	31	201340-00	HECHTMAN, (	08	01340	606 3RD AVE W
201340-01													0.00	0	0	201340-01	BIERWAGEN	02	01340.01	606 3RD AVE WEST
201340-02													0.00	0	0	201340-02	COMBS, NAI	02	01340.02	606 3RD AVE W
201340-04							6300	34500	12600				53400.00	0	290	201340-04	VANICEK, JAN	02	01340.04	606 3RD AVE W
201350-00													0.00	0	0	201350-00	MAPES, ARLE	08	01350	407 WASHINGTON STREET
201350-01													0.00	0	0	201350-01	HOWARD JOE	02	01350.01	407 WASHINGTON
201360-00	400	600	300	500	400	1300	18000	23000	24000		100	500	69100.00	13	363	201360-00	BLOOM, DAN	08	01360	410 WASHINGTON STREET
201370-00	2800	2900	2300	2100	1900	8400	24700	47600	13800	6900	2500	2100	118000.00	81	561	201370-00	NICOL, BONI	08	01370	413 WASHINGTON STREET
201370-01													0.00	0	0	201370-01	HARNETT J N	02	01370.01	413 WASHINGTON
201380-00	5500	2700	500	800	7600		22800	24000	9500	1600	1500		76500.00	61	356	201380-00	MOSHER, BE	08	01380	419 WASHINGTON STREET
201390-00	5900	4400	2600	3800	3200	10300	32300	50400	37800	12100	3900	4800	171500.00	140	794	201390-00	KELLER, KIM	08	01390	418 WASHINGTON STREET
201390-01													0.00	0	0	201390-01	RUDE, ROBIN	02	01390.00	418 WASHINGTON STREET
201400-00	900	1000	1600	900	1300	1000	3500	4000	2400	1100	1000	800	19500.00	34	72	201400-00	MOSHER, JO	08	01400	425 WASHINGTON STREET
201410-00	8500	10400	8100	9100	10400	9500	60900	66800	47500	20100	9400	8700	269400.00	299	1170	201410-00	BRUNER, SM	08	01410	422 WASHINGTON STREET
201420-00	2100	3100	2700	2400	2600	21100	43700	58300	24600	85600	2100	2900	251200.00	85	1282	201420-00	FAIRBANK, S1	08	01420	502 PRESTON AVENUE W
201420-01													0.00	0	0	201420-01	POWELL, ALI	02	01420.00	502 PRESTON AVENUE
201430-00	300	600	400	400	800	600	300	10500	11100	500	500	500	26500.00	15	129	201430-00	CARTER JEA	08	01430	508 PRESTON AVENUE W
201430-01													0.00	0	0	201430-01	MARINELLI D	02	01430.01	508 PRESTON
201430-03													0.00	0	0	201430-03	BREAW, LEO	02	01430.03	508 PRESTON AVENUE

201440-00	5100	6500	5000	5500	5300	9400	20800	35300	20500	10900	4300	5300	133900.00	175	555	201440-00	ST WILLIAMS	08	01440	416 PRESTON STREET
201450-00													0.00	0	0	201450-00	FAIRBANK, S	08	01450	107 SPRUCE STREET
201450-01													0.00	0	0	201450-01	LEE, VANCE	02	01450.01	107 SPRUCE STREET
201450-02													0.00	0	0	201450-02	HOLYK, ALEX	02	01450.02	107 SPRUCE STREET
201450-03													0.00	0	0	201450-03	ELLER, WILLI	02	01450.00	107 SPRUCE
201460-00	2100	1700	1500	1200	800	3000	11200	13800	14100	5500	1700	1600	58200.00	54	263	201460-00	PHILLIPS, MI	08	01460	112 SPRUCE STREET
201460-01													0.00	0	0	201460-01	LYGHT, DAVI	02	01460.01	112 SPRUCE STREET
201460-02													0.00	0	0	201460-02	LA FRINIERE	02	01460.02	112 SPRUCE
201470-00	6500	6600	5900	5000	5800	7100	11900	17300	6000	5600	4900	5100	87700.00	188	292	201470-00	RIBEIRO, RA	08	01470	115 SPRUCE STREET
201470-01													0.00	0	0	201470-01	LYGHT, DAVI	02	01470.01	115 SPRUCE
201480-00													0.00	0	0	201480-00	POMRENKE,	08	01480	116 SPRUCE STREET
201480-01													0.00	0	0	201480-01	DEMENY, JO	02	01480.01	116 SPRUCE STREET
201480-02													0.00	0	0	201480-02	PULLAN, CA	02	01480.00	116 SPRUCE STREET
201480-03	12100	16000	4900	8200	9800	3300	13400	29200	16500	9200	12400	10700	145700.00	355	442	201480-03	PETERSON,	02	01480.02	116 SPRUCE STREET
201480-04													0.00	0	0	201480-04	USDA, RURAL	02	01480.03	116 SPRUCE STREET
201490-00					100	41400							41500.00	0	226	201490-00	RIBEIRO, RA	08	01490	109 SPRUCE STREET
201490-01													0.00	0	0	201490-01	KELLER KIMB	02	01490.01	109 SPRUCE
201490-02	40000			1600			200	1300		12200	200		55500.00	231	74	201490-02	NEWMAN, DE	02	01490.02	109 SPRUCE STREET
201500-00	2600	2600	1800	2700	2200	6600	27600	39100	22100	2500	2200	2300	114300.00	78	544	201500-00	RIFFLE, CLA	08	01500	204 SPRUCE STREET
201510-00	5800	5800	4400	4700	5300	6900	6700	8400	5400	5400	5000	5300	69100.00	171	207	201510-00	NEWMAN, DE	08	01510	206 SPRUCE STREET
201510-01													0.00	0	0	201510-01	PAULSEN-WI	02	01510.01	206 SPRUCE STREET
201520-00	4000	4600	3000	3000		8000	8000	10000	8000	59300	5300	5300	118500.00	139	507	201520-00	MOLZHON, B	08	01520	207 SPRUCE STREET
201530-00	5700	5900	2700	3000	3500	3700	4300	25600	15200	3500	3100	4700	80900.00	139	303	201530-00	WILSON, JO	08	01530	216 SPRUCE STREET
201540-00	8500	11100	2800	2500	2200	2700	3800	8800	4500	8700	7400	6800	69800.00	216	167	201540-00	NEWMAN, DE	08	01540	211 SPRUCE STREET
201540-01													0.00	0	0	201540-01	CORK, TERR	02	01540.01	211 SPRUCE
201543-00	7200	9900	6400	5400	6200	10900	9700	9400	8000	22000	9500	8100	112700.00	257	360	201543-00	HUTZ, EUGEN	08	01543	219 SPRUCE STREET
201543-01													0.00	0	0	201543-01	TAYLOR, STE	02	01543.01	219 SPRUCE STREET
201545-00	1900	2300	1700	2000	1800	2500	1500	1200	4000	1500	1500	2800	24700.00	67	68	201545-00	HUTZ, EUGEN	08	01545	225 SPRUCE STREET
201545-01													0.00	0	0	201545-01	TAYLOR, STE	02	01545.00	225 SPRUCE STREET
201550-00	1900	2100	1700	1400	1400	1200	5900	5300	4700	1300	1700	1900	30500.00	59	108	201550-00	FARLAN, MIC	08	01550	220 SPRUCE STREET
201550-01													0.00	0	0	201550-01	SCOTT, BOBI	02	01550.01	220 SPRUCE STREET
201555-00	6600	7000	3900	4000	4200	8600	22200	41700	21000	22300	4900	5600	152000.00	177	652	201555-00	NEWMAN, DE	08	01555	226 SPRUCE STREET
201560-00	7500	8000	6600	7000	6600	2900	6500	3500	4000	191100	7100	6800	257600.00	238	1166	201560-00	LAKE, DONA	08	01560	303 SPRUCE STREET
201560-02													0.00	0	0	201560-02	LAKE DONAL	02	01560.02	303 SPRUCE
201560-03													0.00	0	0	201560-03	FRANCK RAY	02	01560.03	303 SPRUCE
201570-00													0.00	0	0	201570-00	WARME REV	08	01570	311 SPRUCE STREET APT. A
201570-01	1200	1400	1100	1100	1200	1400	800	500		1500	1100	1200	12500.00	39	29	201570-01	HILL, JEAN	02	01570.01	311 SPRUCE STREET APT. A
201574-00													0.00	0	0	201574-00	WARME REV	08	01574	311 SPRUCE STREET APT. B
201574-01	1100	2000	2000	2000	2200	2700	200	400	800	1100	600	100	15200.00	43	40	201574-01	HILL, JEAN	02	01574.01	311 SPRUCE STREET APT. B
201580-00							700	1700	100	800	800	900	5000.00	9	18	201580-00	BROWN, MIC	08	01580	317 SPRUCE STREET
201590-00	2300	2500	2000	2400	2100	2600	2700	15300	11000	2400	2200	2300	49800.00	76	196	201590-00	HENSLEY, GA	08	01590	323 SPRUCE STREET
201590-01													0.00	0	0	201590-01	LARSON, JA	02	01590.01	323 SPRUCE STREET
201590-02													0.00	0	0	201590-02	LARSON, THC	02	01590.02	323 SPRUCE STREET
201600-00	28000	51000	41000	49000	33000	65000	68000	113000	155000	109000	48000	26000	786000.00	1343	2951	201600-00	SCHOOL DIS	08	01600	315 COLUMBIA STREET N - SCHOOL - G
201605-00													0.00	0	0	201605-00	SCHOOL DIS	08	01605	306 HALEY AVE W - BASKET BALL COUR
201610-00	2300	3800	3300	1200	1200	1400	2000	2000	1800	1500	1500	1900	23900.00	77	54	201610-00	JONES, GOR	08	01610	403 SPRUCE STREET
201620-00	3100	3800	3000	1400	5000	3900	12100	16500	10400	3600	3500	3200	69500.00	99	280	201620-00	FARLAN, GLE	08	01620	412 3RD AVE WEST
201630-00	2500	1400	1800	1200	3300	100	100	2100	6300	900	800		20500.00	43	70	201630-00	CREEKMORE	08	01630	405 SPRUCE STREET
201630-01													0.00	0	0	201630-01	MINEMYER,	02	01630.01	405 SPRUCE STREET
201630-02													0.00	0	0	201630-02	LARGENT, R	02	01630.00	405 SPRUCE STREET
201630-03													0.00	0	0	201630-03	LEMBO, NATH	02	01630.02	405 SPRUCE STREET
201640-00	100	700	300	1400	100	100	500	1300	200	600	700	1200	7200.00	24	15	201640-00	OLSON, MAR	08	01640	410 SPRUCE STREET
201640-02													0.00	0	0			10		
201650-00	2900	2500	3500	3300	3500	4200	200	6300	1400	100	1000	1300	30200.00	80	85	201650-00	ARRANTS, S	08	01650	411 SPRUCE STREET
201655-00													0.00	0	0	201655-00	ROBBINS, EV	08	01655	415 SPRUCE STREET
201655-01													0.00	0	0	201655-01	MINEMYER,	02	01655.01	415 SPRUCE STREET
201655-02	2600	1800	1000	900	6700	2000	6300	6900	1500	1300	800	1400	33200.00	47	134	201655-02	LARGENT, R	02	01655.02	415 SPRUCE STREET
201657-00													0.00	0	0	201657-00	ROBBINS, EV	08	01657	417 SPRUCE STREET
201657-01													0.00	0	0	201657-01	MINEMYER JU	02	01657.01	417 SPRUCE STREET
201657-03							3000	4300	200	200	1300	1200	10200.00	14	42	201657-03	LARGENT, R	02	01657.03	417 SPRUCE STREET
201659-00													0.00	0	0	201659-00	ROBBINS, EV	08	01659	419 SPRUCE STREET
201659-01	4800	4300	4000	3900	2900	3900	4000	3500	3700	3700	3300	3900	45900.00	134	118	201659-01	LARGENT, R	02	01659.01	419 SPRUCE STREET
201660-00	2400	3100	1700	2500	3000	10500	36600	34300	20100	7500	2200	2000	125900.00	77	609	201660-00	MINEMYER,	08	01660	420 SPRUCE STREET
201665-00	1500	1900	1200	1900	1000	4600	11700	12500	5400	1700	1200	1300	45900.00	50	201	201665-00	BURTNETT,	08	01665	428 SPRUCE STREET
201670-00	900	900	900	900	1200	1600	11400	14800	14200	12100	1500	900	61300.00	33	301	201670-00	BRAY, DON	08	01670	427 SPRUCE STREET
201680-00													0.00	0	0	201680-00	VAUGHN, VIR	08	01680	502 4TH AVENUE W
201680-01	2200	1900	2000	2000	2800	3700	2700	3400	1900	1800	800	800	26000.00	54	89	201680-01	DEACON, TA	02	01680.01	502 4TH AVENUE W
201690-00	1700	2100	1800	2400	2000	7200	18000		4200	19800	36900	1500	97600.00	256	278	201690-00	MILLER DON	08	01690	412 4TH AVE WEST
201690-01													0.00	0	0	201690-01	DUFFEL, DEW	02	01690.00	412 4TH AVE WEST
201700-00													0.00	0	0	201700-00	ST. WILLIAM	08	01700	105 COLUMBIA STREET N
201700-01													0.00	0	0	201700-01	HOYT, TIM R.	02	01700.01	105 N COLUMBIA STREET
201710-00													0.00	0	0	201710-00	DENISON, RE	08	01710	322 PRESTON AVENUE W
201710-01													0.00	0	0	201710-01	STIPE, GEOR	02	01710.00	322 PRESTON AVENUE W
201710-02									100				100.00	0	1	201710-02	BINGHAM, MI	08	01710.01	322 PRESTON AVENUE W
201720-00	4100	4900	3300	3900	4000	4200	7300	3300	10100	3800	4200	4600	57700.00	138	178	201720-00	FRANCK , CO	08	01720	109 COLUMBIA STREET N
201720-01													0.00	0	0	201720-01	LYGHT, DAVI	02	01720.00	109 N COLUMBIA
201720-02													0.00	0	0	201720-02	EPPERSON,	02	01720.01	109 N COLUMBIA STREET
201730-00		10000	1400	2800	2900	1200		2400				8000	28700.00	123	35	201730-00	ARRANTS, S	08	01730	110 COLUMBIA STREET N
201730-02													0.00	0	0	201730-02	MIKE CHENO	02	01730.02	110 N COLUMBIA
201740-00	2800	2000	1600	1600	1500	3300	2900	2200	2300	2200	2100	2100	26600.00	67	78	201740-00	BUCHANAN,	08	01740	116 COLUMBIA STREET N
201750-00	4500	4600	4300	3400	3600	5000	500	1700	900	1300	3800	4300	37900.00	138	71	201750-00	BUCHANAN,	08	01750	317 OGDEN AVENUE W
201760-00	1000		100		2500	2200	4400	6700	3300	900	2500	300	23900.00	22	109	201760-00	FLETCHER,	08	01760	115 COLUMBIA STREET N
201760-01													0.00	0	0	201760-01	PARADIS, LE	02	01760.01	115 N COLUMBIA STREET
201770-01													0.00	0	0	201770-01	ANDERSON,	02	01770.01	203 N COLUMBIA
201780-00													0.00	0	0	201780-00	CLARK, RON	08	01780	214 COLUMBIA STREET N
201780-01	4000												4000.00	22	0	201780-01	THOMPSON	02	01780.01	214 COLUMBIA STREET N
201790-00	5600	6000	5200	5200	5200	7100	11300	12600	10000	7200	5200	5000	85600.00	178	290	201790-00	THOMAS, ST	08	01790	207 COLUMBIA STREET N
201800-00													0.00	0	0	201800-00	HUFF, ERNES	08	01800	213 COLUMBIA STREET N
201800-01													0.00	0	0	201800-01	STRANG, DE	02	01800.01	213 N COLUMBIA STREET
201800-02	3100	3800	2800	2500	2800	3700	2500	3600	6000	2400	2700	2600	38500.00	97	114	201800-02	THOMAS JR,	02	01800.02	213 COLUMBIA STREET N
201810-00	5100	5800	3900	3500	2600	2900	4400	4200	5000	5000	4700	4300	51400.00	151	131	201810-00	TRAIN, ANTH	08	01810	222 COLUMBIA STREET N
201810-01													0.00	0	0	201810-01	STRANG CLI	02	01810.01	222 N COLUMBIA ST
201810-02													0.00	0	0	201810-02	LARGENT, R	02	01810.00	222 COLUMBIA STREET N
201810-03													0.00	0	0	201810-03	RAMSEY, AL	02	01810.03	222 N COLUMBIA STREET
201810-04													0.00	0	0	201810-04	LARGENT, R	02	01810.04	222 N COLUMBIA STREET
201810-05													0.00	0	0	201810-05	FNMA	02	01810.02	222 COLUMBIA STREET N
201810-06													0.00	0	0	201810-06	AMERICAN D	02	01810.05	222 COLUMBIA STREET N
201820-00													0.00	0	0	201820-00	GIBSON, SAN	08	01820	226 COLUMBIA STREET N
201820-01													0.00	0	0	201820-01	WHITTENBUR	02	01820.01	226 N COLUMBIA ST
201820-02													0.00	0	0	201820-02	HARDING, DA	02	01820.00	226 COLUMBIA STREET N
201825-00	1900	2000	1500	1900	1100	1800	6300	3400	24600	1600	1600	1600	49300.00	58	211	201825-00	GRIMM, DORI	08	01825	405 HALEY AVENUE W

201825-01													0.00	0	0	201825-01	STEVENS, HI	02	01825.00	405 HALEY AVENUE W
201830-00	1200	1400	1200	800	1700	1600	2400	3400	1100	1000	1500	1300	18600.00	41	61	201830-00	HALPOP, JOH	08	01830	406 3RD AVE WEST
201840-00													0.00	0	0	201840-00	JONES, NATA	08	01840	404 COLUMBIA STREET N
201840-01													0.00	0	0	201840-01	CLAY, DAVID	02	01840.00	404 COLUMBIA STREET N
201840-02	4800	2400	1600	4000	3900	5300	300		400	2200	2700	3300	30900.00	104	66	201840-02	CLAY CHRIST	08	01840.01	404 COLUMBIA STREET N
201850-00					300		1600	4100	4800	2100	300		13200.00	2	70	201850-00	OVITT, NORM	08	01850	406 COLUMBIA STREET N
201850-01													0.00	0	0	201850-01	BENTON, EAI	02	01850.00	406 COLUMBIA STREET N
201860-00													0.00	0	0	201860-00	GIEGLING, JC	08	01860	410 COLUMBIA STREET N
201860-01													0.00	0	0	201860-01	GUNN GERAI	02	01860.00	410 COLUMBIA STREET N
201860-02													0.00	0	0	201860-02	FIRST SECUR	02	01860.01	410 COLUMBIA STREET N
201860-03	400										29400		29800.00	165	0	201860-03	TERRY, ROGE	02	01860.02	410 COLUMBIA STREET N
201865-00	3800	4500	3800	3900	4100	4500	4900	6200	8500	4500	4200	3400	56300.00	130	178	201865-00	DONALDSON,	08	01865	415 COLUMBIA STREET N
201865-01													0.00	0	0	201865-01	GLOVER, DAI	02	01865.00	415 N COLUMBIA STREET
201870-00													0.00	0	0	201870-00	QUIMBY, LEIN	08	01870	418 COLUMBIA STREET N
201870-01													0.00	0	0	201870-01	ULVER, EDN/	02	01870.00	418 COLUMBIA STREET N
201870-02													0.00	0	0	201870-02	ULVER FAMIL	02	01870.01	418 COLUMBIA STREET N
201870-03	4200	4000	2500	2200	2100	4900	5600	2900	1500	2700	2800	4000	39400.00	109	107	201870-03	QUIMBY, JOS	02	01870.02	418 COLUMBIA STREET N
201880-00	2500	2300	2400	1300	2400	2400	900	4700	3300	600	2000	2000	26800.00	69	78	201880-00	AUSTIN, ROD	08	01880	428 COLUMBIA STREET N
201890-00	4700	4200	3000	4200	3300	13000	25300	25300	17600	5500	4100	3800	114000.00	133	489	201890-00	KOKER, DENN	08	01890	427 COLUMBIA STREET N
201890-01													0.00	0	0	201890-01	JOHNSON, G	02	01890.00	427 COLUMBIA STREET N
201900-00							10800	17900					28700.00	0	156	201900-00	ROBINSON, N	08	01900	503 COLUMBIA STREET N
201901-00	5000	5700	3500	5700	6400	15100	22900	27100	20800	9900	4600	4300	131000.00	159	555	201901-00	ROBINSON, N	08	01901	511 COLUMBIA STREET N
201905-00	3500	2900	1900	2100	1600	2200	8800	26400	2300	2000	2000	1600	57300.00	77	235	201905-00	CHENOWETH	08	01905	514 COLUMBIA STREET N
201905-02													0.00	0	0	201905-02	CHL	02	01905.02	514 COLUMBIA
201910-00					400	4800	100						5300.00	0	29	201910-00	GRIMM, DARI	08	01910	506 COLUMBIA STREET N
201920-00													0.00	0	0	201920-00	CHENOWETH	02	019200	510 COLUMBIA STREET N
201920-01													0.00	0	0	201920-01	PARKER, NO	02	01920.	516 N COLUMBIA
201920-02													0.00	0	0	201920-02	CHEYNEY LE	02	01920	516 N COLUMBIA
201920-03													0.00	0	0	201920-03	PASSALAQUA	02	019200.00	510 COLUMBIA STREET N
201925-00					1900	100	86700	500	400	300	2600		92500.00	14	489	201925-00	PLAINS RANG	08	01925	518 COLUMBIA STREET N
201930-00	200	200	100	200	100	300	100	100	100	200	200	200	2000.00	6	5	201930-00	MT FISH, WILI	08	01930	601 COLUMBIA STREET N
201935-01													0.00	0	0	201935-01	USDA - PLAIN	02	01935	TREE ORCHARD
201940-01													0.00	0	0	201940-01	COEN RONAI	02	01940	402 gallatin
201950-00	3700	4000	6100	7600	4400	6400	16800	10600	9400	7900	2700	600	80200.00	136	302	201950-00	LYGHT, DAVII	08	01950	308 PRESTON
201950-01													0.00	0	0	201950-01	TURK, MRS R	02	01950.00	312 PRESTON
201960-00	4000	4200	3500	4000	4000	5000	4100	5700	3500	3100	3500	3400	48000.00	125	138	201960-00	WELLS, DICK	08	01960	300 PRESTON
201970-00													0.00	0	0		10			
201970-01	41900						7300	24000	43300	5800	300	100	122700.00	234	437		10			
201980-00	2500		2000	1700	1900	2200	2300	2200	2500	2400	2400	2200	24300.00	60	73	201980-00	PARKER, NOL	08	01980	108 Cedar Street
201990-00													0.00	0	0	201990-00	TRAIN PROPE	08	01990	PRESTON
201990-01	31800						10700	11000	8000	8000	22000	100	91600.00	298	205	201990-01	MCAULIFFE,	08	01990.01	108 CEDAR STREET
202000-00	5300	5900	4800	3500	5000	11100	19200	25100	17800	7800	3200	5000	113700.00	153	467	202000-00	CARMAN, NE	08	02000	115 CEDAR STREET
202010-00	200	300	200	200	2200	6500	10700	17200	6600	2400	100	200	46800.00	7	248	202010-00	CARMAN, NE	08	02010	114 CEDAR STREET
202020-00						13400	33300	40900	24200	5500			117300.00	0	638	202020-00	CARMAN, NE	08	02020	
202020-02													0.00	0	0		10			309 OGDEN AVENUE W
202030-00				700					300	1000			2000.00	4	7	202030-00	NOWAK, CHR	08	02030	202 CEDAR STREET
202030-01													0.00	0	0	202030-01	TORGRIMSON	02	02030.00	202 CEDAR STREET
202040-00	5600	7600	6300	6600	9600	13600	47200	60100	52900	40600	8300	5300	263700.00	219	1217	202040-00	HILL, DIXIE	08	02040	207 CEDAR STREET
202050-00	200					100			1200		300		1800.00	3	7	202050-00	PREVIS, ART	08	02050	216 CEDAR STREET
202060-00								1300			900		2200.00	5	7	202060-00	BOESPFLUG	08	02060	219 CEDAR STREET
202060-01													0.00	0	0	202060-01	KNUTH, RON	02	02060.01	219 CEDAR STREET
202060-02													0.00	0	0	202060-02	KATANA, RA\	02	02060.00	219 CEDAR STREET
202060-03													0.00	0	0	202060-03	WHITEFISH C	02	02060.02	219 CEDAR STREET
202070-00	6300	5900	4300	4900	4100	19300				3200	4800	4200	57000.00	168	145	202070-00	WHITTENBUR	08	02070	211 HALEY AVENUE W
202070-01							6300	11000	7300				24600.00	0	134	202070-01	NORMANDEA	02	02070.01	211 HALEY AVENUE W
202070-02													0.00	0	0	202070-02	WHITTENBUR	02	02070.02	211 WEST HALEY AVE.
202080-00	55000	110000	150000	80000	105000	175000	600000	565000	300000	85000	25000	25000	2275000.00	2459	9946	202080-00	SCHOOL DIS1	08	02080	212 HALEY AVE W
202090-00					1800	4900	11500	30800	2800	200	100	100	52200.00	1	283	202090-00	ROGERS, BA	08	02090	212 3RD AVE WEST
202090-01													0.00	0	0	202090-01	KONOPKA LA	02	02090.01	212 3RD AVE WEST
202100-00	5700	8400	3000	12500	9500	12400	7500	22300	15600	9400	10300	7600	124200.00	262	417	202100-00	BROWN, RAY	08	02100	405 CEDAR STREET
202100-01													0.00	0	0	202100-01	HILL, JEAN	02	02100.01	405 CEDAR STREET
202100-02													0.00	0	0	202100-02	MILLER, WILL	02	02100.02	405 CEDAR STREET
202105-00	2900	3900	3100	3400	700		11300	11200	7200	3700	3100	2400	52900.00	104	185	202105-00	WINE, LEROY	08	02105.0	411 CEDAR STREET
202105-01													0.00	0	0	202105-01	BROYHILL, TI	02	02105.00	411 CEDAR STREET
202105-03													0.00	0	0	202105-03	FIRST SECUR	02	02105.01	411 CEDAR STREET
202110-00	6100	4700	2900	5500	3400	1800	6200	6600	4100	3800	4800	4600	54500.00	158	141	202110-00	ANDERSON,	08	02110	415 CEDAR STREET
202110-01													0.00	0	0	202110-01	MCGREGGOF	02	02110.01	415 CEDAR
202120-00	4800	4700	4100	4100	3700	7900	11200	16900	18200	5800	4300	4100	89800.00	144	346	202120-00	CREEKMORE	08	02120	419 CEDAR STREET
202130-00	3100	2600	2100	1300	2900	3900	6300	9000	9300	2400	2000	1400	46300.00	69	184	202130-00	BRIETENBACI	08	02130	414 CEDAR STREET
202140-01													0.00	0	0	202140-01	T.C.I. CABLEV	02	02140	422 CEDAR
202150-00	2300	2400	1800	1800	2400	7300	8000	8000	35600	2700	2300	2200	76800.00	71	348	202150-00	FLEMMER, PA	08	02150	428 CEDAR STREET
202150-01													0.00	0	0	202150-01	KOSTKA, KA1	02	02150.00	426 CEDAR STREET
202150-03													0.00	0	0	202150-03	BYCZEK, TOI	02	02150.01	428 CEDAR STREET
202160-00													0.00	0	0	202160-00	SHULTZ, DAN	08	02160	427 CEDAR STREET
202160-01													0.00	0	0	202160-01	KNUDSON, N	02	02160.00	427 CEDAR - 425 CUSTOM CUTTING
202160-02	400	100											500.00	3	0	202160-02	LIGHT, CARL	02	02160.01	427 CEDAR STREET
202170-00													0.00	0	0	202170-00	SCHAEFER E	08	02170	506 CEDAR STREET
202170-01													0.00	0	0	202170-01	JORDON MAI	02	02170.01	506 CEDAR
202170-02													0.00	0	0	202170-02	JONES LUTHE	02	02170.02	506 CEDAR
202180-00					9700	11600							21300.00	0	116	202180-00	PULFER, CHA	08	02180	503 CEDAR STREET
202180-01	14800	6900	6900	11500			11000	2400	12000	11900	11500	8000	96900.00	329	203	202180-01	PETRI, BRUC	02	02180.01	503 CEDAR STREET
202190-01													0.00	0	0	202190-01	BORDEN JAN	02	02190	509 CEDAR
202200-01													0.00	0	0	202200-01	BORDEN JAN	02	02200	511 CEDAR
202210-01													0.00	0	0	202210-01	BORDEN JAN	02	02210	513 CEDAR
202220-00	4600	5400	3800	3600	4200	4700	21300	30500	4700	4600	4300	4200	95900.00	143	380	202220-00	BORDEN, JAI	08	02220	515 CEDAR STREET
202230-00	7600	6900	6100	4900	5300	5300	21900	31400	11500	6300	6300	7100	120600.00	215	444	202230-00	ANDERSEN, I	08	02230	522 CEDAR STREET
202240-00	11700	18000	14500	14200	10200	12400	16800	19700	22900	14900	15500	12700	183500.00	478	527	202240-00	FOWLE, MICH	08	02240	202 PRESTON AVENUE W
202240-01													0.00	0	0	202240-01	ELLER, WILLI	02	02240.01	202 PRESTON AVENUE W
202250-00	6900	6000	4600	4700	4800	7400	18800	37600	36100	12500	5500	4800	149700.00	180	637	202250-00	PARKER NOL	08	02250	120 PRESTON AVENUE W
202250-02													0.00	0	0	202250-02	GILMORE RC	02	02250.01	120 PRESTON
202260-00	16900	19000	15300	11500	11600	12600	2700	36700	16400	8600	13300	14000	178600.00	497	482	202260-00	BROWN, JAS(	08	02260	112 PRESTON AVENUE W
202260-01													0.00	0	0	202260-01	MANFRE MIC	02	02260.01	112 PRESTON
202260-02													0.00	0	0	202260-02	MICHAELS, S	02	02260.00	112 PRESTON AVENUE
202270-00	6800	7600	5900	7500	7400	8600	2600	30500	12500	6700	5900	6600	108600.00	223	371	202270-00	SHUTTLE, ST	08	02270	108 PRESTON AVENUE W
202270-01													0.00	0	0	202270-01	COURTNEY L	02	0227001	108 PRESTON
202270-02													0.00	0	0	202270-02	GIBSON, SAN	02	02270.00	108 PRESTON AVENUE
202280-00	900	1100	800	800	800	1100	1000	1100	2000	900	900	900	12300.00	30	38	202280-00	WOLLASTON,	08	02280	116 FERRY STREET N
202290-00	1800	2000	1700	2200	2100	5300	8600	15600	16700	7100	2700	1700	67500.00	67	301	202290-00	DOWELL, JAY	08	02290	115 FERRY STREET N
202300-00													0.00	0	0	202300-00	MATTHEW, K/	08	02300	205 FERRY STREET N
202300-01													0.00	0	0	202300-01	JOHNSON K/	02	02300.01	205 N FERRY
202300-02	2100	2800	2300	2000	2200	3500	7200	21300	4300	2700	5500	2700	58600.00	96	224	202300-02	PHILLIPPI, ME	08	02300.01	205 FERRY STREET N

202310-00	5500	4700	3700	2100	3800	8400	25400	31300	7500	3200	3800	3100	102500.00	127	433	202310-00	MOSELEY JR,	08	02310	204 FERRY STREET N
202310-01													0.00	0	0	202310-01	THOMAS JR.,	02	02310.01	204 N FERRY
202310-02													0.00	0	0	202310-02	MUNSON, RO	02	02310.00	204 N FERRY STREET
202320-00													0.00	0	0	202320-00	SCOTT, ROY (	08	02320	209 FERRY STREET N
202320-01													0.00	0	0	202320-01	BOSTWICK, \	02	02320.00	209 N FERRY STREET
202320-02	6300	8800	5000	3700	5900	2700	15800	15600	9400	8600	7100	7300	96200.00	211	315	202320-02	SHANNON, JI	02	02320.01	209 FERRY STREET N
202320-03													0.00	0	0	202320-03	FLATHEAD LA	08	02320.01	209 FERRY STREET N
202330-00	4300	1200					400		2700	5300	2800	3900	20600.00	67	46	202330-00	SANFORD, KI	08	02330	212 FERRY STREET N
202330-01													0.00	0	0	202330-01	TURK ROBEF	02	02330.00	212 N FERRY
202340-00	3500	3200		3500			11600	18100	7100	2600	2300	2800	54700.00	85	214	202340-00	PEELE, JAKI	08	02340	219 FERRY STREET N
202350-00	6500	6300	5100	4800	4100	5500	15200	13900	9500	6300	6200	5600	89000.00	191	296	202350-00	THORPE, WAI	08	02350	216 FERRY STREET N
202360-00	3000	3900	2600	2800	2600	3600	9000	11900	5800	2800	2900	2500	53400.00	98	194	202360-00	SUSIC, JACOI	08	02360	227 FERRY STREET N
202360-01													0.00	0	0	202360-01	BROWN JASC	02	02360.01	227 N FERRY
202360-02													0.00	0	0	202360-02	TERRY, MICH	02	0236002	227 N FERRY STREET
202360-03													0.00	0	0	202360-03	PULLAN, CAN	02	02360.00	227 FERRY STREET N
202370-00													0.00	0	0	202370-00	FRANCK, COF	08	02370	228 FERRY STREET N
202370-01	1700	1800	1500	2200	1500	800	2200	1400	2700	1800	1800	1000	20400.00	55	57	202370-01	TRAVER, FRA	02	02370.01	228 FERRY STREET N
202380-00	5800	6800	5400	4900	6100	11500	17900	34400	9800	5200	4600	4800	117200.00	178	461	202380-00	JONES, CHAI	08	02380	304 FERRY STREET N
202380-01													0.00	0	0	202380-01	LARSEN, STE	02	02380.01	304 N FERRY STREET
202390-00	5300	3300	2600	2400	2300	2500			1100	3200	2600	1200	26500.00	96	49	202390-00	ARRANTS, ST	08	02390	312 FERRY STREET N
202400-01													0.00	0	0	202400-01	SMITH CHAR	02	02400	316 N FERRY
202410-00	4600	6300	5100	5100	5100	10400	11000	12700	8300	5200	4300	7000	85100.00	179	286	202410-00	SMITH, SAIRA	08	02410	320 FERRY STREET N
202440-00													0.00	0	0	202440-00	CROWDER, J/	08	02440	326 FERRY STREET N
202440-01													0.00	0	0	202440-01	BRAUER AVE	02	02440.00	326 N FERRY
202440-02													0.00	0	0	202440-02	MINEMYER JU	02	02440.02	326 N FERRY STREET
202440-03													0.00	0	0	202440-03	TALBOOM, EI	02	02440.01	326 FERRY STREET N
202440-04													0.00	0	0	202440-04	AMERICAN DI	02	02440.03	326 FERRY STREET N
202440-05				400	1400	6100	17000	27000	12600	2400		100	67000.00	3	361	202440-05	WHITTENBUR	02	02440.04	326 FERRY STREET N
202440-06													0.00	0	0	202440-06	MCMASTER, \	02	02440.05	326 FERRY STREET N
202450-01													0.00	0	0	202450-01	MUHN MARK	02	02450	206 3RD AVE WEST
202450-02													0.00	0	0	202450-02	SCHAEFER EI	02	02450TW	206 3RD AVE WEST
202461-00	3900	4100	3100	4100	11700	11300	19900	28000	35100	13900	3400	3600	142100.00	123	652	202461-00	SCHAEFER EI	08	02461	403 FERRY STREET N
202461-01													0.00	0	0	202461-01	MUHN MARK	02	02461.01	403 N FERRY
202462-01													0.00	0	0	202462-01	RIFFLE, MAR	02	02462	404 FERRY
202470-00													0.00	0	0	202470-00	SCHAEFER EI	08	02470	407 FERRY STREET N
202470-01													0.00	0	0	202470-01	MUHN MARK	02	02470.01	407 N FERRY
202475-00	22600	23300	16100	15500	13000	15000	8000		29000	19100	25700	25700	213000.00	712	457	202475-00	RIFFLE, MAR	08	02475	408 FERRY STREET N
202480-00	100	1800	2000	400	100	600		29400		400	200		35000.00	25	166	202480-00	SCHAEFER EI	08	02480	409 FERRY STREET N
202480-01													0.00	0	0	202480-01	MUHN MARK	02	02480.01	409 N FERRY
202490-00	3600	4500	2800	3900	3900	4900	5600	6200	4700	3100	2900	3500	49600.00	117	154	202490-00	WEDEL, MAR	08	02490	414 FERRY STREET N
202500-00													0.00	0	0	202500-00	ALBANO, SET	08	02500	413 FERRY STREET N
202500-01													0.00	0	0	202500-01	HENDRICKSO	02	02500.00	413 FERRY STREET N
202500-02													0.00	0	0	202500-02	DAMASKOS, T	02	02500.01	413 FERRY STREET N
202500-03													0.00	0	0	202500-03	HENDRICKSO	02	02500.02	413 FERRY STREET N
202500-04	3100	3200	3200	3200			3800	3000	3500	3500	2800	2100	31400.00	97	75	202500-04	ALBANO, SET	08	02500.01	413 FERRY STREET N
202510-00	2500	3300	2200	1800	2300	3100	5000	15600	3900	2400	3100	2700	47900.00	86	176	202510-00	GREGORY, L	08	02510	420 FERRY STREET N
202510-01													0.00	0	0	202510-01	FRANCK FAI	02	02510.01	420 N FERRY
202520-00	8400	11700	6400	8100	7100	6000	7400	8100	7100	4800	6600	8600	90300.00	275	220	202520-00	MCGANN, KE	08	02520	421 FERRY STREET N
202530-00	5300	3100	1200	2000	900		1700	2900	600	17700	1800	2000	39200.00	85	129	202530-00	PARKER, NO	08	02530	426 FERRY STREET N
202540-00		4500	3200	4700	3700	6500							22600.00	69	55	202540-00	GREENOUGH	08	02540	111 4TH AVE W
202540-01													0.00	0	0	202540-01	LAWS, LILLIA	02	02540.01	111 4TH AVE WEST
202540-02	3800						3500	34700	13200	3000	3400	3300	64900.00	58	296	202540-02	KELLY, CHRI:	02	02540.02	111 4TH AVE W
202550-00	4900	5300	4300	4100	4100	7000	9200	13500	7300	3800	4100	4100	71700.00	148	244	202550-00	LEFORCE, CI	08	02550	425 FERRY STREET N
202550-01													0.00	0	0	202550-01	PARKER, FRA	02	02550.01	425 N FERRY
202550-02													0.00	0	0	202550-02	BROWN CARL	02	02550.02	425 N FERRY
202550-03													0.00	0	0	202550-03	WAKEFIELD,	02	02550.03	425 N FERRY STREET
202560-01													0.00	0	0	202560-01	SOULE IRA	02	02560	503 N FERRY
202570-01													0.00	0	0	202570-01	COLE, SHERI	02	02570	504 FERRY N
202580-00	7300	7100	3400	4100	3100	4200	2900	3300	4000	4900	4700	5600	54600.00	178	122	202580-00	SOULE, VON/	08	02580	507 FERRY STREET N
202590-00	3300	3700	2900	3000	2900	3700	4200	29100	14200	2300	3200	2900	75400.00	105	307	202590-00	WRIGHT, ROI	08	02590	518 FERRY STREET N
202590-01													0.00	0	0	202590-01	HAASE, DAVI	02	02590.00	518 N FERRY STREET
202600-00	8100	9200	6400	7100	8800	7800	14300	23200	9200	6700	7200	6900	114900.00	248	380	202600-00	GUNDERSON	08	02600	112 4TH AVE WEST
202600-01													0.00	0	0	202600-01	COLE, SHERI	02	02600.01	112 4TH AVE WEST
302610-00	2900	3800	2200	2300	2800	3600	8000	14400	8900	2400	2900	2700	56900.00	93	218	302610-00	PARKER, NO	08	02610	104 PRESTON AVENUE W
302620-00	14400	6400	4700	3600	4700	3400	3800	4400	7200	3200	2900	3700	62400.00	197	145	302620-00	CONTRERAS,	08	02620	106 GROVE STREET
302620-01													0.00	0	0	302620-01	MCFARLAND	03	02620.00	106 GROVE
302630-00	11300	3100	2800	2700	3400	4500	1200	12700	12200	4700	5700	4100	68400.00	164	210	302630-00	THOMPSON, (	08	02630	107 GROVE STREET
302630-01													0.00	0	0	302630-01	DENSON, CH	03	02630.01	107 GROVE STREET
302630-02													0.00	0	0	302630-02	PIERCE, ROB	03	02630.00	107 GROVE STREET
302640-00	6700	4500	4000	3500	3600	4100	18100	23800	19300	7500	5200	5100	105400.00	160	415	302640-00	MAGDALENE,	08	02640	111 GROVE STREET
302650-00	3900	3700	3300	3500	3300	4900	6300	8200	4700	3700	3500	3500	52500.00	118	169	302650-00	GRIMM, DOU	08	02650	117 GROVE STREET
302660-00	800	1100	1000	700	1100	1400	1000	800	1000	1000	1000	1000	11900.00	31	34	302660-00	JOHNSON, H	08	02660	118 GROVE STREET
302670-00													0.00	0	0	302670-00	TERRAZAS, M	08	02670	203 GROVE STREET
302670-01													0.00	0	0	302670-01	BARKER VIRG	03	02670.00	203 GROVE
302670-02													0.00	0	0	302670-02	GRAZIER, AM	03	02670.01	203 GROVE
302670-03													0.00	0	0	302670-03	BARNES, SHA	03	02670.03	203 GROVE STREET
302670-04													0.00	0	0	302670-04	HARLOW, ME	03	02670.02	203 GROVE STREET
302670-05													0.00	0	0	302670-05	MAJESTIC MC	03	02670.04	203 GROVE STREET
302670-06													0.00	0	0	302670-06	JEWELL, MAL	03	02670.05	203 GROVE STREET
302670-08													0.00	0	0	302670-08	FARR, MARK	08	02670.07	203 GROVE STREET
302680-00	2400	3300	2500	2400	4100	6200	24300	30600	13500	6700	3700	7300	107000.00	119	464	302680-00	TORGRIMSON	08	02680	207 GROVE STREET
302690-00	1900	2100	1700	1900	1500	4100	19500	37500	19300	8700	2000	1600	101800.00	62	492	302690-00	WHITE, JOHN	08	02690	206 GROVE STREET
302700-00	3500	2600	2400	3100	3100	3600	3800	11200	3900	2000	800	2200	42200.00	81	150	302700-00	WHITE, JOHN	08	02700	212 GROVE STREET
302700-01													0.00	0	0	302700-01	WHITE JOHN	03	02700.	212 GROVE STREET
302710-00	3100	3000	1200	1800	2500	3400	8300	9100	5300	2700	1900	2800	45100.00	76	170	302710-00	SHEETS, MAI	08	02710	215 GROVE STREET
302720-00													0.00	0	0	302720-00	WHITE, JOHN	08	02720	216 GROVE STREET
302720-01													0.00	0	0	302720-01	WHITE, J.	03	02720.00	216 GROVE STREET
302720-02													0.00	0	0	302720-02	WHITE, JOHN	03	02720.02	216 GROVE
302720-03													0.00	0	0	302720-03	KASSAHN, KF	03	02720.01	216 GROVE STREET
302720-04							3800	3100	3900	3900	5400	2500	22600.00	44	80	302720-04	HANFORD, GI	03	02720.03	216 GROVE STREET
302730-00	3000	2300	2200	1300	1100	1500	2500	1200	3000	1100	2000	3900	25100.00	81	57	302730-00	GRANTHAM,	08	02730	219 GROVE STREET
302740-00	5900	7600	5900	4500	4800	9000	7000	72300	17100	6100	4300	5700	150200.00	187	632	302740-00	PETERSON, .	08	02740	224 GROVE STREET
302740-01													0.00	0	0	302740-01	GARRISON M	03	02740.01	224 GROVE
302750-00			1500										1500.00	8	0	302750-00	MILLIGAN, LA	08	02750	303 GROVE STREET
302750-01													0.00	0	0	302750-01	CLARK DAVI	03	02750.01	303 GROVE
302750-02													0.00	0	0	302750-02	MORKERT HA	03	02750.00	303 GROVE
302760-00	5700	3900	2700	3300	3400	6700	6800	17400	4100	5400	3200	1400	64000.00	112	238	302760-00	LOFTHUS, OI	08	02760	107 HALEY AVENUE E
302770-00	6500	7100	6600	5900	6200	8100	8200	8000	7500	6300	6500	6100	83000.00	214	241	302770-00	NEWBY, BILL	08	02770	309 GROVE STREET
302770-01													0.00	0	0	302770-01	JONES, CHAI	03	02770.01	309 GROVE STREET
302780-00	4600	5100	4900	4100	4300	4700	4400	13100	8000	3000	6300	4300	66800.00	162	204	302780-00	BROWN, JAS	08	02780	315 GROVE STREET
302780-01													0.00	0	0	302780-01	SNIEZAK STE	03	02780.00	315 GROVE

302780-02													0.00	0	0	302780-02	BROWN, SHA	03	02780.02	315 GROVE STREET
302790-01													0.00	0	0	302790-01	LOFTHUS, OI	03	02790	312 GROVE STREET
302800-00	1800	2000	1600	1400	1500	2700	700	1300	200		500	600	14300.00	44	35	302800-00	LOFTHUS, OI	08	02800	314 GROVE STREET
302805-00													0.00	0	0	302805-00	SCOTT, MICH	08	02805	322 GROVE STREET
302805-01													0.00	0	0	302805-01	WISWELL, JAI	03	02805.01	322 GROVE STREET
302805-02	3600	3000		3500	11900	1000	6900	4900	3300	1500	1900	2400	43900.00	80	160	302805-02	VERLANIC, LY	08	02805.01	322 GROVE STREET
302810-00	2500	3000	2200	2100	2000	2600	3000	4900	4400	2400	2200	2000	33300.00	77	105	302810-00	BURRESE, R	08	02810	323 GROVE STREET
302815-00	9600	15300	4600	3900	400	1100		48300	45400	21900	8200	6400	165100.00	265	636	302815-00	CASIDA, M. M	08	02815	326 GROVE STREET
302815-01													0.00	0	0	302815-01	THOMPSON,	03	02815.01	326 GROVE STREET
302815-02													0.00	0	0	302815-02	MCCUAIG, JA	03	02815.00	326 GROVE STREET
302820-00	1400	5200	1900	1800	1900	2300	2400	14800	1200	2000	2000	2100	39000.00	80	134	302820-00	MOSHER, RI	08	02820	402 GROVE STREET
302823-00													0.00	0	0	302823-00	PATTERSON,	08	02823	106 3RD AVENUE W
302823-01													0.00	0	0	302823-01	SHANNON, D	03	02823.01	403 GROVE STREET
302823-02													0.00	0	0	302823-02	KNOEPKE, JC	08	02823.01	106 3RD AVENUE W
302830-00						9000							9000.00	0	49	302830-00	SCOTT, PAME	08	02830	410 GROVE STREET
302830-01													0.00	0	0	302830-01	HURST, ROW	03	02830.00	410 GROVE STREET
302840-00	4000	4400	3400	2600	2600	4600	4000	20500	17000	3500	3900	3700	74200.00	122	284	302840-00	MAGOFFIN, F	08	02840	417 GROVE STREET
302850-00	6000	10100	13800	12500	700	17600	22700	31500	2800	16000	4700	5900	144300.00	293	496	302850-00	O'NEILL, WILI	08	02850	418 GROVE STREET
302860-00							20600	4900	11500	11800			48800.00	0	265	302860-00	HAMMETT, CI	08	02860	421 GROVE STREET
302860-01													0.00	0	0	302860-01	ROBSON, EV	03	028600.00	421 GROVE STREET
302860-02													0.00	0	0	302860-02	GREVEN, THI	03	02860.02	421 GROVE
302860-03													0.00	0	0	302860-03	CHADWICK, L	03	028600.01	421 GROVE STREET
302870-00		1700	1400	1500	1600								6200.00	25	9	302870-00	SMITH, JAMES	08	02870	108 4TH AVE EAST
302870-01	1900						2200	8200	2300	1800	1600	1700	19700.00	29	79	302870-01	CRADDICK, V	03	02870.01	108 4TH AVE EAST
302880-00	3600	3700	2400	5700	10100	10900	14100	28900	33800	7200	2500	2400	125300.00	112	571	302880-00	HAMMETT, C	08	02880	427 GROVE STREET
302890-00													0.00	0	0	302890-00	DEATON, WIL	08	02890	504 GROVE STREET
302890-01													0.00	0	0	302890-01	HARPER TIM(	03	02890.01	
302890-02													0.00	0	0			10		504 GROVE STREET
302890-03													0.00	0	0	302890-03	SHEAR, BRY(	03	02890.03	504 GROVE STREET
302890-04	2700	3200	2900	2800	1300	1400	4800	27700	11400	4400	2800	2500	67900.00	93	277	302890-04	HAINES, FRE	03	02890.02	504 GROVE STREET
302900-00	6800	7600	4100	5400	5600	6000	13600	26800	13200	6900	5200	5100	106300.00	189	392	302900-00	MILNER, PAT	08	02900	503 GROVE STREET
302910-01													0.00	0	0	302910-01	WAKEFIELD /	03	02910	516 GROVE
302915-00	4600	5200	3400	4300	3600	5900	7200	13600	7000	4500	3300	3400	66000.00	134	227	302915-00	HALL, DAVID	08	02915	510 GROVE STREET
302920-00													0.00	0	0	302920-00	CULLEN, JAN	08	02920	513 GROVE STREET
302930-00													0.00	0	0	302930-00	CULLEN, JAN	08	02930	517 GROVE STREET
302940-00	15400	14900	11600	9800	10600	16600	33700	51800	29700	18800	14300	14400	241600.00	444	876	302940-00	SHEAR, E. W	08	02940	527 GROVE STREET
302950-00	3400	3500	2800	2600	2700	3500	2400	10700	5400	3000	3300	3200	46500.00	104	151	302950-00	HAASE, DAVI	08	02950	111 5TH AVENUE W.
302955-00	2100	1500	1300	1000	1400	6300	5400	20400	17000	6200	1100	1500	65200.00	47	308	302955-00	HALL, MARY	08	02955	518 GROVE STREET
302960-00	13000	11600	6600	6200	4700	5800	11100	25900	22700	10000	5900	6600	130100.00	276	436	302960-00	HALL, DAVID	08	02960	520 GROVE STREET
302965-00		600	1000	1200	1200	1200							5200.00	15	13	302965-00	FROST, BILL	08	02965	530 GROVE STREET
302970-00	21900	16000	7800	7700	7200	14200	5300	4600	5800	4600	4200	5000	104300.00	346	227	302970-00	THOMPSON, (	08	02970	604 GROVE STREET
302970-01													0.00	0	0	302970-01	YOUNG, MAY	03	02970.01	604 GROVE STREET
302970-02													0.00	0	0	302970-02	BESAW, JOH	03	02970.02	604 GROVE STREET
302970-03													0.00	0	0	302970-03	PIERCE, ROB	03	02970.00	601 grove street
302980-00	4100	4500	3600	2300	2200	2200	700	2400	2400	2400	2600	3400	32800.00	113	67	302980-00	BRASS, LAUF	08	02980	107 GREENWOOD STREET
302990-00	1800	1900	1700	1700	1600	2100	46900	54700	55000	25400	1500	1700	196000.00	57	1009	302990-00	TAYLOR, CLI	08	02990	326 grove street
303000-00	13900	12700	10000	8400	6200	7200	10100	11600	6300	5700	4300	7900	104300.00	316	256	303000-00	MCCUAIG, JA	03	02815.00	604 GROVE STREET
303000-01													0.00	0	0	303000-01	LENTZ, HAR(	03	03000.01	104 GREENWOOD - TRLR - 106 TRLR
303010-01													0.00	0	0	303010-01	LENTZ, HAR(	03	03010.01	110 GREENWOOD
303014-01													0.00	0	0	303014-01	LENTZ, HAR(	03	03014	112 GREENWOOD
303015-00													0.00	0	0	303015-00	VERLANIC, LY	08	03015	117 GREENWOOD STREET
303015-01													0.00	0	0	303015-01	KAZMIERCZA	03	03015.01	117 GREENWOOD
303015-02	3400	5100	3600	3500	3200		3300	7800	5100	2400	2900	3600	43900.00	122	118	303015-02	FISHER, BRA	03	03015.02	117 GREENWOOD STREET
303015-03						2900							2900.00	0	16	303015-03	VERLANIC, OI	03	03015.03	117 GREENWOOD STREET
303015-04													0.00	0	0	303015-04	WASHBURN, !	03	03015.04	117 GREENWOOD STREET
303020-00	3300	4500	3400	3900	3800	4600	2600	7500	3700	3000	2900	3300	46500.00	118	137	303020-00	MCCUAIG, JA	08	03020	116 GREENWOOD STREET - HOUSE
303020-01													0.00	0	0	303020-01	LENTZ, HAR(	03	03020.01	116 GREENWOOD - HOUSE - 118 TRLR.
303030-00	7400	9700	7000	5600	5300	7000	2400	20200	8200	6000	5900	8100	92800.00	241	267	303030-00	DEXTER, SHA	08	03030	202 GREENWOOD STREET
303030-01													0.00	0	0	303030-01	BESAW, WM	03	03030.00	202 GREENWOOD STREET
303035-00			100	1400	1400	3000							5900.00	8	24	303035-00	BRIGHT, CAN	08	03035	214 GREENWOOD STREET
303035-02			100				500	5400	1700	2600	3000	900	14200.00	22	55	303035-02	BILL BESAW	03	03035.01	214 GREENWOOD STREET
303035-03													0.00	0	0	303035-03	BRIGHT, CAN	03	03035TW.02	214 GREENWOOD STREET
303037-00													0.00	0	0	303037-00	KNUTSON, R(	08	03037	216 GREENWOOD STREET - SHOP
303037-01													0.00	0	0	303037-01	BESAW, WILI	03	03037.01	216 GREENWOOD STREET - SHOP
303040-00													0.00	0	0	303040-00	TAYLOR, TER	08	03040	201 GREENWOOD STREET
303040-01													0.00	0	0	303040-01	TAYLOR, STE	03	03040.00	201 GREENWOOD STREET
303041-00													0.00	0	0	303041-00	TAYLOR, STE	08	03041	205 GREENWOOD STREET
303070-00	3700	6000	4100	3900	4500	4800	19700	24900	14800	4300	1000	3100	94800.00	120	397	303070-00	HILLCREST R	08	03070	211 spruce
303080-00			2600	1700	4800	1500	1900	60600	700				73800.00	24	378	303080-00	CORK, TERR	08	03080	305 GREENWOOD STREET
303090-00	6200	6700	5400	6200	5800	6400	11000	18800	11900	5900	5400	5500	95200.00	196	325	303090-00	LACY, JERRY	08	03090	323 GREENWOOD STREET
303095-00	100	600	4600	1800	800	1800	300	2300	1000	200	200	100	13800.00	41	35	303095-00	MOSHER, JOI	08	03095	414 greenwood street
303100-00	6000	4100	5500	1300	1200	8500	4700	91200	28600	6400	4300	5200	167000.00	146	764	303100-00	DAMASKOS, I	08	03100	208 HALEY AVENUE E
303110-01													0.00	0	0	303110-01	GRANTHAM /	03	03110	411 GREENWOOD
303120-00													0.00	0	0	303120-00	WHITE, JOHN	08	03120	417 GREENWOOD STREET
303120-01	300	800	500	500	800	1000	100	200	100	200	100	1300	5900.00	19	13	303120-01	GRANTHAM,	03	03120.01	417 GREENWOOD STREET
303120-02													0.00	0	0	303120-02	GRANTHAM,	03	03120.02	417 GREENWOOD STREET
303120-03													0.00	0	0	303120-03	ST MT DOJ A	03	03120.03	417 GREENWOOD STREET
303121-00	3800	4100	3100	3500	4300	6000	12500	30900	7600	5000	3400	3500	87700.00	118	360	303121-00	DOTY, JESSE	08	03121	403 GREENWOOD STREET
303130-00	2900	2500	1600	1600	1600	2500	6000	30600	12200	4600	2800	2400	71300.00	76	313	303130-00	BEITZ, VICKI	08	03130	424 GREENWOOD STREET
303140-00	1800	3000	1000	1700	1600	5500	26400	47100	38600	7300	1500	1500	137000.00	58	688	303140-00	BASHAM, JOI	08	03140	425 GREENWOOD STREET
303145-00													0.00	0	0	303145-00	GAMBREL, R(	08	03145	504 GREENWOOD STREET
303145-01													0.00	0	0	303145-01	MCDONALD, .	03	03145.00	504 GREENWOOD STREET
303145-02													0.00	0	0	303145-02	DOTY, JAMES	03	03145.01	504 GREENWOOD STREET
303150-00	2500	1500	1700	1800	1900	16400	45700	5000	5000	85100	1900	1900	170400.00	62	865	303150-00	WILLIAMS, BI	08	03150	505 GREENWOOD STREET
303150-01													0.00	0	0	303150-01	MARTIN, LEE	03	03150.01	505 GREENWOOD STREET
303160-00													0.00	0	0	303160-00	HALL, ROBER	08	03160	511 GREENWOOD STREET
303160-01													0.00	0	0	303160-01	TERRY, MAT	03	03160.01	511 GREENWOOD STREET
303160-02													0.00	0	0	303160-02	COMPTON, JI	03	03160.02	511 GREENWOOD
303160-03													0.00	0	0	303160-03	WARD, ANGE	03	03160.03	511 GREENWOOD STREET
303160-04													0.00	0	0	303160-04	TERRY, MICH	03	03160.04	511 GREENWOOD STREET
303170-00													0.00	0	0	303170-00	BLOUIN, DENI	03	03170	520 GREENWOOD
303170-02													0.00	0	0	303170-02	BLOUIN DANI	03	03170.01	520 GREENWOOD
303180-00	3900	2300	1600	2200	800	1800	2900	200	1700	2300	1900		21600.00	66	53	303180-00	JORGENSON,	08	03180.00	508 GREENWOOD STREET
303180-01													0.00	0	0	303180-01	KINGDOM HA	03	03180.01	508 GREENWOOD
303180-02													0.00	0	0	303180-02	VONSEGGER	03	03180.02	508 GREENWOOD STREET
303180-03													0.00	0	0	303180-03	HAYES, LIND	03	03180.03	508 GREENWOOD STREET
303180-04													0.00	0	0	303180-04	HAYES, LIND	03	03180.04	508 GREENWOOD STREET
303190-00	2200	2800	1800	1800	2400	3600	8100	15900	2000	4700	22600	2000	69900.00	183	199	303190-00	KEITH CHER	08	03190	517 GREENWOOD STREET
303200-00	4100	4000	2800	3300	3100	4300	9400	8200	5200	3000	3200	3300	53900.00	114	180	303200-00	THOMAS, JAN	08	03200	524 GREENWOOD STREET
303200-01													0.00	0	0	303200-01	HARTMAN JO	03	03200.00	524 GREENWOOD
303200-02													0.00	0	0	303200-02	THOMAS, STI	03	03200.01	524 GREENWOOD STREET

303210-00	4800	12700	8200	5900	4500	7700	22000	23800	17500	4400	2900	3700	118100.00	211	434	303210-00	RICHMOND, L	08	03210	208 5TH AVE EAST
303210-01													0.00	0	0	303210-01	STAMM, ROD	03	03210.00	208 5TH AVE EAST
303210-02													0.00	0	0	303210-02	FRANCK & DA	03	03210.01	208 5TH AVE EAST
303220-00	4600	5400	5800	5600	5300	9400	4600	11600	13800	4500	3200	4100	77900.00	159	267	303220-00	SHAFFORD, J	08	03220	607 GREENWOOD STREET
303220-01													0.00	0	0	303220-01	HOAGLAND,	03	03220.01	607 GREENWOOD STREET
303230-00	900	1100	1200	900	1200	1900	7600	8300	7900	5300	300	900	37500.00	29	175	303230-00	THOME, CLIN	08	03230	612 GREENWOOD STREET
303240-00	4000	5400	4000	3500	4000	3900	27600	16800	4400	3800	7200	8800	93400.00	182	329	303240-00	REICHERT, BI	08	03240	105 WOODLAND STREET
303250-00	1400	1600	1200	1500	1600	6900	18000	28900	10500	3400	1700	1800	78500.00	51	377	303250-00	GREAVES JA	08	03250	108 WOODLAND STREET
303250-01													0.00	0	0	303250-01	HAYES, LIND	03	03250.01	108 WOODLAND
303260-01													0.00	0	0	303260-01	CURRAN HA	03	03260	WOODLAND - VACANT LOT
303270-00	4200	5700	3500	3000	3200	3900	6400	6200	4800	4000	4000	4700	53600.00	139	155	303270-00	HILL, ROBB &	08	03270	114 WOODLAND STREET
303270-01													0.00	0	0	303270-01	OWENS CHR	03	03270.01	114 WOODLAND
303280-00	1500	1500	1500	1300	1200	1800	1500	1900	1800	1500	1500	1400	18400.00	48	53	303280-00	MILES, DAN &	08	03280	117 WOODLAND STREET
303290-00						1800							1800.00	0	10	303290-00	THOMPSON,	08	03290	207 WOODLAND STREET
303290-01													0.00	0	0	303290-01	KIRKLAND, PA	03	03290.01	207 WOODLAND
303290-02													0.00	0	0	303290-02	BESAW, JOH	03	03290.02	207 WOODLAND STREET
303300-00	2300	4200	4000	4700	3600	4800	8600	10100	6200	3600	2900	3900	58900.00	122	201	303300-00	PARKER, NOL	08	03300	211 WOODLAND STREET
303305-00													0.00	0	0	303305-00	BARRUS, TRA	08	03305	215 WOODLAND STREET
303305-01	4700	5500	4100	3500	4100	5200	11100	19600	4300	3700	3800	4700	74300.00	145	261	303305-01	ROWE, CHAF	03	03305.01	215 WOODLAND STREET
303310-00													0.00	0	0	303310-00	FRANK, JUDI	08	03310	204 WOODLAND STREET
303310-01													0.00	0	0	303310-01	MILLS KENNE	03	03310.00	204 WOODLAND
303310-02	3000	4200	2500	3400	2500	2000	8000	7800	4000	8000	8000	3800	57200.00	138	176	303310-02	SAKUSKI JOS	03	03310.01	204 WOODLAND STREET
303320-00	5000	5800	3100	4700	4300	5500	9000	10200	6500	5000	5000	5200	69300.00	159	220	303320-00	VALLEY BANK	08	03320	208 WOODLAND STREET
303320-01													0.00	0	0	303320-01	TURK ROBEF	03	03320.00	208 WOODLAND
303320-02													0.00	0	0	303320-02	HERMANN, M	03	03320.02	208 WOODLAND STREET
303320-03													0.00	0	0	303320-03	MILLER, WILL	03	03320.01	208 WOODLAND STREET
303330-00	3200	3200	2100	2700	3300	4500	8000	13400	7200	3500	2200	2300	55600.00	87	217	303330-00	KULAWINSKI,	08	03330	212 WOODLAND STREET
303340-01													0.00	0	0	303340-01	JOHNSON JA	03	03340	215 WOODLAND
303350-00	6200	7600	5400	5900	4700	6700	7900	9900	7800	6500	7500	7800	83900.00	223	236	303350-00	FRANK, ROBI	08	03350	222 WOODLAND STREET
303350-01													0.00	0	0	303350-01	LOVELL RAN	03	03350.01	222 WOODLAND
303360-00					2100	1900							4000.00	0	22	303360-00	WILSON, VICK	08	03360	214 HALEY AVENUE E
303360-01													0.00	0	0	303360-01	BESAW, WIL	03	03360.01	214 E HALEY
303360-02	13500		46400				18800	52200	18200	5500	2700	9600	166900.00	399	515	303360-02	VAN VALKENI	03	03360.02	214 HALEY AVENUE E
303365-00													0.00	0	0	303365-00	FRATERNAL (	08	03365	300 BLOCK WOODLAND
303370-00	1100	1200	800	1000	3100		1300	1700	1500	1200	1100	1200	15200.00	35	48	303370-00	WIDNER, RU	08	03370	307 3RD AVE EAST
303380-00	1700	3300	2000	1800	2100	2700	7200	34300	22200	3000	2000	2100	84400.00	71	389	303380-00	STOUT, JOE	08	03380	403 WOODLAND STREET
303380-01													0.00	0	0	303380-01	LUNDY, FRAN	03	03380.00	403 WOODLAND STREET
303390-00	3900	6000	4900	4400	600	1700	5500	26800	8500	18300	5000	700	86300.00	138	334	303390-00	GARCIA, ALIS	08	03390	413 WOODLAND STREET
303390-01													0.00	0	0	303390-01	BOWDEN, WA	03	03390.01	413 WOODLAND STREET
303390-02													0.00	0	0	303390-02	MAJESTIC MC	03	03390.00	413 WOODLAND STREET
303390-03													0.00	0	0	303390-03	SIMMS, DANI	03	03390.03	413 WOODLAND STREET
303395-00	1700	2000	1700	1600	1600	1700	6300	7400	4200	4400	4200	4600	41400.00	87	139	303395-00	CLARK, STEV	08	03395	420 WOODLAND STREET
303400-00	12200	11600	9100	10300	10900	11000	21800	25800	6600	15600	9500	9700	154100.00	345	498	303400-00	DENSON, CHA	08	03400	421 WOODLAND STREET
303400-01													0.00	0	0	303400-01	BOWDEN III,	03	03400.00	421 WOODLAND STREET
303400-02													0.00	0	0	303400-02	DENSON, TIM	03	03400.01	421 WOODLAND STREET
303410-00	3800	3900	2000	2600	2200	2700	10100	27600	23100	4800	6600	900	90300.00	109	383	303410-00	WITTERS, JEA	08	03410	427 WOODLAND STREET
303410-01													0.00	0	0	303410-01	PERKINS, JU	03	03410.00	427 WOODLAND STREET
303420-00	1700	1300	900	1000	4000	11500	22600	30800	1700	26200		2000	103700.00	38	526	303420-00	MORRISON, I	08	03420	428 WOODLAND STREET
303430-00	3300	3300	5500	900	2900	3300	5900	11500	5500	3900	2400	3000	51400.00	102	179	303430-00	FRANK, DOR	08	03430	506 WOODLAND STREET
303430-02													0.00	0	0			10		
303435-00	3500	3500	3500	300	1800	4200	4800	400	5000	8000	2700	1500	39200.00	83	132	303435-00	THOMPSON, (	08	03435	217 4TH AVE EAST
303435-01													0.00	0	0	303435-01	CHENEY, JO	03	03435.01	217 4TH AVE EAST
303435-02													0.00	0	0	303435-02	PIERCE, ROE	03	03435.00	217 4TH AVE EAST
303435-03													0.00	0	0	303435-03	RADCILFFE, S	03	03435.02	217 4TH AVE EAST
303440-01													0.00	0	0	303440-01	MITCHELL, L	03	03440.01	505 WOODLAND STREET
303440-02													0.00	0	0	303440-02	CARROLL MA	03	03440.02	507 WOODLAND
303440-03													0.00	0	0	303440-03	PIERCE, ROE	03	03440	505 WOODLAND STREET
303450-00	6900	11900	7700	2000	1700	1100	2500	2400	2800	1800	2200	6500	49500.00	206	67	303450-00	LEISZ, NAOMI	08	03450	507 WOODLAND STREET
303450-02													0.00	0	0	303450-02	WHITNEY, DA	03	03450.01	505 WOODLAND STREET
303460-00	2000	2100	800	600	400	400	3400	6300	13100	8600	1600	1900	41200.00	50	175	303460-00	MELOY WILLI	08	03460	507 1/2 WOODLAND STREET
303460-01													0.00	0	0	303460-01	LOTERBAUEF	03	03460.01	507 1/2 WOODLAND
303460-02													0.00	0	0	303460-02	ROHRER, VE	03	03460.00	507 1/2 WOODLAND STREET
303470-00	3800	3600	2600	3000	2800	3400	2800	4200	3700	2300	2800	4300	39300.00	111	104	303470-00	HEISE, RONE	08	03470	524 WOODLAND STREET
303480-00	1200	12300	4000	3700	4400	5100	7600	16600	9900	4000	5500	7400	81700.00	188	259	303480-00	DOTY, BRYCI	08	03480	523 WOODLAND STREET
303490-00	5800	6200	4400	4600	4800	5900	3900	37200	13100	7300	6300	7800	107300.00	194	392	303490-00	HART, MITZI L	08	03490.00	308 5TH AVE EAST
303490-01													0.00	0	0	303490-01	SPARKS, AM	03	03490.01	308 5TH AVE EAST
303490-02													0.00	0	0	303490-02	FISHER KENN	03	03490.02	308 5TH AVE EAST
303490-03													0.00	0	0	303490-03	SPARKS, KEV	03	03490.03	308 5TH AVE EAST
303490-05													0.00	0	0	303490-05	STEINWEDEN	03	03490.05	308 5TH AVE EAST
303495-00	3400	3400	2600	2600	2600	3200	3700	3000	3700	3200	3100	3200	37700.00	101	105	303495-00	CZERWINSKI	08	03495	305 5TH AVE EAST
303495-01													0.00	0	0	303495-01	QUINN, AARO	03	03495.00	305 5TH AVE EAST
303495-02													0.00	0	0	303495-02	HOMESALES	03	03495.01	305 5TH AVE EAST
303500-00													0.00	0	0	303500-00	STIMPFLING,	08	03500	611 WOODLAND STREET
303500-01													0.00	0	0	303500-01	WILHELMSEN	03	03500.01	607 WOODLAND
303500-02													0.00	0	0	303500-02	RAYNOR, LES	03	03500.02	611 WOODLAND STREET
303500-03													0.00	0	0	303500-03	MAJESTIC MC	03	03500.03	611 WOODLAND STREET
303500-04													0.00	0	0	303500-04	JOHNSON, TE	03	03500.00	611 WOODLAND STREET
303500-05	3100	4600	2600	4000	4700	3500	6000	4100	5800	1900	2600	2200	45100.00	106	141	303500-05	DEACON, TAI	03	03500.04	611 WOODLAND STREET
303510-00													0.00	0	0	303510-00	BRONSON, CI	08	03510	617 WOODLAND STREET
303510-01								900		100			1000.00	0	5	303510-01	FULLERTON,	03	03510.01	617 WOODLAND STREET
303520-00	6600	7300	5300	6000	6000	7000	10400	36200	14100	6600	6400	7200	119100.00	214	436	303520-00	CAMPBELL, (	08	03520	622 WOODLAND STREET
303530-00													0.00	0	0	303530-00	TRAIN, ANTH(	08	03530	107 CLAY STREET
303530-01							800	4700					5500.00	0	30	303530-01	LA ROCK, LO	03	03530.01	107 CLAY STREET
303530-02													0.00	0	0	303530-02	BANK OF AME	03	03530.02	107 CLAY STREET
303540-00	16500	25100	14000	12700	7100	9300	7200	9800	9400	7400	6900	7600	133000.00	457	273	303540-00	THOMPSON, (	08	03540	104 CLAY STREET
303540-01													0.00	0	0	303540-01	PIERCE, ROB	03	03540.00	104 CLAY STREET
303540-02													0.00	0	0	303540-02	NUESSLE, JE	03	03540.01	104 CLAY STREET
303550-00													0.00	0	0	303550-00	THOMPSON, (	08	03550	110 CLAY STREET
303550-01													0.00	0	0	303550-01	PIERCE, ROB	03	03550.00	110 CLAY STREET
303550-03	9000	9700	5500	5000	5600	8100	14700	14700	7400	5700	4000	4200	93600.00	207	305	303550-03	MERRIMAN, T	03	03550.02	110 CLAY STREET
303560-00	3500	6800	3600	5500	2700	2100	2200	4000	76300	4200	4200	3600	118700.00	150	497	303560-00	SCHAEFER EI	08	03560	204 CLAY STREET
303560-01													0.00	0	0	303560-01	GRAVIER GILI	03	03560.01	204 CLAY
303560-02													0.00	0	0	303560-02	CLAYTON NA	03	03560.02	204 CLAY
303580-00	4500	4000	3600	3800	4100	8600	8200	10500	8800	4300	4200	3800	68400.00	132	242	303580-00	HAUGHTON, .	08	03580	210 CLAY STREET
303580-01													0.00	0	0	303580-01	FRANCK, CH	03	03580.01	210 CLAY STREET
303580-02													0.00	0	0	303580-02	POWELL, ALI(	03	03580.00	210 CLAY STREET
303580-03													0.00	0	0	303580-03	GMAC MORT(	03	03580.03	210 CLAY STREET
303590-00													0.00	0	0	303590-00	JOHNSTON , (	03	03590	201 CLAY STREET
303590-02													0.00	0	0	303590-02	COMMERS, S	03	03590.01	201 CLAY STREET
303600-00	2500	2300	2000	1600	1300	2100	3000	3800	2700	2500	2300	2100	28200.00	71	84	303600-00	KOEPPLIN, DA	08	03600	205 CLAY STREET
303600-01													0.00	0	0	303600-01	VAUGHT, HAI	03	03600.00	205 CLAY STREET

303610-00	3700	3200	4600	3800	3500	7700	16100	17400	10500	6000	2700	2800	82000.00	115	333	303610-00	SMITH, CLAY	08	03610	211 CLAY STREET
303620-00	1700	1900	1500	1500	1400	1700	1700	1300	2000	1500	1400	1400	19000.00	52	52	303620-00	WILBURN, CL	08	03620	218 CLAY STREET
303620-01													0.00	0	0	303620-01	HELUS, JOHN	03	03620.01	218 CLAY
303630-00	3300	3000	2600	2600	2100	3400	2100	13100	3700	3300	2900	2700	44800.00	94	151	303630-00	ELLIOTT, GE	08	03630	221 CLAY STREET
303630-01													0.00	0	0	303630-01	HAMMERBER	03	03630.00	221 CLAY STREET
303635-00	1900	2000	1500	1600	1600	1900	2100	3500	3100	2000	2200	1800	25200.00	61	77	303635-00	CHUBB, BILLI	08	03635	219 CLAY STREET
303640-00													0.00	0	0	303640-00	CAMPBELL, S	08	03640	222 CLAY STREET
303640-01	800	1200	1700								2800	1000	7500.00	41	0	303640-01	MCGRAW, LI	03	03640.01	222 CLAY STREET
303650-00	5300	5500	3300	3200	3500	5700	4700	16200	7500	3600	4000	4300	66800.00	141	224	303650-00	SWOPE, ROY	08	03650	228 CLAY STREET
303650-01													0.00	0	0	303650-01	JANES JOSEF	03	03650.01	228 CLAY
303650-02													0.00	0	0	303650-02	STARK DAN	03	03650.02	228 CLAY
303660-00	1700	1700	3000	2400	3000	2400	4200	5800	3100	3800	3000	1200	35300.00	72	121	303660-00	DODGE, RON.	08	03660	225 CLAY STREET
303670-00													0.00	0	0	303670-00	BUTLER, JOH	08	03670	303 CLAY STREET
303670-01													0.00	0	0	303670-01	FRITSCH, H.E	03	03670.00	303 CLAY STREET
303670-02	600	500	400	400	400	500	700	500	500	500	400	500	5900.00	15	17	303670-02	LACK, SANDR	08	03670.01	303 CLAY STREET
303680-00		100	1200	1800	3500	200				100			6900.00	17	21	303680-00	GOETZ, PAUL	08	03680	306 CLAY STREET
303680-01							4200	3900	100				8200.00	0	45	303680-01	HEBERLINE,	03	03680.01	306 CLAY STREET
303690-00	2800	2600	2400	2800	2800	4300	17400	29000	19800	7700	2700	3100	97400.00	91	440	303690-00	CARTER, MIK	08	03690	314 CLAY STREET
303700-00	1900	11100	2200	1300	1400	1700	4900	4500	3100	1800	1700	1600	37200.00	109	95	303700-00	MCGUIGAN,	08	03700	324 CLAY STREET
303710-00	100	200	500	1400		500	4000	4300	4700	5000	1500	1300	23500.00	28	101	303710-00	HUNTLEY, HA	08	03710	311 3RD AVE EAST
303715-00													0.00	0	0	303715-00	LANIER, LIND.	08	03715	405 3RD AVE E
303718-00													0.00	0	0	303718-00	KNERR, JOHN	08	03718	412 CLAY STREET
303720-00	500	1500	1300	500	800	2200	3700	4700	2000	1200	1100	1700	21200.00	36	79	303720-00	FRANZWA, D	08	03720	415 CLAY STREET
303730-00													0.00	0	0	303730-00	KNERR, JOHN	08	03730	416 CLAY STREET
303730-01	2700	4000	4400	8100	6100	2000	1200	1000	3700	3600	2800	2400	42000.00	135	96	303730-01	KNERR, BRU(	03	03730.02	416 CLAY STREET
303730-02													0.00	0	0	303730-02	COMMERS, S	03	03730.01	416 CLAY STREET
303734-00													0.00	0	0	303734-00	KNERR, JOHN	08	03734	420 CLAY STREET
303735-00	1800	2600	1800	2000	1700	8300	21000	19500	23700	4300	2400	1700	90800.00	68	427	303735-00	BAYLOR, CA	08	03735	421 CLAY STREET
303740-00	13400	9900	8700	7800	8100	13000	7900	34200	12200	10300	8300	7300	141100.00	306	466	303740-00	SNELL, STEV	08	03740	427 CLAY STREET
303750-00	8700	34100	29600	6100	5300	5900	7800	28500	3800	3000	2700	3000	138500.00	465	295	303750-00	MCEWEN, AR	08	03750	428 CLAY STREET
303750-01													0.00	0	0	303750-01	COMMERS, S	03	03750.00	428 CLAY STREET
303760-00	2200	2000	3500	9700	1400	2100	4000	600	2200	1900	2100	1800	33500.00	118	66	303760-00	CURRY, SCO	08	03760	509 CLAY STREET
303760-01													0.00	0	0	303760-01	FANNY MAE	03	03760.00	509 CLAY STREET
303770-00	8700	8300	4900	5400	5300	3600	12600	26100	14800	8600	5700	6000	110000.00	215	386	303770-00	CHRISTIAN, I	08	03770	315 4TH AVE EAST
303780-00	2700	3300	2500	2900	3300	14500	34600	70400	43800	16500	3300	2800	200600.00	97	995	303780-00	JUNGE, GUN	08	03780	407 4TH AVE EAST
303800-00	2100	4200	1300	1500	2100	2200	15700	19700	5600	2900	1300	1900	60500.00	68	262	303800-00	HEDAHL, WE	08	03800	515 CLAY STREET
303810-00	800	100	1000	1400	200	3100	3600	11900	5900	10600	300	2000	40900.00	31	192	303810-00	WIECKOWSKI	08	03810	520 CLAY STREET
303820-00													0.00	0	0	303820-00	BUTLER, CHA	08	03820	521 CLAY STREET
303820-01													0.00	0	0	303820-01	ALBAN, DENI	03	03820.00	521 CLAY STREET
303820-02	5800	6700	4900	4900	5500	5200	10400	22300	17700	8100	5000	5700	102200.00	182	376	303820-02	FINGAR, PHIL	03	03820.01	521 CLAY STREET
303830-00		1400	1400	800	400	1800	14100	20800	23400	1300	1000	1600	68000.00	34	336	303830-00	GROH, KARE	08	03830	523 CLAY STREET
303840-00	4000	4000	2500	4000	4000		1300	5000	3500	8000		8000	44300.00	124	118	303840-00	BARAJAS, JES	08	03840	528 CLAY STREET
303840-01													0.00	0	0	303840-01	TILLMAN, MA	03	03840.01	528 CLAY STREET
303850-01													0.00	0	0	303850-01	ANDERSON,	03	03850	605 CLAY STREET
303860-00	4200	4500	3600	4300	4200	7600	16000	4000	37600	4800	3400	4800	99000.00	137	403	303860-00	THOMPSON,	08	03860	610 CLAY STREET
303870-00													0.00	0	0	303870-00	ELLUL, MICHA	08	03870	604 CLAY STREET
303870-01													0.00	0	0	303870-01	REID ROGER	03	03870.01	604 CLAY
303870-02													0.00	0	0	303870-02	CALKINS, BRI	03	03870.00	604 CLAY STREET
303870-03	20700	3900	2000	2200	1900	2800		800	4200	2900	2700	3500	47600.00	193	68	303870-03	MOREHOUSE	08	03870.01	604 CLAY STREET
303880-00	400	200	200	200	200	200	1100					8000	10500.00	50	8	303880-00	ANDERSON,	08	03880	617 CLAY STREET
303890-00							53000		18800	2200			74000.00	0	402	303890-00	LEIVESTAD, F	08	03890	614 CLAY STREET
303890-01													0.00	0	0	303890-01	EPLIN, EVEL	03	03890.01	614 CLAY STREET
303900-00	14300	4100	2500	2200	2500	1400	6600	5100	10700	6800	6300	9000	71500.00	212	180	303900-00	VICK, KENNE	08	03900	622 CLAY STREET
303910-00	500	900	300	400	300	500	7300	6700	6000	8000	200	500	31600.00	15	157	303910-00	HERREID, TO	08	03910	625 CLAY STREET
303910-01													0.00	0	0	303910-01	CHURCH, LA	03	03910.00	625 CLAY STREET
303910-02													0.00	0	0	303910-02	MAJESTIC MC	03	03910.01	625 CLAY STREET
303921-00		1000	1100	1800	1900								5800.00	22	10	303921-00	CONWAY, RI	08	03921	626 CLAY STREET
303930-00	13200	6700	100	300	2200	2600	3000	3900	2000	11500	7800	2300	55600.00	168	137	303930-00	HAMEL, RON	08	03930	202 CHURCH STREET
303940-00					4000								4000.00	0	22	303940-00	DYKSTRA, D	08	03940	201 CHURCH STREET
303950-00	5100	3600	3000	2900	2800	3900	7900	15300	6800	5300	4700	3800	65100.00	128	228	303950-00	SHEAR, CATI	08	03950	208 CHURCH STREET
303960-00	11500	17300	8300	8300	6500	9300	41800	57400	15000	9400	6500	6300	197600.00	322	758	303960-00	SAINT, STEVI	08	03960	214 CHURCH STREET
303960-01													0.00	0	0	303960-01	FANNIE MAE	03	03960.00	214 CHURCH
303960-02													0.00	0	0	303960-02	DAWSON, W	03	03960.02	214 CHURCH STREET
303970-00	1100	1900	1500	1700	2000	2100	6200	32500	9900	4600	2000	1700	67200.00	55	311	303970-00	LILLY, MICHA	08	03970	207 CHURCH STREET
303970-01													0.00	0	0	303970-01	WILSON, WIL	03	03970.00	207 CHURCH STREET
303980-01													0.00	0	0	303980-01	PENTECOSTA	03	03980	215 CHURCH (TRAILER)
303990-00	400	500	500	700	600	700	1000	1600	400	400	400	300	7500.00	15	26	303990-00	PENTECOSTA	08	03990	414 HALEY AVENUE E
304000-00													0.00	0	0	304000-00	VOLD, JOY NI	08	04000	307 CHURCH STREET
304000-01							2100	12200	2900	600			17800.00	0	97	304000-01	CARTER, JEA	03	04000.01	307 CHURCH STREET
304010-00	1800	2000	1600	1900	2400	2200	2300	1000	2000	1400	1700	1300	21600.00	57	61	304010-00	CHRISTIAN C	08	04010	306 CHURCH STREET
304020-00	4600	4900	4300	5500	3900	5600	4700	7400	4400	2900	3100	3500	54800.00	143	157	304020-00	KEEFE, RHOI	08	04020	313 CHURCH STREET
304025-00	1800						3400	4200	3000	1600	1300	2300	17600.00	30	66	304025-00	KEEFE, RHOI	08	04025	313 1/2 CHURCH STREET
304030-00													0.00	0	0	304030-00	YODER, JOEL	08	04030	318 CHURCH STREET
304030-01													0.00	0	0	304030-01	TRIPLETT JU	03	04030.01	318 CHURCH
304030-02	5800	5500	4600	5000	5100	5600	6800	7600	7700	4600	5400	5200	68900.00	174	203	304030-02	ROWE, CHAF	03	04030.03	318 CHURCH STREET
304030-03													0.00	0	0	304030-03	TRIPLETT, JA	03	04030.02	318 CHURCH STREET
304040-00	2600	2600	2100	2200	3200	7700	12200	38000	22800	4200	2000	2200	101800.00	76	479	304040-00	HAMILTON, J	08	04040	319 CHURCH STREET
304050-00													0.00	0	0	304050-00	PARDEE, CHA	08	04050	330 CHURCH STREET
304050-01													0.00	0	0	304050-01	WULFEKUHLE	03	04050.01	330 CHURCH
304050-02													0.00	0	0	304050-02	JCLB INVESTI	03	04050.00	330 CHURCH STREET
304050-03													0.00	0	0	304050-03	BELLUSCI, C.	03	04050.03	330 CHURCH STREET
304050-04	1000	1300	1100	1600	1400	1400	1100	1600	900	600	700	900	13600.00	36	38	304050-04	WILTSE, JAC(	08	04050.01	330 CHURCH STREET
304060-00													0.00	0	0	304060-00	EPPERSON, Z	08	04060	403 CHURCH STREET
304060-01													0.00	0	0	304060-01	HENDRICKSC	03	04060.01	403 CHURCH
304060-02													0.00	0	0	304060-02	SNYDER, BR	03	04060.00	403 CHURCH STREET
304060-03	2900	1700	2800	2700	2300	5100	6300	11200	3500	3200	2700	2400	46800.00	84	172	304060-03	WINE, LEROY	08	04060.01	403 CHURCH STREET
304070-01													0.00	0	0	304070-01	FAULKNER, V	03	04070	406 CHURCH
304080-00													0.00	0	0	304080-00	FAULKNER, V	08	04080	408 CHURCH STREET
304090-00	5800	6700	5100	5200	2400	2600	4900	5300	4700	4100	4300	4600	55700.00	175	130	304090-00	STONE, EILE	08	04090	415 CHURCH STREET
304100-01													0.00	0	0	304100-01	NORTON, KE	03	04100	416 CHURCH STREET
304111-00	6300	6500	4900	5300	5700	12400	23200	20000	22300	6600	7200	5600	126000.00	198	490	304111-00	WILSON, JOH	08	04111	426 CHURCH STREET
304111-01													0.00	0	0	304111-01	CRISTALDI, T	03	04111.00	426 CHURCH STREET
304111-02													0.00	0	0	304111-02	JANES J. MA	03	04111.01	426 CHURCH
304111-03													0.00	0	0	304111-03	AMERICAN D	03	04111.02	426 CHURCH STREET
304115-00	900	1000	900	800	1300	3800	5500	15500	11600	2200	1000	1200	45700.00	32	217	304115-00	LACY, GLENN	08	04115	511 4TH AVE EAST
304120-00	2200	3300	2400	2200	2500	2700	6400	200	2400	2100	2300	2600	31300.00	83	89	304120-00	BURRELL, D(	08	04120	504 CHURCH STREET
304130-00													0.00	0	0	304130-00	FARGHER, RI	08	04130	509 CHURCH STREET
304130-01													0.00	0	0	304130-01	ALDRICH EVI	03	04130.01	509 CHURCH
304130-02	3100	300	1100	1700	2000		1900	3000	80900	1900	1000	2300	99200.00	52	488	304130-02	ELLIOTT, GE	08	04130.01	509 CHURCH STREET
304135-00	4000	3800	3600	2700	3500	3300	3200	4000	3000	3700	3200	3000	41000.00	112	113	304135-00	ELLIOTT, GE	08	04135	511 CHURCH STREET
304135-01													0.00	0	0	304135-01	ALDRICH EVI	03	04135.01	511 CHURCH

304140-00	20900	14000	10000	10700	7600		21000	22000	18900		8200	8000	141300.00	397	378	304140-00	STEWART, N.	08	04140	512 CHURCH STREET
304140-01													0.00	0	0	304140-01	SEEK-A-WAY	03	04140.01	512 CHURCH STREET
304150-00													0.00	0	0	304150-00	MERRIMAN, T	08	04150	519 CHURCH STREET
304150-01							1600			200			1800.00	0	10	304150-01	MONROE, KA	03	04150.01	519 CHURCH STREET
304150-02													0.00	0	0	304150-02	CROWE, CHR	03	04150.02	519 CHURCH STREET
304160-00	18100	41400	15100	3900	9300	11200	11300	10100	6100	4900	4800	9500	145700.00	513	288	304160-00	COX, TOOTIE	08	04160	414 5TH AVE EAST
304170-00	4600	3600	3900	2900	3100	4100						2800	25000.00	98	39	304170-00	FRANCK, BRA	08	04170	507 5TH AVE EAST
304170-01													0.00	0	0	304170-01	BASHAM, MI	03	04170.01	507 5TH AVE EAST
304170-02													0.00	0	0	304170-02	STEWART C	03	04170.02	507 5TH AVE EAST
304170-03													0.00	0	0	304170-03	HANDFORD,	03	04170.03	507 5TH AVE EAST
304170-04									100				100.00	0	1	304170-04	BANK OF AME	03	04170.04	507 5TH AVE EAST
304180-00	4200	3900	2200	2400	2300	4900	18700	28700	20000	6500	3400	5300	102500.00	118	441	304180-00	DELONG, PA	08	04180	603 CHURCH STREET
304190-00	2900	4400	2400	1900	2400	4400	15800	35400	33900	11400	8000	7900	130800.00	152	561	304190-00	SPARKS, DA	08	04190	610 CHURCH STREET
304195-00	4800	5100	2000	4800	13800	7000	4200	5200	4800	4800	5000	5000	66500.00	148	216	304195-00	SHARP, GRE	08	04195	609 CHURCH STREET
304200-00													0.00	0	0	304200-00	KELLY, TIMO	08	04200	617 CHURCH STREET
304200-01					3000	6400	4000			5700	2500		21600.00	14	104	304200-01	MARICH, JA	03	04200.01	617 CHURCH STREET
304210-00	8000	6900	4000	4100	5400	8500	9300	8800	9100	7000	5200	4300	80600.00	180	261	304210-00	BENNETT DA	08	04210	510 BIGHORN DRIVE
304220-00	28800	11400	19000	12200	22800	26400	13200	12700	10000	11400	12300	25500	205700.00	603	524	304220-00	BENNETT DA	08	04220	507 BIGHORN DRIVE
304220-M1	7600	6000	4700	6300	6100	6600	6100	5700	6100	5000	5800	4500	70500.00	193	193	304220-M1	BENNETT DA	08	0422001	507 BIGHORN DRIVE
304220-M2	6800	5400	4800	5900	5300	6600	7100	7000	7700	6400	6500	5500	75000.00	193	218	304220-M2	BENNETT DA	08	0422002	507 BIGHORN DRIVE
304225-00	2000	1000	500	2400	800	1000	26500	42500	27200	9700	4200	2200	120000.00	68	585	304225-00	FARRINGTON	08	04225	525 BIGHORN DRIVE
304230-00	5300	4700	3700	5000	4100	10400	22700	36700	9000	6400	5400	4500	117900.00	158	485	304230-00	WADSWORTH	08	04230	530 BIGHORN DRIVE
304240-00	3700	1500	2000	1500	2700	2200	16900	22500	17200	3200	3900	4200	81500.00	93	352	304240-00	PARKS, DAN	08	04240	538 BIGHORN DRIVE
304246-00	5100	6000	4100	5800	5400	14500	22500	67200	27400	8500	4600	4300	175400.00	165	791	304246-00	ROBINSON, [	08	04246	549 BIGHORN DRIVE
304246-01													0.00	0	0	304246-01	NORMANDEA	03	04246.01	549 BIGHORN DRIVE
304250-00	3200	2700	2100	3100	2100	4100	8000	22900	7800	4300	2800	2600	65700.00	91	267	304250-00	DERENBURG	08	04250	546 BIGHORN DRIVE
304253-00	1300	1500	1200	1300	1100	1800	2400	1500	1400	1000	900	1000	16400.00	40	50	304253-00	DARBY JR, O	08	04253	102 KOO KOO SINT COURT
304253-01													0.00	0	0	304253-01	SHRYNE, TIM	03	04253.00	102 KOO KOO SINT COURT
304257-00	1300	5400	3700	1400	100	1100	4000	11100	9500	1100	2100	1300	42100.00	84	146	304257-00	MCEWEN, AF	08	04257	205 KANIKSU CT
304260-00	6800	6300	3800	5200	5200	8100	21900	30900	17400	10900	5000	6100	127600.00	183	513	304260-00	HOEKEMA, S	08	04260	104 KOOKOO SINT COURT
304261-00	4300						4600	7900	7300	3600	3100	1800	32600.00	51	127	304261-00	CORK, COUR	08	04261	105 KANIKSU CT
304261-01													0.00	0	0	304261-01	FRY, NATHAN	03	0426101	105 KANIKSU CT
304261-02													0.00	0	0	304261-02	WOOD, RAND	03	04261.00	105 KANIKSU CT
304261-03													0.00	0	0	304261-03	US BANK NAT	03	04261.01	105 KANIKSU CT
304261-04													0.00	0	0	304261-04	ORCHARD TE	03	04261.02	105 KANIKSU CT
304261-05													0.00	0	0	304261-05	AMERICAN DI	03	04261.03	105 KANIKSU CT
304262-00	1100	1000	900	900	500	1500	3700	15000	5300	5900	900	700	37400.00	30	173	304262-00	STEPHENS, T	08	04262	605 BIGHORN DRIVE
304262-01													0.00	0	0	304262-01	MILLS CHUCK	03	04262.01	605 BIGHORN DRIVE
304262-02													0.00	0	0	304262-02	CONRAD, DA	03	04262.02	605 BIGHORN DRIVE
304262-03													0.00	0	0	304262-03	WOOD, DEBE	03	04262.03	605 BIGHORN DRIVE
304262-04													0.00	0	0	304262-04	LOWE, JOHN	03	04262.00	605 BIGHORN DRIVE
304262-05													0.00	0	0	304262-05	WELLS FARG	03	04262.04	605 BIGHORN DRIVE
304262-06													0.00	0	0	304262-06	HUD	03	04262.05	605 BIGHORN DRIVE
304264-00	1300	1300	500	1300	800	1000	9000	18800	8200	2400	900	900	46400.00	34	218	304264-00	TURK, CARO	08	04264	101 KOOKOO SINT COURT
304266-00													0.00	0	0	304266-00	WHITEFISH C	08	04266	108 KANIKSU CT
304266-01	5700	6100	4200	4600	4700	6800	6000	7600	26900	5500	5400	4500	88000.00	169	313	304266-01	SCHILLING, [	08	04266.01	
304266-02													0.00	0	0			10		108 KANIKSU CT
304267-00	8200	7700	4900	7000	6200	7300	15100	57300	17500	11100	6800	5800	154900.00	223	622	304267-00	VAUGHT, KE	08	04267	106 KANIKSU CT
304268-00	2000	1600	1200	1900	1000	2900	30600	31900	51400	8600	2200	1700	137000.00	59	687	304268-00	EGGENSPER	08	04268	102 KANIKSU CT
304280-00	4100	4100	2900	1900	4600	7600	11400	24100	18500	8500	2700	2400	92800.00	100	406	304280-00	KEPPNER, TH	08	04280	610 BIGHORN DRIVE
304280-01													0.00	0	0	304280-01	BONNES RIC	03	04280.01	610 BIGHORN DRIVE
304290-00	6400	5200	3800	4800	4100	4800	10500	22900	11400	4400	4600	4000	86900.00	159	316	304290-00	PIRKER, RAN	08	04290	106 BIG BUCK DRIVE
304310-00					2300	17600	37600	52700	40100	13400	3800	1100	168600.00	27	890	304310-00	NEAL, GERA	08	04310	777 GRIZZLY DRIVE
313110-00	2600	2800	2300	2400	2400	5200	11700	11100	12400	4000	2200	2000	61100.00	79	254	313110-00	WILSON, GLE	08	13110	611 GRIZZLY DRIVE
313130-00	5400	6200	4900	4900	4500	7300	10600	13600	5400	5100	5000	4100	77000.00	169	253	313130-00	MILNER, LAR	08	13130	600 GRIZZLY DRIVE
313140-00						1800	21200	46400	50400	46000	1600		167400.00	9	901	313140-00	TALLANT DA	08	13140	555 GRIZZLY DRIVE
313140-01													0.00	0	0	313140-01	BUTCHER T	03	13140.00	555 GRIZZLY DRIVE
313150-00													0.00	0	0	313150-00	HINCK, TROY	08	13150	551 GRIZZLY DRIVE
313150-01													0.00	0	0	313150-01	THOMPSON,	03	13150.00	551 GRIZZLY DRIVE
313150-02	1300	2300	1100	700	700	300	1500	2000	1200	2300	2600	2200	18200.00	56	43	313150-02	RATTRAY , L	03	13150.01	551 GRIZZLY DRIVE
313160-00	2700	3500	2800	3100	2500	2800	2900	4200	3600	2000	2600	2700	35400.00	96	98	313160-00	CUDDY, WILL	08	13160	556 GRIZZLY DRIVE
313170-00	1800	2000	1600	1700	1500	5300		47800	51800	16900	1900	1300	133600.00	57	670	313170-00	BRUSE, PATR	08	13170	543 GRIZZLY DRIVE
313170-01							9100						9100.00	0	49	313170-01	BACHMANN,	03	13170.01	543 GRIZZLY DRIVE
313171-00	3200	3200	2300	2400	2500	5400	16700	24400	17200	6200	3200	2300	89000.00	92	393	313171-00	WORTH, LAU	08	13171	542 GRIZZLEY DRIVE
313210-00													0.00	0	0	313210-00	JACOBSON, (	08	13210	537 GRIZZLY DRIVE
313210-01													0.00	0	0	313210-01	UNITED STAT	03	13210.01	537 GRIZZLY DRIVE
313215-00	2100	6900	2800	3500	4000	5500	11200	7100	3900	3000		3400	53400.00	103	189	313215-00	WEBSTER KE	08	13215	525 GRIZZLY DRIVE
313215-01													0.00	0	0	313215-01	EPPERSON,	03	13215.01	525 GRIZZLY DRIVE
313215-02													0.00	0	0	313215-02	SHEPHERD, J	03	13215.02	525 GRIZZLY DRIVE
313215-03													0.00	0	0	313215-03	HAGEMO, THI	03	13215.03	525 GRIZZLY DRIVE
313220-00													0.00	0	0	313220-00	BOON, BLAKE	08	13220	511 GRIZZLY DRIVE
313220-01													0.00	0	0	313220-01	BRIGHT, NAT	03	13220.01	511 GRIZZLY DRIVE
313220-02													0.00	0	0	313220-02	BREITHAUPT,	03	13220.00	511 GRIZZLY DRIVE
313220-03	1100			600			500	5400	3200	1400	1700	1700	15600.00	28	57	313220-03	PETTIS, ROBE	03	13220.02	511 GRIZZLY DRIVE
313400-00	1400	1500	1000	1500	1300	1700	1600	1700	1500	1600	1300	1200	17300.00	44	51	313400-00	CURRY, DON	08	13400	504 GRIZZLY DRIVE
313400-01													0.00	0	0	313400-01	NETZ, ALAN	03	13400.01	504 GRIZZLY DRIVE
313420-00	5500	6400	4200	4800	4700	5900	5500	5300	5200	4800	3200	4300	59800.00	157	171	313420-00	HADDIX, JEFF	08	13420	520 GRIZZLEY DRIVE
313420-01													0.00	0	0	313420-01	GORDON, JA	03	13420.00	520 GRIZZLEY DRIVE
404270-00	9500	12200	9400	10600	9700	21900	41500	76000	38100	14400	1100	18300	262700.00	338	1096	404270-00	DAHLKE, GA	08	04270	511 5TH AVE EAST
404280-00	5200	5900	3100	3500	3300	3700	6000	3900	8200	100	3600	1400	47900.00	125	137	404280-00	BARTLETT, R	08	042801	533 MAPLE STREET
404280-01													0.00	0	0	404280-01	ISHAM, DON	04	04280.01	533 MAPLE STREET
404290-00													0.00	0	0	404290-00	LEIVESTAD, F	08	042901	534 MAPLE STREET
404290-01	500			4200	3900	5900	14000	23800	23100	13200	4000	4000	96600.00	70	456	404290-01	CHENEY, RU	08	042901.01	534 MAPLE STREET
404300-00	4400	5400	4600	4200	7400	7500	19600	52000	20100	4600	4800	4600	139200.00	155	604	404300-00	KINKADE, RU	08	04300	526 MAPLE STREET
404305-00	7200	6700	5000	5000	6300	9300	27200	23200	22400	7200	5100	4500	129100.00	185	520	404305-00	GILBERT, AM	08	04305	512 5TH AVENUE E
404305-01													0.00	0	0	404305-01	BENNETT, GI	04	04305.00	512 5TH AVENUE E
404310-00	4300	2500	2400	2300	2000	3900	7300	15100	7600	3700	2800	3900	57800.00	101	215	404310-00	CONLIN, JAM	08	043101	514 5TH AVE EAST
404320-00	4900	4400	3500	4200	3700	6300	4300	7400	5100	3000	3300	3800	53900.00	133	162	404320-00	MOREHOUSE	08	04320	520 MAPLE STREET
404330-00						12400	9900	28200	18800	900	800	100	71100.00	5	382	404330-00	HOEFT, JERF	08	04330	515 MAPLE STREET
404440-00	1000	1600	1300	1600	1400	2200	3500	900	1400	1500	1400	1200	19000.00	45	59	404440-00	SCOTT, FRAN	08	04440	215 ADAMS STREET
404440-01													0.00	0	0	404440-01	DENISON, LC	04	04440.00	215 ADAMS STREET
404450-00													0.00	0	0	404450-00	VULLES, MICH	08	04450	216 ADAMS STREET
404455-01													0.00	0	0	404455-01	VULLES MICH	04	04455	218 ADAMS STREET
404460-00													0.00	0	0	404460-00	STOVER, JER	08	04460	221 ADAMS STREET
404460-01													0.00	0	0	404460-01	LADD JAMES	04	04460.01	221 ADAMS STREET
404460-02													0.00	0	0	404460-02	POWELL, ALI	04	04460.00	221 ADAMS STREET
404470-00													0.00	0	0	404470-00	ARRANTS ST	08	04470	608 HALEY AVENUE E
404480-00	600	3800	2600	2700	2200	4300						100	16300.00	54	35	404480-00	THORNHILL,	08	04480	514 HALEY AVENUE E
404480-01													0.00	0	0	404480-01	SCHWINCK,	04	04480.01	514 E HALEY AVENUE
404490-00	5500	3700	2900	1100	1300	1300	1400	2100	500	400	1400	1300	22900.00	88	38	404490-00	LA FRINIERE,	08	04490	305 ADAMS STREET
404500-00	1600	2100	2100	1200	700	1100	5200	4700	10900	3200	2000	200	35000.00	51	140	404500-00	SHARP, RON	08	04500	607 HALEY AVENUE E

404505-00						4700	36800	49500	44500	13100			148600.00	0	808	404505-00	SHARP RON	08	04505	308 ADAMS STREET
404510-00													0.00	0	0	404510-00	HARRIS, TOM	08	04510	317 ADAMS STREET
404520-00	4400	5500	2500	4800	5700	9400	11700	8600	4800	5000	3700	4100	70200.00	138	246	404520-00	TAYLOR, JAN	08	04520	329 ADAMS STREET
404520-01													0.00	0	0	404520-01	SULLIVAN M	04	04520.01	329 ADAMS STREET
404520-02													0.00	0	0	404520-02	LARSEN, WA	04	04520.00	329 ADAMS STREET
404530-00	1400	10200	4400	4500	3800	6700	7900	9400	6100	3800	3900	3200	65300.00	152	205	404530-00	NELSON, WIL	08	04530	409 ADAMS STREET
404530-01													0.00	0	0	404530-01	HOOTEN CHE	04	04530.00	409 ADAMS STREET
404530-02													0.00	0	0	404530-02	HOOTEN, DA	04	04530.02	409 ADAMS STREET
404540-00													0.00	0	0	404540-00	ALDERETE, A	08	04540	708 HALEY AVENUE E
404540-01	2100	600	800	800	1000	12300	21000	43700	28800	7600	800	8100	127600.00	73	622	404540-01	HOFF, MAYN	08	04540.01	708 HALEY AVENUE E
404550-00	4600	6700	4600	5500	4600	5800	20400	30900	7400	7400	4700	5600	108200.00	175	416	404550-00	LEAF, BODIE	08	04550	102 GOLF STREET
404550-01													0.00	0	0	404550-01	GAMETT, HO	04	04550.01	102 GOLF STREET
404550-02													0.00	0	0	404550-02	INTRASPECT	04	0455002	102 GOLF STREET
404560-00	4400	5200	3800	7600	1300	8000	10500	16000	10100	4900	4300	4100	80200.00	162	276	404560-00	FEWKES, DO	08	04560	106 GOLF STREET
404560-01													0.00	0	0	404560-01	PLUMMER, B	04	04560.01	106 GOLF STREET
404560-02													0.00	0	0	404560-02	MCKINNEY, S	04	04560.00	106 GOLF STREET
404560-03													0.00	0	0	404560-03	MALEY, TOM	04	04560.02	106 GOLF STREET
404570-00	4900	4100	3100	3400	4300	7900	5100	4800	3700	2900	2800	3400	50400.00	120	156	404570-00	SHARP, RON	08	04570	109 GOLF STREET
404580-00													0.00	0	0	404580-00	FREEMAN, R	08	04580	108 GOLF STREET
404580-01													0.00	0	0	404580-01	YOUNG BEA	04	04580.00	108 GOLF STREET
404580-02													0.00	0	0	404580-02	THOMPSON,	04	04580.01	108 GOLF STREET
404580-03													0.00	0	0	404580-03	HURD-BUSH	04	04580.02	108 GOLF STREET
404580-04							1800	64000	21900	2600			90300.00	0	491	404580-04	BRYANT, TER	04	04580.03	108 GOLF STREET
404580-05	4600	3900	3800	3700	4400	7100					2900	3500	33900.00	124	63	404580-05	BARE, VERN	04	04580.04	108 GOLF STREET
404580-06													0.00	0	0	404580-06	WELLS FARG	04	04580.05	108 GOLF STREET
404580-07													0.00	0	0	404580-07	VA % MAJEST	04	04580.06	108 GOLF STREET
404590-00		100			100	9900	1900	1800	42900	5000	100		61800.00	1	335	404590-00	THE CHURCH	08	04590	210 GOLF STREET
404600-00	3500	4300	2500	3400	4000	8300	32400	33900	26200	3300	3700	3100	128600.00	113	588	404600-00	LOFTHUS, JO	08	04600	306 GOLF STREET
404600-01													0.00	0	0	404600-01	FLOTRE, TIM	04	04600.01	306 GOLF STREET
404605-00	1200	1100	700	900	800	1100	22400	27100	26600	14100	1100	1000	98100.00	33	501	404605-00	BOUKAL, RU	08	04605	307 GOLF STREET
404605-01													0.00	0	0	404605-01	DUFFY, CASE	04	04605.01	307 GOLF STREET
404610-00	5100	6200	5600	4400	4000	36400	42100	48500	40600	14400	11700	4600	223600.00	208	1011	404610-00	KELLEY, RO	08	04610	310 GOLF STREET
404620-00	3500	3400	2600	2600	2900	3100	11800	21400	9500	2800	2900	2800	69300.00	98	280	404620-00	PAINTER, WI	08	04620	211 EDDY STREET
404630-01													0.00	0	0	404630-01	CITY OF THO	04	04630	506 GOLF STREET
404640-00	22000	33000	18000	27000	19000	20000	5000	5000	12000	31000	21000	14000	227000.00	746	500	404640-00	SCHOOL DIST	08	04640	601 GOLF STREET
404645-00	2200	2200	1800	1800	2400	6300	33000	4600	47200	14000	1800	2100	119400.00	66	584	404645-00	BOWDINO LA	08	04645	1199 BEARPAW TRAIL
404645-01													0.00	0	0	404645-01	BASHAM, MI	04	04645.00	1199 BEARPAW TRAIL
404650-00	1200	1000	800	1000	900	1300	10900	17500	10300	2600	700	900	49100.00	31	236	404650-00	WILLIAMS, P	08	04650	101 HILL STREET
404658-00	2300	2200	1700	1500	1700	2200	15700	21800	16500	3900	2100	2200	73800.00	66	336	404658-00	CLARK STEV	08	04658	102 HILL STREET
404660-00	6500	5300	3700	2800	2400	4000	10700	8400	7900	3900	3500	4200	63300.00	144	203	404660-00	FIELDS, JIM	08	04660	107 HILL STREET
404670-00	5800	6100	4600	3600	4500	6400	6000	6900	5300	5100	4900	5500	64700.00	169	186	404670-00	MCQUEEN, K	08	04670	111 HILL STREET
404670-01													0.00	0	0	404670-01	EGOSQUE J	04	04670.00	111 HILL STREET
404680-00	2700	3100	2700	2400	2100	4100	9400	5600	4600	2800	2500	2300	44300.00	87	155	404680-00	LACY, GLEN	08	04680	116 HILL STREET
404690-01													0.00	0	0	404690-01	LACY, GLEN	04	04690	106 HILL STREET
404700-00	6200	6100	5300	5900	7300	10500	8300	19400	9900	7200	7400	5500	99000.00	201	340	404700-00	FAUSETT JA	08	04700	105 ELK STREET
404700-01													0.00	0	0	404700-01	FAUSETT, J.	04	04700.00	105 ELK STREET
404710-00	3600	3400	2300	3000	3100	7000	14200	35200	11200	5200	3700	2900	94800.00	104	413	404710-00	CRAIG, FRA	08	04710	104 ELK STREET
404720-00	2700	3100	2500	2900	3000	16400	35100	47400	31500	10600	2800	3600	161600.00	97	783	404720-00	RELLER, PE	08	04720	111 ELK STREET
404730-00	4500	4400	3900	3800	3700	5400	11800	20200	11600	4700	4300	3400	81700.00	134	312	404730-00	MARTIN STE	08	04730	108 ELK STREET
404730-01													0.00	0	0	404730-01	FARRINGTON	04	04730.01	108 ELK STREET
404730-02													0.00	0	0	404730-02	FARRINGTON	04	04730.02	108 ELK STREET
404730-03													0.00	0	0	404730-03	JOHNSON, D	04	04730.00	108 ELK STREET
404740-00	3700	3800	3100	3100	3000	4200	9900	19200	8900	4100	3500	3000	69500.00	112	268	404740-00	JOHNSTON,	08	04740	115 ELK STREET
404740-01													0.00	0	0	404740-01	EMMONS, M	04	04740.01	115 ELK STREET
404750-00	13100	10700	7200	3500	7400	7300	57200	73000	28800	16500	9100	8800	242600.00	290	1034	404750-00	KAZMIERCZA	08	04750	116 ELK STREET
404760-00	2800	2900	2600	3200	2000	10800	29100	47800	33300	2800	2600	2600	142500.00	92	684	404760-00	WAKEFIELD,	08	04760	118 ELK STREET
404770-00	3000	4600	3700	3800	3400	4400	8700	15700	8000	3400	3800	2900	65400.00	120	237	404770-00	OWENS, RIC	08	04770	119 ELK STREET
404770-01													0.00	0	0	404770-01	DENSON, CH	04	04770.00	119 ELK STREET
404770-02													0.00	0	0	404770-02	HURD-BUSH	04	04770.01	119 ELK STREET
404780-00	1400	1000	1100	1200	1800	1700	5100	10700	1100	1800	1300	1100	29300.00	39	121	404780-00	WOODEN, AN	08	04780	123 ELK STREET
404780-01													0.00	0	0	404780-01	MODLIN, HA	04	04780.01	123 ELK STREET
404780-02													0.00	0	0	404780-02	LADD, JAMES	04	04780.00	123 ELK STREET
404785-00	4800	5800	4900	4500	5300	7300	4800	8300	9900	10700	8900	7100	82300.00	199	252	404785-00	SPAULDING,	08	04785	202 204 BOULDER AVENUE
404785-01													0.00	0	0	404785-01	GAYNOR, DC	04	04785.01	202 204 BOULDER AVENUE
404786-00													0.00	0	0	404786-00	HUTCHINGS,	08	04786	206 208 BOULDER AVENUE
404786-01													0.00	0	0	404786-01	GAYNOR, DC	04	04786.01	206 208 BOULDER AVENUE
404786-02	4200	6000	4500	4900	4000	5000	4000	3700	5500	4700	4600	4100	55200.00	156	146	404786-02	SPAULDING,	08	04786.01	206 208 BOULDER AVENUE
404790-00	5600	5900	3700	5800	5600	5700	7000	5800	5200	4700	6300	5000	66300.00	178	185	404790-00	DVOROZNAK,	08	04790	122 ELK STREET
404800-00	3800	3700	3400	3800	3100	4100	1800	14000	6400	4500	3000	3700	55300.00	118	184	404800-00	TRAIN, ANTH	08	04800	212 BOULDER AVENUE
404800-01													0.00	0	0	404800-01	CRABTREE T	04	04800.01	212 BOULDER AVENUE
404800-02													0.00	0	0	404800-02	WHEELER, S	04	04800.00	212 BOULDER AVENUE
404800-03													0.00	0	0	404800-03	FIRST INTER	04	04800.02	212 BOULDER AVENUE
404800-04													0.00	0	0	404800-04	US DEPARTM	04	04800.04	212 BOULDER AVENUE
404800-05													0.00	0	0	404800-05	ASSET MANA	04	04800.03	212 BOULDER AVENUE
404810-00													0.00	0	0	404810-00	BODALY, RO	08	04810	218 BOULDER AVENUE
404820-00							1800						1800.00	0	10	404820-00	PAULI, JERR	08	04820	219 BOULDER AVENUE
404840-00													0.00	0	0	404840-00	VAN HUSS, M	08	04840	226 BOULDER AVENUE
404840-01													0.00	0	0	404840-01	STICKNEY, W	04	04840.00	226 BOULDER AVENUE
404840-02	3900	4300	5500	900	3200	1100	3800	7600	3400	2700	3100	2700	42200.00	113	118	404840-02	GRIFFITHS, H	04	04840.01	226 BOULDER AVENUE
404850-00	5700	6200	5100	5800	5500	6800	7000	6200	6600	5500	5900	5200	71500.00	187	204	404850-00	MCJUNKIN, D.	08	04850.00	225 BOULDER AVENUE
404850-01													0.00	0	0	404850-01	GILBERT, SH	04	04850.01	225 BOULDER AVENUE
404850-02													0.00	0	0	404850-02	BENNETT, DA	04	04850.02	225 BOULDER AVENUE
404850-03													0.00	0	0	404850-03	MILLER, WIL	04	04850.03	225 BOULDER AVENUE
404855-00	1900	2000	1600	1700	1400	18000	49400	56800	43500	10100	1800	1700	189900.00	59	974	404855-00	HARPER, RIT	08	04855	229 BOULDER AVENUE
404857-01													0.00	0	0	404857-01	CAMPBELL, G	08	04857	848 HALEY AVENUE E
404860-00	12400	7800	3000	2500	2800	12000	5700	4700	4200	4500	4100	8000	71700.00	209	184	404860-00	LANTZ, LESLI	08	04860	908 HALEY AVENUE E
404860-01													0.00	0	0	404860-01	CHISENHALL	04	04860.00	908 HALEY AVENUE E
404860-02													0.00	0	0	404860-02	SHEPHERD, .	04	04860.01	908 HALEY AVENUE E
404870-00	5200	7000	4800	5000	4800	9500	5700	7300	7100	4800	5500	5200	71900.00	181	213	404870-00	DOOLING, TO	08	04870	916 HALEY AVENUE E
404870-01													0.00	0	0	404870-01	BRAUER VER	04	04870.00	916 E HALEY AVENUE
404880-00	4400	4400	3300	2900	4600	4100	5100	15200	6300	3000	4000	3100	60400.00	122	208	404880-00	STEFFES-EW	08	04880	922 HALEY AVENUE E
404880-01													0.00	0	0			10		
404880-02													0.00	0	0	404880-02	WOOD, RICH	04	04880.	922 E HALEY AVENUE
404880-03													0.00	0	0			10		
404882-00													0.00	0	0	404882-00	LYONS, RICH	08	04882.00	926 HALEY AVE E
404882-01	23100	26500	20700	23100	23700	36100	4900	9800	15600	18100	21100	20700	243400.00	747	588	404882-01	PETERS, DAL	08	04882.01	926 HALEY AVE E
404883-00		1300		1600	2600	3000	1200	100	900	1300	2100	900	15000.00	33	49	404883-00	GRIFFITHS, H	08	04883	905 HALEY AVENUE E
404883-02													0.00	0	0	404883-02	STICKNEY, W	04	04883.01	905 E HALEY AVENUE
404885-00													0.00	0	0	404885-00	MAJERUS, GE	08	04885	925 HALEY AVENUE E
404885-01													0.00	0	0	404885-01	MARQUES JI	04	04885.01	925 E HALEY AVENUE
404885-02	3000	2900	2500	7700	8100	12400		200	41700	14900	2700	2800	98900.00	119	420	404885-02	NICHOLS, CH	04	04885.02	925 HALEY AVENUE E

404890-00	4900	4500	3500	4000	3600	9000	6000	12600	5700	4400	2100	2000	62300.00	116	224	404890-00	CHEESMAN H	08	04890	104 EDDY STREET
404890-01													0.00	0	0	404890-01	LAPHAM, ELV	04	04890.01	104 EDDY STREET
404900-00	6300	5000	3300	3000	2600	4800	6200	3900	4500	4300	4300	3600	51800.00	141	143	404900-00	LEUFKENS, B	08	04900	105 EDDY STREET
404900-01													0.00	0	0	404900-01	WULFEKUHLE	04	04900.00	105 EDDY STREET
404904-00	7000	9300	8600	9000	9700	7900	1200	2700	2600	7300		7500	72800.00	229	171	404904-00	SCHOOL DIST	08	04904	601 1/2 GOLF STREET
504900-00	400	1200	300	800	800	1100	800	300	2400	400	700	300	9500.00	20	32	504900-00	THOMPSON F	08	049001	1811 MAIN STREET W
504910-00	1100	200	800	100	300	200	300	1200	200	200	400	200	5200.00	15	13	504910-00	BLACKFOOT	08	04910	1805 MAIN STREET W
504920-00				4100		1000			200	100	300		5700.00	24	7	504920-00	MUSTER, JOI	08	04920	1705 MAIN STREET W
504930-00													0.00	0	0	504930-00	MUSTER, JOI	01	04930	1715 MAIN STREET W
504940-00	500	600	300	800	400	400	500	500	700		100	500	5300.00	15	14	504940-00	MUSTER'S SH	08	04940	1709 MAIN STREET W
504950-01													0.00	0	0	504950-01	DOUGLASS H	05	04950	1615 W MAIN STREET
504951-01													0.00	0	0	504951-01	HARLAN DOU	05	04951	815 E ROSEWOOD
504954-00	900	1200	2000	1900	1700	1100	1700	4600	14100	1100	1000	1100	32400.00	45	132	504954-00	THOMPSON F	08	04954	1520 MAIN STREET W
504955-00	100	100	100	100	100	200	4800	7700	8800	3600	100	100	25800.00	3	137	504955-00	US POSTAL S	08	04955	1611 MAIN STREET W
504960-01													0.00	0	0	504960-01	HARLAN D DC	05	04960	104 S POND STREET
504965-00	200	200	200	200	200	1900	5600	22900	17900	6500	200	200	56200.00	7	299	504965-00	THOMPSON F	08	04965	120 POND STREET S
504970-00													0.00	0	0	504970-00	WHITEFISH C	05	04970	107 POND STREET S HOUSE
504970-01													0.00	0	0	504970-01	SULARZ, PAT	05	04970.01	107 POND STREET
504975-00	100		100			5200	12100	17200	22900	14300	300		72200.00	3	390	504975-00	WHITEFISH C	08	04975	107 POND STREET S - CU
504980-01													0.00	0	0	504980-01	TOWN PUMP	05	04980	1315 MAIN STREET
504990-00	3000	3100	2000	3400	3300	5400	800	9000	8100	4900	4100	2400	49500.00	99	171	504990-00	TOWN PUMP	08	04990	1301 MAIN STREET W
505000-00	1000	200	3700			3600	5700	5300	2800	4300	1200	1200	29000.00	40	118	505000-00	DOUG'S TRUE	08	05000	1221 MAIN STREET W
505000-01													0.00	0	0			10		
505000-03													0.00	0	0			10		
505015-00	400	400	300	500	1300	400	500	600	500	600	500	900	6900.00	17	21	505015-00	ELLIOTT REAI	08	05015	1219 MAIN STREET W
505015-01													0.00	0	0	505015-01	LINDA'S GIFT	05	05015.00	1219 MAIN STREET W
505020-00	1000	1100	700	700	600	900	800	1000	900	900	900	800	10300.00	29	28	505020-00	MANLEY INC	08	05020	1211 MAIN STREET W
505020-01													0.00	0	0	505020-01	FIRST AMERI	05	05020.00	1211 MAIN STREET W
505030-00	66300	46600	86100	55200	33500	40200	25700	35400	27100	32800	18600	29300	496800.00	1669	1058	505030-00	THOMPSON F	08	05030	1201 MAIN STREET W
505040-00	500	600	500	700	700	4600	2200	11000	2400	700	700	400	25000.00	19	117	505040-00	SANDERS CO	08	05040	1111 MAIN STREET W
505045-01													0.00	0	0	505045-01	SANDERS CO	05	05045	1111 MAIN
505050-00	1600	3200	1700	1900	1500	1700	2600	3200	2300	3300	3800	1700	28500.00	77	79	505050-00	JOHNSON, R(	08	05050	1037 MAIN STREET W
505050-01													0.00	0	0	505050-01	LARRY WADS	05	05050.01	101 S JEFFERSON STREET
505051-01													0.00	0	0	505051-01	JOHNSON, R	05	05051	1037 MAIN STREET W
505060-00	500	100		200	200	400	300	600	300	300	300	300	3500.00	8	11	505060-00	REX'S THEAT	08	05060	1033 MAIN STREET W
505060-02													0.00	0	0			10		
505070-00	5300	6500	3900	5900	5100	5800	5600	5000	5900	5400	5900	4900	65200.00	179	178	505070-00	CLARK FORK	08	05070	1029 MAIN STREET W
505070-01													0.00	0	0	505070-01	BURLINGAME	05	05070.01	1029 W MAIN STREET
505080-00	200	100	100	100	100	100			100		100		900.00	3	2	505080-00	BLACKFOOT	08	05080	1025 MAIN STREET W
505090-00	4700	7100	4800	3200	2200	9500	2600	2500	1800	2300	1700	2600	45000.00	133	114	505090-00	EGGENSPER(	08	05090	1017 MAIN STREET W
505101-00	1100	2100	1400	2500	1800	2200	1200	1200	4500	1000	1300	900	21200.00	51	65	505101-00	PROSPECT P	08	05101	1013 MAIN STREET W
505101-01													0.00	0	0	505101-01	BURLINGAME	05	05101.01	1013 W MAIN STREET
505101-02													0.00	0	0	505101-02	SENNE, GEN	05	05101.02	1013 W MAIN STREET - OLD BANK BUILDing
505110-00													0.00	0	0	505110-00	FIRST SECUR	08	05110	1003 MAIN STREET W
505110-01													0.00	0	0	505110-01	THOMPSON F	05	05110.01	1003 W MAIN STREET
505120-00													0.00	0	0	505120-00	BUCHANAN, S	08	05120	925 MAIN STREET W
505120-01													0.00	0	0	505120-01	METWEST MC	05	05120.01	925 MAIN
505130-00	33000	45200	44900	70800	58700	91500	48100	59900	65600	50300	46700	25900	640600.00	1472	2033	505130-00	SEXTON INC.	08	05130	921 MAIN STREET W
505130-01													0.00	0	0	505130-01	BOOMTOWN (	05	05130.01	921 MAIN
505140-00	5700	8000	4100	7200	6000	8900	19100	30500	33700	29400	14900	5200	172700.00	249	693	505140-00	PARKER NOL	08	05140	913 MAIN STREET W
505150-00	100	100	100	100	200	200	200	200	900	100	200	100	2500.00	4	10	505150-00	MONTANA RA	08	05150	902 MAIN STREET W
505160-01													0.00	0	0	505160-01	THOMPSON F	05	05160	911 MAIN STREET W
505170-00	3200	4400	3200	4500	4200	4900	4200	4000	3900	3800	4000	2800	47100.00	122	136	505170-00	DOUG'S TRUE	08	05170	907 MAIN STREET W
505180-00	900	800	700	1000	900	800	2300	3300	3000	1000	1000	700	16400.00	28	61	505180-00	DOUG'S TRUE	08	05180	901 MAIN STREET W - DOUG'S TRUE VAL
505190-00	700	900	1000	2400	800	1500	600	100	800	900	1000	900	11600.00	38	26	505190-00	MANLEY, SUE	08	05190	811 MAIN STREET W - FALLS FLORAL
505200-00													0.00	0	0	505200-00	MOSHER, JOH	08	05200	809 MAIN STREET W
505200-01	41600	44100	28900	44700	17400	11800	28400	31000	34500	33400	44000	31200	391000.00	1296	851	505200-01	MOTHER LOD	05	05200.01	809 MAIN STREET W
505210-00	6600	6800	4400	7000	5800	7100	16400	11600	14600	7800	31600	5400	125100.00	341	344	505210-00	PLASTER VA	08	05210	807 MAIN STREET W
505220-00	1300	1500	1300	1700	1100	1200	1400	3000	1300	1100	1300	900	17100.00	44	49	505220-00	KARLIN, JAME	08	05220	801 MAIN STREET W
505220-01													0.00	0	0	505220-01	BOONDOGGL	05	05220.00	801 MAIN STREET W
505230-00					2600	22300	9400	16700	20500	3500	1100		76100.00	6	408	505230-00	LAI, JERRY	08	05230	709 MAIN STREET W
505230-01													0.00	0	0	505230-01	NEW ASIA	05	05230.00	709 MAIN
505230-02													0.00	0	0	505230-02	NICHOLSON /	05	05230.02	709 MAIN
505230-03													0.00	0	0	505230-03	PING LAI	05	05230.03	709 MAIN
505240-00	900	1500	1100	1100	1200	800	800	600	600	15700	1500	900	26700.00	39	107	505240-00	FIRST BAPTIS	08	05240	705 MAIN STREET W
505250-01													0.00	0	0	505250-01	TRIPLETT - RI	05	05250	701 W MAIN STREET
505260-01	1000	2000	1100	3900	1600	2200	1700	2000	4300	1600	1900	1100	24400.00	61	73	505260-01	RON'S CHEVF	05	05260	606 MAIN STREET W
505265-00	6800	7400	5100	9100	8800	16200	18400	22400	21000	11700	10700	5600	143200.00	247	535	505265-00	TOTZAUER, D	08	05265	105 BROAD STREET S
505265-02													0.00	0	0	505265-02	BURGER EXP	05	05265.01	105 S BROAD STREET
505270-00	5600	17800	9200	4000	19700	15600	1900	1800	2000	2000	2900	1900	84400.00	229	234	505270-00	LITTLE BITTEI	08	05270	607 MAIN STREET W
505270-01													0.00	0	0	505270-01	EGGENSPER(	05	05270.01	607 W MAIN STREET
505275-00	1800	2300	1000	1800	1100	2000	1200	1300	1800	1500	1800	1000	18600.00	54	48	505275-00	THOMPSON, (	08	05275	110 HILL STREET S
505275-01													0.00	0	0	505275-01	MCMURRAY,	05	05275.00	110 S HILL STREET
505275-02													0.00	0	0			10		
505278-00	900	1000	500	1100	800	1000	13300	7500	3500	1000	1200	800	32600.00	30	147	505278-00	LEUFKENS, E	08	05278	111 BROAD STREET S
505280-00	6600	19800	10500	13200	4000	4000	2200	2500	2500	2900	3300	2400	73900.00	308	98	505280-00	EGGENSPER(	08	05280	603 MAIN STREET W
505290-00	100	200	100	100	100	200	200	200	200	200	200	200	2000.00	5	6	505290-00	EGGENSPER(	08	05290	601 MAIN STREET W
505290-01													0.00	0	0	505290-01	FRANKE, ERI	05	05290.00	601 W MAIN STREET
505300-00													0.00	0	0	505300-00	THOMPSON, (	08	05300	105 HILL STREET S
505300-01													0.00	0	0	505300-01	PIERCE ANN	05	05300.00	105 HILL STREET S
505300-02													0.00	0	0	505300-02	THOMPSON, (	05	05300.01	105 HILL STREET S
505300-03													0.00	0	0	505300-03	WELLS FARG	05	05300.02	105 HILL STREET S
505310-00	5700	5200	2000	4400	4000	4800	2400	3000	23100	6400	4000	2800	67800.00	133	238	505310-00	LEUFKENS, E	08	05310	109 HILL STREET S
505320-00	3700	4200	3100	5500	4100	4500	6800	8900	12700	4100		1400	59000.00	99	223	505320-00	THOMPSON, (	08	05320	511 MAIN STREET W
505320-01													0.00	0	0	505320-01	PIERCE, ROE	05	05320.01	511 MAIN
505320-02													0.00	0	0	505320-02	PIERCE, ROE	05	05320.00	511 MAIN STREET W
505321-00	5500	5900	4300	8300	6900	8100	3000	2500	4500	200		1600	50800.00	141	137	505321-00	THOMPSON, (	08	05321	103 HILL ST
505321-01													0.00	0	0	505321-01	PIERCE, ROE	05	05321.00	511 MAIN STREET W
505330-00													0.00	0	0	505330-00	STOLZ, COUF	08	05330	505 MAIN STREET W
505330-02	3300	2700	1600	2600	2200	5200	8300	10500	10300	6200	2600	1000	56500.00	76	232	505330-02	WIEGELE JAN	05	05330.02	505 MAIN STREET W
505331-00													0.00	0	0	505331-00	STOLZ, COUF	08	05331	507 MAIN STREET W
505331-01													0.00	0	0	505331-01	VALLEY BANK	05	05331.02	507 MAIN STREET
505331-02													0.00	0	0	505331-02	MUD ENTERP	05	05331.01	507 MAIN STREET
505331-03	200	400	200	300	400	400		2800	700	300	300	200	6200.00	9	25	505331-03	PLANTS GAL(	05	05331.03	507 MAIN STREET W
505340-00	600	800	800	800	600	800	600	12600	700	500	800	500	20100.00	24	86	505340-00	LONE STAR L	08	05340	501 MAIN STREET W
505350-00	1600	2100	1500	1400	1600	2000	2000	2000	2400	1600	2100	1600	21900.00	57	63	505350-00	PARKER, NO	08	05350	108 FERRY STREET S
505360-00	2700	2600	2000	2600	3100	3900	3800	3900	3200	2200	5100	3600	38700.00	103	109	505360-00	GARRISON, (	08	05360	409 MAIN STREET W
505370-00	3000	3300	1300	3100	2600	3200	4700	9400	5000	3300	3300	2700	44900.00	92	153	505370-00	NELSON, PA(	08	05370	405 MAIN STREET W
505380-00					700	1500							2200.00	0	12	505380-00	STOLTZ, STE'	08	05380	401 MAIN STREET W
505380-02	400	500	200	700			400	500	400	300	500	400	4300.00	15	9	505380-02	KELLEY, ROE	05	05380.01	401 MAIN STREET W
505390-00													0.00	0	0	505390-00	VINKEY, RAY	08	05390	109 PINE STREET S

505390-01													0.00	0	0	505390-01	DEACON, JE	05	05390.00	109 PINE STREET
505390-02													0.00	0	0	505390-02	PARKS, DAN	05	05390.02	109 S PINE STREET
505390-03													0.00	0	0	505390-03	HENDRICKSC	05	05390.01	109 PINE STREET
505390-04	1800					200	55400	28400	8500	16200	2400	100	113000.00	24	591	505390-04	COVINGTON,	08	05390.01	109 PINE STREET S
505400-00	4200	5200	3300	3600	3800	4700	6900	8400	10800	7900	7700	2900	69400.00	149	231	505400-00	GUTIERREZ,	01	05400	309 MAIN STREET W
505410-00	2700	3800	3200	4600	4600	7800	3000	2800	2700	2400	2900	1900	42400.00	106	127	505410-00	PARKS, DAN	08	05410	303 MAIN STREET W
505420-00	6500	7800	1100	11000	5400	4300	6700	6900	6900	5600	7000	5600	74800.00	215	195	505420-00	SCHAEFER E	08	05420	301 MAIN STREET W
505420-01													0.00	0	0	505420-01	CABRERA RA	05	05420.00	301 MAIN STEET
505422-00	400	300	100	100	200	200	300	200	100	300		200	2400.00	6	7	505422-00	HAGEDORN L	08	05422	108 PEARL STREET S
505422-01													0.00	0	0	505422-01	MAKING A W	05	05422.01	108 PEARL STREET
505422-02													0.00	0	0	505422-02	CHAMBLIN J	05	05422.02	108 PEARL
505425-00	12200	5400	3800	6100	5100	5300	1100	8200	4600	5600	7500		64900.00	193	163	505425-00	RINALDI, MIC	08	05425	109 PEARL STREET S
505425-01													0.00	0	0	505425-01	CHAMBLIN, J	05	05425.01	109 PEARL STREET
505425-03													0.00	0	0	505425-03	CULBERTSON	05	05425.03	109 PEARL STREET
505427-00													0.00	0	0	505427-00	HUTCHINGS,	08	05427	111 PEARL STREET S
505427-01	5900	6700	3700	6000			10000	18200	6900	7100	5400	3200	73100.00	171	229	505427-01	CHEETHAM,	05	05427.01	111 PEARL STREET S
505427-02					4400	4700							9100.00	0	49	505427-02	WHEELER, J	05	05427.02	111 PEARL STREET S
505430-00	5000	5200	3900	4900	3900	5700	8700	13400	7500			3500	61700.00	124	213	505430-00	CHEETHAM,	08	05430	229 MAIN STREET W - LITTLE BEAR
505440-00	900	1200	900	2800	2900	6500	3300	1000	1500	800	1100	800	23700.00	43	87	505440-00	ENERGY PAR	08	05440	224 MAIN STREET W
505440-01													0.00	0	0	505440-01	MOUNTAIN W	05	05440.00	224 MAIN STREET W
505441-00													0.00	0	0	505441-00	CAMPBELL, M	08	05441	219 MAIN STREET W
505442-00													0.00	0	0	505442-00	CAMPBELL, M	01	05442	215 MAIN STREET W
505442-01													0.00	0	0	505442-01	KATO JEAN	05	05442.00	215 MAIN
505442-02													0.00	0	0	505442-02	BRONNER, M	05	05442-02	215 W MAIN STREET
505442-03													0.00	0	0	505442-03	WHITEFISH C	01	05442.01	215 MAIN STREET W
505444-00													0.00	0	0	505444-00	CAMPBELL, M	01	05444	201 MAIN STREET W
505444-01													0.00	0	0	505444-01	KELGARD, R	05	05444.01	201 MAIN
505444-02													0.00	0	0	505444-02	PIERCE, ROE	05	05444.02	201 W MAIN STREET
505444-03													0.00	0	0	505444-03	WHITEFISH C	01	05444.01	201 MAIN STREET W
505460-00	200	400	200	500	500	500	200	200	300	400	400	200	4000.00	10	11	505460-00	BENNETT DA	08	05460	223 MAIN STREET W
505470-01													0.00	0	0	505470-01	MONTANA RA	05	05470	101 EAST CROSSING
505480-00													0.00	0	0	505480-00	NORTHWEST	08	05480	1625 MAIDEN LANE
505480-01	17000	28000	37000	47000	32000	17000	26000	34000	22000	7000	7000	5000	279000.00	779	750	505480-01	PPL	05	05480.01	1625 MAIDEN LANE
505481-00													0.00	0	0	505481-00	NORTHWEST	08	05481	1517 MAIDEN LANE
505481-01					200	400	1500	7000	1200	300	100		10700.00	1	58	505481-01	PPL	05	05481.01	1517 MAIDEN LANE
505482-00	7100	5500	3400	5400	5300	11300	26100	31400	20200	6400	5700	3700	131500.00	170	547	505482-00	BURKY, BRIA	08	05482	1611 MAIDEN LANE
505490-00	1500	1400	1500	600	300	500	12900	24300	14500	2500	2400	2300	64700.00	54	299	505490-00	DEMMONS, H	08	05490	1622 MAIDEN LANE
505490-01													0.00	0	0	505490-01	PHILLIPS, CR	05	05490.01	1622 MAIDEN LANE
505500-00	1000	1400	800	1700	1100	1500	2400	4200	2500	1000	1100	800	19500.00	38	69	505500-00	LIONS MANO	08	05500	1600 MAIDEN LANE
505510-00	2100	2400	1200	2000	1700	2000	50200	112100	19400	9500	1700	700	205000.00	56	1059	505510-00	BKP PROPER	08	05510	1520 MAIDEN LANE
505510-01													0.00	0	0	505510-01	MCROBERTS	05	05510.01	1520 MAIDEN LANE
505520-00													0.00	0	0	505520-00	GIFFIN, NICH	08	05520	115 POND STREET S
505520-01	4200	5500	3300	2100	2700	3000	3700	2800	4200	4600	3100	4000	43200.00	123	114	505520-01	STRANG, DA	05	05520.01	115 POND STREET S
505520-02													0.00	0	0	505520-02	USDA, RURAL	08	05520.01	115 POND STREET S
505530-01													0.00	0	0	505530-01	MONTANA PC	05	05530	124 S POND
505540-01													0.00	0	0	505540-01	MONTANA PC	05	05540	114 S POND & 118 S POND
505550-00	5200	3200	6200	4900	4600	7900	11200	7800	4900	5000	5500	3900	70300.00	160	225	505550-00	LOVELL, RAN	08	05550	1507 MAIDEN LANE
505550-01													0.00	0	0	505550-01	MORROW GA	05	05550.01	1507 MAIDEN LANE
505560-00	4300	4600	2600	2800	2500		8800	20200	6000	4100	3800	200	59900.00	101	226	505560-00	FREEMAN, W	08	05560	1506 MAIDEN LANE
505560-01													0.00	0	0	505560-01	GRIFFIN, KEN	05	05560.00	1506 MAIDEN LANE
505570-01													0.00	0	0	505570-01	PARKER, FR	05	05570	1510 1/2 MAIDEN LANE
505580-00	6900	6000	2900	4600	3800	6200	7500	25800	15700	5300	4800	800	90300.00	144	349	505580-00	PARKER, FR	08	05580	1512 1/2 MAIDEN LANE
505590-00													0.00	0	0	505590-00	FREED, CELI	08	05590	1417 MAIDEN LANE
505590-01	100	100	100	900	600	800	29300	43500	46500	44000	1200	2100	169200.00	25	895	505590-01	MOORE, MYF	05	05590.01	1417 MAIDEN LANE
505600-00	9200	10200	6100	9400	9800	8400	12400	10500	8500	6300	8500	6200	105500.00	274	304	505600-00	HAGEDORN,	08	05600	204 LINCOLN STREET S
505600-03													0.00	0	0	505600-03	MCKENZIE B	05	05600.03	204 S LINCOLN
505610-00	100						3000	7900	2100	2400	7500		23000.00	42	84	505610-00	FISHER, A. F	08	05610	208 LINCOLN STREET S
505620-00													0.00	0	0	505620-00	BLAIR, IRENE	08	05620	214 LINCOLN STREET S
505630-00	7300	5900	3300	5300	4400	3800	6100	4200	3900	4200	4200	4800	57400.00	170	145	505630-00	BAXTER, ROE	08	05630	211 LINCOLN STREET S
505630-01													0.00	0	0	505630-01	BAXTER, MIC	05	05630.00	211 LINCOLN STREET S
505640-01													0.00	0	0	505640-01	COX, BEN &	05	05640	212 1/2 LINCOLN STREET S
505650-00	4400	4400	2800	4900	3300	4800	4700	5100	4100	3300	4800	2900	49500.00	134	138	505650-00	BLAIR, IRENE	08	05650	216 LINCOLN STREET S
505660-01													0.00	0	0	505660-01	ARNOLD, RO	05	05660.00	1319 MAIDEN LANE
505660-02													0.00	0	0	505660-02	BRICKZIN, RC	05	05660.02	1319 MAIDEN LANE
505670-00	2600	3300	1800	2800	2400	2900	2900	3000	2700	3100	3200	2000	32700.00	87	92	505670-00	BRICKZIN, B	08	05670	1309 MAIDEN LANE
505690-01	18200	22600	11700	24400	25000	44600						24000	170500.00	557	378			10		
505690-04							46700	118800					165500.00	0	899	505690-04	FALLS MOTEL	05	05690	112 GALLATIN STREET S
505690-M1	1700	2600	900	4200	4400	8300	43800	72600	70300	13400	5700	1500	229400.00	92	1157	505690-M1	FALLS MOTEL	08	0569001	112 GALLATIN STREET S
505690-M2	11100	14700	7900	14500	14700	25200	24500	38000	26400	18100	15900	17800	228800.00	452	798	505690-M2	FALLS MOTEL	08	0569002	112 GALLATIN STREET S
505690-M3	5400	5300	2900	5700	5900	11100	6800	8200	9200	5200	6700	4700	77100.00	170	252	505690-M3	FALLS MOTEL	08	0569003	112 GALLATIN STREET S
505700-00													0.00	0	0	505700-00	HOWE, BETT	08	05700	200 GALLATIN STREET S
505700-01	3200	4600	2700	4900	3900	2800	5300	14300	7700	3700	4400	2900	60400.00	125	205	505700-01	SHARP, RON	05	05700.01	200 GALLATIN STREET S
505710-00	2000	5300	2100	7900	8100	5200	2100	20300	2000	500	15100	1800	72400.00	189	208	505710-00	HICKOK, CAR	08	05710	206 GALLATIN STREET S
505720-00	500	1500	500	1000	1100	1300	1500	7100	3200	2300	1100	1100	22200.00	31	90	505720-00	MUSTER, JO	08	05720	215 GALLATIN STREET S
505730-00	1700	1000	700	700	400	500	2100	14500	5900	3800	2000	600	33900.00	37	148	505730-00	MUSTER, JO	08	05730	213 1/2 GALLATIN STREET S
505740-00	3800	4400	2600	3700	3600	5900	4200	15300	7000	4700	3800	3000	62000.00	118	221	505740-00	OSWALD STE	08	05740	203 GALLATIN STREET S
505745-00	42200	51900	30900	32000	900	900	38500	34700	42600	32700	39200	29600	376100.00	1248	817	505745-00	VALLEY BANK	08	05745	1222 MAIDEN LANE
505750-00	5000	5800	3200	4900	5000	7300	11500	20100	24800	16200	6400	3600	113800.00	160	461	505750-00	MUSTER, JO	08	05750	1215 MAIDEN LANE
505760-01													0.00	0	0	505760-01	BARNES SAL	05	05760	110 1/2 & 112 1/2 MADISON
505770-00							900	100					1000.00	0	5	505770-00	SMITH, MARI	08	05770	1211 MAIDEN LANE
505780-00	1500	1600	1000	1500	1100	1600	1700	1700	1400	1400	1700	1100	17300.00	46	48	505780-00	OTTEN, DOU	08	05780	1203 MAIDEN LANE
505790-00	2400	3000	1800	2500	3200	2900	4400	3200	3500	2100	2800	2200	34000.00	81	105	505790-00	STYGER, CA	08	05790	1204 MAIDEN LANE
505800-00	2800	3000	1800	2900	2900	2900	2300		2900	1200	4100	1500	28300.00	89	66	505800-00	KERSTEN, LY	08	05800	206 MADISON STREET S
505800-01													0.00	0	0	505800-01	LEUFKENS, E	05	05800.01	206 S MADISON
505800-02													0.00	0	0	505800-02	ELLIOTT, GE	05	05800.02	206 S MADISON
505800-03													0.00	0	0	505800-03	ROBERTS, D	05	05800.03	206 S MADISON STREET
505811-00	7500	8600	5100	8200	7300	8300	11700	11300	11200	8500	8000	5300	101000.00	236	317	505811-00	MY INVESTM	08	05811	210 MADISON STREET S
505820-00		400	300	500	400	2000	100	500	400	400	700	200	5900.00	12	21	505820-00	YURCZYK, F	08	05820	207 MADISON STREET S
505830-00	1700	2300	1000	2000	1300	1600	4000	12000	1500	1500	1800	1300	32000.00	56	119	505830-00	MORRIN, DI	08	05830	1119 MAIDEN LANE
505850-00													0.00	0	0	505850-00	JENKS ENTE	08	05850	108 MADISON STREET S
505850-01													0.00	0	0	505850-01	MORRISON A	05	05850.01	108 S MADISON STREET
505850-02	300	500	300	500	200	300	2800	2600	300	400	600	200	9000.00	13	36	505850-02	RUMMEL, JIM	05	05850.02	108 MADISON STREET S
505850-03													0.00	0	0	505850-03	FIRST SECUR	05	05850.03	108 MADISON STREET S
505860-00	9000	9900	4800	9400	8200	8400	8100	6100	6300	8400	12400	5500	96500.00	282	247	505860-00	SANDERS CO	08	05860	1115 MAIN STREET W
505870-00	5700	5200	2400	4600	3600	4300	9600	10400	7700	2400	3900	2800	62600.00	136	207	505870-00	LEUFKENS, E	08	05870	1111 MAIDEN LANE
505870-02													0.00	0	0	505870-02	MORRIN, DIA	05	05870.02	1111 MAIDEN LANE
505880-00	1400	1800	1800	1300	2000	2400	23000	16500	200				50400.00	35	240	505880-00	ELLIOTT GE	08	05880	1105 MAIDEN LANE
505880-01													0.00	0	0	505880-01	BAXTER ELS	05	05880.01	1105 MAIDEN LANE
505890-00													0.00	0	0	505890-00	LEUFKENS, B	08	05890	1101 MAIDEN LANE
505890-01	5800	5900	3100	5600	4100	9400	34100	30100	15600	5800	5100	3300	127900.00	159	539	505890-01	HEATER, RIC	08	05890.01	1101 MAIDEN LANE
505900-00							900	7000	900				8800.00	0	48	505900-00	SANDERS CO	08	05900	1111 MAIN STREET W

505901-00													0.00	0	0	505901-00	SANDERS CO	08	05901	109 MADISON STREET S
505910-00						5400							5400.00	0	29	505910-00	VAUGHN, VIR	08	05910	107 JEFFERSON STREET S
505910-01	4800	4800	3100	5500	4300		18900	36500	18800	3000	4500	3200	107400.00	143	443	505910-01	SHOEMAKER,	05	05910.01	107 JEFFERSON STREET S
505920-00													0.00	0	0	505920-00	VAUGHN, VIR	08	05920	107 1/2 JEFFERSON STREET S
505920-01	1100						1200	2800		1600	1000	400	8100.00	14	30	505920-01	SHOEMAKER,	05	05920.01	107 1/2 JEFFERSON STREET S
505930-00						400	5500	30500	5400	700			42500.00	0	231	505930-00	PODRAT, GA	08	05930	1020 MAIDEN LANE
505940-00	3800	4300	2500	3600	3100	3900	8000	8600	2900	3600	3800	2800	50900.00	115	164	505940-00	DICKMAN, LYI	08	05940	1015 MAIDEN LANE
505950-00													0.00	0	0	505950-00	SAKASKE, ST	08	05950	1016 MAIDEN LANE
505950-01													0.00	0	0	505950-01	JENSEN, HAI	05	05950.01	1016 MAIDEN LANE
505950-02	100	100			100	2600	17500	7300	1700	1300	900	200	31800.00	7	166	505950-02	MOREHOUSE	05	05950.02	1016 MAIDEN LANE
505960-00	2300	3300	2600	2700	2600	3800	11300	4700	3100	4100	3300	2100	45900.00	90	161	505960-00	ELLIOTT, LYN	08	05960	1014 MAIDEN LANE
505960-01													0.00	0	0	505960-01	HUXFORD, JI	05	05960.01	1014 MAIDEN LANE
505960-02													0.00	0	0	505960-02	BURWELL, EF	05	05960.00	1014 MAIDEN LANE
505970-00	4800	5500	3600	5800	4600	6300	6400	6400	8700	4300	5600	4100	66100.00	162	199	505970-00	CALVERT, R(	08	05970	1003 MAIDEN LANE
505990-01													0.00	0	0	505990-01	CITY OF THOI	05	05990	1006 MAIDEN LANE
506000-00	600	500	200	500	300	1000	4700	6300	4900	3500	700	300	23500.00	15	113	506000-00	FIRST SECUR	08	06000	107 FULTON STREET S
506000-01													0.00	0	0	506000-01	FIRST STATE	05	06000.01	107 FULTON STREET
506010-00													0.00	0	0	506010-00	FIRST SECUR	01	06010	917 919 MAIDEN LANE
506010-01													0.00	0	0	506010-01	THOMPSON F	05	06010.01	917 919 MAIDEN LANE
506020-00	4800	5700	3800	6000	4600	12000	16200	29500	27000	8300	5200	5300	128400.00	170	530	506020-00	HOYT, TIM	08	06020	905 MAIDEN LANE
506030-01													0.00	0	0	506030-01	NELSON JES	05	06030	109 MILL,SHOP-107
506040-01													0.00	0	0	506040-01	NELSON JES	05	06040	114 S COLUMBIA
506050-01													0.00	0	0	506050-01	SCHROEDER	05	06050	103 S MILL STREET
506052-00	5600	6200	3900	5700	4700	6300	5800	5500	5700	4400	6200	3900	63900.00	174	176	506052-00	SCOTT, RICH	08	06052	107 MILL STREET S
506053-00	3500	3900	2400	4100	3600	4100	2800	3000	100	1900	3800	2700	35900.00	113	84	506053-00	BRONNER, M.	08	06053	109 MILL STREET S
506053-01													0.00	0	0	506053-01	WOOD DALE	05	06053.01	109 MILL STREET
506053-02													0.00	0	0	506053-02	SIMPSON, LII	05	06053.02	109 MILL STREET
506055-00													0.00	0	0	506055-00	BRONNER, M.	08	06055	108 BROAD STREET S
506055-01													0.00	0	0	506055-01	PARKER, NO	05	06055.01	108 S BROAD STREET
506060-00	1800	1700	1500	1900	1100	1200	4200	2600	300	2000	2000	1700	22000.00	59	62	506060-00	BOWER JOSE	08	06060	109 COLUMBIA STREET S
506060-01													0.00	0	0	506060-01	MCCUAIG, JA	05	06060.01	109 S COLUMBIA STREET
506060-02													0.00	0	0	506060-02	SPARKS, AM'	05	06060.02	109 S COLUMBIA
506060-03													0.00	0	0	506060-03	THOMAS, MIC	05	06060.00	109 S COLUMBIA STREET
506060-04													0.00	0	0	506060-04	MCCUAIG, JA	05	06060.03	109 COLUMBIA STREET S
506070-00													0.00	0	0	506070-00	TERRY, MICH	08	06070	110 COLUMBIA STREET S
506070-01													0.00	0	0	506070-01	KINDRED, SA	05	06070.01	110 S COLUMBIA STREET
506070-02													0.00	0	0	506070-02	SHEAR MIKE	05	06070.02	110 S COLUMBIA
506075-00													0.00	0	0	506075-00	HANNUM, MA	08	06075	114 COLUMBIA STREET S
506075-01	3700	3700	2500	3600	3300	4200	3700	19400	8100	3300	3900	2000	61400.00	107	228	506075-01	SCOTT, RICH	05	06075.01	114 COLUMBIA STREET S
506080-00	2700	2800	1900	2300	2500	2600	4700	8100	2500	1900	2000	2000	36000.00	76	121	506080-00	SHEAR, MICH	08	06080	712 MAIDEN LANE
506100-00	700	1100	700	1000	900	1000	2300	3300	1800		1100	700	14600.00	29	51	506100-00	WESTERN MC	08	06100	704 MAIDEN LANE
506110-00	700	800	800	2400	2300	2700	900	3300	1400	800	1000	700	17800.00	35	62	506110-00	LEUFKENS, E	08	06110	115 BROAD STREET S
506110-01													0.00	0	0	506110-01	MARTIN R E	05	06110.00	115 S BROAD ST
506120-00	1600	1600	1600	600	900	2000	5500	4300	7800	2600	800	800	30100.00	39	126	506120-00	LORD, DONAI	08	06120	109 BROAD STREET S
506120-01													0.00	0	0	506120-01	LORD, DAN	05	06120.00	109 BROAD STREET S
506150-00													0.00	0	0	506150-00	SCHILLING, D	08	06150	1006 CHURCH STREET
5804951-01													0.00	0	0	5804951-01	HARLAN DOU	00	NONE	FIRE HYDRANT- CORNER OF HWY 200 & P
600091-01													0.00	0	0			10		
600093-01													0.00	0	0			10		
600095-01													0.00	0	0	600095-01	TWO RIVERS	06	00095	995 MOUNT SILCOX DRIVE
600097-01													0.00	0	0	600097-01	TWO RIVERS	06	00097	997 MOUNT SILCOX DRIVE
600240-01													0.00	0	0	600240-01	OLIVER DAVII	06	00240	1199 MT SILCOX DRIVE
600255-01													0.00	0	0	600255-01	JOKERST CH/	06	00255.00	708 SOUTHWOOD COURT
600263-01													0.00	0	0	600263-01	KONEN TOM	06	00263.01	715 SOUTHWOOD COURT
600268-01													0.00	0	0	600268-01	HANSON, TOI	06	00268.01	720 SOUTHWOOD COURT
600270-00	700	100	100	200	200		3000	1200	1400	200	700	200	8000.00	11	33	600270-00	SHEPHERD O	08	002701	1192 MOUNT SILCOX DRIVE
600270-01													0.00	0	0	600270-01	SAGE WOOD	06	00270.00	1192 MOUNT SILCOX DRIVE
600270-02													0.00	0	0	600270-02	SANDERS CO	06	00270.01	1192 MOUNT SILCOX DRIVE
600270-03													0.00	0	0	600270-03	LARSEN BAR	06	00270.02	1192 MOUNT SILCOX DRIVE
600410-02													0.00	0	0	600410-02	HAAS, JAREI	06	00410	604 ASPEN COURT
600602-00	3400	3600	2600	3100	2900	3700			14700	4100	3500	3200	44800.00	107	138	600602-00	COLEMAN, A\	08	00602	602 ASPEN COURT
600602-01							51800	31000					82800.00	0	450	600602-01	REIMER, JAS(	06	00602.01	602 ASPEN COURT
600604-00	2700	2900	1900	2500	2400	3200	12400	27700	29900	17500	5900	2200	111200.00	100	506	600604-00	WALWER, GF	08	00604	608 ASPEN COURT
600605-00	1600	3100	1100	1800	1200	3200							12000.00	42	24	600605-00	RICKERT, KEI	08	00605	605 Aspen
600605-01							37600	63200	60100	5600	1600	2100	170200.00	20	905	600605-01	ZANDER, LYI	06	00605.01	617 church street
600708-00	6500	3300	2400	2900	3800	24300	53800	82600	75800	20600	3700		279700.00	104	1418	600708-00	MARICH, KAY	03	04200.01	713 SOUTHWOOD COURT
600711-00	3600	3100	2800	3300	2600	24200	69300	76200	62800	11100	3000	2500	264500.00	101	1338	600711-00	MARKQUART,	08	00711	605 ASPEN COURT
600712-00													0.00	0	0	600712-00	FISHER, KRIS	08	00712	712 SOUTHWOOD COURT
600712-01	1600	2300	2300	1500	1700	2100	3000	900	3500	1600	1400	1300	23200.00	57	70	600712-01	MCKEEN, JEF	06	00712.01	712 SOUTHWOOD COURT
600715-00													0.00	0	0	600715-00	PARDEE, SC(	08	00715	715 SOUTHWOOD COURT
600715-01	6000	6400	5200	5900	4400	9200	71100	62700	46500	54800	5000	5200	282400.00	186	1352	600715-01	HOJEM, RAN	06	00715.01	715 SOUTHWOOD COURT
600716-00	9000	10500	7300	9200	7900	17500	25300	47000	33600	16900	7100	5200	196500.00	267	805	600716-00	MORGAN, SH	08	00716	716 SOUTHWOOD COURT
600716-01													0.00	0	0	600716-01	FRIEDMAN, (	06	00716.00	716 SOUTHWOOD COURT
600720-00													0.00	0	0	600720-00	ENGEBERG, (	08	00720.1	720 SOUTHWOOD COURT
600720-01				100		2600		23600	22000	20500	200	300	69300.00	3	373	600720-01	MCGUYER, M	06	00720.01	720 SOUTHWOOD COURT
600720-02													0.00	0	0	600720-02	TAYLOR, RICI	06	00720.02	720 SOUTHWOOD COURT
600720-03													0.00	0	0	600720-03	MCGUYER, M	08	00720.01	720 SOUTHWOOD COURT
600721-00	1200	1600	900	2000	6700	15900	1600	1900	1600	1200	1100	1000	36700.00	43	157	600721-00	FAIRBANK, R/	08	00721	721 SOUTHWOOD COURT
600721-01													0.00	0	0	600721-01	VANTASSEL (	06	00721.01	721 SOUTHWOOD COURT
600723-00	9000	9500	7900	6600	7400	8000	30900	42200	21600	8300	9900	9100	170400.00	287	643	600723-00	HANLEY, RY/	08	00723	723 SOUTHWOOD COURT
601107-00	1300	1400	1100	1300	1600	5400	7600	6600	5900	4200	1700	1200	39300.00	44	170	601107-00	JEHOVAH'S W	08	01107	1107 MOUNT SILCOX DRIVE
601191-00	200	300	300	200	300	200	400	400	300	300	300	300	3500.00	9	10	601191-00	THOMPSON F	08	01191	1191 MOUNT SILCOX DRIVE
601199-00													0.00	0	0	601199-00	WILHITE, DAV	08	01199	1199 MOUNT SILCOX DRIVE
601199-01													0.00	0	0	601199-01	CLARIDGE, D	06	01199.01	1199 MOUNT SILCOX DRIVE
601199-02													0.00	0	0	601199-02	WILHITE, DA\	06	01199.02	1199 MOUNT SILCOX DRIVE
601199-03							6200		100	100			6400.00	0	35	601199-03	JP MORGAN (	06	01199.03	1199 MOUNT SILCOX DRIVE
601209-00	5600	5900	4800	6200	6500	32500	68000	58900	63700	46300	4900	4400	307700.00	176	1499	601209-00	LEISCHNER, I	08	01209	1209 MOUNT SILCOX DRIVE
601209-01													0.00	0	0	601209-01	ENGEBRETS(	06	01209.00	1209 MOUNT SILCOX DRIVE
601219-00													0.00	0	0	601219-00	HOFF, RAYM(	08	01219	1219 MOUNT SILCOX DRIVE
601219-01	5000	5100	3700	4900	4000	29300	66200	86000	65500	30400	4700	4000	308800.00	151	1529	601219-01	SYMON, RAN	08	01219.01	1219 MOUNT SILCOX DRIVE
601220-00				2800	3200	19800	40000	66000	68000	20400	4500		224700.00	40	1182	601220-00	SLAGLE, JAN	08	012201	704 SOUTHWOOD COURT
601229-00													0.00	0	0	601229-00	FRANCK, NICI	08	01229	1229 MOUNT SILCOX DRIVE
601229-01	2500	2600	1300				2400	51900	4100	2600	900	1500	69800.00	49	332	601229-01	BROWN, SHA	06	01229.01	1229 MOUNT SILCOX DRIVE
601229-02				1700									1700.00	9	0	601229-02	WHITEFISH C	06	01229.02	1229 MOUNT SILCOX DRIVE
601800-00													0.00	0	0	601800-00	HANDFORD, I	08	018001	1800 PINE TREE HOLLOW
601800-01	4600	5300	3300	3100	600	4300	2500	2500	3300	4300	4300	3700	41800.00	134	95	601800-01	HURST, JAME	06	01800.01	1800 PINE TREE HOLLOW
601801-00						8400	31500	31100	33300	17800			122100.00	0	664	601801-00	PINE TREE H(	08	01801	1801 PINE TREE HOLLOW - GREENS
601802-00	1600	1700	1200	1600	2600	2900	3600	3300	2900	2400	1600	1400	26800.00	50	96	601802-00	BROWN, NAN	08	01802	1802 PINE TREE HOLLOW
601802-01													0.00	0	0			10		
601804-01													0.00	0	0			10		
601806-01													0.00	0	0			10		

601808-00						600	900	600	600	700	700		4100.00	4	18	601808-00	LINZMAIER, P	08	01808	1808 PINE TREE HOLLOW
601810-00	1100	1200	800	1500	1100	2900	17100	7800	6000	2200	1000	1000	43700.00	36	202	601810-00	SOLLIE, BARE	08	018101	1810 PINE TREE HOLLOW
601810-01													0.00	0	0	601810-01	WOLF, KARE	06	01810.01	1810 PINE TREE HOLLOW
601812-00													0.00	0	0	601812-00	SHOEMAKER,	08	01812	1812 PINE TREE HOLLOW
601812-01					100	1100	10900	9500	10100	3300	2200	1500	38700.00	20	190	601812-01	MORBELLA, J	06	01812.01	1812 PINE TREE HOLLOW
601814-00	5000	3900	2600	3500	3800	4100	5400	3000	4400	3500	3000	4100	46300.00	122	132	601814-00	ARNOLD, ROI	08	01814	1814 PINE TREE HOLLOW
601814-01													0.00	0	0	601814-01	TWO RIVERS	06	01814.00	1814 PINE TREE HOLLOW
601816-00	100						3800	3200	600	600	400		8700.00	3	45	601816-00	ALDRICH, FR/	08	01816	1816 PINE TREE HOLLOW
601816-02													0.00	0	0	601816-02	SHEPHERD, .	06	01816.01	1816 PINE TREE HOLLOW
601818-00	4700	4900	4200	2700	5300	8600	15600	21500	16500	16300	14500	5600	120400.00	202	455	601818-00	TRUDGEN, D/	08	01818	1818 PINE TREE HOLLOW
601818-01													0.00	0	0			10		
601900-00	2400	1100	500	800	900	1200	3000	3500	2000	2100	1900	1900	21300.00	48	69	601900-00	BARNES, BRI	08	019001	1900 PINE TREE HOLLOW
601900-01													0.00	0	0	601900-01	TWO RIVERS	06	01900.01	1900 PINE HOLLOW
601902-00	100							100					200.00	1	1	601902-00	THURMAN, W	08	01902	1902 PINE TREE HOLLOW
601902-01													0.00	0	0	601902-01	KOSTKA, KAT	06	01902.00	1902 PINE TREE HOLLOW
601902-02													0.00	0	0	601902-02	DUNBAR SAI	06	01902.01	1902 PINE TREE HOLLOW
601904-00													0.00	0	0	601904-00	GLADE, SHIRI	08	01904	1904 PINE TREE HOLLOW
601904-02													0.00	0	0			10		
601906-00							300						300.00	0	2	601906-00	NETZ, ALAN &	08	01906	1906 PINE TREE HOLLOW
601906-02													0.00	0	0	601906-02	TWO RIVERS	06	01906.02	1906 PINE TREE HOLLOW
601908-00													0.00	0	0	601908-00	BLOOM, ROSI	08	01908	1908 PINE TREE HOLLOW
601908-01													0.00	0	0	601908-01	PINE TREE H(	06	01908.00	1908 PINE TREE HOLLOW
601908-02													0.00	0	0	601908-02	GERALD, JEF	06	01908.01	1908 PINE TREE HOLLOW
601908-03	100	100	100	500	1100	1800	4100	5000	5300	1600	1300	700	21700.00	15	103	601908-03	MC CLINTOCI	06	01908.02	1908 PINE TREE HOLLOW
601910-00													0.00	0	0	601910-00	WALKER, JIMI	08	01910.1	1910 PINE TREE HOLLOW
601910-01													0.00	0	0	601910-01	TWO RIVERS	06	01910.00	1910 PINE TREE HOLLOW
601910-02	8500	9500	8200	7300	8400	12000	14800	13400	13000	10000	7700	7200	120000.00	267	389	601910-02	JONES, BRUC	06	01910.01	1910 PINE TREE HOLLOW
700012-00						1000					800		1800.00	4	5	700012-00	NEBEKER, CL	08	00012	2414 CAPSTONE COURT
700012-01													0.00	0	0	700012-01	CHAMBERS, I	07	00012.00	2414 CAPSTONE COURT
700012-02													0.00	0	0	700012-02	SENN, MARILI	07	00012.01	2414 CAPSTONE COURT
700012-03													0.00	0	0	700012-03	HURD-BUSH I	07	00012.02	2414 CAPSTONE COURT
700012-04													0.00	0	0	700012-04	AMERICAN DI	07	00012.03	2414 CAPSTONE COURT
700040-00													0.00	0	0	700040-00	SCHUBERT, F	08	00040.1	2413 CAPSTONE COURT
700040-01													0.00	0	0	700040-01	CHAMBERS,	07	00040.00	2413 CAPSTONE COURT
700040-02													0.00	0	0	700040-02	AMERICAN DI	07	00040.01	2413 CAPSTONE COURT
700040-03	3500	3400	1000	3800	3000	4700	9600	17300	13100	4000	3400	2500	69300.00	97	281	700040-03	BENSON, MIC	08	00040.01	2413 CAPSTONE COURT
700041-00													0.00	0	0	700041-00	YEAGER, ERI	08	00041	2419 CAPSTONE COURT
700050-00	1400	1200	1600	1200	2600	1500	3300	1600	1300	1200	1400	1200	19500.00	44	63	700050-00	INKS JR, HOV	08	00050.1	2503 MOSSY ROCK COURT
700050-01													0.00	0	0	700050-01	NEMES, WILL	07	00050.01	2503 MOSSY ROCK COURT
700053-00	2300	2500	1700	2500	2000	2300		3800	2700	2500	2500	2200	27000.00	76	72	700053-00	LAWRENCE, I	08	00053	2620 CORNERSTONE ROAD
700053-01							2600						2600.00	0	14	700053-01	THORNTON, I	07	00053.01	2620 CORNERSTONE ROAD
700054-00						300	700	400	300	400	300	100	2500.00	2	11	700054-00	CARMOUCHE	08	00054	2611 CORNERSTONE ROAD
700060-00	3900	5500		1400	4300	8100	20500	35700	28700	13300	2700	1400	125500.00	82	601	700060-00	FIELDS, SHEF	08	00060.1	2715 CORNERSTONE ROAD
700061-00													0.00	0	0	700061-00	TAYLOR, GAY	08	00061	2719 CORNERSTONE ROAD
700061-01													0.00	0	0	700061-01	MOONEY, RIC	07	00061.00	2719 CORNERSTONE ROAD
700061-02	1800	1900	1200	2600	2000	4400	7200	10600	7700	2500	1800	1500	45200.00	60	187	700061-02	ASCHER, THC	07	00061.01	2719 CORNERSTONE ROAD
700063-00	400					700	10300	10400	8400	5000	3100	4900	43200.00	46	189	700063-00	KNUTSON, R(	08	00063	2727 CORNERSTONE ROAD
700075-01													0.00	0	0			10		
700080-00	9000	11000	7900	12400	8500	10600	13000	17500	16000	11400	5000	5300	127600.00	280	418	700080-00	RIMROCK LOI	08	000801	4946 HWY 200
Month Total	2975100	2981100	2379300	2384500	2346800	3705200	7262800	10966100	7529400	4170400	2440200	2181600	51322500	58	134	Month Total				
Avg day (gpd)	95970.97	106467.9	76751.61	79483.33	75703.23	123506.7	234283.9	353745.2	250980	134529	81340	70374.19	140609.59			Avg day (gpd)				
PerConnection (gpd)	163.2	185.2	135.4	137.5	129.6	209.0	380.3	578.0	408.8	222.7	136.2	120.5	96.3			PerConnection (gpd)				

Account	2015	Jan	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec		winter	summer					
		31	28	31	30	31	30	31	31	30	31	30	31	365	181	184					
															(avg gpd)	(avg gpd)					
	000000-02													0.00	0	0					
	100005-00	13900	5900	7000	7500	19000	13300							66600.00	190	176	100005-00	THOMPSON F	08	00005	1124 PRESTON AVENUE W
	100010-00	3600	4200	2000	500	2300	2800	5700	700	2400	3900	1000	1000	30100.00	68	97	100010-00	ASSEMBLY O	08	00010	1120 PRESTON AVENUE W
	100015-00													0.00	0	0	100015-00	ASSEMBLY O	08	00015	1122 PRESTON AVENUE W
	100020-00	10200	7500	6500	6900	9600	11400	8800	18600	10400	10300	6800	7800	114800.00	252	376	100020-00	SKINNER MA	08	00020	1106 PRESTON AVENUE W - HOUSE
	100030-00	3000	2900	2500	2200	5300	12400	3600	11100	5800	4700	3400	3600	60500.00	97	233	100030-00	HENSYEL RI(	08	00030	1114 PRESTON AVENUE W
	100040-00	3800	3000	2600	2400	4600	4200	3900	7200	5900	4100	2900	3200	47800.00	99	163	100040-00	MARICH, ADI	08	00040	102 WOOD STREET
	100050-00				1300	3700	9300	13500	18700	15600	12100	1000		75200.00	13	396	100050-00	INGRAHAM, L	08	00050	207 WOOD STREET
	100050-01													0.00	0	0	100050-01	CHASE HOME	01	00050.01	207 WOOD STREET
	100050-02													0.00	0	0	100050-02	PISCITELLO,	01	00050.02	207 WOOD STREET
	100050-03													0.00	0	0	100050-03	NORMAN, ME	01	00050.00	207 WOOD STREET
	100060-00	3700	4400	3300	4100	5100	6200	5600	24100	700	4100	1800	7100	70200.00	135	249	100060-00	SNYDER JOE	08	00060	214 WOOD STREET
	100060-01													0.00	0	0	100060-01	WIDNER, BILI	01	00060.00	214 WOOD STREET
	100065-00							4000	10000		8200			22200.00	0	121	100065-00	RAYMOND, J(	08	00065	213 WOOD STREET
	100070-00													0.00	0	0	100070-00	TOMAS, SAM(	08	000700	210 WOOD STREET
	100070-01													0.00	0	0	100070-01	PARKER, NO	01	00070.01	210 WOOD STREET
	100080-00								4000	5200	2800			12000.00	0	65	100080-00	TOMAS, SAM	08	00080	1014 OGDEN AVENUE W
	100090-00													0.00	0	0	100090-00	PAVLIK, MATT	08	00090	217 WOOD STREET
	100090-01													0.00	0	0	100090-01	TAYLOR GAF	01	00090.01	217 WOOD STREET
	100090-02	4800	3300	21900	12600	11600	8900	3500	3600	3800	6300	4800	2800	87900.00	277	205	100090-02	HAINES, FREI	08	00090.01	217 WOOD STREET
	100100-00													0.00	0	0	100100-00	BROWN RAY	08	00100	220 WOOD STREET
	100100-01	300	300	1400	1500	1100	4200	3600	5600	1400	1400	1100	10300	32200.00	82	94	100100-01	BROWN, DOF	01	00100.01	220 WOOD STREET
	100110-00	4100	4500	4800	5300	4700	5100	8100	39700	15700	18900	3900	5000	119800.00	152	501	100110-00	COLE, BRIAN	08	00110	1210 HALEY AVENUE W
	100120-00	200				300		1300	3800	2700	1300	1200	900	11700.00	13	51	100120-00	MARGELIN, E	08	00120	1214 HALEY AVENUE W
	100130-.0													0.00	0	0	100130-.0	PPL	01	00130	1111 HALEY AVENUE W
	100130-01													0.00	0	0	100130-01	MCNAIR JESS	01	00130.00	1111 HALEY AVENUE W
	100130-03													0.00	0	0			10		
	100130-04													0.00	0	0			10		
	100140-.0													0.00	0	0	100140-.0	PPL	01	00140.00	215 1/2 WOOD STREET
	100140-01													0.00	0	0	100140-01	GRAZIER, AM	01	00140.01	215 WOOD STREET
	100140-02													0.00	0	0	100140-02	MCCUAIG, JA	01	00140.02	215 1/2 WOOD STREET
	100140-03													0.00	0	0	100140-03	FIRST STATE	01	00140.03	215 WOOD ST
	100140-04													0.00	0	0	100140-04	NICHOLS, WA	01	00140.04	215 1/2 WOOD STREET
	100150-00	800	600	600	700	1000	4000	7500	20900	10500	10600	900	700	58800.00	24	296	100150-00	ROCHELEAU,	08	00150	1206 HALEY AVENUE W
	100160-00	11000	2800	2300	2400	2400	5400	11300	23200	15300	21000	3000	3300	103400.00	137	427	100160-00	ANDERSON,	08	00160	303 WOOD STREET
	100170-00	3900	5000	3600	5500	2800	2900	8900	11400	13200	9400	5700	9400	81700.00	183	264	100170-00	SUND, FORRE	08	00170	304 WOOD STREET
	100170-01													0.00	0	0	100170-01	SUND, DAVE	01	00170.00	304 WOOD STREET
	100170-02													0.00	0	0	100170-02	HALL, LARON	01	00170.01	304 WOOD STREET
	100170-03													0.00	0	0	100170-03	PPL	01	00170.02	304 WOOD STREET
	100180-00	200				800	500	8000	50300	13700		100	200	73800.00	3	398	100180-00	ANDERSON, E	08	00180	311 WOOD STREET
	100180-01													0.00	0	0	100180-01	SUND, DAVE	01	00180.00	311 WOOD STREET
	100185-00	3000	1400	1700	2900	2600	3900	1000		700	1600	2400	18400	39600.00	165	53	100185-00	YURCZYK, FI	08	00185	314 WOOD STREET
	100190-00	7100	3900	3400	3300	3900	3300	100	28200	10800	3800	4200	4100	76100.00	144	272	100190-00	TOMAS, SAM	08	00190	1012 PRESTON AVENUE W
	100200-00	2500	800		500	1400	3300	800	11000	5900	3000	1300	1800	32300.00	38	138	100200-00	HAYNES, PA(	08	00200	102 PARK STREET
	100210-00	1200	1100	1000	1300	2600	4500	3400	22100	6300	2000	1200	1500	48200.00	40	222	100210-00	WOLLASTON,	08	00210	105 PARK STREET
	100220-00	4200	4100	4100	4800	6100	12200	9100	27700	10100	8400	4500	4800	100100.00	146	400	100220-00	BROWNE, RI(	08	00220	108 PARK STREET
	100230-00	3500	3600	3000	3900	4100	4000	3000	8800	4000	3600	3100	3900	48500.00	116	149	100230-00	METHGEN, L(	08	00230	205 PARK STREET
	100230-01													0.00	0	0	100230-01	FRIEL, SOPH	01	00230.01	205 PARK STREET
	100240-00	10000	9500	9100	10800	18900	24600	23800	48400	33900	30200	16500	13000	248700.00	381	977	100240-00	THOMPSON,	08	00240	202 PARK STREET
	100250-00													0.00	0	0	100250-00	JOHNSON, DA	08	00250	206 PARK STREET
	100260-00	3800	6700	7100	7000	6300	16600							47500.00	136	124	100260-00	FITCHETT, TI	08	00260	210 PARK STREET
	100260-01													0.00	0	0	100260-01	MIGUEL BRID	01	00260.01	210 PARK ST
	100260-02													0.00	0	0	100260-02	KREIS, ALLEN	01	00260.02	210 PARK ST
	100270-00	6100	5400	4900	6000	6100	9400	13300	27400	12200	20800	4000	6100	121700.00	180	485	100270-00	KOSTKA, LU(	08	00270	209 PARK STREET
	100270-01													0.00	0	0	100270-01	KREIS ALLEN	01	00270.01	209 PARK STREET
	100270-02													0.00	0	0	100270-02	HULL LAURA	01	00270.02	209 PARK ST
	100270-03													0.00	0	0	100270-03	RAVENCROFT	01	00270-03	209 PARK STREET
	100280-00	2200	2000	900	1600	2100	3800	2700	6800	3700	6000	3000	1800	36600.00	64	136	100280-00	FRANKE, KA\	08	00280	911 HALEY AVE W
	100290-00	1000	100	100	200	200	300	1300	300	900	5700	500	900	11500.00	15	47	100290-00	FRANKE, KA\	08	00290	222 PARK STREET
	100300-00	3800	1900	3300	5300	4700	5900	6000	9800	9300	5800	3800	3700	63300.00	120	226	100300-00	BRAY, BRITT	08	00300	305 PARK STREET
	100310-00	4500	4300	4200	4900	4600	4700	4900	18700	7500	6100	4900	5300	74600.00	155	253	100310-00	LEGAULT, R(	08	00310	304 PARK STREET
	100315-00	2300	1500	1200	1300	700		1600	1600	1400	1700	1500	1700	16500.00	52	38	100315-00	DAUGHERTY,	08	00315	310 PARK STREET
	100315-01													0.00	0	0	100315-01	KEGEL, JACK	01	00315.01	310 PARK STREET
	100317-00	5500	5300	4500	5200	6000	2400	7000	16600	15900	6800	5100	5300	85600.00	171	297	100317-00	BORGMANN,	08	00317	315 PARK STREET
	100320-00	4400	4000	4500	4700	4300	4100	4200	4100	6200	5300	4600	4500	54900.00	148	153	100320-00	BORGMANN,	08	00320	321 PARK STREET
	100330-00	7500	7300	6900	9200	8800	2700	18700	10700	10300	17000	9300	8300	116700.00	268	371	100330-00	WHALEN, LIN	08	00330	906 HALEY AVENUE W
	100340-00	700	300	300	900	400	300	600	400	700	700	400		5700.00	14	17	100340-00	EGBERT PRO	08	00340	904 PRESTON AVENUE W
	100340-01													0.00	0	0	100340-01	COFFELT-BUI	01	00340.01	904 PRESTON
	100340-02													0.00	0	0	100340-02	T & S HOLDIN	01	00340.00	904 PRESTON AVENUE
	100351-00	800	700	400	800	800	800	1400	22100	7900	7300	700	800	44500.00	23	219	100351-00	RELF, EDNA	08	00351	102 GALLATIN STREET N
	100360-00	1400	2600	900	1800	2900	2800	4900	7500	3700	2800	3000	2900	37200.00	70	134	100360-00	DAY, MELIND,	08	00360	107 GALLATIN STREET N
	100360-01													0.00	0	0	100360-01	BURNSIDE, F	01	00360.00	107 GALLATIN STREET N
	100370-00	7900	700	2500	2700	2100	3400	1600	2800	2500	2100	2000	17700	48000.00	185	79	100370-00	GROSHONG	08	00370	114 GALLATIN STREET N
	100380-00	2000	5500	9700	2500	8700	3100	4300	1700	3700	4700	6100	4800	56800.00	169	142	100380-00	BESAW, KENI	08	00380	113 GALLATIN STREET N
	100380-01													0.00	0	0	100380-01	WARD, LARR	01	00380.00	113 N GALLATIN STREET
	100390-00	16000	8900	8500	7200	6300	8500	11700	50700	17000	9500	7900	8600	160800.00	315	564	100390-00	BROWN, JAS	08	00390	205 GALLATIN STREET N
	100390-01													0.00	0	0	100390-01	FREED J. L. &	01	00390.01	205 N GALLATIN ST
	100400-00	5200	4700	5400	4900	6100	13200	9600	34400	9900	5700	6300	6300	111700.00	181	429	100400-00	SHEAR, JARE	08	00400	204 GALLATIN STREET N
	100400-01													0.00	0	0	100400-01	CIK STEPHEI	01	00400.01	204 N GALLATIN ST
	100400-02													0.00	0	0	100400-02	GUTHALS, JE	01	00400.00	204 GALLATIN STREET N
	100400-03													0.00	0	0	100400-03	COSCIA, WIL	01	0040003	204 N GALLATIN STREET
	100410-00	3700	4400	5300	5400	5700	4500	2500	3500	3800	3500	3600	4300	50200.00	148	128	100410-00	VERLANIC, LY	08	00410	211 GALLATIN STREET N
	100410-01													0.00	0	0	100410-01	MCGRAW, W	01	00410.01	211 N GALLATIN STREET
	100410-02													0.00	0	0	100410-02	COX, SAM N	01	00410.00	211 GALLATIN STREET N
	100420-00	3900	5700	4400	4500	8300	17300	37000	6800	46300	5800	4700	5500	150200.00	159	660	100420-00	HERDEN, DA\	08	00420	212 GALLATIN STREET N
	100420-01													0.00	0	0	100420-01	WIETING, SH	01	00420.01	212 N GALLATIN STREET
	100430-00	2800	2800	3300	800	5600	3300	2300	7300	3600	3300	2300	2900	40300.00	82	138	100430-00	SHERMIKUS,	08	00430	219 GALLATIN STREET N
	100440-00	2600	2900	1900	4500	2200	14300	2100	38900	13600	2500	1000	2600	89100.00	86	400	100440-00	PAVLIK, LIND	08	00440	222 GALLATIN STREET N
	100450-00	1200	1400	1200	1600	1400	1400	1300	2600	1600	1000	1400	1400	17500.00	45	51	100450-00	CULLEN, JAN	08	00450	306 GALLATIN STREET N
	100460-00	2300	2700	2800	3400	2700	3600	3000	5400	3700	3500	2900	3200	39200.00	96	119	100460-00	MCKAHAN, LI	08	00460	311 GALLATIN STREET N
	100470-00	6500	7200	6100	7600	8000	11700	10800	11600	10900	8700	7900	7100	104100.00	234	335	100470-00	TRAIN, ANTH(	08	00470	312 GALLATIN STREET N
	100470-01													0.00	0	0	100470-01	KINCHELOE F	01	00470.01	312 N GALLATIN ST
	100470-02													0.00	0	0	100470-02	KINSER, LEE	01	00470.00	312 GALLATIN STREET N
	100470-03													0.00	0	0	100470-03	HOMESALES	01	00470.02	312 GALLATIN STREET N
	100480-00							8400	10700	5900	5600	5200		35800.00	29	166	100480-00	MILLER, JESS	08	00480	317 GALLATIN STREET N
	100480-01													0.00	0	0	100480-01	GUNN, GERA	01	00480.01	317 N GALLATIN STREET
	100490-00	3100	200	200	400	900		900	2900	1200	1400	900	200	12300.00	28	40	100490-00	GROSHONG,	08	00490	322 GALLATIN STREET N
	100510-00	1600	1600	5500	5700	7100	5500	5000	2800	1300			600	36700.00	83	118	100510-00	BROWN, JILL	08	00510	321 GALLATIN STREET N

100510-01													0.00	0	0	100510-01	RODRIGUEZ 01	00510.01	321 N GALLATIN ST
100520-00	2800	3100	2500	3100	4300	9300	13700	14600	11300	3400	2900	3500	74500.00	99	308	100520-00	LAY, HERBEF 08	00520	403 GALLATIN STREET N
100530-00	2500	3000	1700	1100	1500	11900	4600	7600	5200	3300	3000	3200	48600.00	80	185	100530-00	LYGHT, DAVII 08	00530	402 GALLATIN STREET N
100530-01													0.00	0	0	100530-01	LYGHT, DAVE 01	0053001	402 N GALLATIN ST
100530-02													0.00	0	0	100530-02	CLARK, JAME 01	00530.00	402 GALLATIN STREET N
100530-03													0.00	0	0	100530-03	BARSTOW, K/ 01	00530.01	402 GALLATIN STREET N
100540-00	1500	2000	1500	1400	1900	2000	2200	3600	2600	2500	1300	1600	24100.00	51	80	100540-00	JOHNSON, D. 08	00540	710 PRESTON AVENUE W
100540-01													0.00	0	0	100540-01	MCCURRY, A 01	00540.01	710 PRESTON
100540-02													0.00	0	0	100540-02	PARKER, NO 01	00540.02	710 PRESTON AVENUE
100540-03													0.00	0	0	100540-03	PERRING, ST 01	00540.03	710 PRESTON AVENUE
100550-00													0.00	0	0	100550-00	MOTT, ELIZAE 08	00550	804 PRESTON AVENUE W
100550-01													0.00	0	0	100550-01	DAVIS, BETT' 01	00550.00	804 PRESTON Avenue W
100550-02	9600	8400	7900	9000	10100	11400	4200	10200	6200	8000	9900	9300	104200.00	299	272	100550-02	RIDER, MARY 08	00550.01	804 PRESTON Avenue W
100550-03													0.00	0	0	100550-03	LINZMAIER, P 08	00550.02	804 PRESTON Avenue W
100550-04													0.00	0	0	100550-04	LINZMAIER, P 08	00550.03	716 PRESTON Avenue W
100560-00	2500	2500	3200	2000	2800	2900	2800	900	2100	1100	2800	3100	28700.00	89	68	100560-00	PARROTT, JO 08	00560	716 PRESTON Avenue W
100560-01													0.00	0	0	100560-01	1ST STATE B/ 01	00560.01	103 N MADISON STREET
100560-02													0.00	0	0	100560-02	OVITT, NORM 01	00560.02	716 PRESTON
100570-00	2300	3100	3200	3200	3400	17200	4300	22900	10800	14500	4000	3600	92500.00	107	397	100570-00	TURK, RON 08	00570	105 MADISON STREET N
100580-00	2300	2300	2200	2500	3500	5500	5200	8000	4100	4200	2300	2400	44500.00	77	166	100580-00	DEWITT, KATI 08	00580	106 MADISON STREET N
100580-01													0.00	0	0	100580-01	MCKENZIE B 01	00580.01	106 N MADISON ST
100580-02													0.00	0	0	100580-02	CHAMBLIN, . 01	00580.	106 N MADISON STREET
100580-03													0.00	0	0	100580-03	MCKENZIE, J 01	00580.03	106 N MADISON STREET
100590-00													0.00	0	0	100590-00	HART, LYNET 08	00590	110 MADISON STREET N
100590-01													0.00	0	0	100590-01	LYGHT, TON' 01	00590.01	110 MADISON STREET N
100600-00													0.00	0	0	100600-00	SWANSON, D. 08	00600	115 MADISON STREET N
100600-01													0.00	0	0	100600-01	GILBERT, RO 01	00600.01	115 N MADISON STREET
100600-02	2700	3000	2500	3100	300	9500	3700	1600	600	3100	2700	3200	36000.00	95	102	100600-02	CHAMBLIN, J(01	00600.02	115 MADISON STREET N
100610-00	1700	1700	1800	1200	2700	1800	2300	2100	2700	2000	1800	2400	24200.00	59	74	100610-00	COMPTON, J. 08	00610	114 MADISON STREET N
100610-01													0.00	0	0	100610-01	PIRKER RON 01	00610.00	114 N MADISON ST
100610-02													0.00	0	0	100610-02	GAENZ, SUZI 01	00610.01	114 N MADISON STREET
100620-00													0.00	0	0	100620-00	SINK, WESLE' 08	00620	715 ODGEN AVENUE W
100620-01													0.00	0	0	100620-01	DRAKE, PETE 08	00620.02	715 ODGEN AVENUE W
100620-02													0.00	0	0	100620-02	CLAWSON, J 08	00620.01	715 ODGEN AVENUE W
100630-00	2600	2400	2400	3500	3200	14800	14600	26500	14400	8000	2200	2500	97100.00	86	443	100630-00	CASSIDA, JOI 08	00630	204 MADISON STREET N
100630-01													0.00	0	0	100630-01	RUTZKE, FR/ 01	00630.00	204 MADISON STREET N
100630-02													0.00	0	0	100630-02	FIRST SECUR 01	00630.01	204 MADISON STREET N
100640-00	1200	800	900	1100	1500	1700	1000	5700	1300	1100	1500	1200	19000.00	37	67	100640-00	JCLB INVESTI 08	00640	203 MADISON STREET N
100640-02													0.00	0	0	100640-02	COUNTRYWII 01	00640.02	203 N MADISON ST
100640-03													0.00	0	0	100640-03	SCOTT, BRIA 01	00640.	203 N MADISON STREET
100660-00				1300	7200	11000	9600	20600	18800	1000			69500.00	7	371	100660-00	MOORE, JO / 08	00660	213 MADISON STREET N
100660-01													0.00	0	0	100660-01	TURK ROBEF 01	00660.01	213 N MADISON ST
100670-00	800	900	1100	1100	1100	1300	1300	2000	1800	1500	1100	1300	15300.00	35	49	100670-00	WAKEFIELD, ' 08	00670	212 MADISON STREET N
100670-01													0.00	0	0	100670-01	SMITH HARR 01	00670.00	212 N MADISON ST
100670-02													0.00	0	0	100670-02	BESAW, KEN 01	00670.01	212 N MADISON STREET
100680-00	2200	1900	1900	2200	5400	11100	5500	13300	6500	2200	2300	2200	56700.00	70	239	100680-00	MAYFIELD, M 08	00680	215 MADISON STREET N
100690-00		300	300	700	4400	6100							11800.00	7	57	100690-00	HARNETT, JO 08	00690	217 MADISON STREET N
100690-01							6900	23600	6100				36600.00	0	199	100690-01	WILLIAMS, L(01	00690.01	217 MADISON STREET N
100690-02										2700		100	2800.00	1	15	100690-02	MAYFIELD, M 01	00690.02	217 MADISON STREET N
100700-00	2300	2700	2300	2600	3000	6700	7200	14700	6000	3800	1900	2100	55300.00	77	225	100700-00	COX, SAM N 08	00700	216 MADISON STREET N
100700-01													0.00	0	0	100700-01	DENKE, MAR 01	00700.00	216 N MADISON STREET
100710-00	2900	2500	2700	4000	5600	10900	11700	23900	16300	6300	3200	4000	94000.00	107	406	100710-00	MARICH, ANI 08	00710	224 MADISON STREET N
100720-00	5100	4900	4200	4700	6200	8300	7000	16700	6900	6600	5000	5100	80700.00	160	281	100720-00	WHEELER, K 08	00720	221 MADISON STREET N
100730-00	6300	5100	5000	6100	6300	7800						7400	44000.00	165	77	100730-00	VANELSWYK 08	00730	307 MADISON STREET N
100730-01													0.00	0	0	100730-01	GRAHAM, DIA 01	00730.00	307 N MADISON STREET
100730-02													0.00	0	0	100730-02	WILLIAMS, HA 01	00730.01	307 MADISON STREET N
100730-03							100				1400		1500.00	8	1	100730-03	WHEELER, JII 01	00730.02	307 MADISON STREET N
100740-00													0.00	0	0	100740-00	COX, KYLE R/ 08	00740	306 MADISON STREET N
100740-01													0.00	0	0	100740-01	WORKMAN P 01	00740.01	306 N MADISON ST
100740-02	200	100	2100	4900	4700	5700	400	2800	700	600	700	1000	23900.00	50	81	100740-02	MYERS, JOHI 01	00740.02	306 MADISON STREET N
100740-03													0.00	0	0	100740-03	CASSELL, ST 01	00740.03	306 N MADISON STREET
100750-00	1300	900	1100	1200	2500	1700	2000	4600	1800	1400	1400	1400	21300.00	40	76	100750-00	BRUGGEMAN 08	00750	806 HALEY AVENUE W
100760-01													0.00	0	0	100760-01	IRWIN ELIZAI 01	00760	309 N MADISON ST
100765-00	1500	1500	1300	1200	1200	1900	1300	1200	1400	1500	1100	1600	16700.00	45	46	100765-00	CZERWINSKI, 08	00765	315 MADISON STREET N
100770-00	1500	1200	1200	1300	1700	1700	1600	18000	6500	1500	1300	1300	38800.00	43	168	100770-00	ROHWER, M/ 08	00770	314 MADISON STREET N
100780-00	2900	3700	2200	3500	3900	6100	4200	26700	11500	4900	3800	3300	76700.00	107	311	100780-00	GRANT, GAIL 08	00780	321 MADISON STREET N
100790-00													0.00	0	0	100790-00	FRITZ, ROBEF 08	00790	327 MADISON STREET N
100790-01													0.00	0	0	100790-01	HAGERMAN, 01	00790.00	327 N MADISON STREET
100790-02	4800	3100	3000	3400	5500	3500	8000	39300	11800	7500	5000	4800	99700.00	133	411	100790-02	HANSON, JON 08	00790.01	327 MADISON STREET N
100800-00	5400	4500	4000	3900	5400	4600	4400	13400	6400	6400	5100	6000	69500.00	160	221	100800-00	MAZUR, TOM 08	00800	324 MADISON STREET N
100810-00						600							600.00	0	3	100810-00	MCEWEN, AR 08	00810	403 MADISON STREET N
100810-01													0.00	0	0	100810-01	MASON, W.T. 01	00810.01	403 N MADISON STREET
100810-02													0.00	0	0	100810-02	HOWELL, MA' 01	00810.02	403 N MADISON ST
100810-03													0.00	0	0	100810-03	HOWELL, MA' 01	00810.00	403 MADISON STREET N
100820-00	3500	2900	2700	3100	1400	2200	10200	10700	8100	2600	800	2900	51100.00	88	191	100820-00	PARKER, FRA 08	00820	710 W 3RD AVENUE
100820-01													0.00	0	0	100820-01	SANDERS, H 01	00820.01	710 W 3RD AVENUE
100830-00	4600	4600	4200	4500	4900	4600	4600	5000	5200	5200	4900	5500	57800.00	156	160	100830-00	ABBOTT, GAI 08	00830	408 MADISON STREET N
100840-00	4700	4200	4200	5900	4800	4300	6500	11400	11700	400	4400	5300	67800.00	159	213	100840-00	LYGHT, TREI 08	00840	411 MADISON STREET N
100850-00													0.00	0	0	100850-00	GRAHAM, DI/ 08	00850	704 preston
100870-00	1600	800	1800	2100	1800	1200	7500	23200	18300	19100	11300	2000	90700.00	108	386	100870-00	COMMUNITY 08	00870	616 preston avenue w
100880-00	5300	7200	4700	3800	5600	8900	14800	41700	23100	12500	6900	5600	140100.00	185	579	100880-00	HOPKINS, PE 08	00880	113 JEFFERSON STREET N
100890-00	1700	1200	1100	1200	2300	5700					1500	100	14800.00	38	43	100890-00	CORDERO, SI 08	00890	113 JEFFERSON STREET n
100890-01													0.00	0	0	100890-01	MURPHY, KA 01	00890.01	113 JEFFERSON STREET N
100890-02							700	4800	1500	5600			12600.00	0	68	100890-02	BARTON, DEI 01	00890.02	611 ogden avenue w
100900-00	200	300	300	300	400	2000	400	2700	2400	6600	200	400	16200.00	9	79	100900-00	LUTHERAN CI 08	00900	410 MADISON STREET N
100910-00													0.00	0	0	100910-00	BBNTMSCR D 08	00910	203 JEFFERSON STREET N
100910-01													0.00	0	0	100910-01	SANDERS, DI 01	00910.00	203 JEFFERSON STREET N
100910-02													0.00	0	0	100910-02	HARRIMAN, G 01	00910.01	203 JEFFERSON STREET N
100920-00					1000		1200	6300	3700	900	100		13200.00	1	71	100920-00	DOTY MARY 08	00920	213 JEFFERSON STREET N
100930-00						800							800.00	0	4	100930-00	APPLEBY, JO: 08	00930	210 JEFFERSON STREET N
100930-01													0.00	0	0	100930-01	GROSECLOSI 01	00930.00	210 JEFFERSON STREET N
100930-02	800	700	700	700	700		700	600	600	800	600	1000	7900.00	25	18	100930-02	ROWDEN LAI 01	00930.01	210 JEFFERSON STREET N
100940-00	900	900	1000	1700	1800	2600	4100	14100	10400	11100	2500	1000	52100.00	44	240	100940-00	HUTZ, EUGEN 08	00940	218 JEFFERSON STREET N
100940-02													0.00	0	0	100940-02	HILTON, ROC 01	00940.00	218 N JEFFERSON STREET
100950-00	500	2000	1600	2400	2600	3600	100	10900	7400	6300	3400	3700	44500.00	75	168	100950-00	SCHALLER, I 08	00950	221 JEFFERSON STREET N
100960-00	9000	8700	9300	9400	10600	11300	7700	12800	11300	9400	8900	9500	117900.00	303	343	100960-00	MCCLOY, PA' 08	00960	222 JEFFERSON STREET N
100970-00	1800	1500	1600	1800	3300	5400	4400	11300	4100	2900	1600	1800	41500.00	56	171	100970-00	CROWDER, F 08	00970	611 HALEY AVENUE W
100980-00	1300	1500	1500	1500	1500	1600	700	4200	1600	1900	1400	1600	20300.00	49	63	100980-00	FRIESZ, EMM 08	00980	305 JEFFERSON STREET N
100990-00	10000	8900	8700	10400	10400	15200	7600	8600	3400	7200	9100	11300	110800.00	323	285	100990-00	HAMILTON, J 08	00990	612 HALEY AVENUE W
101000-00													0.00	0	0	101000-00	KENEADY, ID/ 08	01000	310 JEFFERSON STREET N
101000-01													0.00	0	0	101000-01	BATTLES MIK 01	01000.01	310 N JEFFERSON ST

101000-02	5300	3700	3200	4100	1700		7900	11200	4100	4000	3600	4300	53100.00	134	157	101000-02	WOOD, ANNA	01	01000.02	310 JEFFERSON STREET N
101000-03						2000							2000.00	0	11	101000-03	GRENELL, MI	08	01000.01	310 JEFFERSON STREET N
101010-00	3000	2800	2500	2900	4100	9800	15600	43700	25600	9300	2400	3000	124700.00	92	588	101010-00	DRASZT, GAF	08	01010	314 JEFFERSON STREET N
101010-01													0.00	0	0	101010-01	GIDEON, AN	01	01010.00	314 JEFFERSON STREET N
101010-05													0.00	0	0	101010-05	HOLLERAN, T	01	01010.02	316 N JEFFERSON STREET
101020-00	300	200	400	300	400	700	700	2200	800	1000	300	300	7600.00	10	32	101020-00	COMMUNITY	08	01020	315 JEFFERSON STREET N
101030-00	6000	5800	5200	5700	5500	12700	4500	25700	13000	5100	4400	6300	99900.00	185	361	101030-00	INGRAHAM, (	08	01030	323 JEFFERSON STREET N
101034-01													0.00	0	0	101034-01	INGRAHAM, (	01	01034	323 N JEFFERSON
101040-00	2100	1700	1900	2300	3900	7100	3500	5100	4400	2900	2000	2100	39000.00	67	146	101040-00	MATES, CLAI	08	01040	318 JEFFERSON STREET N
101050-00	1500	1400	1300	1300	1400	1500	1100	1200	1200	1300	1400	1600	16200.00	47	42	101050-00	ROCKWELL,	08	01050	405 JEFFERSON STREET N
101050-01													0.00	0	0	101050-01	BURLINGAME	01	01050.01	405 N JEFFERSON STREET
101060-00	4100	3200	2300	2900	10500	28200	4400	16300	21900	8200	3900	3900	109800.00	112	486	101060-00	YODER, MARI	08	01060	612 3RD AVE WEST
101060-01													0.00	0	0	101060-01	LAWS, HARO	01	01060.00	612 3RD AVE WEST
101060-02													0.00	0	0	101060-02	LAWS, CLINT	01	01060.01	612 3RD AVE WEST
101060-03													0.00	0	0	101060-03	REITER, JESS	01	01060.02	612 3RD AVE WEST
101070-00	4200	5400	3700	4100	8300	12500	7400	14200	11200	8700	5000	4600	89300.00	149	339	101070-00	LYGHT, DENI	08	01070	409 JEFFERSON STREET N
101070-01													0.00	0	0	101070-01	POFF EVERE	01	01070.00	409 N JEFFERSON
101080-00									300				300.00	0	2	101080-00	KELLER, WIL	08	01080	414 JEFFERSON STREET N
101090-00	1700	1100	1000	1000	800	1000	1100	9300		2800	900	1300	22000.00	39	82	101090-00	DWYER, KAR	08	01090	415 JEFFERSON STREET N
101090-01													0.00	0	0	101090-01	TRULL JACOE	01	01090.00	415 N JEFFERSON
101100-00	2700	2200	3200	3600	3600	3800	2800	12300	4000	2700	2400	2600	45900.00	92	159	101100-00	BISHOP, MICI	08	01100	420 JEFFERSON STREET N
101100-01													0.00	0	0	101100-01	WILSON, JOI	01	01100.01	420 N JEFFERSON STREET
101100-02													0.00	0	0	101100-02	HELVEY, CLE	01	01100.02	420 JEFFERSON STREET N
201105-00	1600	1000	1200	800	800	3800	1300	1400	1600	1200	1400	1400	17500.00	41	55	201105-00	RAMSEY, RO	08	01105	608 PRESTON AVENUE W
201105-02													0.00	0	0	201105-02	WEIGAND EL	02	01105.02	608 PRESTON
201110-00	2000	2200	2100	2300	4200	25700	18800	30700	27300	9800	3600	2600	131300.00	82	633	201110-00	NORMAN, ME	08	01110	602 PRESTON AVENUE W
201110-01													0.00	0	0	201110-01	CROWE EMM.	02	01110.01	602 PRESTON
201110-02													0.00	0	0	201110-02	BARKER, RO	02	01110.00	602 PRESTON AVENUE W
201120-00	3600	3600	3400	2700	4400	5600	3900	21800	5000	3000	2700	3800	63500.00	109	238	201120-00	PARKER, NO	08	01120	516 PRESTON AVENUE W
201120-01													0.00	0	0	201120-01	VAUGHT WIL	02	01120.00	516 PRESTON
201120-02													0.00	0	0	201120-02	RABE RICHA	02	01120.01	516 PRESTON
201130-00	1200	1400	1100	1200	1100	1200	400	1900	1300	500	400	1200	12900.00	36	35	201130-00	BROWN, DAV	08	01130	110 WASHINGTON STREET
201130-01													0.00	0	0	201130-01	MARICH, MIK	02	01130.01	110 WASHINGTON STREET
201140-00		400	100	200	1000	5200	2800	10000	29800	13100	2700	20800	86100.00	134	336	201140-00	WHITTENBUR	08	01140	116 WASHINGTON STREET
201150-00	5500	5200	6100	8700	8900	4500	4100	5200	2500	3600	4500	4100	62900.00	188	157	201150-00	MORRIN, DIA	08	01150	203 WASHINGTON STREET
201150-01													0.00	0	0	201150-01	STEVENS TR	02	01150.00	203 WASHINGTON STREET
201150-02													0.00	0	0	201150-02	YOUNG BEA	02	01150.02	203 WASHINGTON
201155-00							1100					600	1700.00	3	6	201155-00	LUTHERAN C	08	01155	605 OGDEN AVENUE W
201160-00	4900	4900	4500	3600	7500	2500	4500	14500	10500	3500	5500	5800	72200.00	161	234	201160-00	PARKER, NO	08	01160	202 WASHINGTON STREET
201160-01													0.00	0	0	201160-01	ARTHUR, GE	02	01160.01	202 WASHINGTON STREET
201170-00	200	500	500	300	1700		1000	1400	5000	3800	400	400	15200.00	13	70	201170-00	RETTENMEIE	08	01170	209 WASHINGTON STREET
201170-01													0.00	0	0	201170-01	STOUT JOSE	02	01170.01	209 WASHINGTON
201180-00													0.00	0	0	201180-00	WARME REV	08	01180	208 WASHINGTON STREET
201180-01													0.00	0	0	201180-01	WOMACK, JA	02	01180.00	208 WASHINGTON STREET
201180-02													0.00	0	0	201180-02	HOWELL, WE	02	01180.01	208 WASHINGTON STREET
201180-03													0.00	0	0	201180-03	WOMACK JA	02	01180.02	208 WASHINGTON STREET
201180-04						200							200.00	0	1	201180-04	FORTIER, LU	02	01180.03	208 WASHINGTON STREET
201190-00													0.00	0	0	201190-00	TRAIN PROPE	08	01190	213 WASHINGTON STREET
201190-01													0.00	0	0	201190-01	REIBSOME, J	02	01190.01	213 WASHINGTON STREET
201190-02	4700	5100	4600	4900	5200	10500	5900	13100	11700	4500	5000	5300	80500.00	164	277	201190-02	WARDIAN MA	08	01190.01	213 WASHINGTON STREET
201200-00													0.00	0	0	201200-00	FORTIER, LU	08	01200	212 WASHINGTON STREET
201200-01													0.00	0	0	201200-01	WOMACK, JA	02	01200.00	212 WASHINGTON STREET
201200-02													0.00	0	0	201200-02	WOMACK JA	02	01200.01	212 WASHINGTON STREET
201200-03													0.00	0	0	201200-03	HOWELL, WE	02	01200.02	212 WASHINGTON STREET
201210-00	400	500	900	2300	7800	9100	4300	300	1800	1300	12700	41200	82600.00	320	134	201210-00	DIPPRE, KIME	08	01210	216 WASHINGTON STREET
201210-01													0.00	0	0	201210-01	REIBSOME, J	02	01210.0	216 WASHINGTON
201210-02													0.00	0	0	201210-02	ROWE, CHAR	02	01210.00	216 WASHINGTON STREET
201210-03													0.00	0	0			10		
201210-04													0.00	0	0	201210-04	BENNETT, JE	02	01210.02	216 WASHINGTON STREET
201210-05													0.00	0	0	201210-05	FRYXELL, TR	02	01210.03	216 WASHINGTON STREET
201220-00	7700	3300	1500	1600	1800	7400	23500	32800	1400	1200	1200	11000	94400.00	145	370	201220-00	WATTS, JULIE	08	01220	215 WASHINGTON STREET
201230-00	3300	7600	8400	7700	9400	13800	5100	7900	13200	4800	4200	4700	90100.00	198	295	201230-00	SCHAEFER E	08	01230	221 WASHINGTON STREET
201230-01													0.00	0	0	201230-01	IVERS KEITH	02	01230.01	221 WASHINGTON
201235-00													0.00	0	0	201235-00	CREEKMORE	08	01235	220 WASHINGTON STREET
201235-01													0.00	0	0	201235-01	CREEKMORE	02	01235.00	220 WASHINGTON STREET
201235-02													0.00	0	0	201235-02	CREEKMORE	02	01235.01	220 WASHINGTON STREET
201240-00	200	300	200	200	200	800	400	400	200	200	2100	200	5400.00	18	12	201240-00	CREEKMORE	08	01240	511 HALEY AVENUE W
201240-01													0.00	0	0	201240-01	CREEKMORE	02	01240.00	511 W HALEY AVENUE
201240-02													0.00	0	0	201240-02	CREEKMORE	02	01240.01	511 HALEY AVENUE W
201250-01													0.00	0	0	201250-01	ANDERSON,	02	01250	303 WASHINGTON STREET
201260-00	9100	7500	8500	4200	4700	4900	6300	15500	6700	3600	5300	6400	82700.00	227	227	201260-00	NEWMAN, JE	08	01260	304 WASHINGTON STREET
201270-01													0.00	0	0	201270-01	TAYLOR, STE	02	01270	307 WASHINGTON STREET
201290-00											400		400.00	2	0	201290-00	TAYLOR, STE	08	01290	309 WASHINGTON STREET
201300-00	1200	1500	1300	1500	1900	2000	2700	2100	1800	1900	1600	1800	21300.00	49	67	201300-00	FRANCK, SH	08	01300	312 WASHINGTON STREET
201310-00	3600	4200	3100	4000	4000	3100	6900	5400	4800	5800	3800	4400	53100.00	128	163	201310-00	LEUFKENS, B	08	01310	319 WASHINGTON STREET
201310-01													0.00	0	0	201310-01	HELUS, JOH	02	01310.00	319 WASHINGTON
201310-02													0.00	0	0	201310-02	HELUS, JOH	02	01310.02	319 WASHINGTON STREET
201310-03													0.00	0	0	201310-03	OTTESEN, M	02	01310.01	319 WASHINGTON STREET
201320-00	23800	15000	4400	6900	15800	5200	11200	11600	16800	2800	2700	5700	121900.00	323	345	201320-00	MOSHER, RO	08	01320	322 WASHINGTON STREET
201320-01													0.00	0	0	201320-01	SODERLIND,	02	01320.00	322 WASHINGTON STREET
201330-00				1300	3400	9200							13900.00	7	68	201330-00	WIEGELE, JA	08	01330	512 3RD AVE WEST
201330-01												200	200.00	1	0	201330-01	STARR, JACK	02	01330.01	512 3RD AVE WEST
201340-00	200	100	8000	200	200	300	1800	11200	3800	1000	2300		29100.00	60	99	201340-00	HECHTMAN, (	08	01340	606 3RD AVE W
201340-01													0.00	0	0	201340-01	BIERWAGEN	02	01340.01	606 3RD AVE WEST
201340-02													0.00	0	0	201340-02	COMBS, NA	02	01340.02	606 3RD AVE W
201340-04													0.00	0	0	201340-04	VANICEK, JA	02	01340.04	606 3RD AVE W
201350-00													0.00	0	0	201350-00	MAPES, ARLE	08	01350	407 WASHINGTON STREET
201350-01													0.00	0	0	201350-01	HOWARD JOE	02	01350.01	407 WASHINGTON
201360-00	400	500	500	500	700	2900	1700	4000	2000	1400	500	600	15700.00	17	69	201360-00	BLOOM, DAN	08	01360	410 WASHINGTON STREET
201370-00	2100	1600	1700	2100	5900	15000	10100	31000	18100	12200	2000	2200	104000.00	65	502	201370-00	NICOL, BON	08	01370	413 WASHINGTON STREET
201370-01													0.00	0	0	201370-01	HARNETT J N	02	01370.01	413 WASHINGTON
201380-00													0.00	0	0	201380-00	MOSHER, BE	08	01380	419 WASHINGTON STREET
201390-00	4300	4000	4300	3000	5700	23200	14600	34800	30100	6100	2600	4500	137200.00	125	622	201390-00	KELLER, KIM	08	01390	418 WASHINGTON STREET
201390-01													0.00	0	0	201390-01	RUDE, ROBIN	02	01390.00	418 WASHINGTON STREET
201400-00	1400	1500	1200	1300	1200	1300	700	1200	1800	1300	1000	1300	15200.00	43	41	201400-00	MOSHER, JO	08	01400	425 WASHINGTON STREET
201410-00	4300	1900	1900	2300	4400	25200	20300	65800	59200	23400	2600	2300	213600.00	85	1078	201410-00	BRUNER, SM	08	01410	422 WASHINGTON STREET
201420-00	3600	4700	2800	3000	3400	9300	22900	23900	26700	23600	8400	11900	144200.00	190	597	201420-00	FAIRBANK, S	08	01420	502 PRESTON AVENUE W
201420-01													0.00	0	0	201420-01	POWELL, ALI	02	01420.00	502 PRESTON AVENUE
201430-00	100	100	200	200	100	200	600	500	3300	1700	400	300	7700.00	7	35	201430-00	CARTER JEA	08	01430	508 PRESTON AVENUE W
201430-01													0.00	0	0	201430-01	MARINELLI D	02	01430.01	508 PRESTON
201430-03													0.00	0	0	201430-03	BREAW, LEO	02	01430.03	508 PRESTON AVENUE

201440-00	4200	4400	2200	7600	7200	22100	16600	46600	36200	12700	5700	4900	170400.00	160	768	201440-00	ST WILLIAMS	08	01440	416 PRESTON STREET
201450-00													0.00	0	0	201450-00	FAIRBANK, S	08	01450	107 SPRUCE STREET
201450-01													0.00	0	0	201450-01	LEE, VANCE	02	01450.01	107 SPRUCE STREET
201450-02													0.00	0	0	201450-02	HOLYK, ALEX	02	01450.02	107 SPRUCE STREET
201450-03													0.00	0	0	201450-03	ELLER, WILLI	02	01450.00	107 SPRUCE
201460-00	1300	1200	1200	1200	1300	1800	900	11500	5100	1100	1100	1000	28700.00	39	118	201460-00	PHILLIPS, MI	08	01460	112 SPRUCE STREET
201460-01													0.00	0	0	201460-01	LYGHT, DAVI	02	01460.01	112 SPRUCE STREET
201460-02													0.00	0	0	201460-02	LA FRINIERE	02	01460.02	112 SPRUCE
201470-00	6800	5300	4700	5400	7800	7800	8800	8000	6100	5600	6100	6400	78800.00	192	240	201470-00	RIBEIRO, RA	08	01470	115 SPRUCE STREET
201470-01													0.00	0	0	201470-01	LYGHT, DAVI	02	01470.01	115 SPRUCE
201480-00													0.00	0	0	201480-00	POMRENKE,	08	01480	116 SPRUCE STREET
201480-01													0.00	0	0	201480-01	DEMENY, JO	02	01480.01	116 SPRUCE STREET
201480-02													0.00	0	0	201480-02	PULLAN, CA	02	01480.00	116 SPRUCE STREET
201480-03	200	2100	3200	800			18900			4900	3900	9300	43300.00	108	129	201480-03	PETERSON, C	02	01480.02	116 SPRUCE STREET
201480-04													0.00	0	0	201480-04	USDA, RURAL	02	01480.03	116 SPRUCE STREET
201490-00	3600	3300	3000	2800	3600	400	2000	2000	500	800	400	3400	25800.00	91	51	201490-00	RIBEIRO, RAC	08	01490	109 SPRUCE STREET
201490-01													0.00	0	0	201490-01	KELLER KIMB	02	01490.01	109 SPRUCE
201490-02													0.00	0	0	201490-02	NEWMAN, DE	02	01490.02	109 SPRUCE STREET
201500-00	2600	2200	1400	3300	2800	4000	10100	32800	7800	2600	2500	2600	74700.00	81	327	201500-00	RIFFLE, CLA	08	01500	204 SPRUCE STREET
201510-00	1700	8100	7800	6000	3200		5100	6800	7400	6600	5700	6900	65300.00	200	158	201510-00	NEWMAN, DE	08	01510	206 SPRUCE STREET
201510-01													0.00	0	0	201510-01	PAULSEN-WIL	02	01510.01	206 SPRUCE STREET
201520-00	2200	2200	2600	2800	8500	10100	6000			47300	6500	7300	95500.00	130	391	201520-00	MOLZHON, B	08	01520	207 SPRUCE STREET
201530-00	3000	3300	3400	2200	3800	3500	2800	7800	5400	4000	3100	2900	45200.00	99	148	201530-00	WILSON, JO	08	01530	216 SPRUCE STREET
201540-00	1700	2000	4600	8100	2600		2200	12900	13900	7400	2500	2100	60000.00	116	212	201540-00	NEWMAN, DE	08	01540	211 SPRUCE STREET
201540-01													0.00	0	0	201540-01	CORK, TERR	02	01540.01	211 SPRUCE
201543-00	4600	5800	5000	4900	4200	7700	8300	10100	11200	5200	4200	6000	77200.00	169	254	201543-00	HUTZ, EUGEN	08	01543	219 SPRUCE STREET
201543-01													0.00	0	0	201543-01	TAYLOR, STE	02	01543.01	219 SPRUCE STREET
201545-00	1900	1700	1500	1500	1600	1600	1500	1300	1700	1400	1300	1600	18600.00	52	49	201545-00	HUTZ, EUGEN	08	01545	225 SPRUCE STREET
201545-01													0.00	0	0	201545-01	TAYLOR, STE	02	01545.00	225 SPRUCE STREET
201550-00	2000	1900	1800	1900	2400	4000	1800	9500	4300	1400	1800	2000	34800.00	63	127	201550-00	FARLAN, MIC	08	01550	220 SPRUCE STREET
201550-01													0.00	0	0	201550-01	SCOTT, BOBI	02	01550.01	220 SPRUCE STREET
201555-00	6800	5800	6800	5400	5700	10700	12600	17900	14800	7400	4000	8800	106700.00	208	376	201555-00	NEWMAN, DE	08	01555	226 SPRUCE STREET
201560-00	8700	8000	4600	11000	14700	17000	23400	23900	17100	12000	9100	9500	159000.00	281	588	201560-00	LAKE, DONA	08	01560	303 SPRUCE STREET
201560-02													0.00	0	0	201560-02	LAKE DONAL	02	01560.02	303 SPRUCE
201560-03													0.00	0	0	201560-03	FRANCK RAY	02	01560.03	303 SPRUCE
201570-00													0.00	0	0	201570-00	WARME REV	08	01570	311 SPRUCE STREET APT. A
201570-01	1200	1200	1100	1400	1500	2700	2500	11300	4200	1200	1200	1400	30900.00	41	127	201570-01	HILL, JEAN	02	01570.01	311 SPRUCE STREET APT. A
201574-00													0.00	0	0	201574-00	WARME REV	08	01574	311 SPRUCE STREET APT. B
201574-01		400	1700	2300	1500	2200	2000	1900	2100	2100	2200	400	18800.00	39	64	201574-01	HILL, JEAN	02	01574.01	311 SPRUCE STREET APT. B
201580-00													0.00	0	0	201580-00	BROWN, MIC	08	01580	317 SPRUCE STREET
201590-00	2300	2300	2200	2500	2600	2800	2200	3600	6600	2500	1100	3800	34500.00	78	110	201590-00	HENSLEY, GA	08	01590	323 SPRUCE STREET
201590-01													0.00	0	0	201590-01	LARSON, JA	02	01590.01	323 SPRUCE STREET
201590-02													0.00	0	0	201590-02	LARSON, THC	02	01590.02	323 SPRUCE STREET
201600-00	38000	29000	30000	75000	102000	159000	24000	269000	166000	83000	73000	17000	1065000.00	1448	4364	201600-00	SCHOOL DIS	08	01600	315 COLUMBIA STREET N - SCHOOL - G
201605-00													0.00	0	0	201605-00	SCHOOL DIS	08	01605	306 HALEY AVE W - BASKET BALL COUR
201610-00	5600	4100	1900	2000	1900	2000	1400	2000	2200	1800	1800	3400	30100.00	104	61	201610-00	JONES, GOR	08	01610	403 SPRUCE STREET
201620-00	3400	3300	2700	2600	2800	6700	5900	16000	7300	4300	3400	3400	61800.00	104	234	201620-00	FARLAN, GLE	08	01620	412 3RD AVE WEST
201630-00							5900	5700	900	100	8000		20600.00	44	68	201630-00	CREEKMORE	08	01630	405 SPRUCE STREET
201630-01													0.00	0	0	201630-01	MINEMYER,	02	01630.01	405 SPRUCE STREET
201630-02													0.00	0	0	201630-02	LARGENT, R	02	01630.00	405 SPRUCE STREET
201630-03													0.00	0	0	201630-03	LEMBO, NATH	02	01630.02	405 SPRUCE STREET
201640-00	600	600	500	600	700	700	900	600	700		200	600	6700.00	17	20	201640-00	OLSON, MAR	08	01640	410 SPRUCE STREET
201640-02													0.00	0	0			10		
201650-00			2100	2600	2400	2000	4200	20900	8300	4600	5000	2800	54900.00	69	230	201650-00	ARRANTS, S	08	01650	411 SPRUCE STREET
201655-00	1400	800	1000	2500	4300	4000					800	900	15700.00	41	45	201655-00	ROBBINS, EV	08	01655	415 SPRUCE STREET
201655-01													0.00	0	0	201655-01	MINEMYER,	02	01655.01	415 SPRUCE STREET
201655-02							4200	1000	1000				6200.00	0	34	201655-02	LARGENT, R	02	01655.02	415 SPRUCE STREET
201657-00													0.00	0	0	201657-00	ROBBINS, EV	08	01657	417 SPRUCE STREET
201657-01													0.00	0	0	201657-01	MINEMYER JU	02	01657.01	417 SPRUCE STREET
201657-03													0.00	0	0	201657-03	LARGENT, R	02	01657.03	417 SPRUCE STREET
201659-00	5900	4100	3000	3100	3800	3500				6900	3700	8100	42100.00	154	77	201659-00	ROBBINS, EV	08	01659	419 SPRUCE STREET
201659-01							3300	3200	5100				11600.00	0	63	201659-01	LARGENT, R	02	01659.01	419 SPRUCE STREET
201660-00	2100	1900	2400	2400	6800	13900	8500	22400	13400	6600	3200	2500	86100.00	80	389	201660-00	MINEMYER,	08	01660	420 SPRUCE STREET
201665-00	1100	1200	1200	1100	3500	1800	3300	10200	7400	2300	1300	1200	35600.00	39	155	201665-00	BURTNETT, J	08	01665	428 SPRUCE STREET
201670-00	900	600	600	700	1500	8500	11100	21300	16500	11600	4500	700	78500.00	44	383	201670-00	BRAY, DON	08	01670	427 SPRUCE STREET
201680-00	1400	1100	1300	1400	1600	2600			2500	900	1200	1700	15700.00	45	41	201680-00	VAUGHN, VIR	08	01680	502 4TH AVENUE W
201680-01							2800	3100					5900.00	0	32	201680-01	DEACON, TA	02	01680.01	502 4TH AVENUE W
201690-00	4600	3600	1400	2000	2100	9900	12500	16900	16400	4900	1700	4400	80400.00	98	341	201690-00	MILLER DON	08	01690	412 4TH AVE WEST
201690-01													0.00	0	0	201690-01	DUFFEL, DEW	02	01690.00	412 4TH AVE WEST
201700-00													0.00	0	0	201700-00	ST. WILLIAM	08	01700	105 COLUMBIA STREET N
201700-01													0.00	0	0	201700-01	HOYT, TIM R.	02	01700.01	105 N COLUMBIA STREET
201710-00													0.00	0	0	201710-00	DENISON, RE	08	01710	322 PRESTON AVENUE W
201710-01													0.00	0	0	201710-01	STIPE, GEOR	02	01710.00	322 PRESTON AVENUE W
201710-02				400	100	200							700.00	2	2	201710-02	BINGHAM, MI	08	01710.01	322 PRESTON AVENUE W
201720-00	3900	3600	3800	4200	3900	4300	5300	9300	7800	5400	3300	3400	58200.00	123	196	201720-00	FRANCK , CO	08	01720	109 COLUMBIA STREET N
201720-01													0.00	0	0	201720-01	LYGHT, DAVI	02	01720.00	109 N COLUMBIA
201720-02													0.00	0	0	201720-02	EPPERSON,	02	01720.01	109 N COLUMBIA STREET
201730-00	1400	200	1600	1200	500	1400	2100	5700	2500	1300	1100	1200	20200.00	37	73	201730-00	ARRANTS, S	08	01730	110 COLUMBIA STREET N
201730-02													0.00	0	0	201730-02	MIKE CHENO	02	01730.02	110 N COLUMBIA
201740-00	2800	1700	1800	2400	3100	4600	2400	2600	1700	2000	2600	1500	29200.00	71	89	201740-00	BUCHANAN,	08	01740	116 COLUMBIA STREET N
201750-00	3800	3600	3500	4300	5900	7600	4000	4300	4600	3800	4300	4100	53800.00	130	164	201750-00	BUCHANAN,	08	01750	317 OGDEN AVENUE W
201760-00			900	9300	7900	9700	6200	3700	4100	300			42100.00	56	173	201760-00	FLETCHER,	08	01760	115 COLUMBIA STREET N
201760-01													0.00	0	0	201760-01	PARADIS, LE	02	01760.01	115 N COLUMBIA STREET
201770-01													0.00	0	0	201770-01	ANDERSON,	02	01770.01	203 N COLUMBIA
201780-00													0.00	0	0	201780-00	CLARK, RON	08	01780	214 COLUMBIA STREET N
201780-01						1300							1300.00	0	7	201780-01	THOMPSON	02	01780.01	214 COLUMBIA STREET N
201790-00	1700	9000	4900	400	10500	5800	10200	11200	11200	6500	5600	5600	82600.00	150	301	201790-00	THOMAS, ST	08	01790	207 COLUMBIA STREET N
201800-00													0.00	0	0	201800-00	HUFF, ERNES	08	01800	213 COLUMBIA STREET N
201800-01													0.00	0	0	201800-01	STRANG, DE	02	01800.01	213 N COLUMBIA STREET
201800-02	4600	200	2500	3500	3800	3800	2100	2100	3100	3500	4800	4700	38700.00	112	100	201800-02	THOMAS JR,	02	01800.02	213 COLUMBIA STREET N
201810-00							6000	4600	1200	5900	1400		19100.00	8	96	201810-00	TRAIN, ANTH	08	01810	222 COLUMBIA STREET N
201810-01													0.00	0	0	201810-01	STRANG CLI	02	01810.01	222 N COLUMBIA ST
201810-02													0.00	0	0	201810-02	LARGENT, R	02	01810.00	222 COLUMBIA STREET N
201810-03													0.00	0	0	201810-03	RAMSEY, AL	02	01810.03	222 N COLUMBIA STREET
201810-04													0.00	0	0	201810-04	LARGENT, R	02	01810.04	222 N COLUMBIA STREET
201810-05													0.00	0	0	201810-05	FNMA	02	01810.02	222 COLUMBIA STREET N
201810-06													0.00	0	0	201810-06	AMERICAN D	02	01810.05	222 COLUMBIA STREET N
201820-00													0.00	0	0	201820-00	GIBSON, SAN	08	01820	226 COLUMBIA STREET N
201820-01													0.00	0	0	201820-01	WHITTENBUR	02	01820.01	226 N COLUMBIA ST
201820-02													0.00	0	0	201820-02	HARDING, DA	02	01820.00	226 COLUMBIA STREET N
201825-00	1600	1500	1500	1500	3400	1900	1600	14400	7000	1400	1700	1600	39100.00	52	161	201825-00	GRIMM, DORI	08	01825	405 HALEY AVENUE W

201825-01													0.00	0	0	201825-01	STEVENS, HE	02	01825.00	405 HALEY AVENUE W
201830-00	1100	1300	1200	1100	1100	1200	1300	1300	1500	1200	1100	1300	14700.00	39	41	201830-00	HALPOP, JOI	08	01830	406 3RD AVE WEST
201840-00													0.00	0	0	201840-00	JONES, NATA	08	01840	404 COLUMBIA STREET N
201840-01													0.00	0	0	201840-01	CLAY, DAVID	02	01840.00	404 COLUMBIA STREET N
201840-02	2500	2600	2200	2500	2200	9800	5400	12800	5500	3900	2500	300	52200.00	70	215	201840-02	CLAY CHRIST	08	01840.01	404 COLUMBIA STREET N
201850-00									1100	1200	900		3200.00	5	13	201850-00	OVITT, NORM	08	01850	406 COLUMBIA STREET N
201850-01													0.00	0	0	201850-01	BENTON, EAI	02	01850.00	406 COLUMBIA STREET N
201860-00	2500	2400	1900	3000	1600	10000	2000	5500	11500	2200	3000	2700	48300.00	86	178	201860-00	GIEGLING, JC	08	01860	410 COLUMBIA STREET N
201860-01													0.00	0	0	201860-01	GUNN GERAI	02	01860.00	410 COLUMBIA STREET N
201860-02													0.00	0	0	201860-02	FIRST SECUR	02	01860.01	410 COLUMBIA STREET N
201860-03													0.00	0	0	201860-03	TERRY, ROGE	02	01860.02	410 COLUMBIA STREET N
201865-00	3700	3800	3200	3400	4200	5600	4200	1900	9500	8000	3900	4400	55800.00	124	182	201865-00	DONALDSON,	08	01865	415 COLUMBIA STREET N
201865-01													0.00	0	0	201865-01	GLOVER, DAI	02	01865.00	415 N COLUMBIA STREET
201870-00													0.00	0	0	201870-00	QUIMBY, LEIN	08	01870	418 COLUMBIA STREET N
201870-01													0.00	0	0	201870-01	ULVER, EDNA	02	01870.00	418 COLUMBIA STREET N
201870-02													0.00	0	0	201870-02	ULVER FAMIL	02	01870.01	418 COLUMBIA STREET N
201870-03	3000	2200	1300		31500		4200	4300	5600	5200	5000	2000	64300.00	75	276	201870-03	QUIMBY, JOS	02	01870.02	418 COLUMBIA STREET N
201880-00	1400	3000	2500	3400	3900	2500	2200	2500	3200	2500	2600	3200	32900.00	89	91	201880-00	AUSTIN, ROD	08	01880	428 COLUMBIA STREET N
201890-00	3400	3700	4100	4900	6200	14200	12900	19100	10500	8900	4200	4000	96100.00	134	390	201890-00	KOKER, DENN	08	01890	427 COLUMBIA STREET N
201890-01													0.00	0	0	201890-01	JOHNSON, G	02	01890.00	427 COLUMBIA STREET N
201900-00					1000		5600	13800	7900	8000			36300.00	0	197	201900-00	ROBINSON, I	08	01900	503 COLUMBIA STREET N
201901-00	2900	3100	3200	4100	8300	23400	11000	22200	13200	8400	4800	4000	108600.00	122	470	201901-00	ROBINSON, I	08	01901	511 COLUMBIA STREET N
201905-00	2100	2200	1300	2100	1900	2800	2300	800	15400	1500	1800	2800	37000.00	68	134	201905-00	CHENOWETH	08	01905	514 COLUMBIA STREET N
201905-02													0.00	0	0	201905-02	CHL	02	01905.02	514 COLUMBIA
201910-00	900	900	1100	1100	1200	4400	900	2500	3500	10800		900	28200.00	27	127	201910-00	GRIMM, DARI	08	01910	506 COLUMBIA STREET N
201920-00													0.00	0	0	201920-00	CHENOWETH	02	019200	510 COLUMBIA STREET N
201920-01													0.00	0	0	201920-01	PARKER, NO	02	01920.	516 N COLUMBIA
201920-02													0.00	0	0	201920-02	CHEYNEY LE	02	01920	516 N COLUMBIA
201920-03													0.00	0	0	201920-03	PASSALAQUA	02	019200.00	510 COLUMBIA STREET N
201925-00				100	500	400	200	600	600	500		200	3100.00	2	15	201925-00	PLAINS RANG	08	01925	518 COLUMBIA STREET N
201930-00	100	100	200	2000	200	200	200	200	200	100	200	200	3900.00	15	6	201930-00	MT FISH, WILI	08	01930	601 COLUMBIA STREET N
201935-01													0.00	0	0	201935-01	USDA - PLAIN	02	01935	TREE ORCHARD
201940-01													0.00	0	0	201940-01	COEN RONAI	02	01940	402 gallatin
201950-00	4400	4600	4500	1100	8100	9400	3200	10800	9300	6900	5400	4200	71900.00	134	259	201950-00	LYGHT, DAVII	08	01950	308 PRESTON
201950-01													0.00	0	0	201950-01	TURK, MRS R	02	01950.00	312 PRESTON
201960-00	4000	4000	4100	1100	7900	5500	11300	15000	8500	4100	4500	4500	74500.00	123	284	201960-00	WELLS, DICK	08	01960	300 PRESTON
201970-00													0.00	0	0			10		
201970-01													0.00	0	0			10		
201980-00	1300	2700	200	900	100	200	2500	5100	3000	2300	2400	1900	22600.00	52	72	201980-00	PARKER, NOL	08	01980	108 Cedar Street
201990-00													0.00	0	0	201990-00	TRAIN PROPE	08	01990	PRESTON
201990-01													0.00	0	0	201990-01	MCAULIFFE,	08	01990.01	108 CEDAR STREET
202000-00	5100	4600	4600	4300	6600	10200	12500	14900	12000	8700	6300	5300	95100.00	167	353	202000-00	CARMAN, NE	08	02000	115 CEDAR STREET
202010-00	100	100	100	3600	7000	6800	6900	17200	9500	4600	200	100	56200.00	23	283	202010-00	CARMAN, NE	08	02010	114 CEDAR STREET
202020-00					6100	13200	20000	30000	17300	11500			98100.00	0	533	202020-00	CARMAN, NE	08	02020	
202020-02													0.00	0	0			10		309 OGDEN AVENUE W
202030-00	3600	800	700	1600	4300	6200	200			2400	1100		20900.00	43	71	202030-00	NOWAK, CHR	08	02030	202 CEDAR STREET
202030-01													0.00	0	0	202030-01	TORGRIMSON	02	02030.00	202 CEDAR STREET
202040-00	3900	2900	3100	3300	14300	21500	22100	28000	24100	15800	6200	5100	150300.00	135	684	202040-00	HILL, DIXIE	08	02040	207 CEDAR STREET
202050-00							1700	500	1700				3900.00	0	21	202050-00	PREVIS, ART	08	02050	216 CEDAR STREET
202060-00													0.00	0	0	202060-00	BOESPFLUG	08	02060	219 CEDAR STREET
202060-01													0.00	0	0	202060-01	KNUTH, RON	02	02060.01	219 CEDAR STREET
202060-02													0.00	0	0	202060-02	KATANA, RAY	02	02060.00	219 CEDAR STREET
202060-03													0.00	0	0	202060-03	WHITEFISH C	02	02060.02	219 CEDAR STREET
202070-00	5400	4500	3800	3800	8300	12900	12200	16500	5600	8000	4200	4600	89800.00	145	345	202070-00	WHITTENBUR	08	02070	211 HALEY AVENUE W
202070-01													0.00	0	0	202070-01	NORMANDEA	02	02070.01	211 HALEY AVENUE W
202070-02													0.00	0	0	202070-02	WHITTENBUR	02	02070.02	211 WEST HALEY AVE.
202080-00	30000	20000	35000	20000	45000	305000	185000	625000	395000	275000	80000	30000	2045000.00	1188	9946	202080-00	SCHOOL DIST	08	02080	212 HALEY AVE W
202090-00	2700	4900	4500	5000	2700	3500	4000	11100	1800	2800	3100	1100	47200.00	118	141	202090-00	ROGERS, BA	08	02090	212 3RD AVE WEST
202090-01													0.00	0	0	202090-01	KONOPKA LA	02	02090.01	212 3RD AVE WEST
202100-00	12200	4000	6500	3600	5500	10300	14700	25000	11000	5700	7600		106100.00	187	392	202100-00	BROWN, RAY	08	02100	405 CEDAR STREET
202100-01													0.00	0	0	202100-01	HILL, JEAN	02	02100.01	405 CEDAR STREET
202100-02													0.00	0	0	202100-02	MILLER, WILL	02	02100.02	405 CEDAR STREET
202105-00	900	1500	1900	1500	1000	2100	600		300			200	10000.00	33	22	202105-00	WINE, LEROY	08	02105.0	411 CEDAR STREET
202105-01													0.00	0	0	202105-01	BROYHILL, TI	02	02105.00	411 CEDAR STREET
202105-03													0.00	0	0	202105-03	FIRST SECUR	02	02105.01	411 CEDAR STREET
202110-00	3900	3300	3200	3700	6500	9800	5400	10200	8500	5000	3900	4700	68100.00	125	247	202110-00	ANDERSON,	08	02110	415 CEDAR STREET
202110-01													0.00	0	0	202110-01	MCGREGGOF	02	02110.01	415 CEDAR
202120-00	3100	3000	2300	2800	18700	4300	13300	18300	3100	3000	3000	3200	78100.00	96	330	202120-00	CREEKMORE	08	02120	419 CEDAR STREET
202130-00	2200	2100	2300	2200	2500	5200	2800	9300	5600	2500	2100	2400	41200.00	73	152	202130-00	BRIETENBACI	08	02130	414 CEDAR STREET
202140-01													0.00	0	0	202140-01	T.C.I. CABLEV	02	02140	422 CEDAR
202150-00	2200	2100	2800	2600	3300	8200	5700	24700	10300	3700	2500	2200	70300.00	80	304	202150-00	FLEMMER, PA	08	02150	428 CEDAR STREET
202150-01													0.00	0	0	202150-01	KOSTKA, KAT	02	02150.00	426 CEDAR STREET
202150-03													0.00	0	0	202150-03	BYCZEK, TOI	02	02150.01	428 CEDAR STREET
202160-00							400						400.00	0	2	202160-00	SHULTZ, DAN	08	02160	427 CEDAR STREET
202160-01													0.00	0	0	202160-01	KNUDSON, N	02	02160.00	427 CEDAR - 425 CUSTOM CUTTING
202160-02													0.00	0	0	202160-02	LIGHT, CARL	02	02160.01	427 CEDAR STREET
202170-00													0.00	0	0	202170-00	SCHAEFER E	08	02170	506 CEDAR STREET
202170-01													0.00	0	0	202170-01	JORDON MA	02	02170.01	506 CEDAR
202170-02													0.00	0	0	202170-02	JONES LUTHE	02	02170.02	506 CEDAR
202180-00	3600	2200	2600	9100	10400	12000	7900	12200	10900	7400	3500	3600	85400.00	136	330	202180-00	PULFER, CHA	08	02180	503 CEDAR STREET
202180-01													0.00	0	0	202180-01	PETRI, BRUC	02	02180.01	503 CEDAR STREET
202190-01													0.00	0	0	202190-01	BORDEN JAM	02	02190	509 CEDAR
202200-01													0.00	0	0	202200-01	BORDEN JAM	02	02200	511 CEDAR
202210-01													0.00	0	0	202210-01	BORDEN JAM	02	02210	513 CEDAR
202220-00	3600	3700	3200	3900	4100	4800	3800	4000	4300	3800	3800	4100	47100.00	123	135	202220-00	BORDEN, JAI	08	02220	515 CEDAR STREET
202230-00	4600	4200	4100	4900	4300	9700	6000	18100	9000	4800	4200	5800	79700.00	154	282	202230-00	ANDERSEN, I	08	02230	522 CEDAR STREET
202240-00	12600	14800	15500	9900	11800	10100	11300	14500	25700	12700	13900	16600	169400.00	460	468	202240-00	FOWLE, MICI	08	02240	202 PRESTON AVENUE W
202240-01													0.00	0	0	202240-01	ELLER, WILLI	02	02240.01	202 PRESTON AVENUE W
202250-00	4600	4400	4300	4500	6000	12400	9100	18300	14300	4900	4800	4900	92500.00	152	353	202250-00	PARKER NOL	08	02250	120 PRESTON AVENUE W
202250-02													0.00	0	0	202250-02	GILMORE RO	02	02250.01	120 PRESTON
202260-00	7800	6900	8000	7100	9300	7300	5300	25600	7500	7600	8200	8400	109000.00	256	340	202260-00	BROWN, JAS(	08	02260	112 PRESTON AVENUE W
202260-01													0.00	0	0	202260-01	MANFRE MIC	02	02260.01	112 PRESTON
202260-02													0.00	0	0	202260-02	MICHAELS, S	02	02260.00	112 PRESTON AVENUE
202270-00	6000	5500	4000	4500	5200	6300	10600	13600	12200	7600	5200	5600	86300.00	170	302	202270-00	SHUTTLE, ST	08	02270	108 PRESTON AVENUE W
202270-01													0.00	0	0	202270-01	COURTNEY L	02	0227001	108 PRESTON
202270-02													0.00	0	0	202270-02	GIBSON, SAN	02	02270.00	108 PRESTON AVENUE
202280-00	800	700	1200	1300	1400	1100	900	1500	3000	900	1000	1000	14800.00	33	48	202280-00	WOLLASTON,	08	02280	116 FERRY STREET N
202290-00	1800	1900	2100	2400	2200	5500	6000	16100	7800	7600	2900	2400	58700.00	75	246	202290-00	DOWELL, JAY	08	02290	115 FERRY STREET N
202300-00													0.00	0	0	202300-00	MATTHEW, KA	08	02300	205 FERRY STREET N
202300-01													0.00	0	0	202300-01	JOHNSON KA	02	02300.01	205 N FERRY
202300-02	1600	2500	2600	2600	2200	2300	2700	3200	2900	3100	3100	3100	31900.00	86	89	202300-02	PHILLIPPI, ME	08	02300.01	205 FERRY STREET N

202310-00	4200	4100	3400	4400	3500	8000	9200	45600	16400	3200	3900	3800	109700.00	131	467	202310-00	MOSELEY JR, 08	02310	204 FERRY STREET N
202310-01													0.00	0	0	202310-01	THOMAS JR., 02	02310.01	204 N FERRY
202310-02													0.00	0	0	202310-02	MUNSON, RO 02	02310.00	204 N FERRY STREET
202320-00													0.00	0	0	202320-00	SCOTT, ROY 08	02320	209 FERRY STREET N
202320-01													0.00	0	0	202320-01	BOSTWICK, V02	02320.00	209 N FERRY STREET
202320-02	11300	11900	10900	10500	12300	13200	12900	8900	13200	11900	12900	11200	141100.00	380	393	202320-02	SHANNON, JI02	02320.01	209 FERRY STREET N
202320-03													0.00	0	0	202320-03	FLATHEAD LA08	02320.01	209 FERRY STREET N
202330-00	900	900	1000	900	2100	3200						600	9600.00	24	29	202330-00	SANFORD, KI08	02330	212 FERRY STREET N
202330-01													0.00	0	0	202330-01	TURK ROBEF02	02330.00	212 N FERRY
202340-00	2700	1900	2600	3900	2700	7100	6000						26900.00	61	86	202340-00	PEELE, JAKI 08	02340	219 FERRY STREET N
202350-00	7700	5400	3500	4300	2100	900	5700	10900	11200	4300	4600	5000	65600.00	169	191	202350-00	THORPE, WAI08	02350	216 FERRY STREET N
202360-00	3300	3000	2900	3200	4200	5700	4300	13600	7900	4500	3500	3200	59300.00	106	218	202360-00	SUSIC, JACOI08	02360	227 FERRY STREET N
202360-01													0.00	0	0	202360-01	BROWN JASC02	02360.01	227 N FERRY
202360-02													0.00	0	0	202360-02	TERRY, MICH02	0236002	227 N FERRY STREET
202360-03													0.00	0	0	202360-03	PULLAN, CAM02	02360.00	227 FERRY STREET N
202370-00													0.00	0	0	202370-00	FRANCK, COF08	02370	228 FERRY STREET N
202370-01	1800	1400		200	200		3400	13600	15700	11900	1900	700	50800.00	33	243	202370-01	TRAVER, FRA02	02370.01	228 FERRY STREET N
202380-00		200			7900		8000	25600	15700	5700	5800	3800	72700.00	54	342	202380-00	JONES, CHAI08	02380	304 FERRY STREET N
202380-01													0.00	0	0	202380-01	LARSEN, STE02	02380.01	304 N FERRY STREET
202390-00	800	1700	19600	2600	2000	17900	2200	10600	4400	1300	3400	2400	68900.00	169	209	202390-00	ARRANTS, ST08	02390	312 FERRY STREET N
202400-01													0.00	0	0	202400-01	SMITH CHAR 02	02400	316 N FERRY
202410-00	3300	3200	2300	2800	4200	9700	7800	19200	13100	4200	2800	3700	76300.00	100	316	202410-00	SMITH, SAIR/08	02410	320 FERRY STREET N
202440-00													0.00	0	0	202440-00	CROWDER, J/08	02440	326 FERRY STREET N
202440-01													0.00	0	0	202440-01	BRAUER AVE02	02440.00	326 N FERRY
202440-02													0.00	0	0	202440-02	MINEMYER JU02	02440.02	326 N FERRY STREET
202440-03													0.00	0	0	202440-03	TALBOOM, EI02	02440.01	326 FERRY STREET N
202440-04													0.00	0	0	202440-04	AMERICAN DI02	02440.03	326 FERRY STREET N
202440-05	3300	4100	3700	3200	900	1100	9600	44700	26600	4700	3400	3500	108800.00	117	476	202440-05	WHITTENBUR02	02440.04	326 FERRY STREET N
202440-06													0.00	0	0	202440-06	MCMASTER, V02	02440.05	326 FERRY STREET N
202450-01													0.00	0	0	202450-01	MUHN MARK 02	02450	206 3RD AVE WEST
202450-02													0.00	0	0	202450-02	SCHAEFER EI02	02450TW	206 3RD AVE WEST
202461-00	4500	3400	3700	8500	11900	13400	9100	26800	17400	8500	3200	4400	114800.00	153	473	202461-00	SCHAEFER EI08	02461	403 FERRY STREET N
202461-01													0.00	0	0	202461-01	MUHN MARK 02	02461.01	403 N FERRY
202462-01													0.00	0	0	202462-01	RIFFLE, MAR 02	02462	404 FERRY
202470-00													0.00	0	0	202470-00	SCHAEFER EI08	02470	407 FERRY STREET N
202470-01													0.00	0	0	202470-01	MUHN MARK 02	02470.01	407 N FERRY
202475-00	14100	13300	12200	12900	16500	14400	13200	12000	14400	13200	14900	16200	167300.00	462	455	202475-00	RIFFLE, MAR 08	02475	408 FERRY STREET N
202480-00	700	200	1300	600	200	400	200	300	200	200	100	700	5100.00	20	8	202480-00	SCHAEFER EI08	02480	409 FERRY STREET N
202480-01													0.00	0	0	202480-01	MUHN MARK 02	02480.01	409 N FERRY
202490-00	2500	2100	2300	2200	3300	3400	3400	4300	6300	3600	2400	3100	38900.00	81	132	202490-00	WEDEL, MAR 08	02490	414 FERRY STREET N
202500-00													0.00	0	0	202500-00	ALBANO, SET 08	02500	413 FERRY STREET N
202500-01													0.00	0	0	202500-01	HENDRICKSO02	02500.00	413 FERRY STREET N
202500-02													0.00	0	0	202500-02	DAMASKOS, T02	02500.01	413 FERRY STREET N
202500-03													0.00	0	0	202500-03	HENDRICKSO02	02500.02	413 FERRY STREET N
202500-04													0.00	0	0	202500-04	ALBANO, SET 08	02500.01	413 FERRY STREET N
202510-00	2500	2600	3300	2500	3400	5300	3700	13400	5100	2800	2500	2600	49700.00	88	183	202510-00	GREGORY, L 08	02510	420 FERRY STREET N
202510-01													0.00	0	0	202510-01	FRANCK FAI02	02510.01	420 N FERRY
202520-00	9400	7300	11500	7600	6300	8800	4500	7700	9200	9100	9600	21900	112900.00	372	248	202520-00	MCGANN, KE 08	02520	421 FERRY STREET N
202530-00													0.00	0	0	202530-00	PARKER, NO 08	02530	426 FERRY STREET N
202540-00	6500	4200	3900	3700	6500	12300	9600	19700	12900	5400	2600	9100	96400.00	166	361	202540-00	GREENOUGH 08	02540	111 4TH AVE W
202540-01													0.00	0	0	202540-01	LAWS, LILLIA 02	02540.01	111 4TH AVE WEST
202540-02													0.00	0	0	202540-02	KELLY, CHRI:02	02540.02	111 4TH AVE W
202550-00	3400	1200	7300	500	100	100	5700	11300	8200	5300	4900	3400	51400.00	114	167	202550-00	LEFORCE, CI08	02550	425 FERRY STREET N
202550-01													0.00	0	0	202550-01	PARKER, FR/02	02550.01	425 N FERRY
202550-02													0.00	0	0	202550-02	BROWN CARL02	02550.02	425 N FERRY
202550-03													0.00	0	0	202550-03	WAKEFIELD, 02	02550.03	425 N FERRY STREET
202560-01													0.00	0	0	202560-01	SOULE IRA 02	02560	503 N FERRY
202570-01													0.00	0	0	202570-01	COLE, SHERI02	02570	504 FERRY N
202580-00	5800	5000	3600	2300	2900	3100	3300	2900	3000	3800	3900	5000	44600.00	141	103	202580-00	SOULE, VON/08	02580	507 FERRY STREET N
202590-00	3000	3300	3100	3100	4000	3700	2900	18700	15800	5100	3300	3800	69800.00	108	273	202590-00	WRIGHT, ROI08	02590	518 FERRY STREET N
202590-01													0.00	0	0	202590-01	HAASE, DAVI 02	02590.00	518 N FERRY STREET
202600-00	5000	4300	4000	4300	4600	4600	6400	2100	5800	5000	4900	4700	55700.00	150	155	202600-00	GUNDERSON 08	02600	112 4TH AVE WEST
202600-01													0.00	0	0	202600-01	COLE, SHERI02	02600.01	112 4TH AVE WEST
302610-00	3300	4600	3500	3200	3200	3400	4500	12200	4700	2600	2500	3700	51400.00	115	166	302610-00	PARKER, NO 08	02610	104 PRESTON AVENUE W
302620-00	9700	1800	3400	3900	1900	3100	5500	5000		6900	4600	6300	52100.00	164	122	302620-00	CONTRERAS, 08	02620	106 GROVE STREET
302620-01													0.00	0	0	302620-01	MCFARLAND 03	02620.00	106 GROVE
302630-00	4100	5600	4800	8100	10200	8800	5800	4800	3700	3600	3600	5700	68800.00	176	201	302630-00	THOMPSON, (08	02630	107 GROVE STREET
302630-01													0.00	0	0	302630-01	DENSON, CH 03	02630.01	107 GROVE STREET
302630-02													0.00	0	0	302630-02	PIERCE, ROB 03	02630.00	107 GROVE STREET
302640-00	5500	3800	4400	4300	5100	13600	10800	28900	22600	10500	5500	5100	120100.00	158	497	302640-00	MAGDALENE, 08	02640	111 GROVE STREET
302650-00	3200	3200	3000	3200	3200	3300	5100	8100	7900	5000	3200	3500	51900.00	107	177	302650-00	GRIMM, DOU 08	02650	117 GROVE STREET
302660-00	3000	2500	2400	3100	2500	3100	600	3000	4800	13300	35600	10500	84400.00	315	148	302660-00	JOHNSON, H 08	02660	118 GROVE STREET
302670-00													0.00	0	0	302670-00	TERRAZAS, M08	02670	203 GROVE STREET
302670-01													0.00	0	0	302670-01	BARKER VIRG03	02670.00	203 GROVE
302670-02													0.00	0	0	302670-02	GRAZIER, AM 03	02670.01	203 GROVE
302670-03													0.00	0	0	302670-03	BARNES, SH/03	02670.03	203 GROVE STREET
302670-04													0.00	0	0	302670-04	HARLOW, ME03	02670.02	203 GROVE STREET
302670-05													0.00	0	0	302670-05	MAJESTIC MC03	02670.04	203 GROVE STREET
302670-06										200			200.00	0	1	302670-06	JEWELL, MAL 03	02670.05	203 GROVE STREET
302670-08		100			1100						100	400	1700.00	3	6	302670-08	FARR, MARK 08	02670.07	203 GROVE STREET
302680-00	2700	2200	2000	2000	8300	15800	15800	23100	22300	11300	2100	3300	110900.00	79	525	302680-00	TORGRIMSON08	02680	207 GROVE STREET
302690-00	1200	1200	1100	1500	3900	15500	11400	34100	18500	9900	1700	1600	101600.00	46	507	302690-00	WHITE, JOHN08	02690	206 GROVE STREET
302700-00	4100	3500	3300	4200	4300	1800	5000	18700	8300	2800	3800	4100	63900.00	127	222	302700-00	WHITE, JOHN08	02700	212 GROVE STREET
302700-01													0.00	0	0	302700-01	WHITE JOHN 03	02700.	212 GROVE STREET
302710-00	2700	2000	1200	2000	1600	5200	3700	7100	4600	3000	1900	3300	38300.00	72	137	302710-00	SHEETS, MAI08	02710	215 GROVE STREET
302720-00													0.00	0	0	302720-00	WHITE, JOHN 08	02720	216 GROVE STREET
302720-01													0.00	0	0	302720-01	WHITE, J. 03	02720.00	216 GROVE STREET
302720-02													0.00	0	0	302720-02	WHITE, JOHN03	02720.02	216 GROVE
302720-03													0.00	0	0	302720-03	KASSAHN, KF03	02720.01	216 GROVE STREET
302720-04													0.00	0	0	302720-04	HANFORD, GI03	02720.03	216 GROVE STREET
302730-00	2100	600	2500	2100	2300	2000	2500	500	2100	2100	1900	2000	22700.00	62	63	302730-00	GRANTHAM, 08	02730	219 GROVE STREET
302740-00	5500	6000	4500	4400	6500	7200	10800	24900	20300	7200	4800	6200	108300.00	173	418	302740-00	PETERSON, .08	02740	224 GROVE STREET
302740-01													0.00	0	0	302740-01	GARRISON M03	02740.01	224 GROVE
302750-00								1100					1100.00	0	6	302750-00	MILLIGAN, LA08	02750	303 GROVE STREET
302750-01													0.00	0	0	302750-01	CLARK DAVII03	02750.01	303 GROVE
302750-02													0.00	0	0	302750-02	MORKERT H/03	02750.00	303 GROVE
302760-00	3100	3100	2800	3100	3200	4300	3600	9400	10300	6800	3900	4300	57900.00	112	204	302760-00	LOFTHUS, OI08	02760	107 HALEY AVENUE E
302770-00	5700	5800	6300	6700	7700	7800	7200	7900	8200	7400	6400	7100	84200.00	210	251	302770-00	NEWBY, BILL 08	02770	309 GROVE STREET
302770-01													0.00	0	0	302770-01	JONES, CHAI03	02770.01	309 GROVE STREET
302780-00	4500	4400	4500	4200	4300	8000	3900	8300	9700	4000	5000	4700	65500.00	151	208	302780-00	BROWN, JAS 08	02780	315 GROVE STREET
302780-01													0.00	0	0	302780-01	SNIEZAK STE 03	02780.00	315 GROVE

302780-02													0.00	0	0	302780-02	BROWN, SHA	03	02780.02	315 GROVE STREET
302790-01													0.00	0	0	302790-01	LOFTHUS, OI	03	02790	312 GROVE STREET
302800-00	2300	2400	1900	1800	1900	1700	1600	1500	2100	1700	1800	3000	23700.00	73	57	302800-00	LOFTHUS, OI	08	02800	314 GROVE STREET
302805-00													0.00	0	0	302805-00	SCOTT, MICH	08	02805	322 GROVE STREET
302805-01													0.00	0	0	302805-01	WISWELL, JAI	03	02805.01	322 GROVE STREET
302805-02	3000	2600	7600	6700	7000	2700	7600	17000	4100	4100	3900	3700	70000.00	152	231	302805-02	VERLANIC, LY	08	02805.01	322 GROVE STREET
302810-00	2200	2200	2200	2300	2300	4000	1900	1500	5800	3400	2100	2000	31900.00	72	103	302810-00	BURRESE, R(	08	02810	323 GROVE STREET
302815-00	13400	10600	13300	17200	31200	33700	1600	50500	24100	11400	12700	15600	235300.00	457	829	302815-00	CASIDA, M. M	08	02815	326 GROVE STREET
302815-01													0.00	0	0	302815-01	THOMPSON,	03	02815.01	326 GROVE STREET
302815-02													0.00	0	0	302815-02	MCCUAIG, JA	03	02815.00	326 GROVE STREET
302820-00	100	1500	1800	2100	1500	1100	1800	1700	2100	2100	2100	2200	20100.00	54	56	302820-00	MOSHER, RI(	08	02820	402 GROVE STREET
302823-00													0.00	0	0	302823-00	PATTERSON,	08	02823	106 3RD AVENUE W
302823-01													0.00	0	0	302823-01	SHANNON, D	03	02823.01	403 GROVE STREET
302823-02													0.00	0	0	302823-02	KNOEPKE, JC	08	02823.01	106 3RD AVENUE W
302830-00							1700	2800	2500	3100	6600		16700.00	36	55	302830-00	SCOTT, PAME	08	02830	410 GROVE STREET
302830-01													0.00	0	0	302830-01	HURST, ROW	03	02830.00	410 GROVE STREET
302840-00	2200	1600	1600	1600	1800	2600	2300	4000	4000	3900	2100	2200	29900.00	62	101	302840-00	MAGOFFIN, F	08	02840	417 GROVE STREET
302850-00	3700	4600	5000	4700	3900	6800	6700	17500	6900	4100	4500	4100	72500.00	147	249	302850-00	O'NEILL, WILI	08	02850	418 GROVE STREET
302860-00						3700							3700.00	0	20	302860-00	HAMMETT, CI	08	02860	421 GROVE STREET
302860-01													0.00	0	0	302860-01	ROBSON, EV	03	028600.00	421 GROVE STREET
302860-02													0.00	0	0	302860-02	GREVEN, THI	03	02860.02	421 GROVE
302860-03													0.00	0	0	302860-03	CHADWICK, L	03	028600.01	421 GROVE STREET
302870-00							100	1200	12700				14000.00	0	76	302870-00	SMITH, JAMES	08	02870	108 4TH AVE EAST
302870-01													0.00	0	0	302870-01	CRADDICK, V	03	02870.01	108 4TH AVE EAST
302880-00	3000	3300	3000	4500	6300	11300	13500	33300	18100	16000	7100	4300	123700.00	139	535	302880-00	HAMMETT, C	08	02880	427 GROVE STREET
302890-00			1100	1400	1500	1700							5700.00	14	17	302890-00	DEATON, WIL	08	02890	504 GROVE STREET
302890-01													0.00	0	0	302890-01	HARPER TIM(	03	02890.01	
302890-02													0.00	0	0			10		504 GROVE STREET
302890-03													0.00	0	0	302890-03	SHEAR, BRY(	03	02890.03	504 GROVE STREET
302890-04	1300	1300					1400	1700	1800	1400	1700	1500	12100.00	32	34	302890-04	HAINES, FRE	03	02890.02	504 GROVE STREET
302900-00	5700	5600	5100	6400	5700	13400	12300	20900	8100	5600	6400	6400	101600.00	197	359	302900-00	MILNER, PAT	08	02900	503 GROVE STREET
302910-01													0.00	0	0	302910-01	WAKEFIELD /	03	02910	516 GROVE
302915-00	3300	2200	3200	4100	4200	6700	4400	13100	6300	3900	3500	3600	58500.00	110	210	302915-00	HALL, DAVID	08	02915	510 GROVE STREET
302920-00													0.00	0	0	302920-00	CULLEN, JAN	08	02920	513 GROVE STREET
302930-00													0.00	0	0	302930-00	CULLEN, JAN	08	02930	517 GROVE STREET
302940-00	9600	8800	11100	10100	11000	20400	16800	39100	23100	13800	10300	12000	186100.00	342	675	302940-00	SHEAR, E. W	08	02940	527 GROVE STREET
302950-00	3100	2800	2700	2900	3000	3300	3500	8000	6900	3300	3100	3600	46200.00	101	152	302950-00	HAASE, DAVI	08	02950	111 5TH AVENUE W.
302955-00	2000	600	1000	1800	1400	2100	4300	8000	3800	2300	1200	1300	29800.00	44	119	302955-00	HALL, MARY	08	02955	518 GROVE STREET
302960-00	8500	7300	5600	4300	6200	3700	5000	21300	13000	4600	5000	4300	88800.00	193	292	302960-00	HALL, DAVID	08	02960	520 GROVE STREET
302965-00	1200	1100	1600	2100	2000	11000	3200	13500	4000	600	100	700	41100.00	38	186	302965-00	FROST, BILL	08	02965	530 GROVE STREET
302970-00	18100	5500	5600	5100	3900		11000	13100	9500	9400	9900	2100	93200.00	256	255	302970-00	THOMPSON, (	08	02970	604 GROVE STREET
302970-01													0.00	0	0	302970-01	YOUNG, MAY	03	02970.01	604 GROVE STREET
302970-02													0.00	0	0	302970-02	BESAW, JOH	03	02970.02	604 GROVE STREET
302970-03													0.00	0	0	302970-03	PIERCE, ROB	03	02970.00	601 grove street
302980-00	3100	2700	2600	2500	2400	900	800	2200	1300			8900	27400.00	109	41	302980-00	BRASS, LAUF	08	02980	107 GREENWOOD STREET
302990-00	1800	2000	1700	2100	1800	17700	40700	52700	62900	41600	1800	2000	228800.00	63	1182	302990-00	TAYLOR, CLII	08	02990	326 grove street
303000-00	8700	9100	7000	7200	5300	15100	19600	43300	18400	4700	5700	10200	154300.00	265	578	303000-00	MCCUAIG, JA	03	02815.00	604 GROVE STREET
303000-01													0.00	0	0	303000-01	LENTZ, HAR(	03	03000.01	104 GREENWOOD - TRLR - 106 TRLR
303010-01													0.00	0	0	303010-01	LENTZ, HAR(	03	03010.01	110 GREENWOOD
303014-01													0.00	0	0	303014-01	LENTZ, HAR(	03	03014	112 GREENWOOD
303015-00													0.00	0	0	303015-00	VERLANIC, LY	08	03015	117 GREENWOOD STREET
303015-01													0.00	0	0	303015-01	KAZMIERCZA	03	03015.01	117 GREENWOOD
303015-02													0.00	0	0	303015-02	FISHER, BRA	03	03015.02	117 GREENWOOD STREET
303015-03							1800						1800.00	0	10	303015-03	VERLANIC, OI	03	03015.03	117 GREENWOOD STREET
303015-04	500	1100	1500	1800	2500	1200		4700	2100	1400	1500	900	19200.00	40	65	303015-04	WASHBURN, :	03	03015.04	117 GREENWOOD STREET
303020-00							600						600.00	0	3	303020-00	MCCUAIG, JA	08	03020	116 GREENWOOD STREET - HOUSE
303020-01													0.00	0	0	303020-01	LENTZ, HAR(	03	03020.01	116 GREENWOOD - HOUSE - 118 TRLR.
303030-00	4500	4100	3700	5200	3600	4000	11600	7400	5600	3800	4100	4900	62500.00	146	196	303030-00	DEXTER, SHA	08	03030	202 GREENWOOD STREET
303030-01													0.00	0	0	303030-01	BESAW, WM	03	03030.00	202 GREENWOOD STREET
303035-00	2600	1000	2900	2100	7100	4400	2900	2800	29100	7900	2000	2300	67100.00	71	295	303035-00	BRIGHT, CAN	08	03035	214 GREENWOOD STREET
303035-02													0.00	0	0	303035-02	BILL BESAW	03	03035.01	214 GREENWOOD STREET
303035-03													0.00	0	0	303035-03	BRIGHT, CAN	03	03035TW.02	214 GREENWOOD STREET
303037-00													0.00	0	0	303037-00	KNUTSON, R(	08	03037	216 GREENWOOD STREET - SHOP
303037-01													0.00	0	0	303037-01	BESAW, WILI	03	03037.01	216 GREENWOOD STREET - SHOP
303040-00													0.00	0	0	303040-00	TAYLOR, TER	08	03040	201 GREENWOOD STREET
303040-01													0.00	0	0	303040-01	TAYLOR, STE	03	03040.00	201 GREENWOOD STREET
303041-00	2000	3200	2200	2500	4700	6600							21200.00	55	61	303041-00	TAYLOR, STE	08	03041	205 GREENWOOD STREET
303070-00	4200	4100	4100	1300	6100	4800	4500	5300	5700	4300	4500	4300	53200.00	124	167	303070-00	HILLCREST R	08	03070	211 spruce
303080-00						1100		16000					17100.00	0	93	303080-00	CORK, TERR'	08	03080	305 GREENWOOD STREET
303090-00	5900	5600	4500	5400	6400	9700	5700	13500	7600	5400	5700	6500	81900.00	186	263	303090-00	LACY, JERRY	08	03090	323 GREENWOOD STREET
303095-00	2100	1600	1700	2200	1400	1800	1300	1700	1000	1200	1200	2400	19600.00	62	46	303095-00	MOSHER, JOI	08	03095	414 greenwood street
303100-00	5900	5800	4400	5200	5600	8200	6500	19900	18700	20200	4200	9600	114200.00	194	430	303100-00	DAMASKOS, E	08	03100	208 HALEY AVENUE E
303110-01													0.00	0	0	303110-01	GRANTHAM /	03	03110	411 GREENWOOD
303120-00													0.00	0	0	303120-00	WHITE, JOHN	08	03120	417 GREENWOOD STREET
303120-01	1100						1000	100	100	500		300	3100.00	8	9	303120-01	GRANTHAM,	03	03120.01	417 GREENWOOD STREET
303120-02													0.00	0	0	303120-02	GRANTHAM,	03	03120.02	417 GREENWOOD STREET
303120-03													0.00	0	0	303120-03	ST MT DOJ A	03	03120.03	417 GREENWOOD STREET
303121-00	4300	3500	3200	5500	4700	7700	7500	33100	3500	15100	3900	15200	107200.00	197	389	303121-00	DOTY, JESSE	08	03121	403 GREENWOOD STREET
303130-00	3100	2700	2600	2700	2700	3800	4500	17300	6900	7100	2300	2900	58600.00	90	230	303130-00	BEITZ, VICKII	08	03130	424 GREENWOOD STREET
303140-00	1800	2700	600	2100	2000	3600	14600	35800	13400	11400	1800	1600	91400.00	59	439	303140-00	BASHAM, JOI	08	03140	425 GREENWOOD STREET
303145-00				200		100				400			700.00	1	3	303145-00	GAMBREL, R(	08	03145	504 GREENWOOD STREET
303145-01													0.00	0	0	303145-01	MCDONALD, .	03	03145.00	504 GREENWOOD STREET
303145-02													0.00	0	0	303145-02	DOTY, JAMES	03	03145.01	504 GREENWOOD STREET
303150-00	1300	1500	1500	1700	1600	3900	22700	25300	27100	17000	1600	1500	106700.00	50	530	303150-00	WILLIAMS, BI	08	03150	505 GREENWOOD STREET
303150-01													0.00	0	0	303150-01	MARTIN, LEE	03	03150.01	505 GREENWOOD STREET
303160-00						200		600	1000	800	500	5600	8700.00	34	14	303160-00	HALL, ROBER	08	03160	511 GREENWOOD STREET
303160-01													0.00	0	0	303160-01	TERRY, MAT'	03	03160.01	511 GREENWOOD STREET
303160-02													0.00	0	0	303160-02	COMPTON, JI	03	03160.02	511 GREENWOOD
303160-03													0.00	0	0	303160-03	WARD, ANGE	03	03160.03	511 GREENWOOD STREET
303160-04													0.00	0	0	303160-04	TERRY, MICH	03	03160.04	511 GREENWOOD STREET
303170-00													0.00	0	0	303170-00	BLOUIN, DENI	03	03170	520 GREENWOOD
303170-02													0.00	0	0	303170-02	BLOUIN DANI	03	03170.01	520 GREENWOOD
303180-00	2300	1800	1600	1900	1300	1800	1700	1900	3000	2600	2100	2800	24800.00	69	67	303180-00	JORGENSON,	08	03180.00	508 GREENWOOD STREET
303180-01													0.00	0	0	303180-01	KINGDOM HA	03	03180.01	508 GREENWOOD
303180-02													0.00	0	0	303180-02	VONSEGGER	03	03180.02	508 GREENWOOD STREET
303180-03													0.00	0	0	303180-03	HAYES, LIND	03	03180.03	508 GREENWOOD STREET
303180-04													0.00	0	0	303180-04	HAYES, LIND	03	03180.04	508 GREENWOOD STREET
303190-00	2700	2100	2500		2200	2100	500		3600	3500	3300	5000	27500.00	86	65	303190-00	KEITH CHER'	08	03190	517 GREENWOOD STREET
303200-00	3400	3100	3000	3400	3200	3300	3900	6600	4800	3200	3100	3500	44500.00	108	136	303200-00	THOMAS, JAN	08	03200	524 GREENWOOD STREET
303200-01													0.00	0	0	303200-01	HARTMAN JO	03	03200.00	524 GREENWOOD
303200-02													0.00	0	0	303200-02	THOMAS, STI	03	03200.01	524 GREENWOOD STREET

303210-00	4700	2800	800	700	2100	9600	10900	27100	13900	8500	4300	3800	89200.00	94	392	303210-00	RICHMOND, L	08	03210	208 5TH AVE EAST
303210-01													0.00	0	0	303210-01	STAMM, ROD	03	03210.00	208 5TH AVE EAST
303210-02													0.00	0	0	303210-02	FRANCK & DA	03	03210.01	208 5TH AVE EAST
303220-00	3900	4400	3100	4000	3600	9500	7500	14700	12900	4100	4600	5200	77500.00	139	284	303220-00	SHAFFORD, J	08	03220	607 GREENWOOD STREET
303220-01													0.00	0	0	303220-01	HOAGLAND,	03	03220.01	607 GREENWOOD STREET
303230-00	1100	1100	1000	1100	1300	1200	6700	7900	9100	7700	6100	1300	45600.00	65	184	303230-00	THOME, CLIN	08	03230	612 GREENWOOD STREET
303240-00	7700	7000	5600	5300	8700	5700	3400	4600	4700	4600	4500	9300	71100.00	218	172	303240-00	REICHERT, BI	08	03240	105 WOODLAND STREET
303250-00	1700	1600	1600	1700	2800	11800	9200	28000	16900	4200	1400	2000	82900.00	55	396	303250-00	GREAVES JA	08	03250	108 WOODLAND STREET
303250-01													0.00	0	0	303250-01	HAYES, LIND	03	03250.01	108 WOODLAND
303260-01													0.00	0	0	303260-01	CURRAN HAF	03	03260	WOODLAND - VACANT LOT
303270-00	3500	3200	3300	3800	3100	3600	3500	3800	4100	3500	3700	4000	43100.00	119	117	303270-00	HILL, ROBB &	08	03270	114 WOODLAND STREET
303270-01													0.00	0	0	303270-01	OWENS CHR	03	03270.01	114 WOODLAND
303280-00	1600	1600	1400	1800	1700	1600	1500	2400	1900	1400	2200	1900	21000.00	58	57	303280-00	MILES, DAN &	08	03280	117 WOODLAND STREET
303290-00	4200	4300	8900	6700	5700	4800	3400	5800	4200	3200	5400	4300	60900.00	187	147	303290-00	THOMPSON,	08	03290	207 WOODLAND STREET
303290-01													0.00	0	0	303290-01	KIRKLAND, PA	03	03290.01	207 WOODLAND
303290-02													0.00	0	0	303290-02	BESAW, JOH	03	03290.02	207 WOODLAND STREET
303300-00	600	2400	4700	4700	3900	6200	3600	10800	7500	5600	2300	2100	54400.00	93	204	303300-00	PARKER, NOL	08	03300	211 WOODLAND STREET
303305-00													0.00	0	0	303305-00	BARRUS, TRA	08	03305	215 WOODLAND STREET
303305-01	1400	2200	1800	2600	1700	1300	2500	3100	3100	2700	1200	1900	25500.00	61	78	303305-01	ROWE, CHAF	03	03305.01	215 WOODLAND STREET
303310-00	1500	2300	4800	1900	3100	700		3100	32900	12800	2000	2800	67900.00	85	286	303310-00	FRANK, JUDIT	08	03310	204 WOODLAND STREET
303310-01													0.00	0	0	303310-01	MILLS KENNE	03	03310.00	204 WOODLAND
303310-02							6600						6600.00	0	36	303310-02	SAKUSKI JOS	03	03310.01	204 WOODLAND STREET
303320-00	6100	5500	6100	6200	5500	7800	5800	8700	9500	5600	7300	7000	81100.00	211	233	303320-00	VALLEY BANK	08	03320	208 WOODLAND STREET
303320-01													0.00	0	0	303320-01	TURK ROBEF	03	03320.00	208 WOODLAND
303320-02													0.00	0	0	303320-02	HERMANN, M	03	03320.02	208 WOODLAND STREET
303320-03													0.00	0	0	303320-03	MILLER, WILL	03	03320.01	208 WOODLAND STREET
303330-00	3400	2300	2200	3100	2500	3400	3200	9900	6300	3900	2200	2600	45000.00	87	159	303330-00	KULAWINSKI,	08	03330	212 WOODLAND STREET
303340-01													0.00	0	0	303340-01	JOHNSON JA	03	03340	215 WOODLAND
303350-00	5900	6500	5500	6100	5500	7000	6200	9100	11900	1000	8600	6100	79400.00	214	221	303350-00	FRANK, ROBI	08	03350	222 WOODLAND STREET
303350-01													0.00	0	0	303350-01	LOVELL RAN	03	03350.01	222 WOODLAND
303360-00	4100	3100	2400	3400	5400	30100	2700	31000	9600	5500	4000	4100	105400.00	117	458	303360-00	WILSON, VICK	08	03360	214 HALEY AVENUE E
303360-01													0.00	0	0	303360-01	BESAW, WIL	03	03360.01	214 E HALEY
303360-02													0.00	0	0	303360-02	VAN VALKENE	03	03360.02	214 HALEY AVENUE E
303365-00						40600	9700	179600		106400			336300.00	0	1828	303365-00	FRATERNAL (	08	03365	300 BLOCK WOODLAND
303370-00	900	900	1500	1100	1300	1200	500	1000	1100	900	1000	1000	12400.00	35	33	303370-00	WIDNER, RU	08	03370	307 3RD AVE EAST
303380-00	2200	2200	2200	3000	2200	2500	1900	27900	15000	1900	2200	2300	65500.00	78	279	303380-00	STOUT, JOE	08	03380	403 WOODLAND STREET
303380-01													0.00	0	0	303380-01	LUNDY, FRAN	03	03380.00	403 WOODLAND STREET
303390-00								15800	8000		2500		26300.00	14	129	303390-00	GARCIA, ALIS	08	03390	413 WOODLAND STREET
303390-01													0.00	0	0	303390-01	BOWDEN, WA	03	03390.01	413 WOODLAND STREET
303390-02													0.00	0	0	303390-02	MAJESTIC MC	03	03390.00	413 WOODLAND STREET
303390-03													0.00	0	0	303390-03	SIMMS, DANI	03	03390.03	413 WOODLAND STREET
303395-00	1400	1500	1500	1500	1600	1600	1500	1400	1700	1700	1500	1700	18600.00	50	52	303395-00	CLARK, STEV	08	03395	420 WOODLAND STREET
303400-00	9800	7500	2000	10700	9400	20900	14400	39100	25700	13800	9200	9200	171700.00	267	670	303400-00	DENSON, CHA	08	03400	421 WOODLAND STREET
303400-01													0.00	0	0	303400-01	BOWDEN III,	03	03400.00	421 WOODLAND STREET
303400-02													0.00	0	0	303400-02	DENSON, TIM	03	03400.01	421 WOODLAND STREET
303410-00	2000	1700	2200	1600	2000	6100	5800	13700		1400	11000	1500	49000.00	110	158	303410-00	WITTERS, JEA	08	03410	427 WOODLAND STREET
303410-01													0.00	0	0	303410-01	PERKINS, JU	03	03410.00	427 WOODLAND STREET
303420-00	2100	200	1200	1400	4400	30500	12900	35800	24000	18700	5200	1300	137700.00	63	686	303420-00	MORRISON, I	08	03420	428 WOODLAND STREET
303430-00	3100	3200	2700	3300	2900	2500	3200	9500	3500	3300	2800	2700	42700.00	98	135	303430-00	FRANK, DOR	08	03430	506 WOODLAND STREET
303430-02													0.00	0	0			10		
303435-00	6800	2200	2000	3900	2600	4000	2000	4600	4500	3000	3600	9300	48500.00	154	113	303435-00	THOMPSON, (	08	03435	217 4TH AVE EAST
303435-01													0.00	0	0	303435-01	CHENEY, JOY	03	03435.01	217 4TH AVE EAST
303435-02													0.00	0	0	303435-02	PIERCE, ROE	03	03435.00	217 4TH AVE EAST
303435-03													0.00	0	0	303435-03	RADCILFFE, S	03	03435.02	217 4TH AVE EAST
303440-01													0.00	0	0	303440-01	MITCHELL, L(	03	03440.01	505 WOODLAND STREET
303440-02													0.00	0	0	303440-02	CARROLL MA	03	03440.02	507 WOODLAND
303440-03													0.00	0	0	303440-03	PIERCE, ROE	03	03440	505 WOODLAND STREET
303450-00	3400	3300	3100	3300	3100	14900			15000	9400	3800	4000	63300.00	115	230	303450-00	LEISZ, NAOMI	08	03450	507 WOODLAND STREET
303450-02													0.00	0	0	303450-02	WHITNEY, DA	03	03450.01	505 WOODLAND STREET
303460-00	900	900	600	600	600	500	400	600	600	700	600	500	7500.00	23	18	303460-00	MELOY WILLI	08	03460	507 1/2 WOODLAND STREET
303460-01													0.00	0	0	303460-01	LOTERBAUEF	03	03460.01	507 1/2 WOODLAND
303460-02													0.00	0	0	303460-02	ROHRER, VE	03	03460.00	507 1/2 WOODLAND STREET
303470-00	2900	2800	3200	3300	3000	3400	2900	2900	4000	2600	2700	3100	36800.00	99	102	303470-00	HEISE, RONE	08	03470	524 WOODLAND STREET
303480-00	2900	2900	2500	3000	2600	4300	3600	6600	11700	4000	4000	3100	51200.00	102	178	303480-00	DOTY, BRYCI	08	03480	523 WOODLAND STREET
303490-00	10000	10800	10100	10700	8100	11500	4700	13100	8200	9100	10800	11400	118500.00	352	297	303490-00	HART, MITZI L	08	03490.00	308 5TH AVE EAST
303490-01													0.00	0	0	303490-01	SPARKS, AM	03	03490.01	308 5TH AVE EAST
303490-02													0.00	0	0	303490-02	FISHER KENN	03	03490.02	308 5TH AVE EAST
303490-03													0.00	0	0	303490-03	SPARKS, KEV	03	03490.03	308 5TH AVE EAST
303490-05													0.00	0	0	303490-05	STEINWEDEN	03	03490.05	308 5TH AVE EAST
303495-00	3700	3800	3700	4200	3700	2900	4700	5400	3500	1800	3100	3300	43800.00	120	120	303495-00	CZERWINSKI	08	03495	305 5TH AVE EAST
303495-01													0.00	0	0	303495-01	QUINN, AARO	03	03495.00	305 5TH AVE EAST
303495-02													0.00	0	0	303495-02	HOMESALES	03	03495.01	305 5TH AVE EAST
303500-00				1300	1900	5900							9100.00	7	42	303500-00	STIMPFLING,	08	03500	611 WOODLAND STREET
303500-01													0.00	0	0	303500-01	WILHELMSEN	03	03500.01	607 WOODLAND
303500-02													0.00	0	0	303500-02	RAYNOR, LES	03	03500.02	611 WOODLAND STREET
303500-03													0.00	0	0	303500-03	MAJESTIC MC	03	03500.03	611 WOODLAND STREET
303500-04													0.00	0	0	303500-04	JOHNSON, TE	03	03500.00	611 WOODLAND STREET
303500-05	1800	2800	3500				4200	25100	21200	14600	5200	5100	83500.00	102	354	303500-05	DEACON, TAI	03	03500.04	611 WOODLAND STREET
303510-00					2500								2500.00	0	14	303510-00	BRONSON, CI	08	03510	617 WOODLAND STREET
303510-01													0.00	0	0	303510-01	FULLERTON,	03	03510.01	617 WOODLAND STREET
303520-00	4900	3700	5500	4300	3500	4600	8200	29100	12700	6100	4400	5600	92600.00	157	349	303520-00	CAMPBELL, (	08	03520	622 WOODLAND STREET
303530-00						7000							7000.00	0	38	303530-00	TRAIN, ANTH(	08	03530	107 CLAY STREET
303530-01													0.00	0	0	303530-01	LA ROCK, LO	03	03530.01	107 CLAY STREET
303530-02													0.00	0	0	303530-02	BANK OF AME	03	03530.02	107 CLAY STREET
303540-00	1800	10700	4700	3000	4300	5400	9400	5700	10000	7000	6400	5000	73400.00	175	227	303540-00	THOMPSON, (	08	03540	104 CLAY STREET
303540-01													0.00	0	0	303540-01	PIERCE, ROB	03	03540.00	104 CLAY STREET
303540-02													0.00	0	0	303540-02	NUESSLE, JEI	03	03540.01	104 CLAY STREET
303550-00													0.00	0	0	303550-00	THOMPSON, (	08	03550	110 CLAY STREET
303550-01													0.00	0	0	303550-01	PIERCE, ROB	03	03550.00	110 CLAY STREET
303550-03	3500	8500	5100	5400	6800	7800	8200	14800	8000	5300	4300	6600	84300.00	185	277	303550-03	MERRIMAN, T	03	03550.02	110 CLAY STREET
303560-00	4100	35800	5500	5500	7200	9300	10400	1200	175700	66300	3700	5900	330600.00	334	1468	303560-00	SCHAEFER EI	08	03560	204 CLAY STREET
303560-01													0.00	0	0	303560-01	GRAVIER GILI	03	03560.01	204 CLAY
303560-02													0.00	0	0	303560-02	CLAYTON NA	03	03560.02	204 CLAY
303580-00	4100	3900	3600	4000	5200	8500	8700	9300	10300	4900	4100	5000	71600.00	136	255	303580-00	HAUGHTON, J	08	03580	210 CLAY STREET
303580-01													0.00	0	0	303580-01	FRANCK, CHA	03	03580.01	210 CLAY STREET
303580-02													0.00	0	0	303580-02	POWELL, ALI(	03	03580.00	210 CLAY STREET
303580-03													0.00	0	0	303580-03	GMAC MORT(	03	03580.03	210 CLAY STREET
303590-00					4300				8000				12300.00	0	67	303590-00	JOHNSTON , (	03	03590	201 CLAY STREET
303590-02													0.00	0	0	303590-02	COMMERS, S	03	03590.01	201 CLAY STREET
303600-00	1800	1500	1600	1700	2600	2600	1700	2600	1900	1600	2100	2700	24400.00	63	71	303600-00	KOEPPLIN, DA	08	03600	205 CLAY STREET
303600-01													0.00	0	0	303600-01	VAUGHT, HAI	03	03600.00	205 CLAY STREET

303610-00	4600	3900	3600	4300	5000	12800	8300	20100	2000	18600	4700	5900	93800.00	149	363	303610-00	SMITH, CLAY	08	03610	211 CLAY STREET
303620-00	1500	1400	1300	1400	1400	800	1300	1600	1600	1300	1400	1600	16600.00	48	43	303620-00	WILBURN, CL	08	03620	218 CLAY STREET
303620-01													0.00	0	0	303620-01	HELUS, JOHN	03	03620.01	218 CLAY
303630-00	20700	8900		300	2400	2400	4100	3400	3600	3400	3200	10600	63000.00	241	105	303630-00	ELLIOTT, GE	08	03630	221 CLAY STREET
303630-01													0.00	0	0	303630-01	HAMMERBER	03	03630.00	221 CLAY STREET
303635-00	1700	1800	1500	1500	1100	3500	1600	17100	2400	1500	1500	1800	37000.00	54	148	303635-00	CHUBB, BILL	08	03635	219 CLAY STREET
303640-00													0.00	0	0	303640-00	CAMPBELL, S	08	03640	222 CLAY STREET
303640-01													0.00	0	0	303640-01	MCGRAW, LI	03	03640.01	222 CLAY STREET
303650-00	3300	3000	2900	3300	3100	2900	3100	11200	6700	3100	2900	3100	48600.00	102	164	303650-00	SWOPE, ROY	08	03650	228 CLAY STREET
303650-01													0.00	0	0	303650-01	JANES JOSEF	03	03650.01	228 CLAY
303650-02													0.00	0	0	303650-02	STARK DAN	03	03650.02	228 CLAY
303660-00	1800	3300	2400	2500	500	3200	3400	7200	7100	3400	3000	2900	40700.00	88	135	303660-00	DODGE, RON.	08	03660	225 CLAY STREET
303670-00													0.00	0	0	303670-00	BUTLER, JOH	08	03670	303 CLAY STREET
303670-01													0.00	0	0	303670-01	FRITSCH, H.E	03	03670.00	303 CLAY STREET
303670-02	400	400	400	400	400	700	400	1700	200			400	5400.00	11	18	303670-02	LACK, SANDR	08	03670.01	303 CLAY STREET
303680-00						1000	2300	1600	3000	800			8700.00	0	47	303680-00	GOETZ, PAUL	08	03680	306 CLAY STREET
303680-01													0.00	0	0	303680-01	HEBERLINE,	03	03680.01	306 CLAY STREET
303690-00	2900	3300	3800	3400	4200	7500	8900	25300	12800	100	5600	3400	81200.00	124	320	303690-00	CARTER, MIK	08	03690	314 CLAY STREET
303700-00	2000	1800	1100	1600	1100	1900	1100	1600	1400	1400	1500	1800	18300.00	54	46	303700-00	MCGUIGAN,	08	03700	324 CLAY STREET
303710-00	300	100	100	100	100	100		400	200		100		1500.00	4	4	303710-00	HUNTLEY, H	08	03710	311 3RD AVE EAST
303715-00													0.00	0	0	303715-00	LANIER, LIND.	08	03715	405 3RD AVE E
303718-00													0.00	0	0	303718-00	KNERR, JOHN	08	03718	412 CLAY STREET
303720-00	1100	1000	1000	1300	800		1700	3700	1900	1300	1300	1100	16200.00	38	51	303720-00	FRANZWA, D	08	03720	415 CLAY STREET
303730-00													0.00	0	0	303730-00	KNERR, JOHN	08	03730	416 CLAY STREET
303730-01	18000	26800	28300	4500	10000	6900	1600	3900	7400	10100	13400	19400	150300.00	610	217	303730-01	KNERR, BRU	03	03730.02	416 CLAY STREET
303730-02													0.00	0	0	303730-02	COMMERS, S	03	03730.01	416 CLAY STREET
303734-00													0.00	0	0	303734-00	KNERR, JOHN	08	03734	420 CLAY STREET
303735-00	1100	1400	1300	500	1600	12900	10800	25400	15300	5400	2100	1400	79200.00	43	388	303735-00	BAYLOR, CA	08	03735	421 CLAY STREET
303740-00	11900	8100	7200	10900	8400	18400	11700	23500	11800	12300	10400	10600	145200.00	327	468	303740-00	SNELL, STEV	08	03740	427 CLAY STREET
303750-00	14000	6800	5800	7100	7000	7300	6300	6900	8100	4600	4100	12300	90300.00	277	218	303750-00	MCEWEN, AR	08	03750	428 CLAY STREET
303750-01													0.00	0	0	303750-01	COMMERS, S	03	03750.00	428 CLAY STREET
303760-00	4200	300	200	6400	2000	2100	2000	6500	2600	2300	2400	2500	33500.00	88	95	303760-00	CURRY, SCOT	08	03760	509 CLAY STREET
303760-01													0.00	0	0	303760-01	FANNY MAE	03	03760.00	509 CLAY STREET
303770-00	4900	4700	4000	4600	3000	6200	6500	4300	25400	5000	3800	5300	77700.00	151	274	303770-00	CHRISTIAN,	08	03770	315 4TH AVE EAST
303780-00	2600	2700	2600	2700	9200	29100	15800	48400	29000	24100	8800	3500	178500.00	127	846	303780-00	JUNGE, GUN	08	03780	407 4TH AVE EAST
303800-00	2300	2300	2200	2600	2500	2700	1900	3500	10500	3200	2900	2900	39500.00	84	132	303800-00	HEDAHL, WE	08	03800	515 CLAY STREET
303810-00	1900	1700	1900	2000	2100	3300	2600	10400	5800	3000	1700	2300	38700.00	64	148	303810-00	WIECKOWSKI	08	03810	520 CLAY STREET
303820-00													0.00	0	0	303820-00	BUTLER, CHA	08	03820	521 CLAY STREET
303820-01													0.00	0	0	303820-01	ALBAN, DENI	03	03820.00	521 CLAY STREET
303820-02	4700	4000	4000	4500			4900	11000	3600	3700	3700	4900	49000.00	143	126	303820-02	FINGAR, PHIL	03	03820.01	521 CLAY STREET
303830-00	1300	600			1600	5200	3300	23200	6700	1700	1400	1800	46800.00	28	227	303830-00	GROH, KARE	08	03830	523 CLAY STREET
303840-00													0.00	0	0	303840-00	BARAJAS, JE	08	03840	528 CLAY STREET
303840-01													0.00	0	0	303840-01	TILLMAN, MA	03	03840.01	528 CLAY STREET
303850-01													0.00	0	0	303850-01	ANDERSON,	03	03850	605 CLAY STREET
303860-00	5300	3900	4800	5400	4900	7700	8700	22700	9900	7700	5800	6000	92800.00	172	335	303860-00	THOMPSON,	08	03860	610 CLAY STREET
303870-00													0.00	0	0	303870-00	ELLUL, MICHA	08	03870	604 CLAY STREET
303870-01													0.00	0	0	303870-01	REID ROGER	03	03870.01	604 CLAY
303870-02													0.00	0	0	303870-02	CALKINS, BRI	03	03870.00	604 CLAY STREET
303870-03		200		100	1200	1600	2300	4100	3800	2500	2400	2300	20500.00	28	84	303870-03	MOREHOUSE	08	03870.01	604 CLAY STREET
303880-00	200	300	1500	400	200	200	200		300	100	200	100	3700.00	15	5	303880-00	ANDERSON,	08	03880	617 CLAY STREET
303890-00								19600	11300				30900.00	0	168	303890-00	LEIVESTAD, F	08	03890	614 CLAY STREET
303890-01													0.00	0	0	303890-01	EPLIN, EVEL	03	03890.01	614 CLAY STREET
303900-00	3100	14100	2200	2500	24900	2500	37400	11500	6100	2500	7600	7200	121600.00	203	461	303900-00	VICK, KENNE	08	03900	622 CLAY STREET
303910-00	200	300	400	300	300	300	300	500	300	300	300	400	3900.00	10	11	303910-00	HERREID, TO	08	03910	625 CLAY STREET
303910-01													0.00	0	0	303910-01	CHURCH, LA	03	03910.00	625 CLAY STREET
303910-02													0.00	0	0	303910-02	MAJESTIC MC	03	03910.01	625 CLAY STREET
303921-00	1500	1500	1500	1700	1500	1700	3300	1800		3000	1700	1600	20800.00	52	61	303921-00	CONWAY, RI	08	03921	626 CLAY STREET
303930-00	3000	2900	3100	3600	3000	4000	2600	3300	3800	3300	3100	3500	39200.00	106	109	303930-00	HAMEL, RON	08	03930	202 CHURCH STREET
303940-00													0.00	0	0	303940-00	DYKSTRA, D	08	03940	201 CHURCH STREET
303950-00	2100	2100	2600	1100	2200	2800	4800	11900	10100	3700	2100	2900	48400.00	71	193	303950-00	SHEAR, CATI	08	03950	208 CHURCH STREET
303960-00	11700	12000	5800	5800	7000	8600	7000	17400	8400	12500	6000	17300	119500.00	324	331	303960-00	SAINT, STEV	08	03960	214 CHURCH STREET
303960-01													0.00	0	0	303960-01	FANNIE MAE	03	03960.00	214 CHURCH
303960-02													0.00	0	0	303960-02	DAWSON, W	03	03960.02	214 CHURCH STREET
303970-00	1100	500	1100	1800	2100	2400	600	12600	9500	4200	1800	1800	39500.00	45	171	303970-00	LILLY, MICHA	08	03970	207 CHURCH STREET
303970-01													0.00	0	0	303970-01	WILSON, WIL	03	03970.00	207 CHURCH STREET
303980-01													0.00	0	0	303980-01	PENTECOSTA	03	03980	215 CHURCH (TRAILER)
303990-00	400	400	500	500		800	300	400	300	300	400	500	4800.00	15	11	303990-00	PENTECOSTA	08	03990	414 HALEY AVENUE E
304000-00													0.00	0	0	304000-00	VOLD, JOY NI	08	04000	307 CHURCH STREET
304000-01							19400		19500	100			39000.00	0	212	304000-01	CARTER, JEA	03	04000.01	307 CHURCH STREET
304010-00	1600	1300	1200	1800	2200	1600	1700	1600	1500	2300	1500	2200	20500.00	53	59	304010-00	CHRISTIAN CI	08	04010	306 CHURCH STREET
304020-00	2800	2600	2300	2700	2600	3000	4500	7800	7700	3500	3000	3500	46000.00	93	158	304020-00	KEEFE, RHOI	08	04020	313 CHURCH STREET
304025-00													0.00	0	0	304025-00	KEEFE, RHOI	08	04025	313 1/2 CHURCH STREET
304030-00				10500	4900	4300							19700.00	58	50	304030-00	YODER, JOEL	08	04030	318 CHURCH STREET
304030-01													0.00	0	0	304030-01	TRIPLETT JU	03	04030.01	318 CHURCH
304030-02	4900	7500	6900				3700	3600	4900	5700	5900	7500	50600.00	181	97	304030-02	ROWE, CHAF	03	04030.03	318 CHURCH STREET
304030-03													0.00	0	0	304030-03	TRIPLETT, JA	03	04030.02	318 CHURCH STREET
304040-00	2700	2700	2200	2900	6400	12300	9700	39500	15000	5300	2300	3900	104900.00	92	479	304040-00	HAMILTON, J	08	04040	319 CHURCH STREET
304050-00													0.00	0	0	304050-00	PARDEE, CHA	08	04050	330 CHURCH STREET
304050-01													0.00	0	0	304050-01	WULFEKUHLE	03	04050.01	330 CHURCH
304050-02													0.00	0	0	304050-02	JCLB INVESTI	03	04050.00	330 CHURCH STREET
304050-03													0.00	0	0	304050-03	BELLUSCI, C.	03	04050.03	330 CHURCH STREET
304050-04	600	600	700	700	800	1000	1200	800	800	700	700	1000	9600.00	24	29	304050-04	WILTSE, JAC	08	04050.01	330 CHURCH STREET
304060-00													0.00	0	0	304060-00	EPPERSON, Z	08	04060	403 CHURCH STREET
304060-01													0.00	0	0	304060-01	HENDRICKSO	03	04060.01	403 CHURCH
304060-02													0.00	0	0	304060-02	SNYDER, BR	03	04060.00	403 CHURCH STREET
304060-03	1700	1800	1700	2300	2100	2000	4700	7400	4000	1700	1500	1700	32600.00	59	119	304060-03	WINE, LEROY	08	04060.01	403 CHURCH STREET
304070-01													0.00	0	0	304070-01	FAULKNER, V	03	04070	406 CHURCH
304080-00													0.00	0	0	304080-00	FAULKNER, V	08	04080	408 CHURCH STREET
304090-00	4300	4400	4100	4600	3300	2300	2500	2400	2900	1700	2100	3200	37800.00	125	82	304090-00	STONE, EILE	08	04090	415 CHURCH STREET
304100-01													0.00	0	0	304100-01	NORTON, KE	03	04100	416 CHURCH STREET
304111-00	5900	5800	5300	5400	7900	12800	9500	25000	12500	5400	8400	7900	111800.00	214	397	304111-00	WILSON, JOH	08	04111	426 CHURCH STREET
304111-01													0.00	0	0	304111-01	CRISTALDI, T	03	04111.00	426 CHURCH STREET
304111-02													0.00	0	0	304111-02	JANES J. MA	03	04111.01	426 CHURCH
304111-03													0.00	0	0	304111-03	AMERICAN D	03	04111.02	426 CHURCH STREET
304115-00	1000	900	800	1500	1300	3900	2300	4700	1800	4400	900	1200	24700.00	35	100	304115-00	LACY, GLENN	08	04115	511 4TH AVE EAST
304120-00	1800	1500	1400	1400	1500	1600	2600	2500	3000	2500	2800	2200	24800.00	61	74	304120-00	BURRELL, D	08	04120	504 CHURCH STREET
304130-00													0.00	0	0	304130-00	FARGHER, RI	08	04130	509 CHURCH STREET
304130-01													0.00	0	0	304130-01	ALDRICH EVI	03	04130.01	509 CHURCH
304130-02	1100	400	500		2000	3800		1600		2500	1100	900	13900.00	22	54	304130-02	ELLIOTT, GE	08	04130.01	509 CHURCH STREET
304135-00	2600	2100	1900	2900	1900	300	2600	2400	3000	1800	3300	2900	27700.00	87	65	304135-00	ELLIOTT, GE	08	04135	511 CHURCH STREET
304135-01													0.00	0	0	304135-01	ALDRICH EVI	03	04135.01	511 CHURCH

304140-00	4500	5300	4000	6100	5700	11600		171700		29800	8200		246900.00	155	1189	304140-00	STEWART, N.	08	04140	512 CHURCH STREET
304140-01													0.00	0	0	304140-01	SEEK-A-WAY	03	04140.01	512 CHURCH STREET
304150-00													0.00	0	0	304150-00	MERRIMAN, T	08	04150	519 CHURCH STREET
304150-01													0.00	0	0	304150-01	MONROE, KAI	03	04150.01	519 CHURCH STREET
304150-02													0.00	0	0	304150-02	CROWE, CHR	03	04150.02	519 CHURCH STREET
304160-00							6800	7600	14100	4200	17300	4200	54200.00	119	178	304160-00	COX, TOOTIE	08	04160	414 5TH AVE EAST
304170-00	2900	3100	3000	3200	3000	4000	4900	38700	16300	3600	3400	3600	89700.00	106	383	304170-00	FRANCK, BRA	08	04170	507 5TH AVE EAST
304170-01													0.00	0	0	304170-01	BASHAM, MI	03	04170.01	507 5TH AVE EAST
304170-02													0.00	0	0	304170-02	STEWART C	03	04170.02	507 5TH AVE EAST
304170-03													0.00	0	0	304170-03	HANDFORD,	03	04170.03	507 5TH AVE EAST
304170-04													0.00	0	0	304170-04	BANK OF AME	03	04170.04	507 5TH AVE EAST
304180-00	2700	2900	2100	2200	2700	10800	5400	20400	9400	9100	2600	2700	73000.00	84	314	304180-00	DELONG, PA	08	04180	603 CHURCH STREET
304190-00	2100	2100	2300	2300	4500	16700	5000	21100	23200	11000	3600	2700	96600.00	83	443	304190-00	SPARKS, DA	08	04190	610 CHURCH STREET
304195-00	5000	4000	4200	4300	4300	4200	5700	6400	8500	3300	900	4100	54900.00	124	176	304195-00	SHARP, GRE	08	04195	609 CHURCH STREET
304200-00				2900	2200	4600							9700.00	16	37	304200-00	KELLY, TIMO	08	04200	617 CHURCH STREET
304200-01							7000	16500	2400	600	700		27200.00	4	144	304200-01	MARICH, JA	03	04200.01	617 CHURCH STREET
304210-00	3600	3200	4100	4600	3600	5400	6200	9500	6500	2700	3900	4000	57300.00	129	184	304210-00	BENNETT DA	08	04210	510 BIGHORN DRIVE
304220-00	9100	10100	19200	8700	7400	8600	11100	12500	13900	22400	12100	9600	144700.00	380	413	304220-00	BENNETT DA	08	04220	507 BIGHORN DRIVE
304220-M1	3700	4500	4300	4400	4300	4400	5500	6600	7100	4700	5800	3600	58900.00	145	177	304220-M1	BENNETT DA	08	0422001	507 BIGHORN DRIVE
304220-M2	5400	5600	5300	4300	3100	4200	5600	5900	6800	6500	6300	6000	65000.00	182	174	304220-M2	BENNETT DA	08	0422002	507 BIGHORN DRIVE
304225-00	1100	3500	1900	1000	800	8100	700	12500	18100	16400	3000	1200	68300.00	65	308	304225-00	FARRINGTON	08	04225	525 BIGHORN DRIVE
304230-00	4500	4700	4200	5000	4600	11800	27100	28700	11300	8300	4800	5300	120300.00	157	499	304230-00	WADSWORTH	08	04230	530 BIGHORN DRIVE
304240-00	2000	2100	1700	4000	2000	9300	8300	21500	12900	5800	1900	4300	75800.00	88	325	304240-00	PARKS, DAN	08	04240	538 BIGHORN DRIVE
304246-00	5600	5300	4500	7200	5100	17000	24500	36100	31100	10600	4900	5000	156900.00	180	676	304246-00	ROBINSON, [	08	04246	549 BIGHORN DRIVE
304246-01													0.00	0	0	304246-01	NORMANDEA	03	04246.01	549 BIGHORN DRIVE
304250-00	2300	1300	2900	400	4000	5200	4900	16800	9700	3900	2200	2200	55800.00	62	242	304250-00	DERENBURG	08	04250	546 BIGHORN DRIVE
304253-00	800	1200	1100	1200	300	2900	1100	1800	2000	800	1000	1300	15500.00	36	48	304253-00	DARBY JR, O	08	04253	102 KOO KOO SINT COURT
304253-01													0.00	0	0	304253-01	SHRYNE, TIM	03	04253.00	102 KOO KOO SINT COURT
304257-00	2800	3000	2200	2700	4500	5200	1600	2200	2900	2100	1900	2500	33600.00	83	101	304257-00	MCEWEN, AF	08	04257	205 KANIKSU CT
304260-00	5800	4800	4400	6100	5200	16700	11000	27500	20400	9700	4800	7100	123500.00	182	492	304260-00	HOEKEMA, S	08	04260	104 KOOKOO SINT COURT
304261-00	3500	3900	3600	4000	3600	6700							25300.00	83	56	304261-00	CORK, COUR	08	04261	105 KANIKSU CT
304261-01													0.00	0	0	304261-01	FRY, NATHAN	03	0426101	105 KANIKSU CT
304261-02													0.00	0	0	304261-02	WOOD, RAND	03	04261.00	105 KANIKSU CT
304261-03													0.00	0	0	304261-03	US BANK NAT	03	04261.01	105 KANIKSU CT
304261-04													0.00	0	0	304261-04	ORCHARD TE	03	04261.02	105 KANIKSU CT
304261-05													0.00	0	0	304261-05	AMERICAN D	03	04261.03	105 KANIKSU CT
304262-00	900	800	800	700	500	6100	3000	16300	3600	1100	1000	800	35600.00	28	166	304262-00	STEPHENS, T	08	04262	605 BIGHORN DRIVE
304262-01													0.00	0	0	304262-01	MILLS CHUCK	03	04262.01	605 BIGHORN DRIVE
304262-02													0.00	0	0	304262-02	CONRAD, DA	03	04262.02	605 BIGHORN DRIVE
304262-03													0.00	0	0	304262-03	WOOD, DEBE	03	04262.03	605 BIGHORN DRIVE
304262-04													0.00	0	0	304262-04	LOWE, JOHN	03	04262.00	605 BIGHORN DRIVE
304262-05													0.00	0	0	304262-05	WELLS FARG	03	04262.04	605 BIGHORN DRIVE
304262-06													0.00	0	0	304262-06	HUD	03	04262.05	605 BIGHORN DRIVE
304264-00	1000	800	1800	900	300	1800	2100	8800	2900	3800	800	800	25800.00	34	107	304264-00	TURK, CARO	08	04264	101 KOOKOO SINT COURT
304266-00													0.00	0	0	304266-00	WHITEFISH C	08	04266	108 KANIKSU CT
304266-01	5000	4700	4700	4100	2500	6100	7300	2100	38700	6800	5000	5300	92300.00	159	345	304266-01	SCHILLING, [	08	04266.01	
304266-02													0.00	0	0			10		108 KANIKSU CT
304267-00	7700	5900	5600	6300	9900	17500	9600	36800	17600	9600	6600	7100	140200.00	217	549	304267-00	VAUGHT, KE	08	04267	106 KANIKSU CT
304268-00	2100	1500	1200	2400	1700	5500	10200	37800	28400	6100	3400	2400	102700.00	72	488	304268-00	EGGENSPER	08	04268	102 KANIKSU CT
304280-00	4300	2300	3400	4100	3800	10400	11700	15400	10300	5300	2800	4100	77900.00	116	309	304280-00	KEPPNER, TH	08	04280	610 BIGHORN DRIVE
304280-01													0.00	0	0	304280-01	BONNES RIC	03	04280.01	610 BIGHORN DRIVE
304290-00	4800	3800	3700	4200	3400	4000	8300	37000	20100	4000	4100	4900	102300.00	141	417	304290-00	PIRKER, RAN	08	04290	106 BIG BUCK DRIVE
304310-00					9100	39600	14600	47600	37400	17700	2100		168100.00	12	902	304310-00	NEAL, GERA	08	04310	777 GRIZZLY DRIVE
313110-00	2200	2400	2200	2500	6400	5100	5200	8900	8200	4500	3600	2300	53500.00	84	208	313110-00	WILSON, GLE	08	13110	611 GRIZZLY DRIVE
313130-00	6100	4800	5100	5300	5200	5500	5400	7600	8600	5100	5200	6400	70300.00	182	203	313130-00	MILNER, LAR	08	13130	600 GRIZZLY DRIVE
313140-00						22800	12100	36100	24400	6100	2300		103800.00	13	552	313140-00	TALLANT DAV	08	13140	555 GRIZZLY DRIVE
313140-01													0.00	0	0	313140-01	BUTCHER TH	03	13140.00	555 GRIZZLY DRIVE
313150-00	5400	5100	6100	5500	4800	13300				10100	5600	4500	60400.00	178	153	313150-00	HINCK, TROY	08	13150	551 GRIZZLY DRIVE
313150-01													0.00	0	0	313150-01	THOMPSON,	03	13150.00	551 GRIZZLY DRIVE
313150-02							200	1100	6500				7800.00	0	42	313150-02	RATTRAY , LA	03	13150.01	551 GRIZZLY DRIVE
313160-00	3200	2600	3200	2900	2600	2800	2900	3700	4900	2300	2600	3100	36800.00	97	104	313160-00	CUDDY, WILL	08	13160	556 GRIZZLY DRIVE
313170-00	2100	2100	2100	2300	15900	17500	25900	48100	33100	20900	2000	1900	173900.00	69	877	313170-00	BRUSE, PATR	08	13170	543 GRIZZLY DRIVE
313170-01													0.00	0	0	313170-01	BACHMANN,	03	13170.01	543 GRIZZLY DRIVE
313171-00	3300	3100	3000	3300	3200	6600	11200	23200	10400	3400	3500	3000	77200.00	106	315	313171-00	WORTH, LAU	08	13171	542 GRIZZLEY DRIVE
313210-00													0.00	0	0	313210-00	JACOBSON,	08	13210	537 GRIZZLY DRIVE
313210-01													0.00	0	0	313210-01	UNITED STAT	03	13210.01	537 GRIZZLY DRIVE
313215-00	4900	4500	4000	4400	2600	4500	5000	7500	5900	4400	3300	5100	56100.00	145	163	313215-00	WEBSTER KE	08	13215	525 GRIZZLY DRIVE
313215-01													0.00	0	0	313215-01	EPPERSON,	03	13215.01	525 GRIZZLY DRIVE
313215-02													0.00	0	0	313215-02	SHEPHERD, J	03	13215.02	525 GRIZZLY DRIVE
313215-03													0.00	0	0	313215-03	HAGEMO, THI	03	13215.03	525 GRIZZLY DRIVE
313220-00	2400	2200	2000	2800	2000	3800					1900	2500	19600.00	76	32	313220-00	BOON, BLAKE	08	13220	511 GRIZZLY DRIVE
313220-01													0.00	0	0	313220-01	BRIGHT, NAT	03	13220.01	511 GRIZZLY DRIVE
313220-02													0.00	0	0	313220-02	BREITHAUPT,	03	13220.00	511 GRIZZLY DRIVE
313220-03							700	7400	4500	3800			16400.00	0	89	313220-03	PETTIS, ROB	03	13220.02	511 GRIZZLY DRIVE
313400-00	1200	1200	100	2000	1100	1400	1200	1500	1600	1600	1500	1200	15600.00	40	46	313400-00	CURRY, DON	08	13400	504 GRIZZLY DRIVE
313400-01													0.00	0	0	313400-01	NETZ, ALAN	03	13400.01	504 GRIZZLY DRIVE
313420-00	5500	4900	5200	5300	5300	4700	4600	4700	5300	5000	5200	5200	60900.00	173	161	313420-00	HADDIX, JEFF	08	13420	520 GRIZZLEY DRIVE
313420-01													0.00	0	0	313420-01	GORDON, JA	03	13420.00	520 GRIZZLEY DRIVE
404270-00	10400	9500	10000	11200	12700	17000	18500	51800	37100	12600	9500	11700	212000.00	344	814	404270-00	DAHLKE, GA	08	04270	511 5TH AVE EAST
404280-00	4200	4300	5400	3900	3500	3800	3300	2400	4600	4400	5500	5200	50500.00	157	120	404280-00	BARTLETT, R	08	042801	533 MAPLE STREET
404280-01													0.00	0	0	404280-01	ISHAM, DON	04	04280.01	533 MAPLE STREET
404290-00													0.00	0	0	404290-00	LEIVESTAD, F	08	042901	534 MAPLE STREET
404290-01			500	5000	4900	13300	10700	22000	25000	10700	5800	3200	101100.00	80	471	404290-01	CHENEY, RU	08	042901.01	534 MAPLE STREET
404300-00	5600	4000	3900	4700	4600	43100	14400	40400	25800	39500	11100	4500	201600.00	187	912	404300-00	KINKADE, RU	08	04300	526 MAPLE STREET
404305-00	5000	4100	3900	4600	4500	14000	10900	31300	16900	14000	6000	6300	121500.00	165	498	404305-00	GILBERT, AM	08	04305	512 5TH AVENUE E
404305-01													0.00	0	0	404305-01	BENNETT, GI	04	04305.00	512 5TH AVENUE E
404310-00	5900	2600	3400	3600	3300	5200	1900	8500	3700	5000	2400	3700	49200.00	119	150	404310-00	CONLIN, JAM	08	043101	514 5TH AVE EAST
404320-00	3400	3100	3400	3800	3300	4000	2900	5700	6600	3500	2900	3400	46000.00	110	141	404320-00	MOREHOUSE	08	04320	520 MAPLE STREET
404330-00				100	100	2400	14600	23900	24000	4800	4300		74200.00	24	379	404330-00	HOEFT, JERF	08	04330	515 MAPLE STREET
404440-00	1000	1500	1400	1400	1300	1500	1600	2200	900	1300	1400	1300	16800.00	44	48	404440-00	SCOTT, FRAN	08	04440	215 ADAMS STREET
404440-01													0.00	0	0	404440-01	DENISON, LC	04	04440.00	215 ADAMS STREET
404450-00													0.00	0	0	404450-00	VULLES, MIC	08	04450	216 ADAMS STREET
404455-01													0.00	0	0	404455-01	VULLES MIC	04	04455	218 ADAMS STREET
404460-00						900							900.00	0	5	404460-00	STOVER, JER	08	04460	221 ADAMS STREET
404460-01													0.00	0	0	404460-01	LADD JAMES	04	04460.01	221 ADAMS STREET
404460-02													0.00	0	0	404460-02	POWELL, ALI	04	04460.00	221 ADAMS STREET
404470-00	15400	15800	1000	600	1300	1000					497900	15000	548000.00	3015	13	404470-00	ARRANTS ST	08	04470	608 HALEY AVENUE E
404480-00	4700	4300	4900	5600	4900	2000	5100	1100	1400	700	3800	4900	43400.00	156	83	404480-00	THORNHILL,	08	04480	514 HALEY AVENUE E
404480-01													0.00	0	0	404480-01	SCHWINCK, /	04	04480.01	514 E HALEY AVENUE
404490-00	1700	1600	900	800	900	2200	1000	700	1500	1000	1200	2600	16100.00	49	40	404490-00	LA FRINIERE,	08	04490	305 ADAMS STREET
404500-00	1400	700	900	700	600	600	1100	800	2900	600	600	800	11700.00	28	36	404500-00	SHARP, RON	08	04500	607 HALEY AVENUE E

404505-00						42000	26800	50300	45600	14700			179400.00	0	975	404505-00	SHARP RON/	08	04505	308 ADAMS STREET
404510-00													0.00	0	0	404510-00	HARRIS, TON	08	04510	317 ADAMS STREET
404520-00	4200	2900	3700	4100	4800	3700	5100	2600	4100	4800	4600	4400	49000.00	132	136	404520-00	TAYLOR, JAN	08	04520	329 ADAMS STREET
404520-01													0.00	0	0	404520-01	SULLIVAN M	04	04520.01	329 ADAMS STREET
404520-02													0.00	0	0	404520-02	LARSEN, WA	04	04520.00	329 ADAMS STREET
404530-00	5900	3900	4700	5100	5900	10400	10400	7200	7400	4000	4100	4900	73900.00	158	246	404530-00	NELSON, WIL	08	04530	409 ADAMS STREET
404530-01													0.00	0	0	404530-01	HOOTEN CHE	04	04530.00	409 ADAMS STREET
404530-02													0.00	0	0	404530-02	HOOTEN, DA	04	04530.02	409 ADAMS STREET
404540-00													0.00	0	0	404540-00	ALDERETE, A	08	04540	708 HALEY AVENUE E
404540-01	1200	3500	200	1000	7200	20100	10600	35700	21500	10100	1300	1100	113500.00	46	572	404540-01	HOFF, MAYN.	08	04540.01	708 HALEY AVENUE E
404550-00	4500	3900	3500	4400	7700	8800	4100	15500	1700	1600	2400	4300	62400.00	127	214	404550-00	LEAF, BODIE	08	04550	102 GOLF STREET
404550-01													0.00	0	0	404550-01	GAMETT, HO	04	04550.01	102 GOLF STREET
404550-02													0.00	0	0	404550-02	INTRASPECT	04	0455002	102 GOLF STREET
404560-00	5000	4000	4600	4600	9000	9900	1300	16800	7500	8600	4400	5100	80800.00	153	289	404560-00	FEWKES, DOI	08	04560	106 GOLF STREET
404560-01													0.00	0	0	404560-01	PLUMMER, B	04	04560.01	106 GOLF STREET
404560-02													0.00	0	0	404560-02	MCKINNEY, S	04	04560.00	106 GOLF STREET
404560-03													0.00	0	0	404560-03	MALEY, TOM	04	04560.02	106 GOLF STREET
404570-00	3100	2600	3100	3000	4200	4800	5600	9300	8400	7400	7100	5200	63800.00	133	216	404570-00	SHARP, RON	08	04570	109 GOLF STREET
404580-00													0.00	0	0	404580-00	FREEMAN, R(	08	04580	108 GOLF STREET
404580-01													0.00	0	0	404580-01	YOUNG BEA	04	04580.00	108 GOLF STREET
404580-02													0.00	0	0	404580-02	THOMPSON,	04	04580.01	108 GOLF STREET
404580-03													0.00	0	0	404580-03	HURD-BUSH I	04	04580.02	108 GOLF STREET
404580-04													0.00	0	0	404580-04	BRYANT, TER	04	04580.03	108 GOLF STREET
404580-05	3500	2800	4000	3800	6400	7000	8500	21600	10100	10900	3500	3400	85500.00	116	351	404580-05	BARE, VERNC	04	04580.04	108 GOLF STREET
404580-06													0.00	0	0	404580-06	WELLS FARG	04	04580.05	108 GOLF STREET
404580-07													0.00	0	0	404580-07	VA % MAJEST	04	04580.06	108 GOLF STREET
404590-00		100		6400	12800	8400	8400	10000	10800	9500	600		67000.00	39	326	404590-00	THE CHURCH	08	04590	210 GOLF STREET
404600-00	7400	3700	3000	4100	4500	6400	7100	13200	13500	4800	8100	7200	83000.00	185	269	404600-00	LOFTHUS, JO	08	04600	306 GOLF STREET
404600-01													0.00	0	0	404600-01	FLOTRE, TIM	04	04600.01	306 GOLF STREET
404605-00	1300	1000	700	1100	1100	900	900	20700	12400	6100	1300	1100	48600.00	36	229	404605-00	BOUKAL, RUD	08	04605	307 GOLF STREET
404605-01													0.00	0	0	404605-01	DUFFY, CASE	04	04605.01	307 GOLF STREET
404610-00	4900	4200	4500	4700	10600	39200	38600	48400	51100	30200	4700	5400	246500.00	157	1185	404610-00	KELLEY, ROE	08	04610	310 GOLF STREET
404620-00	1300	1200	1100	900	1000	15400	2600	28100	15500	7300	2500	2100	79000.00	50	380	404620-00	PAINTER, WI	08	04620	211 EDDY STREET
404630-01													0.00	0	0	404630-01	CITY OF THOI	04	04630	506 GOLF STREET
404640-00	17000	29000	21000	23000	19000	17000	6000	10000	14000	22000	22000	24000	224000.00	751	478	404640-00	SCHOOL DIST	08	04640	601 GOLF STREET
404645-00	1900	1600	1800	2000	1900	13100	4500	33200	22800	17100	7600	2200	109700.00	94	503	404645-00	BOWDINO LA	08	04645	1199 BEARPAW TRAIL
404645-01													0.00	0	0	404645-01	BASHAM, MI	04	04645.00	1199 BEARPAW TRAIL
404650-00	800	700	800	800	900	2700	3700	17500	2600	4200	800	900	36400.00	27	172	404650-00	WILLIAMS, PI	08	04650	101 HILL STREET
404658-00	2300	1700	2000	2100	2200	11000	5800	15400	13400	6800	2000	2000	66700.00	67	297	404658-00	CLARK STEV	08	04658	102 HILL STREET
404660-00	5600	3400	3900	4600	3900	5800	2500	3400	3400	3200	3800	5700	49200.00	149	121	404660-00	FIELDS, JIM	08	04660	107 HILL STREET
404670-00	7300	4100	4400	6500	4800	6800	5500	5800	7000	4800	5400	4700	67100.00	179	189	404670-00	MCQUEEN, K	08	04670	111 HILL STREET
404670-01													0.00	0	0	404670-01	EGOSQUE J	04	04670.00	111 HILL STREET
404680-00	1800	1600	1800	1900	2700	8100	5200	8600	4600	2300	2100	2200	42900.00	63	171	404680-00	LACY, GLEN	08	04680	116 HILL STREET
404690-01													0.00	0	0	404690-01	LACY, GLEN	04	04690	106 HILL STREET
404700-00	3800	2600	3400	3200	4500	6600	10000	25500	6800	4800	4900	4500	80600.00	124	316	404700-00	FAUSETT JAD	08	04700	105 ELK STREET
404700-01													0.00	0	0	404700-01	FAUSETT, J.	04	04700.00	105 ELK STREET
404710-00	8600	5900	7000	6800	8600	10700	9000	20300	12100	7500	3700	9800	110000.00	231	371	404710-00	CRAIG, FRAN	08	04710	104 ELK STREET
404720-00	2800	1700	2600	3300	6700	14900	3700	38800	10900	10700	3100	3700	102900.00	95	466	404720-00	RELLER, PEC	08	04720	111 ELK STREET
404730-00	4300	3400	4300	4600	3900	4400	5100	8400	5100	4600	4200	4400	56700.00	139	171	404730-00	MARTIN STEI	08	04730	108 ELK STREET
404730-01													0.00	0	0	404730-01	FARRINGTON	04	04730.01	108 ELK STREET
404730-02													0.00	0	0	404730-02	FARRINGTON	04	04730.02	108 ELK STREET
404730-03													0.00	0	0	404730-03	JOHNSON, D	04	04730.00	108 ELK STREET
404740-00	3400	3100	3600	3500	4800	8200	6600	15400	8400	6400	3200	3800	70400.00	114	271	404740-00	JOHNSTON, !	08	04740	115 ELK STREET
404740-01													0.00	0	0	404740-01	EMMONS, M/	04	04740.01	115 ELK STREET
404750-00	10000	9700	10400	11000	25000	32500	35600	73600		68100	10000	10900	296800.00	343	1276	404750-00	KAZMIERCZA	08	04750	116 ELK STREET
404760-00	3400	1100	1700	3100	9300	15500	17500	39900	23700	6700	2700	3300	127900.00	85	612	404760-00	WAKEFIELD,	08	04760	118 ELK STREET
404770-00	2600	3100	3400	3600	3200	7600	2400	38300	18700	5000	3700	2400	94000.00	104	409	404770-00	OWENS, RICH	08	04770	119 ELK STREET
404770-01													0.00	0	0	404770-01	DENSON, CH/	04	04770.00	119 ELK STREET
404770-02													0.00	0	0	404770-02	HURD-BUSH I	04	04770.01	119 ELK STREET
404780-00	1100	100	1100	700	1700	2400	8000	100	5600	800	1400	1700	24700.00	34	101	404780-00	WOODEN, AN	08	04780	123 ELK STREET
404780-01													0.00	0	0	404780-01	MODLIN, HAF	04	04780.01	123 ELK STREET
404780-02													0.00	0	0	404780-02	LADD, JAMES	04	04780.00	123 ELK STREET
404785-00	8400	6800	8200	8500	8200	8600	5100	7300	5700	5000	7200	9700	88700.00	270	217	404785-00	SPAULDING, I	08	04785	202 204 BOULDER AVENUE
404785-01													0.00	0	0	404785-01	GAYNOR, DC	04	04785.01	202 204 BOULDER AVENUE
404786-00													0.00	0	0	404786-00	HUTCHINGS,	08	04786	206 208 BOULDER AVENUE
404786-01													0.00	0	0	404786-01	GAYNOR, DC	04	04786.01	206 208 BOULDER AVENUE
404786-02			6400	9100	9500	10200	2300	900	3400	8800	2300	7500	60400.00	140	191	404786-02	SPAULDING, I	08	04786.01	206 208 BOULDER AVENUE
404790-00	12800	4500	4200	5100	5100	4800	6000	5500	4200	5400	5400	7600	70600.00	219	168	404790-00	DVOROZNAK,	08	04790	122 ELK STREET
404800-00	4600	2700	3500	4700	6100	6300	3000	20200	7900	6200	4900	3300	73400.00	131	270	404800-00	TRAIN, ANTH(	08	04800	212 BOULDER AVENUE
404800-01													0.00	0	0	404800-01	CRABTREE T	04	04800.01	212 BOULDER AVENUE
404800-02													0.00	0	0	404800-02	WHEELER, S	04	04800.00	212 BOULDER AVENUE
404800-03													0.00	0	0	404800-03	FIRST INTERS	04	04800.02	212 BOULDER AVENUE
404800-04													0.00	0	0	404800-04	US DEPARTM	04	04800.04	212 BOULDER AVENUE
404800-05													0.00	0	0	404800-05	ASSET MANA	04	04800.03	212 BOULDER AVENUE
404810-00													0.00	0	0	404810-00	BODALY, ROI	08	04810	218 BOULDER AVENUE
404820-00				3400	28600	47900							79900.00	19	416	404820-00	PAULI, JERR'	08	04820	219 BOULDER AVENUE
404840-00	8100	7400	7600	7100	6900	14700		25600	13700	6800	7200	7500	112600.00	248	368	404840-00	VAN HUSS, M	08	04840	226 BOULDER AVENUE
404840-01													0.00	0	0	404840-01	STICKNEY, W	04	04840.00	226 BOULDER AVENUE
404840-02							3000						3000.00	0	16	404840-02	GRIFFITHS, H	04	04840.01	226 BOULDER AVENUE
404850-00	5900	5000	5500	6600	6600	6700	5800	6400	6900	5900	6200	7200	74700.00	201	208	404850-00	MCJUNKIN, D.	08	04850.00	225 BOULDER AVENUE
404850-01													0.00	0	0	404850-01	GILBERT, SH/	04	04850.01	225 BOULDER AVENUE
404850-02													0.00	0	0	404850-02	BENNETT, DA	04	04850.02	225 BOULDER AVENUE
404850-03													0.00	0	0	404850-03	MILLER, WILI	04	04850.03	225 BOULDER AVENUE
404855-00	1600	1600	1700	1700	12800	29900	26700	49400	37900	25800	11200	1600	201900.00	107	992	404855-00	HARPER, RIT	08	04855	229 BOULDER AVENUE
404857-01													0.00	0	0	404857-01	CAMPBELL, G	08	04857	848 HALEY AVENUE E
404860-00	4100	7000	2800	2000	2200	2600	12400	20600	6500	3100	9900	2800	76000.00	158	258	404860-00	LANTZ, LESLI	08	04860	908 HALEY AVENUE E
404860-01													0.00	0	0	404860-01	CHISENHALL	04	04860.00	908 HALEY AVENUE E
404860-02													0.00	0	0	404860-02	SHEPHERD, .	04	04860.01	908 HALEY AVENUE E
404870-00	7100	5700	8200	8600	5300	6300	8400	9000	7200	6600	6400	6200	85000.00	233	233	404870-00	DOOLING, TO	08	04870	916 HALEY AVENUE E
404870-01													0.00	0	0	404870-01	BRAUER VER	04	04870.00	916 E HALEY AVENUE
404880-00	3300	2900	3400	3100	5300	6900	8900	2500	5900	3800	4800	3500	54300.00	116	181	404880-00	STEFFES-EW	08	04880	922 HALEY AVENUE E
404880-01													0.00	0	0			10		
404880-02													0.00	0	0	404880-02	WOOD, RICH	04	04880.	922 E HALEY AVENUE
404880-03													0.00	0	0			10		
404882-00													0.00	0	0	404882-00	LYONS, RICH.	08	04882.00	926 HALEY AVE E
404882-01	1600	1200	2500	2000	1300	1500	34800	29100	1600	2100	1600	2200	81500.00	61	383	404882-01	PETERS, DAL	08	04882.01	926 HALEY AVE E
404883-00	500	1700	2000	2200	3000	7300	3700	6900	3700				31000.00	35	134	404883-00	GRIFFITHS, H	08	04883	905 HALEY AVENUE E
404883-02													0.00	0	0	404883-02	STICKNEY, W	04	04883.01	905 E HALEY AVENUE
404885-00													0.00	0	0	404885-00	MAJERUS, GE	08	04885	925 HALEY AVENUE E
404885-01													0.00	0	0	404885-01	MARQUES JI	04	04885.01	925 E HALEY AVENUE
404885-02	4100	2700	3200	9600	35900	17300	21000	28400	20400	8500	10300	3600	165000.00	185	715	404885-02	NICHOLS, CI	04	04885.02	925 HALEY AVENUE E

404890-00	2800	2000	2100	3500	2700	2500	8400	13500	4800	2700	1800	3100	49900.00	85	188	404890-00	CHEESMAN H	08	04890	104 EDDY STREET
404890-01													0.00	0	0	404890-01	LAPHAM, ELV	04	04890.01	104 EDDY STREET
404900-00	4400	1900	1700	2500	2100	2800	3300	3800	3300	3300	1900	2800	33800.00	84	101	404900-00	LEUFKENS, B	08	04900	105 EDDY STREET
404900-01													0.00	0	0	404900-01	WULFEKUHLE	04	04900.00	105 EDDY STREET
404904-00	8700	8300	11600	11000	12700	17000	7100	8200	7500	9400	13700	11700	126900.00	359	336	404904-00	SCHOOL DIST	08	04904	601 1/2 GOLF STREET
504900-00	700	400	500	800	900	700	100	400	700	100	400	500	6200.00	18	16	504900-00	THOMPSON F	08	049001	1811 MAIN STREET W
504910-00	200	2300	400	300	400	500	700	600	200	100	200	500	6400.00	22	14	504910-00	BLACKFOOT	08	04910	1805 MAIN STREET W
504920-00		200	100			1100		100					1500.00	2	7	504920-00	MUSTER, JOI	08	04920	1705 MAIN STREET W
504930-00													0.00	0	0	504930-00	MUSTER, JOI	01	04930	1715 MAIN STREET W
504940-00	400	300	400	6700	300	400	300	400	300	300	300	400	10500.00	47	11	504940-00	MUSTER'S SH	08	04940	1709 MAIN STREET W
504950-01													0.00	0	0	504950-01	DOUGLASS H	05	04950	1615 W MAIN STREET
504951-01													0.00	0	0	504951-01	HARLAN DOU	05	04951	815 E ROSEWOOD
504954-00	2700	2500	1600	1400	1500	1900	1200	4200	30200	26700	2100	2600	78600.00	71	357	504954-00	THOMPSON F	08	04954	1520 MAIN STREET W
504955-00	100	100	100	100	100	11000	1600	9600	11900	7400	100	100	42200.00	3	226	504955-00	US POSTAL S	08	04955	1611 MAIN STREET W
504960-01													0.00	0	0	504960-01	HARLAN D DC	05	04960	104 S POND STREET
504965-00	100	200	200	200	300	200	18500	40300	20800	200	400	200	81600.00	7	436	504965-00	THOMPSON F	08	04965	120 POND STREET S
504970-00													0.00	0	0	504970-00	WHITEFISH C	05	04970	107 POND STREET S HOUSE
504970-01													0.00	0	0	504970-01	SULARZ, PAT	05	04970.01	107 POND STREET
504975-00		100		100	1300	15900	17400	20100	26100	20900	7000	100	109000.00	40	553	504975-00	WHITEFISH C	08	04975	107 POND STREET S - CU
504980-01													0.00	0	0	504980-01	TOWN PUMP	05	04980	1315 MAIN STREET
504990-00	3000	2300	2600	3000	4400	5900	5700	9100	8500	4800	4000	3200	56500.00	100	209	504990-00	TOWN PUMP	08	04990	1301 MAIN STREET W
505000-00		7500	1000	300	5300	1100	1900	700					17800.00	49	49	505000-00	DOUG'S TRUE	08	05000	1221 MAIN STREET W
505000-01													0.00	0	0			10		
505000-03													0.00	0	0			10		
505015-00	100	200	200	200	5100	200	400	500	300	200	300	300	8000.00	7	36	505015-00	ELLIOTT REA	08	05015	1219 MAIN STREET W
505015-01													0.00	0	0	505015-01	LINDA'S GIFT	05	05015.00	1219 MAIN STREET W
505020-00	600	500	600	700	700	700	600	700	800	700	600	700	7900.00	20	23	505020-00	MANLEY INC	08	05020	1211 MAIN STREET W
505020-01													0.00	0	0	505020-01	FIRST AMERI	05	05020.00	1211 MAIN STREET W
505030-00	33000	29000	25100	65200	26400	25700	36100	37400	29400	42000	12000	17100	378400.00	1002	1071	505030-00	THOMPSON F	08	05030	1201 MAIN STREET W
505040-00	600	600	600	3400	8800	11800	4200	14000	9200	6800	900	600	61500.00	37	298	505040-00	SANDERS CO	08	05040	1111 MAIN STREET W
505045-01													0.00	0	0	505045-01	SANDERS CO	05	05045	1111 MAIN
505050-00	1300	1300	1200	1500	1200	9800	1400	2100	1400	1200	2000	1400	25800.00	48	93	505050-00	JOHNSON, R	08	05050	1037 MAIN STREET W
505050-01													0.00	0	0	505050-01	LARRY WADS	05	05050.01	101 S JEFFERSON STREET
505051-01													0.00	0	0	505051-01	JOHNSON, R	05	05051	1037 MAIN STREET W
505060-00	700	400	300	1000	400	1200	500	200	400		400	400	5900.00	18	15	505060-00	REX'S THEAT	08	05060	1033 MAIN STREET W
505060-02													0.00	0	0			10		
505070-00	6300	3500	5000	4400	5000	4500	5200	4600	6000	5000	5800	6500	61800.00	174	165	505070-00	CLARK FORK	08	05070	1029 MAIN STREET W
505070-01													0.00	0	0	505070-01	BURLINGAME	05	05070.01	1029 W MAIN STREET
505080-00	100					100			100	100	100	100	600.00	2	2	505080-00	BLACKFOOT	08	05080	1025 MAIN STREET W
505090-00	14300	900	1700	1600	1900	1600	2700	2200	1900	2100	1300	1500	33700.00	118	67	505090-00	EGGENSPER	08	05090	1017 MAIN STREET W
505101-00	1000	1500	3400	4500	4800	2500	2500	2600	1300	2800	4300	2600	33800.00	96	90	505101-00	PROSPECT P	08	05101	1013 MAIN STREET W
505101-01													0.00	0	0	505101-01	BURLINGAME	05	05101.01	1013 W MAIN STREET
505101-02													0.00	0	0	505101-02	SENNE, GEN	05	05101.02	1013 W MAIN STREET - OLD BANK BUILDing
505110-00													0.00	0	0	505110-00	FIRST SECUR	08	05110	1003 MAIN STREET W
505110-01													0.00	0	0	505110-01	THOMPSON F	05	05110.01	1003 W MAIN STREET
505120-00													0.00	0	0	505120-00	BUCHANAN, S	08	05120	925 MAIN STREET W
505120-01													0.00	0	0	505120-01	METWEST MC	05	05120.01	925 MAIN
505130-00	51900	37900	27600	29100	42200	72600	86500	103900	125900	88100	71700	46500	783900.00	1462	2822	505130-00	SEXTON INC.	08	05130	921 MAIN STREET W
505130-01													0.00	0	0	505130-01	BOOMTOWN	05	05130.01	921 MAIN
505140-00	5800	4600	6000	6100	7600	9600	14700	26800	12200	10400	6600	6800	117200.00	198	442	505140-00	PARKER NOL	08	05140	913 MAIN STREET W
505150-00	100	100		400	300	600	300	200	2000	300	200	100	4600.00	5	20	505150-00	MONTANA RA	08	05150	902 MAIN STREET W
505160-01													0.00	0	0	505160-01	THOMPSON F	05	05160	911 MAIN STREET W
505170-00	5900	7100	4100	3500	4600	4700	4000	5200	7800	5100	4000	4500	60500.00	161	171	505170-00	DOUG'S TRUE	08	05170	907 MAIN STREET W
505180-00	800	600	800	600	1100	1400	2000	3500	1900	800	700	800	15000.00	24	58	505180-00	DOUG'S TRUE	08	05180	901 MAIN STREET W - DOUG'S TRUE VAL
505190-00	1200	400	400	800	2500	1000	1200	1300	800	300	800	1000	11700.00	25	39	505190-00	MANLEY, SUE	08	05190	811 MAIN STREET W - FALLS FLORAL
505200-00													0.00	0	0	505200-00	MOSHER, JOH	08	05200	809 MAIN STREET W
505200-01	13400	8900	10600	10100	12600	12600	10500	11300	12600	10700	10800	13000	137100.00	369	382	505200-01	MOTHER LOD	05	05200.01	809 MAIN STREET W
505210-00	7000	4600	7100	7700	9200	9900	6200	7100	11100	5900	6300	7100	89200.00	220	268	505210-00	PLASTER VA	08	05210	807 MAIN STREET W
505220-00	1000	1000	1400	900	1200	1300	1100	1400	1300	1600	1500	1300	15000.00	39	43	505220-00	KARLIN, JAME	08	05220	801 MAIN STREET W
505220-01													0.00	0	0	505220-01	BOONDOGGL	05	05220.00	801 MAIN STREET W
505230-00							11400	16500	14700	6900	400		49900.00	2	269	505230-00	LAI, JERRY	08	05230	709 MAIN STREET W
505230-01													0.00	0	0	505230-01	NEW ASIA	05	05230.00	709 MAIN
505230-02													0.00	0	0	505230-02	NICHOLSON /	05	05230.02	709 MAIN
505230-03													0.00	0	0	505230-03	PING LAI	05	05230.03	709 MAIN
505240-00	27700	3500	2100	2300	1600	1300	3200	800	800	7900	13700	29600	94500.00	436	85	505240-00	FIRST BAPTIS	08	05240	705 MAIN STREET W
505250-01													0.00	0	0	505250-01	TRIPLETT - RI	05	05250	701 W MAIN STREET
505260-01	1000	1500	1300	1300	2000	1300	1600	1900	1800	1800	1600	1300	18400.00	44	57	505260-01	RON'S CHEVF	05	05260	606 MAIN STREET W
505265-00	6700	5400	19800	7200	10300	15400	17300	24300	20700	15000	10700	8100	160900.00	320	560	505265-00	TOTZAUER, D	08	05265	105 BROAD STREET S
505265-02													0.00	0	0	505265-02	BURGER EXP	05	05265.01	105 S BROAD STREET
505270-00	19500	12600	1800	5300	1700	1500	4600	200	6800	16400	7300	25000	102700.00	395	170	505270-00	LITTLE BITTE	08	05270	607 MAIN STREET W
505270-01													0.00	0	0	505270-01	EGGENSPER	05	05270.01	607 W MAIN STREET
505275-00	1300	700	1200	3200	2200	1200	1700	3400	1600	1200	1500	1100	20300.00	50	61	505275-00	THOMPSON, (	08	05275	110 HILL STREET S
505275-01													0.00	0	0	505275-01	MCMURRAY,	05	05275.00	110 S HILL STREET
505275-02													0.00	0	0			10		
505278-00	800	600	800	800	800	900	1500	5000	2700	800	900	800	16400.00	26	64	505278-00	LEUFKENS, E	08	05278	111 BROAD STREET S
505280-00	100	4000	2400	6000	2400	2100	2200	2900	14300	11700	8300	26700	83100.00	262	193	505280-00	EGGENSPER	08	05280	603 MAIN STREET W
505290-00	200		100	100	100		200	100	100	200	100	200	1400.00	4	4	505290-00	EGGENSPER	08	05290	601 MAIN STREET W
505290-01													0.00	0	0	505290-01	FRANKE, ERI	05	05290.00	601 W MAIN STREET
505300-00													0.00	0	0	505300-00	THOMPSON, (	08	05300	105 HILL STREET S
505300-01													0.00	0	0	505300-01	PIERCE ANN	05	05300.00	105 HILL STREET S
505300-02													0.00	0	0	505300-02	THOMPSON, (	05	05300.01	105 HILL STREET S
505300-03													0.00	0	0	505300-03	WELLS FARG	05	05300.02	105 HILL STREET S
505310-00	2700	1800	2400	2200	3000	4900	3200	4000	3700	2600	2800	3200	36500.00	83	116	505310-00	LEUFKENS, E	08	05310	109 HILL STREET S
505320-00	5600	4000	6300	6300	7500	5500	4800	4900	5300	4900	5700	5500	66300.00	185	179	505320-00	THOMPSON, (	08	05320	511 MAIN STREET W
505320-01													0.00	0	0	505320-01	PIERCE, ROE	05	05320.01	511 MAIN
505320-02													0.00	0	0	505320-02	PIERCE, ROE	05	05320.00	511 MAIN STREET W
505321-00	8500	6500	9600	9700	11100	10100	11600	13100	9600	8100	9400	9900	117200.00	296	346	505321-00	THOMPSON, (	08	05321	103 HILL ST
505321-01													0.00	0	0	505321-01	PIERCE, ROE	05	05321.00	511 MAIN STREET W
505330-00				11100	3400	3000							17500.00	61	35	505330-00	STOLZ, COUF	08	05330	505 MAIN STREET W
505330-02	2200	1600	6100				4100	8300	7700	3700	2200	2200	38100.00	79	129	505330-02	WIEGELE JAN	05	05330.02	505 MAIN STREET W
505331-00				200	200	1500							1900.00	1	9	505331-00	STOLZ, COUF	08	05331	507 MAIN STREET W
505331-01													0.00	0	0	505331-01	VALLEY BANK	05	05331.02	507 MAIN STREET
505331-02													0.00	0	0	505331-02	MUD ENTERP	05	05331.01	507 MAIN STREET
505331-03	200	100	300				400	900	900	300	200	200	3500.00	6	14	505331-03	PLANTS GAL(	05	05331.03	507 MAIN STREET W
505340-00	700	600	700	700	800	800	600	4300	500	2300	700	800	13500.00	23	51	505340-00	LONE STAR L	08	05340	501 MAIN STREET W
505350-00		5200	3300	4200	4600	4700	1700	1700	1800	1700	44600	106200	179700.00	903	88	505350-00	PARKER, NO	08	05350	108 FERRY STREET S
505360-00	3600	4800	3300	3700	4200	16400	4200	2800	3500	3400	1900	5400	57200.00	125	188	505360-00	GARRISON, (	08	05360	409 MAIN STREET W
505370-00	2200	1600	1800	800	2700	3100	3800	8400	3700	2300	2100	3100	35600.00	64	130	505370-00	NELSON, PA	08	05370	405 MAIN STREET W
505380-00	2000	1800	2100	3300	5800	5300	3300	6200	4900	4800	4700	5600	49800.00	108	165	505380-00	STOLTZ, STE	08	05380	401 MAIN STREET W
505380-02													0.00	0	0	505380-02	KELLEY, ROE	05	05380.01	401 MAIN STREET W
505390-00													0.00	0	0	505390-00	VINKEY, RAY	08	05390	109 PINE STREET S

505390-01													0.00	0	0	505390-01	DEACON, JE 05	05390.00	109 PINE STREET
505390-02													0.00	0	0	505390-02	PARKS, DAN 05	05390.02	109 S PINE STREET
505390-03													0.00	0	0	505390-03	HENDRICKSC 05	05390.01	109 PINE STREET
505390-04	200		1000	200	600	300	700	15200	3800	300	200	100	22600.00	9	114	505390-04	COVINGTON, 08	05390.01	109 PINE STREET S
505400-00	5000	3800	4600	4200	4500		2300	4400	6700	3300	2800	5200	46800.00	141	115	505400-00	GUTIERREZ, 01	05400	309 MAIN STREET W
505410-00	2200	2100	2400	3400	2500	2600	3300	3400	3100	2500	2300	2200	32000.00	81	95	505410-00	PARKS, DAN 08	05410	303 MAIN STREET W
505420-00	2500	4700	3300	3500	2800	4300	8400	2300	1900	1400	3800	3900	42800.00	120	115	505420-00	SCHAEFER E 08	05420	301 MAIN STREET W
505420-01													0.00	0	0	505420-01	CABRERA RA 05	05420.00	301 MAIN STEET
505422-00	200	200	300	200	300	300	300	300	200	300	300	200	3100.00	8	9	505422-00	HAGEDORN L 08	05422	108 PEARL STREET S
505422-01													0.00	0	0	505422-01	MAKING A WA 05	05422.01	108 PEARL STREET
505422-02													0.00	0	0	505422-02	CHAMBLIN J 05	05422.02	108 PEARL
505425-00	5800	4200	4900	4700	5200	5100	4000	5900	4800	4500	4600	5000	58700.00	161	160	505425-00	RINALDI, MIC 08	05425	109 PEARL STREET S
505425-01													0.00	0	0	505425-01	CHAMBLIN, J 05	05425.01	109 PEARL STREET
505425-03													0.00	0	0	505425-03	CULBERTSON 05	05425.03	109 PEARL STREET
505427-00	6100	3200	2800	3000	5400	12000						3200	35700.00	101	95	505427-00	HUTCHINGS, 08	05427	111 PEARL STREET S
505427-01													0.00	0	0	505427-01	CHEETHAM, 05	05427.01	111 PEARL STREET S
505427-02							4700	1300	1700	3600	4600		15900.00	25	61	505427-02	WHEELER, J 05	05427.02	111 PEARL STREET S
505430-00	4800	3000	2400	2600	3000	3300	4700	6600	8000	5700	5300	5000	54400.00	128	170	505430-00	CHEETHAM, 08	05430	229 MAIN STREET W - LITTLE BEAR
505440-00	400	400	400	500	1300	600	1100	1100	600	400	400	500	7700.00	14	28	505440-00	ENERGY PAR 08	05440	224 MAIN STREET W
505440-01													0.00	0	0	505440-01	MOUNTAIN W 05	05440.00	224 MAIN STREET W
505441-00	5200	4900	5900	5200	6400	8800	6500	21400	14000	6300	5200	5700	95500.00	177	345	505441-00	CAMPBELL, M 08	05441	219 MAIN STREET W
505442-00													0.00	0	0	505442-00	CAMPBELL, M 01	05442	215 MAIN STREET W
505442-01													0.00	0	0	505442-01	KATO JEAN 05	05442.00	215 MAIN
505442-02													0.00	0	0	505442-02	BRONNER, M 05	05442-02	215 W MAIN STREET
505442-03													0.00	0	0	505442-03	WHITEFISH C 01	05442.01	215 MAIN STREET W
505444-00													0.00	0	0	505444-00	CAMPBELL, M 01	05444	201 MAIN STREET W
505444-01													0.00	0	0	505444-01	KELGARD, RC 05	05444.01	201 MAIN
505444-02													0.00	0	0	505444-02	PIERCE, ROE 05	05444.02	201 W MAIN STREET
505444-03													0.00	0	0	505444-03	WHITEFISH C 01	05444.01	201 MAIN STREET W
505460-00	400	300	400	400	17300	500	300	500	600	300	500	400	21900.00	13	106	505460-00	BENNETT DA 08	05460	223 MAIN STREET W
505470-01													0.00	0	0	505470-01	MONTANA RA 05	05470	101 EAST CROSSING
505480-00		1100	500	600	800	1600							4600.00	12	13	505480-00	NORTHWEST 08	05480	1625 MAIDEN LANE
505480-01	18000						14000	30000	23000	6000	5000	22000	118000.00	249	397	505480-01	PPL 05	05480.01	1625 MAIDEN LANE
505481-00					300	1000							1300.00	0	7	505481-00	NORTHWEST 08	05481	1517 MAIDEN LANE
505481-01							2500	8900	7000	400	100		18900.00	1	102	505481-01	PPL 05	05481.01	1517 MAIDEN LANE
505482-00	4600	4200	4400	4000	5100	15000	13600	21900	23300	6000	5000	5400	112500.00	152	461	505482-00	BURKY, BRIA 08	05482	1611 MAIDEN LANE
505490-00	500	600	500	500	500	600	1100	20700	8900	1000	600	600	36100.00	18	178	505490-00	DEMMONS, H 08	05490	1622 MAIDEN LANE
505490-01													0.00	0	0	505490-01	PHILLIPS, CR 05	05490.01	1622 MAIDEN LANE
505500-00			1200	4200	4400	7500	2200	3500	2000				25000.00	30	107	505500-00	LIONS MANOI 08	05500	1600 MAIDEN LANE
505510-00	1900	1500	2300	1500	1700	100	2500	14100	3300	2000	1900	1700	34500.00	60	129	505510-00	BKP PROPER 08	05510	1520 MAIDEN LANE
505510-01													0.00	0	0	505510-01	MCROBERTS 05	05510.01	1520 MAIDEN LANE
505520-00													0.00	0	0	505520-00	GIFFIN, NICH 08	05520	115 POND STREET S
505520-01								200					200.00	0	1	505520-01	STRANG, DA 05	05520.01	115 POND STREET S
505520-02													0.00	0	0	505520-02	USDA, RURAL 08	05520.01	115 POND STREET S
505530-01													0.00	0	0	505530-01	MONTANA PC 05	05530	124 S POND
505540-01													0.00	0	0	505540-01	MONTANA PC 05	05540	114 S POND & 118 S POND
505550-00	3200	3200	3000	2500	4900	10400	4400	4600	2900	3500	5500	5200	53300.00	125	167	505550-00	LOVELL, RAN 08	05550	1507 MAIDEN LANE
505550-01													0.00	0	0	505550-01	MORROW GA 05	05550.01	1507 MAIDEN LANE
505560-00	3700	3300	1500	400	3500	3600	3100	13700	7500	3200	3900	800	48200.00	75	188	505560-00	FREEMAN, W 08	05560	1506 MAIDEN LANE
505560-01													0.00	0	0	505560-01	GRIFFIN, KEN 05	05560.00	1506 MAIDEN LANE
505570-01													0.00	0	0	505570-01	PARKER, FRA 05	05570	1510 1/2 MAIDEN LANE
505580-00	3700	4200	3900	9200	3600	13800	6400	22100	11700	4500	3600	4600	91300.00	161	338	505580-00	PARKER, FRA 08	05580	1512 1/2 MAIDEN LANE
505590-00													0.00	0	0	505590-00	FREED, CELIA 08	05590	1417 MAIDEN LANE
505590-01	400	800	900	700	600	1400	19400	40300		84000	11600	800	160900.00	84	792	505590-01	MOORE, MYF 05	05590.01	1417 MAIDEN LANE
505600-00	7700	5600	7100	6100	8300	10000	7600	6100	7900	7800	7700	7900	89800.00	233	259	505600-00	HAGEDORN, 08	05600	204 LINCOLN STREET S
505600-03													0.00	0	0	505600-03	MCKENZIE B 05	05600.03	204 S LINCOLN
505610-00							2000						2000.00	0	11	505610-00	FISHER, A. F 08	05610	208 LINCOLN STREET S
505620-00							300						300.00	0	2	505620-00	BLAIR, IRENE 08	05620	214 LINCOLN STREET S
505630-00	5500	4400	6100	5800	6600	6500	3300	8000	6400	4800	5000	6300	68700.00	183	193	505630-00	BAXTER, ROE 08	05630	211 LINCOLN STREET S
505630-01													0.00	0	0	505630-01	BAXTER, MIC 05	05630.00	211 LINCOLN STREET S
505640-01													0.00	0	0	505640-01	COX, BEN & 05	05640	212 1/2 LINCOLN STREET S
505650-00	4000	3700	4800	3500	5200	4600	3500	4800	5300	4700	12000	4200	60300.00	178	153	505650-00	BLAIR, IRENE 08	05650	216 LINCOLN STREET S
505660-01													0.00	0	0	505660-01	ARNOLD, RO 05	05660.00	1319 MAIDEN LANE
505660-02													0.00	0	0	505660-02	BRICKZIN, RC 05	05660.02	1319 MAIDEN LANE
505670-00	2500	2100	2200	2400	2800	3000	2400	2800	2800	2700	2700	2500	30900.00	80	90	505670-00	BRICKZIN, B 08	05670	1309 MAIDEN LANE
505690-01	49700	15200	18700	21600	41000	33100	41000	146000	76600	39500	33700	28600	544700.00	925	2050		10		
505690-04													0.00	0	0	505690-04	FALLS MOTEL 05	05690	112 GALLATIN STREET S
505690-M1	2800	1800	2200	3300	11700	9300	14100	92400	33500	15200	6100	3800	196200.00	110	958	505690-M1	FALLS MOTEL 08	0569001	112 GALLATIN STREET S
505690-M2	13300	10300	12400	14200	23600	18300	20400	46700	35700	18600	21100	17900	252500.00	493	888	505690-M2	FALLS MOTEL 08	0569002	112 GALLATIN STREET S
505690-M3	6500	3100	4100	4100	5700	5500	6500	6900	7400	5700	6500	6900	68900.00	172	205	505690-M3	FALLS MOTEL 08	0569003	112 GALLATIN STREET S
505700-00					100	700							800.00	0	4	505700-00	HOWE, BETTY 08	05700	200 GALLATIN STREET S
505700-01	3500	2400	1600				100	3500	4900	3300	2900	4000	26200.00	80	64	505700-01	SHARP, RON 05	05700.01	200 GALLATIN STREET S
505710-00	1100	500	10500	3900	6100	5100	4100	17100	4400	5200	5300	4600	67900.00	143	228	505710-00	HICKOK, CAR 08	05710	206 GALLATIN STREET S
505720-00	2500	300	600		500	4500	900	25300	2000	1400	700	1200	39900.00	29	188	505720-00	MUSTER, JO 08	05720	215 GALLATIN STREET S
505730-00	1000		500	800	500	700	1400	16600	900	700	800	1600	25500.00	26	113	505730-00	MUSTER, JO 08	05730	213 1/2 GALLATIN STREET S
505740-00	3900	3100	3900	3200	5300	7300	5700	13400	8000	2100	3500	3600	63000.00	117	227	505740-00	OSWALD STE 08	05740	203 GALLATIN STREET S
505745-00	700	600	800	800	1300	1200	700	1000	1200	900	900	800	10900.00	25	34	505745-00	VALLEY BANK 08	05745	1222 MAIDEN LANE
505750-00	5300	3900	4400	4500	5000	5900	5600	7700	9000	5200	5300	4900	66700.00	156	209	505750-00	MUSTER, JO 08	05750	1215 MAIDEN LANE
505760-01													0.00	0	0	505760-01	BARNES SAL 05	05760	110 1/2 & 112 1/2 MADISON
505770-00													0.00	0	0	505770-00	SMITH, MARI 08	05770	1211 MAIDEN LANE
505780-00	1400	800	1300	1300	1400	1500	1200	1500	1600	1800	1300	1300	16400.00	41	49	505780-00	OTTEN, DOU 08	05780	1203 MAIDEN LANE
505790-00	2900	900	1200	1000	2300	2300	2900	3400	3600	2500	1200	1300	25500.00	47	92	505790-00	STYGER, CA 08	05790	1204 MAIDEN LANE
505800-00	3000	2100	2700	2300	2700	2800	2700	3100	2700	2300	2600	2800	31800.00	86	89	505800-00	KERSTEN, LY 08	05800	206 MADISON STREET S
505800-01													0.00	0	0	505800-01	LEUFKENS, E 05	05800.01	206 S MADISON
505800-02													0.00	0	0	505800-02	ELLIOTT, GE 05	05800.02	206 S MADISON
505800-03													0.00	0	0	505800-03	ROBERTS, D 05	05800.03	206 S MADISON STREET
505811-00	10300	6200	6300	8600	7800	10100	7600	7000	7400	6600	7100	9600	94600.00	266	253	505811-00	MY INVESTME 08	05811	210 MADISON STREET S
505820-00		500		300	500	1000	2600	5300	500	900	300	400	12300.00	8	59	505820-00	YURCZYK, F 08	05820	207 MADISON STREET S
505830-00	1600	1600	1800	1800	1700	2000	1400	3900	1700	1700	2000	1200	22400.00	55	67	505830-00	MORRIN, DIA 08	05830	1119 MAIDEN LANE
505850-00													0.00	0	0	505850-00	JENKS ENTEF 08	05850	108 MADISON STREET S
505850-01													0.00	0	0	505850-01	MORRISON A 05	05850.01	108 S MADISON STREET
505850-02							200	400	700				1300.00	0	7	505850-02	RUMMEL, JIM 05	05850.02	108 MADISON STREET S
505850-03	300	200	300	200	400	300				300	200	300	2500.00	8	5	505850-03	FIRST SECUR 05	05850.03	108 MADISON STREET S
505860-00	5900	4500	5800	5200	4900	6300	7300	8100	6200	4900	7400	7000	73500.00	198	205	505860-00	SANDERS CO 08	05860	1115 MAIN STREET W
505870-00	4300	3000	3900	3200	4700	5900	3200	3900	6900	4300	3700	4200	51200.00	123	157	505870-00	LEUFKENS, E 08	05870	1111 MAIDEN LANE
505870-02													0.00	0	0	505870-02	MORRIN, DIA 05	05870.02	1111 MAIDEN LANE
505880-00		2000	1400	1400	1700	5800	2300	1900	4300	7400	1300	1900	31400.00	44	127	505880-00	ELLIOTT GEC 08	05880	1105 MAIDEN LANE
505880-01													0.00	0	0	505880-01	BAXTER ELS 05	05880.01	1105 MAIDEN LANE
505890-00													0.00	0	0	505890-00	LEUFKENS, B 08	05890	1101 MAIDEN LANE
505890-01	5500	2900	3500	2900	3700	5600	12800	43700	13900	5400	3600	4200	107700.00	125	463	505890-01	HEATER, RIC 08	05890.01	1101 MAIDEN LANE
505900-00					400	3100		5200	2000	1500			12200.00	0	66	505900-00	SANDERS CO 08	05900	1111 MAIN STREET W

505901-00													0.00	0	0	505901-00	SANDERS CO	08	05901	109 MADISON STREET S
505910-00	3400	6400	7500	7700	7000	6400	14500	54500	10800		1500	1900	121600.00	157	507	505910-00	VAUGHN, VIR	08	05910	107 JEFFERSON STREET S
505910-01													0.00	0	0	505910-01	SHOEMAKER,	05	05910.01	107 JEFFERSON STREET S
505920-00													0.00	0	0	505920-00	VAUGHN, VIR	08	05920	107 1/2 JEFFERSON STREET S
505920-01													0.00	0	0	505920-01	SHOEMAKER,	05	05920.01	107 1/2 JEFFERSON STREET S
505930-00						100	2000	10600	700	3300	400		17100.00	2	91	505930-00	PODRAT, GA	08	05930	1020 MAIDEN LANE
505940-00	4300	3600	3800	2700	3000	3400	500	2700	3200	3200	3200	3800	37400.00	118	87	505940-00	DICKMAN, LY	08	05940	1015 MAIDEN LANE
505950-00													0.00	0	0	505950-00	SAKASKE, ST	08	05950	1016 MAIDEN LANE
505950-01													0.00	0	0	505950-01	JENSEN, HAF	05	05950.01	1016 MAIDEN LANE
505950-02	900	500	700	1100	1900	3500	3000	4200	6500	2100	1600	600	26600.00	30	115	505950-02	MOREHOUSE	05	05950.02	1016 MAIDEN LANE
505960-00	3600	2900	3400	4100	5300	7600	3000	5100	3100	7800	3600	3600	53100.00	117	173	505960-00	ELLIOTT, LYN	08	05960	1014 MAIDEN LANE
505960-01													0.00	0	0	505960-01	HUXFORD, JI	05	05960.01	1014 MAIDEN LANE
505960-02													0.00	0	0	505960-02	BURWELL, EF	05	05960.00	1014 MAIDEN LANE
505970-00	5700	3900	4500	5000	6600	6700	4000	6700	7400	5000	4800	6100	66400.00	166	198	505970-00	CALVERT, R(	08	05970	1003 MAIDEN LANE
505990-01													0.00	0	0	505990-01	CITY OF THOI	05	05990	1006 MAIDEN LANE
506000-00	400	300	300	300	1200	2200	3200	5000	12500	4400	300	400	30500.00	11	155	506000-00	FIRST SECUR	08	06000	107 FULTON STREET S
506000-01													0.00	0	0	506000-01	FIRST STATE	05	06000.01	107 FULTON STREET
506010-00													0.00	0	0	506010-00	FIRST SECUR	01	06010	917 919 MAIDEN LANE
506010-01													0.00	0	0	506010-01	THOMPSON F	05	06010.01	917 919 MAIDEN LANE
506020-00	5600	3800	4400	4100	6100	4800	11400	21100	16700	3400	4400	5800	91600.00	155	345	506020-00	HOYT, TIM	08	06020	905 MAIDEN LANE
506030-01													0.00	0	0	506030-01	NELSON JES	05	06030	109 MILL,SHOP-107
506040-01													0.00	0	0	506040-01	NELSON JES	05	06040	114 S COLUMBIA
506050-01													0.00	0	0	506050-01	SCHROEDER	05	06050	103 S MILL STREET
506052-00	6500	5400	5500	5100	7200	8500	5000	5600	6500	5100	6100	7600	74100.00	200	206	506052-00	SCOTT, RICH	08	06052	107 MILL STREET S
506053-00	1400	900	1800	1100	900	800	4200	7600	4900	3500	2400	1100	30600.00	48	119	506053-00	BRONNER, M.	08	06053	109 MILL STREET S
506053-01													0.00	0	0	506053-01	WOOD DALE	05	06053.01	109 MILL STREET
506053-02													0.00	0	0	506053-02	SIMPSON, LI	05	06053.02	109 MILL STREET
506055-00													0.00	0	0	506055-00	BRONNER, M.	08	06055	108 BROAD STREET S
506055-01													0.00	0	0	506055-01	PARKER, NO	05	06055.01	108 S BROAD STREET
506060-00	2200	1200	1300	1400	2200	1600	2000	2300	2000	1300	1200	1600	20300.00	49	62	506060-00	BOWER JOSE	08	06060	109 COLUMBIA STREET S
506060-01													0.00	0	0	506060-01	MCCUAIG, JA	05	06060.01	109 S COLUMBIA STREET
506060-02													0.00	0	0	506060-02	SPARKS, AM'	05	06060.02	109 S COLUMBIA
506060-03													0.00	0	0	506060-03	THOMAS, MIC	05	06060.00	109 S COLUMBIA STREET
506060-04													0.00	0	0	506060-04	MCCUAIG, JA	05	06060.03	109 COLUMBIA STREET S
506070-00													0.00	0	0	506070-00	TERRY, MICH	08	06070	110 COLUMBIA STREET S
506070-01													0.00	0	0	506070-01	KINDRED, SA	05	06070.01	110 S COLUMBIA STREET
506070-02													0.00	0	0	506070-02	SHEAR MIKE	05	06070.02	110 S COLUMBIA
506075-00													0.00	0	0	506075-00	HANNUM, MA	08	06075	114 COLUMBIA STREET S
506075-01	2800	2200	3300	2500	4100	20600	2800	6600	7900	3900	3500	3200	63400.00	97	249	506075-01	SCOTT, RICH	05	06075.01	114 COLUMBIA STREET S
506080-00	2700	1600	2400	2300	2200	2800	1900		14400	1900	1200	2800	36200.00	72	126	506080-00	SHEAR, MICH	08	06080	712 MAIDEN LANE
506100-00	900	800	900	1000	1100	1100	800	3000	1100	1000	1100	1000	13800.00	31	44	506100-00	WESTERN MC	08	06100	704 MAIDEN LANE
506110-00	3300	2800	1800	2000	3200	2200	2200	2500	2700	2100	2600	2600	30000.00	83	81	506110-00	LEUFKENS, E	08	06110	115 BROAD STREET S
506110-01													0.00	0	0	506110-01	MARTIN R E	05	06110.00	115 S BROAD ST
506120-00	2000	600	500		300	1700	3100	22300	6100	5000	700	1200	43500.00	28	209	506120-00	LORD, DONAL	08	06120	109 BROAD STREET S
506120-01													0.00	0	0	506120-01	LORD, DAN	05	06120.00	109 BROAD STREET S
506150-00													0.00	0	0	506150-00	SCHILLING, D	08	06150	1006 CHURCH STREET
5804951-01													0.00	0	0	5804951-01	HARLAN DOU	00	NONE	FIRE HYDRANT- CORNER OF HWY 200 & P
600091-01													0.00	0	0			10		
600093-01													0.00	0	0			10		
600095-01													0.00	0	0	600095-01	TWO RIVERS	06	00095	995 MOUNT SILCOX DRIVE
600097-01													0.00	0	0	600097-01	TWO RIVERS	06	00097	997 MOUNT SILCOX DRIVE
600240-01													0.00	0	0	600240-01	OLIVER DAVI	06	00240	1199 MT SILCOX DRIVE
600255-01													0.00	0	0	600255-01	JOKERST CH	06	00255.00	708 SOUTHWOOD COURT
600263-01													0.00	0	0	600263-01	KONEN TOM	06	00263.01	715 SOUTHWOOD COURT
600268-01													0.00	0	0	600268-01	HANSON, TO	06	00268.01	720 SOUTHWOOD COURT
600270-00	800	300	800	700	300	1200	500	6000		2200	700	100	13600.00	19	55	600270-00	SHEPHERD O	08	002701	1192 MOUNT SILCOX DRIVE
600270-01													0.00	0	0	600270-01	SAGE WOOD	06	00270.00	1192 MOUNT SILCOX DRIVE
600270-02													0.00	0	0	600270-02	SANDERS CO	06	00270.01	1192 MOUNT SILCOX DRIVE
600270-03													0.00	0	0	600270-03	LARSEN BAR	06	00270.02	1192 MOUNT SILCOX DRIVE
600410-02													0.00	0	0	600410-02	HAAS, JAREI	06	00410	604 ASPEN COURT
600602-00	3000	3600	3800	3900	3300	5300	7400	11700	6500	4000	3500	3900	59900.00	120	208	600602-00	COLEMAN, A\	08	00602	602 ASPEN COURT
600602-01													0.00	0	0	600602-01	REIMER, JAS	06	00602.01	602 ASPEN COURT
600604-00	2800	2700	3100	4200	6200	16700	6900	30100	28700	14000	6700	3100	125200.00	125	558	600604-00	WALWER, GF	08	00604	608 ASPEN COURT
600605-00	2900	2500	3600	3800	16200	25900	6400	20500	7400	28000	4800	3600	125600.00	117	567	600605-00	RICKERT, KEI	08	00605	605 Aspen
600605-01													0.00	0	0	600605-01	ZANDER, LYI	06	00605.01	617 church street
600708-00	2400	2200	3400	2600	35900	51400	25000	90800	41900	49600	5300	4200	314700.00	111	1601	600708-00	MARICH, KAY	03	04200.01	713 SOUTHWOOD COURT
600711-00	2400	2200	2400	2600	22500	47300	36900	80700	34700	22600	3400	2700	260400.00	87	1330	600711-00	MARKQUART,	08	00711	605 ASPEN COURT
600712-00					4800	6400							11200.00	0	61	600712-00	FISHER, KRIS	08	00712	712 SOUTHWOOD COURT
600712-01	3400	3200	3200	4900			1600	1800	300	3400	2900	3700	28400.00	118	39	600712-01	MCKEEN, JEF	06	00712.01	712 SOUTHWOOD COURT
600715-00													0.00	0	0	600715-00	PARDEE, SCC	08	00715	715 SOUTHWOOD COURT
600715-01	5100	5400	6000	5300	5700	35400	18400	20400	19800	23500	7700	5600	158300.00	194	670	600715-01	HOJEM, RAN	06	00715.01	715 SOUTHWOOD COURT
600716-00	5400	4300	4100	4600	5400	19600	23300	53500	24900	10300	5200	5400	166000.00	160	745	600716-00	MORGAN, SH	08	00716	716 SOUTHWOOD COURT
600716-01													0.00	0	0	600716-01	FRIEDMAN, (	06	00716.00	716 SOUTHWOOD COURT
600720-00													0.00	0	0	600720-00	ENGEBERG, (	08	00720.1	720 SOUTHWOOD COURT
600720-01	600	900	1300	1300	1500	15500	21100	23000	21200	11900	1200	900	100400.00	34	512	600720-01	MCGUYER, M	06	00720.01	720 SOUTHWOOD COURT
600720-02													0.00	0	0	600720-02	TAYLOR, RICI	06	00720.02	720 SOUTHWOOD COURT
600720-03													0.00	0	0	600720-03	MCGUYER, M	08	00720.01	720 SOUTHWOOD COURT
600721-00	1000	1100	1100	1000	7800	45200	14400	67000	40000	800	1100	1400	181900.00	37	952	600721-00	FAIRBANK, R/	08	00721	721 SOUTHWOOD COURT
600721-01													0.00	0	0	600721-01	VANTASSEL (	06	00721.01	721 SOUTHWOOD COURT
600723-00	9300	7200	7700	7800	9700	25500	7300	35100	11000	9400	8100	9100	147200.00	272	533	600723-00	HANLEY, RY/	08	00723	723 SOUTHWOOD COURT
601107-00	1100	1400	1300	1200	1400	3100	5300	5700	5000	400	4400	1300	31600.00	59	114	601107-00	JEHOVAH'S W	08	01107	1107 MOUNT SILCOX DRIVE
601191-00	200	400		1000			300	200	200	300	300	300	3200.00	12	5	601191-00	THOMPSON F	08	01191	1191 MOUNT SILCOX DRIVE
601199-00	12000	10600	12000	10600	12900	18900	800	44700	14700	13700	12000	12300	175200.00	384	574	601199-00	WILHITE, DAV	08	01199	1199 MOUNT SILCOX DRIVE
601199-01													0.00	0	0	601199-01	CLARIDGE, D	06	01199.01	1199 MOUNT SILCOX DRIVE
601199-02													0.00	0	0	601199-02	WILHITE, DA	06	01199.02	1199 MOUNT SILCOX DRIVE
601199-03													0.00	0	0	601199-03	JP MORGAN (	06	01199.03	1199 MOUNT SILCOX DRIVE
601209-00	5700	7000	5800	6300	8700	66000	72900	78500	47000	31700	6000	6700	342300.00	207	1657	601209-00	LEISCHNER, I	08	01209	1209 MOUNT SILCOX DRIVE
601209-01													0.00	0	0	601209-01	ENGEBRETS(	06	01209.00	1209 MOUNT SILCOX DRIVE
601219-00													0.00	0	0	601219-00	HOFF, RAYM(	08	01219	1219 MOUNT SILCOX DRIVE
601219-01	3000	4200	3900	4300	18300	43500	37700	72400	37800	60800	4600	4800	295300.00	137	1470	601219-01	SYMON, RAN	08	01219.01	1219 MOUNT SILCOX DRIVE
601220-00			1600	3300	15800	37200	31000	54100	41200	31600	7300		223100.00	67	1146	601220-00	SLAGLE, JAM	08	012201	704 SOUTHWOOD COURT
601229-00	5300	4200	4100	4900	8900	4600			34400	2700	2500	10500	82100.00	174	275	601229-00	FRANCK, NICI	08	01229	1229 MOUNT SILCOX DRIVE
601229-01													0.00	0	0	601229-01	BROWN, SHA	06	01229.01	1229 MOUNT SILCOX DRIVE
601229-02							6200	6800					13000.00	0	71	601229-02	WHITEFISH C	06	01229.02	1229 MOUNT SILCOX DRIVE
601800-00													0.00	0	0	601800-00	HANDFORD, I	08	018001	1800 PINE TREE HOLLOW
601800-01	3900	3300	3400	4000	4300	4100	4100	4500	3800	4400	3900	3200	46900.00	120	137	601800-01	HURST, JAME	06	01800.01	1800 PINE TREE HOLLOW
601801-00					7500	20900	12000	35000	23200	16300			114900.00	0	624	601801-00	PINE TREE H(	08	01801	1801 PINE TREE HOLLOW - GREENS
601802-00	4600	4800	6300	4000	6900	14200	4200	4300	1700	2100	3500	4900	61500.00	155	182	601802-00	BROWN, NAN	08	01802	1802 PINE TREE HOLLOW
601802-01													0.00	0	0			10		
601804-01													0.00	0	0			10		
601806-01													0.00	0	0			10		

601808-00				500	100	700	800	600	600	700	600		4600.00	6	19	601808-00	LINZMAIER, P	08	01808	1808 PINE TREE HOLLOW
601810-00	2000	2600	1200	2300	2000	1800	1800	7200	2700	3400	1400	1800	30200.00	62	103	601810-00	SOLLIE, BARE	08	018101	1810 PINE TREE HOLLOW
601810-01													0.00	0	0	601810-01	WOLF, KARE	06	01810.01	1810 PINE TREE HOLLOW
601812-00	1800	2000	1900	2300	2000	3300	5700	8500	10500	3500	1900	1900	45300.00	65	182	601812-00	SHOEMAKER,	08	01812	1812 PINE TREE HOLLOW
601812-01													0.00	0	0	601812-01	MORBELLA, J	06	01812.01	1812 PINE TREE HOLLOW
601814-00	3300	3300	3200	3800	4200	6000	4100	7100	3900	5900	2900	3300	51000.00	109	170	601814-00	ARNOLD, ROI	08	01814	1814 PINE TREE HOLLOW
601814-01													0.00	0	0	601814-01	TWO RIVERS	06	01814.00	1814 PINE TREE HOLLOW
601816-00	1600	1300	1300	1500	1500	1700			100	1400	1600	1500	13500.00	49	26	601816-00	ALDRICH, FR/	08	01816	1816 PINE TREE HOLLOW
601816-02													0.00	0	0	601816-02	SHEPHERD, .	06	01816.01	1816 PINE TREE HOLLOW
601818-00	6000	4800	5000	5300	8600	8800	5000	15800	9600	8200	5300	5900	88300.00	178	304	601818-00	TRUDGEN, D/	08	01818	1818 PINE TREE HOLLOW
601818-01													0.00	0	0			10		
601900-00	2200	2000	1900	1700	1300	2400	2200	13400	2400	1500	3000	3000	37000.00	76	126	601900-00	BARNES, BRI	08	019001	1900 PINE TREE HOLLOW
601900-01													0.00	0	0	601900-01	TWO RIVERS	06	01900.01	1900 PINE HOLLOW
601902-00			100			14000		100					14200.00	1	77	601902-00	THURMAN, W	08	01902	1902 PINE TREE HOLLOW
601902-01													0.00	0	0	601902-01	KOSTKA, KAT	06	01902.00	1902 PINE TREE HOLLOW
601902-02													0.00	0	0	601902-02	DUNBAR SAI	06	01902.01	1902 PINE TREE HOLLOW
601904-00	2200	2000	1900	2100	3900	6000					14400	2300	34800.00	138	54	601904-00	GLADE, SHIRI	08	01904	1904 PINE TREE HOLLOW
601904-02													0.00	0	0			10		
601906-00					2100	1800							3900.00	0	21	601906-00	NETZ, ALAN &	08	01906	1906 PINE TREE HOLLOW
601906-02													0.00	0	0	601906-02	TWO RIVERS	06	01906.02	1906 PINE TREE HOLLOW
601908-00						1300							1300.00	0	7	601908-00	BLOOM, ROSI	08	01908	1908 PINE TREE HOLLOW
601908-01													0.00	0	0	601908-01	PINE TREE H(	06	01908.00	1908 PINE TREE HOLLOW
601908-02													0.00	0	0	601908-02	GERALD, JEF	06	01908.01	1908 PINE TREE HOLLOW
601908-03	2700	2600	2500	3100	2200		1700	2800	2000	4200	2800	3500	30100.00	95	70	601908-03	MC CLINTOCI	06	01908.02	1908 PINE TREE HOLLOW
601910-00													0.00	0	0	601910-00	WALKER, JIMI	08	01910.1	1910 PINE TREE HOLLOW
601910-01													0.00	0	0	601910-01	TWO RIVERS	06	01910.00	1910 PINE TREE HOLLOW
601910-02	9700	9500	9300	9700	11800	15000	10300	12200	11800	12800	9500	11100	132700.00	325	402	601910-02	JONES, BRUC	06	01910.01	1910 PINE TREE HOLLOW
700012-00		2500											2500.00	14	0	700012-00	NEBEKER, CL	08	00012	2414 CAPSTONE COURT
700012-01													0.00	0	0	700012-01	CHAMBERS, I	07	00012.00	2414 CAPSTONE COURT
700012-02													0.00	0	0	700012-02	SENN, MARILI	07	00012.01	2414 CAPSTONE COURT
700012-03													0.00	0	0	700012-03	HURD-BUSH I	07	00012.02	2414 CAPSTONE COURT
700012-04													0.00	0	0	700012-04	AMERICAN DI	07	00012.03	2414 CAPSTONE COURT
700040-00													0.00	0	0	700040-00	SCHUBERT, F	08	00040.1	2413 CAPSTONE COURT
700040-01													0.00	0	0	700040-01	CHAMBERS,	07	00040.00	2413 CAPSTONE COURT
700040-02													0.00	0	0	700040-02	AMERICAN DI	07	00040.01	2413 CAPSTONE COURT
700040-03	2100	3200	2100	3400	4900	16600	15200	18500	16100	11100	4000	2100	99300.00	93	448	700040-03	BENSON, MIC	08	00040.01	2413 CAPSTONE COURT
700041-00							1000	2800	2800	400			7000.00	0	38	700041-00	YEAGER, ERI	08	00041	2419 CAPSTONE COURT
700050-00	1200	1200	1300	2200	2400	1900	800	1300	1100	1300	1600	1500	17800.00	50	48	700050-00	INKS JR, HOV	08	00050.1	2503 MOSSY ROCK COURT
700050-01													0.00	0	0	700050-01	NEMES, WILL	07	00050.01	2503 MOSSY ROCK COURT
700053-00	2300	2000	2100	2700	8300	7300	4600	11000	8000	4700	2500	2700	58200.00	79	239	700053-00	LAWRENCE, I	08	00053	2620 CORNERSTONE ROAD
700053-01													0.00	0	0	700053-01	THORNTON, I	07	00053.01	2620 CORNERSTONE ROAD
700054-00						500	200	300	200	300	300	100	1900.00	2	8	700054-00	CARMOUCHE	08	00054	2611 CORNERSTONE ROAD
700060-00	2100	7400	3000	2100	7100	21200	11300	31600	20000	15300	2800	2300	126200.00	109	579	700060-00	FIELDS, SHEI	08	00060.1	2715 CORNERSTONE ROAD
700061-00													0.00	0	0	700061-00	TAYLOR, GAY	08	00061	2719 CORNERSTONE ROAD
700061-01													0.00	0	0	700061-01	MOONEY, RIC	07	00061.00	2719 CORNERSTONE ROAD
700061-02	1500	1600	1200	1700	2700	4300	2300	10500	6200	6200	2300	1900	42400.00	56	175	700061-02	ASCHER, THC	07	00061.01	2719 CORNERSTONE ROAD
700063-00	4600	2300	1600	2300	700	5900	5200	9300	4500	7400	4700	3900	52400.00	107	179	700063-00	KNUTSON, R(	08	00063	2727 CORNERSTONE ROAD
700075-01													0.00	0	0			10		
700080-00	2400	2800	5500	7800	5800	6700	13200	22400	12700	10200	12600	13900	116000.00	249	386	700080-00	RIMROCK LOI	08	000801	4946 HWY 200
Month Total	2326300	2028200	2025100	2209400	2968300	4966800	4201700	9682200	6412900	4365900	3024600	2648200	46859600	54	121					
Avg day (gpd)	75041.94	72435.71	65325.81	73646.67	95751.61	165560	135538.7	312329	213763.3	140835.5	100820	85425.81	128382.47							
PerConnection (gpd)	132.1	126.0	114.2	126.3	159.9	275.9	223.7	518.0	357.5	236.3	171.2	148.6	87.9							

Account 2016	Jan	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec		winter	summer					
	31	28	31	30	31	30	31	31	30	31	30	31	365	181	184					
														(avg gpd)	(avg gpd)					
000000-02													0.00	0	0					
100005-00	1100	1500	4000	4000	4000	1500	10900	1500	1200	2300	1200	500	33700.00	68	116	100005-00	THOMPSON FALLS ASSEMBLY OF GOD	08	00005	1124 PRESTON AVENUE W
100010-00	2200	5100	600	600	6100	16600	30200	9300	1600	1000	1800	1700	76800.00	66	352	100010-00	ASSEMBLY OF GOD CHURCH	08	00010	1120 PRESTON AVENUE W
100015-00						18300	36600	10200	9000	9000	8100	7400	98600.00	86	452	100015-00	ASSEMBLY OF GOD CHURCH	08	00015	1122 PRESTON AVENUE W
100020-00	6800	8000	8000	4000	4000		15300	30200	29100	10500	8700	9400	134000.00	248	484	100020-00	SKINNER MARK & SANDRA	08	00020	1106 PRESTON AVENUE W - HOUSE
100030-00	4400	2100	2600	2600	4200	4100	4500	8700	12600	6500	3000	5500	60800.00	112	221	100030-00	HENSYEL RICKEY	08	00030	1114 PRESTON AVENUE W
100040-00	400	2200	2100	2100	3400	4600	4000	6000	7200	2600	2000	2400	39000.00	62	151	100040-00	MARICH, ADRIENNE	08	00040	102 WOOD STREET
100050-00	1800	2100	2400	2400	3100	10500	10500	18000	15900	3000	1500	2100	73300.00	68	332	100050-00	INGRAHAM, LYNN C & JUDY P	08	00050	207 WOOD STREET
100050-01													0.00	0	0	100050-01	CHASE HOME FINANCE LLC	01	00050.01	207 WOOD STREET
100050-02													0.00	0	0	100050-02	PISCITELLO, RICHARD	01	00050.02	207 WOOD STREET
100050-03													0.00	0	0	100050-03	NORMAN, MELVIN D. & JOANN	01	00050.00	207 WOOD STREET
100060-00	1900	3900	2200	2000	5500	9100	6700	7700	6500	3400	3600	4200	56700.00	98	211	100060-00	SNYDER JOEL L	08	00060	214 WOOD STREET
100060-01													0.00	0	0	100060-01	WIDNER, BILL & PAULA	01	00060.00	214 WOOD STREET
100065-00					4000		6400	8800	11600	2200			33000.00	0	179	100065-00	RAYMOND, JOHN & JUDY	08	00065	213 WOOD STREET
100070-00						100	13900	16100	9100		200		39400.00	1	213	100070-00	TOMAS, SAMUEL J & MARCELLA R	08	000700	210 WOOD STREET
100070-01													0.00	0	0	100070-01	PARKER, NOLAN	01	00070.01	210 WOOD STREET
100080-00					4000		9900	10400	5000		100		29400.00	1	159	100080-00	TOMAS, SAMUEL & MARCELLA	08	00080	1014 OGDEN AVENUE W
100090-00								12800	9100	7400	5900	6400	41600.00	68	159	100090-00	PAVLIK, MATTHEW & CRYSTAL	08	00090	217 WOOD STREET
100090-01													0.00	0	0	100090-01	TAYLOR GARVIN	01	00090.01	217 WOOD STREET
100090-02	1300	23400	8000	8000	9700	8800	12400						71600.00	225	168	100090-02	HAINES, FRED I & JUDY L	08	00090.01	217 WOOD STREET
100100-00	2300	20600	11300	1200		500	900		300		100	1400	38600.00	204	9	100100-00	BROWN RAYMOND SCOTT AND BROWN ROBERT WILLIAM	08	00100	220 WOOD STREET
100100-01													0.00	0	0	100100-01	BROWN, DOROTHY	01	00100.01	220 WOOD STREET
100110-00	4200	4600	4100	4000	4000		28300	32200	38700	6000	4100	4400	134600.00	140	593	100110-00	COLE, BRIAN & NEYLA	08	00110	1210 HALEY AVENUE W
100120-00	100				4000		200	900	3700	800			9700.00	1	52	100120-00	MARGELIN, ELIZABETH	08	00120	1214 HALEY AVENUE W
100130-.0													0.00	0	0	100130-.0	PPL	01	00130	1111 HALEY AVENUE W
100130-01													0.00	0	0	100130-01	MCNAIR JESSICA & CHAMBLIN NATE	01	00130.00	1111 HALEY AVENUE W
100130-03													0.00	0	0			10		
100130-04													0.00	0	0			10		
100140-.0													0.00	0	0	100140-.0	PPL	01	00140.00	215 1/2 WOOD STREET
100140-01													0.00	0	0	100140-01	GRAZIER, AMANDA	01	00140.01	215 WOOD STREET
100140-02													0.00	0	0	100140-02	MCCUAIG, JAMES M. & JOSIE	01	00140.02	215 1/2 WOOD STREET
100140-03													0.00	0	0	100140-03	FIRST STATE BANK	01	00140.03	215 WOOD ST
100140-04													0.00	0	0	100140-04	NICHOLS, WADE	01	00140.04	215 1/2 WOOD STREET
100150-00	700	800	900	900	4000		14200	15900	14800	4900	800	800	58700.00	27	292	100150-00	ROCHELEAU, JOSEPH E.	08	00150	1206 HALEY AVENUE W
100160-00					4000		22700	13000	12200	4100	3800	4400	64200.00	45	304	100160-00	ANDERSON, IRENE	08	00160	303 WOOD STREET
100170-00	2800	3700	2100	2100	4000		3800	5300	2600	1900	2000	2500	32800.00	84	96	100170-00	SUND, FORREST D & LINDA M	08	00170	304 WOOD STREET
100170-01													0.00	0	0	100170-01	SUND, DAVE	01	00170.00	304 WOOD STREET
100170-02													0.00	0	0	100170-02	HALL, LARON & BETTY	01	00170.01	304 WOOD STREET
100170-03													0.00	0	0	100170-03	PPL	01	00170.02	304 WOOD STREET
100180-00	100				4000		1800	5200	5300	100		200	16700.00	2	89	100180-00	ANDERSON, EARL & IRENE	08	00180	311 WOOD STREET
100180-01													0.00	0	0	100180-01	SUND, DAVE	01	00180.00	311 WOOD STREET
100185-00	700	1100	900	900	4000		1500	1600	1300	1600	1000	1100	15700.00	31	54	100185-00	YURCZYK, FRANK	08	00185	314 WOOD STREET
100190-00	3800	13000	8700	2000	12400	21000	20200	32300	26400	13200	25300	19700	198000.00	401	682	100190-00	TOMAS, SAM & MARCIE	08	00190	1012 PRESTON AVENUE W
100200-00	1800	900	1300	1300	4000		2800	8000	6600	6100	1000	1100	34900.00	41	149	100200-00	HAYNES, PAUL C.	08	00200	102 PARK STREET
100210-00	1000	1500	900	900	2700	2800	17700	15000	9200	1500	1300	1400	55900.00	39	266	100210-00	WOLLASTON, TILLIE	08	00210	105 PARK STREET
100220-00	4200	4900	4600	4600	4000		16000	40000	19500	6100	5500	5700	115100.00	163	465	100220-00	BROWNE, RICHARD & LINDA	08	00220	108 PARK STREET
100230-00	3300	4000	6500	6500	9500	5900	5400	6400	7800	4000	3100	3100	65500.00	146	212	100230-00	METHGEN, LORETTA	08	00230	205 PARK STREET
100230-01													0.00	0	0	100230-01	FRIEL, SOPHIA	01	00230.01	205 PARK STREET
100240-00	7000	7200	8500	8500	21500	27300	30700	45600	37600	20400	9200	9600	233100.00	276	995	100240-00	THOMPSON, EDWARD R. & TERRY	08	00240	202 PARK STREET
100250-00													0.00	0	0	100250-00	JOHNSON, DAVID S	08	00250	206 PARK STREET
100260-00	6400	8700	7200	8100	9700	12000	13000	13300	11200	7200	6300	7700	110800.00	245	361	100260-00	FITCHETT, TRAVIS R.	08	00260	210 PARK STREET
100260-01													0.00	0	0	100260-01	MIGUEL BRIDGET	01	00260.01	210 PARK ST
100260-02													0.00	0	0	100260-02	KREIS, ALLEN R.	01	00260.02	210 PARK ST
100270-00	6900	8100	3900	3900	9500	10800	14600	17700	23000	7800	6800	6800	119800.00	201	453	100270-00	KOSTKA, LUCAS RC & AUTUMN	08	00270	209 PARK STREET
100270-01													0.00	0	0	100270-01	KREIS ALLEN	01	00270.01	209 PARK STREET
100270-02													0.00	0	0	100270-02	HULL LAURANCE & KRISTI	01	00270.02	209 PARK ST
100270-03													0.00	0	0	100270-03	RAVENCROFT, OLIN & MEGAN	01	00270-03	209 PARK STREET
100280-00	2100	1700	3200	3200	2500	3800	3500	3200	3000	2000	1900	2200	32300.00	79	98	100280-00	FRANKE, KAY	08	00280	911 HALEY AVE W
100290-00	200	100	500	500	400	400	300	700	200	500	300	400	4500.00	11	14	100290-00	FRANKE, KAY	08	00290	222 PARK STREET
100300-00	3700	2100	7300	7300	4000		6100	9100	12900	3500	3100	3700	62800.00	150	193	100300-00	BRAY, BRITT	08	00300	305 PARK STREET
100310-00	2700	4800	6500	6500	2200	5200	6500	6500	5800	4800	4600	5400	61500.00	169	168	100310-00	LEGAULT, ROBERT & TONI	08	00310	304 PARK STREET
100315-00	7200	7900	8900	8900	8900		6800	10200	7400	7200	3700	400	77500.00	204	220	100315-00	DAUGHERTY, JAMES & KATHY	08	00315	310 PARK STREET
100315-01													0.00	0	0	100315-01	KEGEL, JACKIE	01	00315.01	310 PARK STREET
100317-00	4500	5200	5300	5300	4000		6700	14600	8200	7200	7500	5400	73900.00	183	221	100317-00	BORGMANN, WALTER	08	00317	315 PARK STREET
100320-00	3500	4700	5000	5000	4000		5100	13500	10900	4800	3500	3500	63500.00	139	208	100320-00	BORGMANN, WALTER	08	00320	321 PARK STREET
100330-00					4000	4000		5900	19300	21000	10300	7900	72400.00	101	295	100330-00	WHALEN, LINDA	08	00330	906 HALEY AVENUE W
100340-00	300	200	1100	1100	4000		1900	300	200	300	300	200	9900.00	18	36	100340-00	EGBERT PROPERTIES LLC	08	00340	904 PRESTON AVENUE W
100340-01													0.00	0	0	100340-01	COFFELT-BUNCH FUNERAL SERVICE	01	00340.01	904 PRESTON
100340-02													0.00	0	0	100340-02	T & S HOLDINGS LLC	01	00340.00	904 PRESTON AVENUE
100351-00					4000			400				100	4500.00	1	24	100351-00	RELF, EDNA	08	00351	102 GALLATIN STREET N
100360-00	1400	2200	1700	1700	3400	5100	5200	6900	5300	2900	1900	1800	39500.00	59	157	100360-00	DAY, MELINDA	08	00360	107 GALLATIN STREET N
100360-01													0.00	0	0	100360-01	BURNSIDE, RAY W. & MARIE A.	01	00360.00	107 GALLATIN STREET N
100370-00		3100	3800	3800	2700	6500	51900	16300	12000	2800	2100	2400	107400.00	84	501	100370-00	GROSHONG BERNARD E. JR & RICE BETH R	08	00370	114 GALLATIN STREET N
100380-00	6400	5400	300	300	1400	1400	1100	1100	1500	2200	2900	2000	26000.00	96	47	100380-00	BESAW, KENNETH F & AMY E	08	00380	113 GALLATIN STREET N
100380-01													0.00	0	0	100380-01	WARD, LARRY	01	00380.00	113 N GALLATIN STREET
100390-00	6600	5400	5000	5000	5400	11900	21200	27400	19400	12300	3900	5100	128600.00	171	530	100390-00	BROWN, JASON D.	08	00390	205 GALLATIN STREET N
100390-01													0.00	0	0	100390-01	FREED J. L. & CELIA	01	00390.01	205 N GALLATIN ST
100400-00	4700	6500	5000	5500	8400	10200	40000	20500	18400	4800	3800	4100	131900.00	164	556	100400-00	SHEAR, JARED & JENNIFER	08	00400	204 GALLATIN STREET N
100400-01													0.00	0	0	100400-01	CIK STEPHEN & CYNTHIA	01	00400.01	204 N GALLATIN ST
100400-02													0.00	0	0	100400-02	GUTHALS, JENNIFER E.	01	00400.00	204 GALLATIN STREET N
100400-03													0.00	0	0	100400-03	COSCIA, WILLIAM & CATHERINE	01	0040003	204 N GALLATIN STREET
100410-00	1200	5500	2800	2800	4000		3400	5500	3400	4300	3500	3800	40200.00	108	112	100410-00	VERLANIC, LYNN R	08	00410	211 GALLATIN STREET N
100410-01													0.00	0	0	100410-01	MCGRAW, WES	01	00410.01	211 N GALLATIN STREET
100410-02													0.00	0	0	100410-02	COX, SAM N & SHARLENE M	01	00410.00	211 GALLATIN STREET N
100420-00	4300	5100	5200	2200	4000		22000	23800	18800	8000	4300	5200	102900.00	145	416	100420-00	HERDEN, DAVID & VICKIE	08	00420	212 GALLATIN STREET N
100420-01													0.00	0	0	100420-01	WIETING, SHONA & ROBERT	01	00420.01	212 N GALLATIN STREET
100430-00	6700	2200	8600	8100	5200	4400	3900	5700	4600	5700	4800	4600	64500.00	193	160	100430-00	SHERMIKUS, RANDY	08	00430	219 GALLATIN STREET N
100440-00	3200	1100	2200	2200	4000		30400	37600	33200	4600	600	2500	121600.00	65	597	100440-00	PAVLIK, LINDE	08	00440	222 GALLATIN STREET N
100450-00	1200	1500	1200	1200	4000		1500	1800	1800	1400	1200	1400	18200.00	43	57	100450-00	CULLEN, JAMES	08	00450	306 GALLATIN STREET N
100460-00	2300	2700	2700	2700	4000		12200	10600	8700	2900	2500	2600	53900.00	86	209	100460-00	MCKAHAN, LINDA	08	00460	311 GALLATIN STREET N
100470-00	6200	6800	7000	7000	4000		64500	33200	17000	8400	8300	7700	170100.00	238	691	100470-00	TRAIN, ANTHONY & CHRISTINA	08	00470	312 GALLATIN STREET N
100470-01													0.00	0	0	100470-01	KINCHELOE RENE	01	00470.01	312 N GALLATIN ST
100470-02													0.00	0	0	100470-02	KINSER, LEE & MELISSA	01	00470.00	312 GALLATIN STREET N
100470-03													0.00	0	0	100470-03	HOMESALES INC	01	00470.02	312 GALLATIN STREET N
100480-00													0.00	0	0	100480-00	MILLER, JESSE & MISTY	08	00480	317 GALLATIN STREET N
100480-01													0.00	0	0	100480-01	GUNN, GERALD	01	00480.01	317 N GALLATIN STREET
100490-00	500	200	200	200	4000	4200			1200	900	500	300	12200.00	10	56	100490-00	GROSHONG, BERNIE	08	00490	322 GALLATIN STREET N

100510-00	5100	10500	8400	7400	4000		4200	2400	4700	3500	2500	2100	54800.00	199	102	100510-00	BROWN, JILL	08	00510	321 GALLATIN STREET N
100510-01													0.00	0	0	100510-01	RODRIGUEZ ELI	01	00510.01	321 N GALLATIN ST
100520-00	2800	3100	3500	3500	4000		16100	30500	17000	12000	7200	7300	107000.00	151	433	100520-00	LAY, HERBERT & LINDA	08	00520	403 GALLATIN STREET N
100530-00	9900		8300	8300	4000		5600	5600	3800	4400	3400	4200	57500.00	188	127	100530-00	LYGHT, DAVID H & DOROTHY	08	00530	402 GALLATIN STREET N
100530-01													0.00	0	0	100530-01	LYGHT, DAVE	01	0053001	402 N GALLATIN ST
100530-02													0.00	0	0	100530-02	CLARK, JAMES P.	01	00530.00	402 GALLATIN STREET N
100530-03													0.00	0	0	100530-03	BARSTOW, KARI L	01	00530.01	402 GALLATIN STREET N
100540-00	1100	1600	1500	1500	4000		1500	1800	1200	1400	1600	1800	19000.00	50	54	100540-00	JOHNSON, DAVID & PATRICIA	08	00540	710 PRESTON AVENUE W
100540-01													0.00	0	0	100540-01	MCCURRY, ALBERT & LINDA	01	00540.01	710 PRESTON
100540-02													0.00	0	0	100540-02	PARKER, NOLAN & LINDA	01	00540.02	710 PRESTON AVENUE
100540-03													0.00	0	0	100540-03	PERRING, STEVE & ALLYSON M.	01	00540.03	710 PRESTON AVENUE
100550-00											3600	4000	7600.00	42	0	100550-00	MOTT, ELIZABETH	08	00550	804 PRESTON AVENUE W
100550-01													0.00	0	0	100550-01	DAVIS, BETTY	01	00550.00	804 PRESTON Avenue W
100550-02	1800	2100	2500	2500	4000		6100	7600					26600.00	49	96	100550-02	RIDER, MARY ANN	08	00550.01	804 PRESTON Avenue W
100550-03									14300	4700			19000.00	0	103	100550-03	LINZMAIER, PETER RES-MTR- 1X	08	00550.02	804 PRESTON Avenue W
100550-04													0.00	0	0	100550-04	LINZMAIER, PETER RES-MTR- 1X	08	00550.03	716 PRESTON Avenue W
100560-00	2200	2700	3100	3100	4000		3800	2600	2300	5400	2200	2100	33500.00	85	98	100560-00	PARROTT, JODY R. RES-MTR- 1X	08	00560	716 PRESTON Avenue W
100560-01													0.00	0	0	100560-01	1ST STATE BANK	01	00560.01	103 N MADISON STREET
100560-02													0.00	0	0	100560-02	OVITT, NORMAN L.	01	00560.02	716 PRESTON
100570-00	3200	3600	3100	3100	4000		9000	26300	16400	7700	3300	4100	83800.00	113	345	100570-00	TURK, RON	08	00570	105 MADISON STREET N
100580-00	2100	2100	2100	2800	4000		6400	9300	6500	11800	2200	7400	56700.00	103	207	100580-00	DEWITT, KATHRYN A.	08	00580	106 MADISON STREET N
100580-01													0.00	0	0	100580-01	MCKENZIE BONNIE	01	00580.01	106 N MADISON ST
100580-02													0.00	0	0	100580-02	CHAMBLIN, JOHN & CHERYL	01	00580.	106 N MADISON STREET
100580-03													0.00	0	0	100580-03	MCKENZIE, JODI & KELLY	01	00580.03	106 N MADISON STREET
100590-00			22600			4000	100	2000		9200		5300	43200.00	154	83	100590-00	HART, LYNETTE J	08	00590	110 MADISON STREET N
100590-01													0.00	0	0	100590-01	LYGHT, TONY	01	00590.01	110 MADISON STREET N
100600-00	2600	3300	2900	2900	4000		6400	7500	25000	3200	2000	3900	63700.00	97	251	100600-00	SWANSON, DANIEL G & ANITA L	08	00600	115 MADISON STREET N
100600-01													0.00	0	0	100600-01	GILBERT, ROGER	01	00600.01	115 N MADISON STREET
100600-02													0.00	0	0	100600-02	CHAMBLIN, JOHN & CHERYL	01	00600.02	115 MADISON STREET N
100610-00	1600	1800	3300	3300	4000				700	2400	2200	1900	21200.00	78	39	100610-00	COMPTON, JAMES R.	08	00610	114 MADISON STREET N
100610-01													0.00	0	0	100610-01	PIRKER RONNY B	01	00610.00	114 N MADISON ST
100610-02													0.00	0	0	100610-02	GAENZ, SUZETTE	01	00610.01	114 N MADISON STREET
100620-00											4400	3400	7800.00	43	0	100620-00	SINK, WESLEY & THERESA	08	00620	715 ODGEN AVENUE W
100620-01										2600			2600.00	0	14	100620-01	DRAKE, PETE & BRENDA	08	00620.02	715 ODGEN AVENUE W
100620-02													0.00	0	0	100620-02	CLAWSON, JOHN	08	00620.01	715 ODGEN AVENUE W
100630-00	1700	2100	2100	2100	4000		16900	5700	10000	1700	4900	2300	53500.00	84	208	100630-00	CASSIDA, JOHN B & KATHERINE R	08	00630	204 MADISON STREET N
100630-01													0.00	0	0	100630-01	RUTZKE, FRANK	01	00630.00	204 MADISON STREET N
100630-02													0.00	0	0	100630-02	FIRST SECURITY BANK	01	00630.01	204 MADISON STREET N
100640-00	1000	1300	1400	1400	4000		2000	3200	3000	1100	1200	1300	20900.00	42	72	100640-00	JCLB INVESTMENTS	08	00640	203 MADISON STREET N
100640-02													0.00	0	0	100640-02	COUNTRYWIDE FIELD SERVICE	01	00640.02	203 N MADISON ST
100640-03													0.00	0	0	100640-03	SCOTT, BRIAN & MISTY	01	00640.	203 N MADISON STREET
100660-00		400	1000	1000	4000		6200	7000	7800	2500	800	800	31500.00	22	149	100660-00	MOORE, JO ANN	08	00660	213 MADISON STREET N
100660-01													0.00	0	0	100660-01	TURK ROBERT	01	00660.01	213 N MADISON ST
100670-00	1200	1200	1100	1100	4000		700	6700	14100	2900	400	500	33900.00	30	154	100670-00	WAKEFIELD, TODD E	08	00670	212 MADISON STREET N
100670-01													0.00	0	0	100670-01	SMITH HARRY	01	00670.00	212 N MADISON ST
100670-02													0.00	0	0	100670-02	BESAW, KEN & AMY	01	00670.01	212 N MADISON STREET
100680-00	1300	1300	1600	1600	4000		9800	9500	11000	2300	1400	1300	45100.00	47	199	100680-00	MAYFIELD, MICHELLE	08	00680	215 MADISON STREET N
100690-00	1800	1900	1800	1800	4000		8500	11500	5800	2800	1700	2600	44200.00	64	177	100690-00	HARNETT, JONATHAN O'NEIL	08	00690	217 MADISON STREET N
100690-01													0.00	0	0	100690-01	WILLIAMS, LOY	01	00690.01	217 MADISON STREET N
100690-02													0.00	0	0	100690-02	MAYFIELD, MICHELLE M	01	00690.02	217 MADISON STREET N
100700-00	400	1500	1500	1500	4000		4600	4000	4300	1500	1300	1700	26300.00	44	100	100700-00	COX, SAM N	08	00700	216 MADISON STREET N
100700-01													0.00	0	0	100700-01	DENKE, MARK	01	00700.00	216 N MADISON STREET
100710-00	4100	4100	3200	3200	6900	11400	16800	20100	24200	3600	3000	3000	103600.00	114	451	100710-00	MARICH, ANDREW	08	00710	224 MADISON STREET N
100720-00	5000	6000	6100	6100	4000		11400	19000	16600	6400	6300	6100	93000.00	197	312	100720-00	WHEELER, KELLY	08	00720	221 MADISON STREET N
100730-00	4400	5200	6000	6000	4000		8300	9100	8900	5300	5000	5400	67600.00	177	193	100730-00	VANELSWYK JR, ROBERT L & BRANDY L	08	00730	307 MADISON STREET N
100730-01													0.00	0	0	100730-01	GRAHAM, DIANE	01	00730.00	307 N MADISON STREET
100730-02													0.00	0	0	100730-02	WILLIAMS, HARRY C & JAIME M	01	00730.01	307 MADISON STREET N
100730-03													0.00	0	0	100730-03	WHEELER, JIM	01	00730.02	307 MADISON STREET N
100740-00		100	100	100	4000		2100	4800	3500	4600	1300	3500	24100.00	28	103	100740-00	COX, KYLE RAY	08	00740	306 MADISON STREET N
100740-01													0.00	0	0	100740-01	WORKMAN PAUL	01	00740.01	306 N MADISON ST
100740-02													0.00	0	0	100740-02	MYERS, JOHN & WENDY	01	00740.02	306 MADISON STREET N
100740-03													0.00	0	0	100740-03	CASSELL, STONEY	01	00740.03	306 N MADISON STREET
100750-00	1700	1800	400	400	900	1600	2900	2100	3600	1700	1200	1200	19500.00	37	70	100750-00	BRUGGEMAN, RICK	08	00750	806 HALEY AVENUE W
100760-01													0.00	0	0	100760-01	IRWIN ELIZABETH BETTY	01	00760	309 N MADISON ST
100765-00	1100	1500	1400	1400	4000		1400	1800	1200	1700	1500	1600	18600.00	47	55	100765-00	CZERWINSKI, BEVERLY	08	00765	315 MADISON STREET N
100770-00	1000	1400	1300	1300	4000		9700	18000	13800	1700	1200	1000	54400.00	40	257	100770-00	ROHWER, MARGIE	08	00770	314 MADISON STREET N
100780-00	4700	6900	8300	8300	4000		12200	13300	16100	3200	12600	2400	92000.00	239	265	100780-00	GRANT, GAIL	08	00780	321 MADISON STREET N
100790-00											4800	5900	10700.00	59	0	100790-00	FRITZ, ROBERT	08	00790	327 MADISON STREET N
100790-01													0.00	0	0	100790-01	HAGERMAN, JOHN ESTATE OF	01	00790.00	327 N MADISON STREET
100790-02	2900	3700	2600	2600	4000		3300	5500	3200	4100			31900.00	65	109	100790-02	HANSON, JONATHAN R & MARCY N.	08	00790.01	327 MADISON STREET N
100800-00	5200	5800	5000	5000	4000		3800	4600	4800	4700	4300	3600	50800.00	160	119	100800-00	MAZUR, TOM	08	00800	324 MADISON STREET N
100810-00	2300	2900	2800	2800	4000		12900	14000	2400	1900	3100	3000	52100.00	93	191	100810-00	MCEWEN, ARTHUR	08	00810	403 MADISON STREET N
100810-01													0.00	0	0	100810-01	MASON, W.T.	01	00810.01	403 N MADISON STREET
100810-02													0.00	0	0	100810-02	HOWELL, MATHEW L. & TERESA A.	01	00810.02	403 N MADISON ST
100810-03													0.00	0	0	100810-03	HOWELL, MATT	01	00810.00	403 MADISON STREET N
100820-00	4600	5600	6700	6700	4000		10000	7400	6300	3700	4100	2700	61800.00	168	171	100820-00	PARKER, FRANK H.	08	00820	710 W 3RD AVENUE
100820-01													0.00	0	0	100820-01	SANDERS, HOLLY	01	00820.01	710 W 3RD AVENUE
100830-00	1800				4000		2100	3900	3200	3700	2700	2500	23900.00	39	92	100830-00	ABBOTT, GARY	08	00830	408 MADISON STREET N
100840-00	4500	4700	4600	4600	4000		1100	3400	2800	1100			30800.00	102	67	100840-00	LYGHT, TRENT	08	00840	411 MADISON STREET N
100850-00							4000	5400	3600	4000	4400	5200	26600.00	53	92	100850-00	GRAHAM, DIANE	08	00850	704 preston
100870-00	700	200	1600	1600	4000		1100	2600	1000	1200	1300	1300	16600.00	37	54	100870-00	COMMUNITY CHURCH	08	00870	616 preston avenue w
100880-00	4900	4500	4600	4600	4000		13200	29500	14100	11700	5800	4700	101600.00	161	394	100880-00	HOPKINS, PERRY	08	00880	113 JEFFERSON STREET N
100890-00	2000	2400	2300	2300	4000		11400	12000	12200	7100	1900	2600	60200.00	75	254	100890-00	CORDERO, SUSAN	08	00890	113 JEFFERSON STREET n
100890-01													0.00	0	0	100890-01	MURPHY, KARLA	01	00890.01	113 JEFFERSON STREET N
100890-02													0.00	0	0	100890-02	BARTON, DENISE K.	01	00890.02	611 ogden avenue w
100900-00	500	2000	6900	3900	4000		5600	2600	13300	500	1100	400	40800.00	82	141	100900-00	LUTHERAN CHURCH	08	00900	410 MADISON STREET N
100910-00							6500	4600	2700	2600	2700	1800	20900.00	25	89	100910-00	BBNTMSCR DEPT	08	00910	203 JEFFERSON STREET N
100910-01													0.00	0	0	100910-01	SANDERS, DEREK	01	00910.00	203 JEFFERSON STREET N
100910-02													0.00	0	0	100910-02	HARRIMAN, GENE, JR & CAROL D	01	00910.01	203 JEFFERSON STREET N
100920-00	2000	2100	1700	1700	4000		7500	5100	7300	2500	2100	2100	38100.00	65	143	100920-00	DOTY MARY M / MARGARITA PHILLIPS, POA	08	00920	213 JEFFERSON STREET N
100930-00	1600	200	900	900	4000		300	1000	1300	400	500	400	11500.00	25	38	100930-00	APPLEBY, JOSEPH P	08	00930	210 JEFFERSON STREET N
100930-01													0.00	0	0	100930-01	GROSECLOSE, GENE	01	00930.00	210 JEFFERSON STREET N
100930-02													0.00	0	0	100930-02	ROWDEN LARRY & SHRIVER SHERRY	01	00930.01	210 JEFFERSON STREET N
100940-00	900	800	1100	1100	4000		10700	8900	5300	1000	1100	1300	36200.00	35	163	100940-00	HUTZ, EUGENE F & SUSAN M	08	00940	218 JEFFERSON STREET N
100940-02													0.00	0	0	100940-02	HILTON, ROGER	01	00940.00	218 N JEFFERSON STREET
100950-00	500	1200	2900	2900	1500	100		1200	1100	400	400		12200.00	44	23	100950-00	SCHALLER, MARY	08	00950	221 JEFFERSON STREET N
100960-00	5200	6100	6100	6100	4000		9200	9700	6900	7000	6900	7100	74300.00	207	200	100960-00	MCCLOY, PAT & COLLEEN	08	00960	222 JEFFERSON STREET N
100970-00	2900	700	2100	2100	4000		7900	9500	7900	5600	2200	2700	47600.00	70	190	100970-00	CROWDER, ROBERT	08	00970	611 HALEY AVENUE W
100980-00	2100	500	1400	1400	3100	1400	2100	4300	2500	1300	1200	1700	23000.00	46	80	100980-00	FRIESZ, EMMANUEL	08	00980	305 JEFFERSON STREET N
100990-00	600	600	500	500	4000		2500	12700	2600	200		100	24300.00	13	120	100990-00	HAMILTON, JOHN	08	00990	612 HALEY AVENUE W
101000-00										2400	2500	2700	7600.00	29	13	101000-00	KENEADY, IDA	08	01000	310 JEFFERSON STREET N
101000-01													0.00	0	0	101000-01	BATTLES MIKE	01	01000.01	310 N JEFFERSON ST

101000-02													0.00	0	0	101000-02	WOOD, ANNA	01	01000.02	310 JEFFERSON STREET N
101000-03	2600	3700	3400	3400	4000		4300	3700	6300				31400.00	72	99	101000-03	GRENELL, MICHAEL & THERESA	08	01000.01	310 JEFFERSON STREET N
101010-00	2800	1500	1000	1000	4000		21700	12900	15900	2000	2100	1700	66600.00	56	307	101010-00	DRASZT, GARY & JOAN	08	01010	314 JEFFERSON STREET N
101010-01													0.00	0	0	101010-01	GIDEON, ANDREW J. & DEBORAH A.	01	01010.00	314 JEFFERSON STREET N
101010-05													0.00	0	0	101010-05	HOLLERAN, TOM	01	01010.02	316 N JEFFERSON STREET
101020-00	200	400	300	300	400		9300	10000	19900	4000	3400	3600	51800.00	45	237	101020-00	COMMUNITY CHURCH	08	01020	315 JEFFERSON STREET N
101030-00	5600	6000	6200	6200	4000		8200	5900	4900	4400	3400	4100	58900.00	174	149	101030-00	INGRAHAM, GERALD	08	01030	323 JEFFERSON STREET N
101034-01													0.00	0	0	101034-01	INGRAHAM, GERALD	01	01034	323 N JEFFERSON
101040-00	1800	1800	2900	2900	4000		3100	5400	5900	2100	1900	1900	33700.00	73	111	101040-00	MATES, CLARE F.	08	01040	318 JEFFERSON STREET N
101050-00	1300	1500	1700	1700	4000		1300	2000	1400	1800	1800	1800	20300.00	54	57	101050-00	ROCKWELL, RANDY ALLEN	08	01050	405 JEFFERSON STREET N
101050-01													0.00	0	0	101050-01	BURLINGAME, SANDRA	01	01050.01	405 N JEFFERSON STREET
101060-00	2600	3300	3100	3100	4000		28800	35200	27500	11700	2800	2800	124900.00	98	583	101060-00	YODER, MARK	08	01060	612 3RD AVE WEST
101060-01													0.00	0	0	101060-01	LAWS, HAROLD	01	01060.00	612 3RD AVE WEST
101060-02													0.00	0	0	101060-02	LAWS, CLINT	01	01060.01	612 3RD AVE WEST
101060-03													0.00	0	0	101060-03	REITER, JESSE & REBECCA L	01	01060.02	612 3RD AVE WEST
101070-00	3400	4300	3700	3700	4000		18300	16300	14500	9400	4400	4800	86800.00	134	340	101070-00	LYGHT, DENNIS	08	01070	409 JEFFERSON STREET N
101070-01													0.00	0	0	101070-01	POFF EVERETT / DIANNE CRAWFORD	01	01070.00	409 N JEFFERSON
101080-00	1800	1500	1400	1400	4000		4700	59900	27200	1400	1400	1400	106100.00	49	528	101080-00	KELLER, WILLIAM	08	01080	414 JEFFERSON STREET N
101090-00	1100	900	900	900	4000		800	1100	700	1800	900	900	14000.00	31	46	101090-00	DWYER, KAREN	08	01090	415 JEFFERSON STREET N
101090-01													0.00	0	0	101090-01	TRULL JACOB	01	01090.00	415 N JEFFERSON
101100-00	3600	4000	4100	4100	4000	4000			28300	2300	2300	3000	59700.00	117	210	101100-00	BISHOP, MICHAEL & TERESA	08	01100	420 JEFFERSON STREET N
101100-01													0.00	0	0	101100-01	WILSON, JOHNNIE	01	01100.01	420 N JEFFERSON STREET
101100-02													0.00	0	0	101100-02	HELVEY, CLETE	01	01100.02	420 JEFFERSON STREET N
201105-00	1500	1600	1700	1700	100	1000	1500	1700	1800	3800	4900	6200	27500.00	97	54	201105-00	RAMSEY, ROBERT & EVA	08	01105	608 PRESTON AVENUE W
201105-02													0.00	0	0	201105-02	WEIGAND ELSIE	02	01105.02	608 PRESTON
201110-00	1900	2200	2100	2100	4000		25600	44900	36400	13800	2500	4900	140400.00	87	678	201110-00	NORMAN, MELVIN & JOANN	08	01110	602 PRESTON AVENUE W
201110-01													0.00	0	0	201110-01	CROWE EMMA	02	01110.01	602 PRESTON
201110-02													0.00	0	0	201110-02	BARKER, RONALD & LINDA	02	01110.00	602 PRESTON AVENUE W
201120-00	2700	3400	2800	2800	4000		21000	21600	19300	4000	3100	5000	89700.00	109	380	201120-00	PARKER, NOLAN & LINDA	08	01120	516 PRESTON AVENUE W
201120-01													0.00	0	0	201120-01	VAUGHT WILBUR	02	01120.00	516 PRESTON
201120-02													0.00	0	0	201120-02	RABE RICHARD A	02	01120.01	516 PRESTON
201130-00	1100	1500	1900	1900	4000		4400	5600	4100	3500	2600	3000	33600.00	66	117	201130-00	BROWN, DAVID & KAREN	08	01130	110 WASHINGTON STREET
201130-01													0.00	0	0	201130-01	MARICH, MIKE	02	01130.01	110 WASHINGTON STREET
201140-00	2700	3800	3200	3200	4000		3100	7500	5800	2200	400	4000	39900.00	96	123	201140-00	WHITTENBURG, SUE	08	01140	116 WASHINGTON STREET
201150-00	5600	6700	7500	7500	4000		5800	7500	6500	11500	16000	15100	93700.00	323	192	201150-00	MORRIN, DIANE	08	01150	203 WASHINGTON STREET
201150-01													0.00	0	0	201150-01	STEVENS TRUST - STEVENS CHESTER AND HELEN	02	01150.00	203 WASHINGTON STREET
201150-02													0.00	0	0	201150-02	YOUNG BEA	02	01150.02	203 WASHINGTON
201155-00	2300	2900	2600	2600	4000		1900	2300	2600	3300	2300	3000	29800.00	87	77	201155-00	LUTHERAN CHURCH PARSONAGE	08	01155	605 OGDEN AVENUE W
201160-00	3200	3200	3300	3300	4000		3500	5600	8000	4100	3300	3800	45300.00	111	137	201160-00	PARKER, NOLAN F. & LINDA L.	08	01160	202 WASHINGTON STREET
201160-01													0.00	0	0	201160-01	ARTHUR, GEORGE	02	01160.01	202 WASHINGTON STREET
201170-00	300	500					7300	8200	3400	2200	200	300	22400.00	7	115	201170-00	RETTENMEIER, ROGER	08	01170	209 WASHINGTON STREET
201170-01													0.00	0	0	201170-01	STOUT JOSEPH	02	01170.01	209 WASHINGTON
201180-00	2400	1100	2200	2200	4000				1400	1900	1600	1600	18400.00	61	40	201180-00	WARME REVOCABLE TRUST, CHRISTOPHER J	08	01180	208 WASHINGTON STREET
201180-01													0.00	0	0	201180-01	WOMACK, JAMES	02	01180.00	208 WASHINGTON STREET
201180-02													0.00	0	0	201180-02	HOWELL, WENDY	02	01180.01	208 WASHINGTON STREET
201180-03													0.00	0	0	201180-03	WOMACK JAMES & MELCHER BARBARA	02	01180.02	208 WASHINGTON STREET
201180-04													0.00	0	0	201180-04	FORTIER, LUKE	02	01180.03	208 WASHINGTON STREET
201190-00									200	100		300	600.00	2	2	201190-00	TRAIN PROPERTIES LLC	08	01190	213 WASHINGTON STREET
201190-01													0.00	0	0	201190-01	REIBSOME, JANET	02	01190.01	213 WASHINGTON STREET
201190-02	2400				4000								6400.00	13	22	201190-02	WARDIAN MARY & BRADLEY JERRY	08	01190.01	213 WASHINGTON STREET
201200-00													0.00	0	0	201200-00	FORTIER, LUKE	08	01200	212 WASHINGTON STREET
201200-01													0.00	0	0	201200-01	WOMACK, JAMES	02	01200.00	212 WASHINGTON STREET
201200-02													0.00	0	0	201200-02	WOMACK JAMES & MELCHER BARBARA	02	01200.01	212 WASHINGTON STREET
201200-03													0.00	0	0	201200-03	HOWELL, WENDY	02	01200.02	212 WASHINGTON STREET
201210-00	100	100	400	400	4000		6000	55500	11000	10900	7800	8600	104800.00	96	475	201210-00	DIPPRE, KIMBERLY R	08	01210	216 WASHINGTON STREET
201210-01													0.00	0	0	201210-01	REIBSOME, JANET	02	01210.0	216 WASHINGTON
201210-02													0.00	0	0	201210-02	ROWE, CHARLOTTE	02	01210.00	216 WASHINGTON STREET
201210-03													0.00	0	0			10		
201210-04													0.00	0	0	201210-04	BENNETT, JEREMIAH	02	01210.02	216 WASHINGTON STREET
201210-05													0.00	0	0	201210-05	FRYXELL, TROY	02	01210.03	216 WASHINGTON STREET
201220-00	2500	2600			4000		23900	55600	62100	4400	3900	3900	162900.00	71	815	201220-00	WATTS, JULIE	08	01220	215 WASHINGTON STREET
201230-00	6200	5200	4500	4500	4000		4000	7600	16000	6500	3400	4900	66800.00	159	207	201230-00	SCHAEFER ENTERPRISES.	08	01230	221 WASHINGTON STREET
201230-01													0.00	0	0	201230-01	IVERS KEITH	02	01230.01	221 WASHINGTON
201235-00													0.00	0	0	201235-00	CREEKMORE, ALBERT & DRINDA	08	01235	220 WASHINGTON STREET
201235-01													0.00	0	0	201235-01	CREEKMORE, ALBERT & DRINDA	02	01235.00	220 WASHINGTON STREET
201235-02													0.00	0	0	201235-02	CREEKMORE JR, ALBERT L	02	01235.01	220 WASHINGTON STREET
201240-00	200	300	100	200	400		12600	112000	23200	2900	2400	2200	156500.00	30	821	201240-00	CREEKMORE, ALBERT & DRINDA	08	01240	511 HALEY AVENUE W
201240-01													0.00	0	0	201240-01	CREEKMORE, ALBERT & DRINDA	02	01240.00	511 W HALEY AVENUE
201240-02													0.00	0	0	201240-02	CREEKMORE JR, ALBERT L	02	01240.01	511 HALEY AVENUE W
201250-01													0.00	0	0	201250-01	ANDERSON, DORA	02	01250	303 WASHINGTON STREET
201260-00	5500	3300	5800	5800	4000		6400	2900	600	800	1000	1100	37200.00	124	80	201260-00	NEWMAN, JESSE & AMIE	08	01260	304 WASHINGTON STREET
201270-01													0.00	0	0	201270-01	TAYLOR, STEVE	02	01270	307 WASHINGTON STREET
201290-00					4000	4000			100				8100.00	0	44	201290-00	TAYLOR, STEVEN	08	01290	309 WASHINGTON STREET
201300-00	2200	1800	1500	1500	3200	1700	1500	3000	1800	2900	3200	2200	26500.00	69	77	201300-00	FRANCK, SHAWN	08	01300	312 WASHINGTON STREET
201310-00	3800	2400	7100	7100	4000		10900	16100	18300	5200	4100	4100	83100.00	158	296	201310-00	LEUFKENS, BUD & JUDY	08	01310	319 WASHINGTON STREET
201310-01													0.00	0	0	201310-01	HELUS, JOHN	02	01310.00	319 WASHINGTON
201310-02													0.00	0	0	201310-02	HELUS, JOHN	02	01310.02	319 WASHINGTON STREET
201310-03													0.00	0	0	201310-03	OTTESEN, MICHAEL & GAIL	02	01310.01	319 WASHINGTON STREET
201320-00	1900	2200	3800	3500	4600	6000	3300	3600	8600	6100	2400	3600	49600.00	96	175	201320-00	MOSHER, ROY L	08	01320	322 WASHINGTON STREET
201320-01													0.00	0	0	201320-01	SODERLIND, MARK	02	01320.00	322 WASHINGTON STREET
201330-00	3200	2100	2800	2800	5800	10500	10000	20700	17800	5800	3500	3000	88000.00	96	384	201330-00	WIEGELE, JAMES L & DAGMAR R	08	01330	512 3RD AVE WEST
201330-01													0.00	0	0	201330-01	STARR, JACK	02	01330.01	512 3RD AVE WEST
201340-00	1900	1400	500	500	1800	2400	4900	4700	1600	1400	1400	1600	24100.00	40	91	201340-00	HECHTMAN, CAROLL SUE	08	01340	606 3RD AVE W
201340-01													0.00	0	0	201340-01	BIERWAGEN LYNN	02	01340.01	606 3RD AVE WEST
201340-02													0.00	0	0	201340-02	COMBS, NANCY	02	01340.02	606 3RD AVE W
201340-04													0.00	0	0	201340-04	VANICEK, JAMES MICHAEL	02	01340.04	606 3RD AVE W
201350-00					2000	4100	5900	6000	4700	2000	600		25300.00	3	134	201350-00	MAPES, ARLENE	08	01350	407 WASHINGTON STREET
201350-01													0.00	0	0	201350-01	HOWARD JOE	02	01350.01	407 WASHINGTON
201360-00	400	600	400	500	400		22700	32000	29800	5400	4300	5600	102100.00	65	491	201360-00	BLOOM, DAN & WILLY	08	01360	410 WASHINGTON STREET
201370-00		4100	800	800	3900	2600	11700	28900	19100	5700	2700	2600	82900.00	61	391	201370-00	NICOL, BONNIE	08	01370	413 WASHINGTON STREET
201370-01													0.00	0	0	201370-01	HARNETT J NEIL	02	01370.01	413 WASHINGTON
201380-00					1100	1400	1600	6000	3200	1800	1600	1000	17700.00	14	82	201380-00	MOSHER, BETTY	08	01380	419 WASHINGTON STREET
201390-00	2700	3300	2500	2700	7100	26000	14800	33000	22300	3500	2900	5900	126700.00	110	580	201390-00	KELLER, KIMBERLY	08	01390	418 WASHINGTON STREET
201390-01													0.00	0	0	201390-01	RUDE, ROBIN	02	01390.00	418 WASHINGTON STREET
201400-00	800	1200	4400	4400	8500	6600	6500	3500	1700	1500	1100	900	41100.00	71	154	201400-00	MOSHER, JOHN	08	01400	425 WASHINGTON STREET
201410-00	5200	3500	4700	4700	4000		61600	81800	46400	6300	4100	5300	227600.00	152	1088	201410-00	BRUNER, SMITH	08	01410	422 WASHINGTON STREET
201420-00	10300	1100	12800	3500	4000		17400	22300	17200	20000	9900	4800	123300.00	234	440	201420-00	FAIRBANK, STEVE & JILL	08	01420	502 PRESTON AVENUE W
201420-01													0.00	0	0	201420-01	POWELL, ALICE	02	01420.00	502 PRESTON AVENUE
201430-00	2800	100	1100	1100	4000		700	2600	1600	400	100		14500.00	29	51	201430-00	CARTER JEAN ADELE & RICHARDSON STANLEY	08	01430	508 PRESTON AVENUE W
201430-01													0.00	0	0	201430-01	MARINELLI DENNIS / ELLER WILLIAM	02	01430.01	508 PRESTON
201430-03													0.00	0	0	201430-03	BREAW, LEO	02	01430.03	508 PRESTON AVENUE
201440-00	4500	5200	6500	6500	4000		14800	38800	16600	21600	12900	15000	146400.00	280	521	201440-00	ST WILLIAMS CATHOLIC CHURCH	08	01440	416 PRESTON STREET

201450-00					200	100	100	200	200	200	300	200	1500.00	3	5	201450-00	FAIRBANK, STEVE & JILL	08	01450	107 SPRUCE STREET
201450-01													0.00	0	0	201450-01	LEE, VANCE A. & BONNIE L.	02	01450.01	107 SPRUCE STREET
201450-02													0.00	0	0	201450-02	HOLYK, ALEX	02	01450.02	107 SPRUCE STREET
201450-03													0.00	0	0	201450-03	ELLER, WILLIAM	02	01450.00	107 SPRUCE
201460-00	1000	1800	1100	1100	1700	1800	1400	1700	900	1100	1400	1500	16500.00	44	47	201460-00	PHILLIPS, MICHAEL & TERESA	08	01460	112 SPRUCE STREET
201460-01													0.00	0	0	201460-01	LYGHT, DAVID & DOROTHY	02	01460.01	112 SPRUCE STREET
201460-02													0.00	0	0	201460-02	LA FRINIERE MATT	02	01460.02	112 SPRUCE
201470-00	5100	5700	4200	4200	5600	6000	8000	9200	3900	4800	5000	5400	67100.00	164	204	201470-00	RIBEIRO, RAOUL	08	01470	115 SPRUCE STREET
201470-01													0.00	0	0	201470-01	LYGHT, DAVID & DOROTHY	02	01470.01	115 SPRUCE
201480-00					1000	6400	9100	25300	15000	8700	2500	3200	71200.00	31	356	201480-00	POMRENKE, DONALD & MICHAEL	08	01480	116 SPRUCE STREET
201480-01													0.00	0	0	201480-01	DEMENY, JOHN & BELLE	02	01480.01	116 SPRUCE STREET
201480-02													0.00	0	0	201480-02	PULLAN, CAMERON	02	01480.00	116 SPRUCE STREET
201480-03													0.00	0	0	201480-03	PETERSON, CHELSEA	02	01480.02	116 SPRUCE STREET
201480-04													0.00	0	0	201480-04	USDA, RURAL DEVELOPMENT	02	01480.03	116 SPRUCE STREET
201490-00					4000		3000	4300		100			11400.00	0	62	201490-00	RIBEIRO, RAOUL A & CHARLENE A	08	01490	109 SPRUCE STREET
201490-01													0.00	0	0	201490-01	KELLER KIMBERLY M	02	01490.01	109 SPRUCE
201490-02													0.00	0	0	201490-02	NEWMAN, DENNIS & MARIE	02	01490.02	109 SPRUCE STREET
201500-00	2100	2000	2500	2500	8200	3500	2200	1700	1200	36900	43300	4900	111000.00	317	292	201500-00	RIFFLE, CLARENCE	08	01500	204 SPRUCE STREET
201510-00					4000	4000	4000	2400	19900	4400	5200	5600	49500.00	60	210	201510-00	NEWMAN, DENNIS L. & MARIE	08	01510	206 SPRUCE STREET
201510-01													0.00	0	0	201510-01	PAULSEN-WILLIAMS, PEGGY	02	01510.01	206 SPRUCE STREET
201520-00	5400	3800			6300	10900	21800	33800	56600	15300	4900	4700	163500.00	104	786	201520-00	MOLZHON, BRIAN & MARIA	08	01520	207 SPRUCE STREET
201530-00	2700	2200	5400	5400	4800	3700	6900	5400	6400	4600	3900	4300	55700.00	132	173	201530-00	WILSON, JOHN	08	01530	216 SPRUCE STREET
201540-00					4000		4000	8600	5500	2700	2400	2800	30000.00	29	135	201540-00	NEWMAN, DENNIS & MARIE	08	01540	211 SPRUCE STREET
201540-01													0.00	0	0	201540-01	CORK, TERRY & KIM	02	01540.01	211 SPRUCE
201543-00	4900	7400	7600	7600	4000		6400	8900	8600	9900	6800	4800	76900.00	216	205	201543-00	HUTZ, EUGENE F & SUSAN M	08	01543	219 SPRUCE STREET
201543-01													0.00	0	0	201543-01	TAYLOR, STEVE	02	01543.01	219 SPRUCE STREET
201545-00	1400	1700	1600	1600	4000		1900	2900	16800	2200	2200	2500	38800.00	61	151	201545-00	HUTZ, EUGENE F & SUSAN M	08	01545	225 SPRUCE STREET
201545-01													0.00	0	0	201545-01	TAYLOR, STEVE	02	01545.00	225 SPRUCE STREET
201550-00	1500	2300	1800	1800	4000		4900	6300	4100	1100	600	2000	30400.00	55	111	201550-00	FARLAN, MICAH J.	08	01550	220 SPRUCE STREET
201550-01													0.00	0	0	201550-01	SCOTT, BOBBIE	02	01550.01	220 SPRUCE STREET
201555-00	3500	3700	3200	3200	4000	4000	12000		20100	6900	3300	3300	67200.00	112	255	201555-00	NEWMAN, DENNIS & MARIE	08	01555	226 SPRUCE STREET
201560-00	8600	7800	20700	9600	22000	19200	20400	30500	25000	10100	7700	9100	190700.00	351	691	201560-00	LAKE, DONALD & CAROL	08	01560	303 SPRUCE STREET
201560-02													0.00	0	0	201560-02	LAKE DONALD & CAROL	02	01560.02	303 SPRUCE
201560-03													0.00	0	0	201560-03	FRANCK RAY	02	01560.03	303 SPRUCE
201570-00	900	1200	900	900	1200	900	1900	4700	2600	1000	900	800	17900.00	31	67	201570-00	WARME REVOCABLE TRUST, CHRISTOPHER J	08	01570	311 SPRUCE STREET APT. A
201570-01													0.00	0	0	201570-01	HILL, JEAN	02	01570.01	311 SPRUCE STREET APT. A
201574-00	900	600	2100	2100	1200	1400	1000	1700	1100	1700	1300	1900	17000.00	49	44	201574-00	WARME REVOCABLE TRUST, CHRISTOPHER J	08	01574	311 SPRUCE STREET APT. B
201574-01													0.00	0	0	201574-01	HILL, JEAN	02	01574.01	311 SPRUCE STREET APT. B
201580-00					1600	2500	4500	6700	6900	2300	2000	2300	28800.00	24	133	201580-00	BROWN, MICHAEL	08	01580	317 SPRUCE STREET
201590-00	1300	4900	1100	1100	2500	2400	2400	3200	2100	2700	2000	2200	27900.00	70	83	201590-00	HENSLEY, GARY L	08	01590	323 SPRUCE STREET
201590-01													0.00	0	0	201590-01	LARSON, JAMES E	02	01590.01	323 SPRUCE STREET
201590-02													0.00	0	0	201590-02	LARSON, THOMAS M	02	01590.02	323 SPRUCE STREET
201600-00	212,000	9,000	266,000	250,000	200,000	200,000	200,000		700,000	582,000	276,000	328,000	3223000.00	7409	10228	201600-00	SCHOOL DISTRICT #2	08	01600	315 COLUMBIA STREET N - SCHOOL - G
201605-00													0.00	0	0	201605-00	SCHOOL DISTRICT #2	08	01605	306 HALEY AVE W - BASKET BALL COUR
201610-00	600	900	6200	6200	3700	3100	3100	4400	2900	5300	4600	5500	46500.00	133	122	201610-00	JONES, GORDON P.	08	01610	403 SPRUCE STREET
201620-00	2600	3000	2600	2600	3900	9600	10100	11500	8500	4100	2700	2800	64000.00	90	259	201620-00	FARLAN, GLENDA	08	01620	412 3RD AVE WEST
201630-00					2900	2400	1800	2600	1600	2400	2000	2900	18600.00	27	74	201630-00	CREEKMORE, ALBERT & DRINDA	08	01630	405 SPRUCE STREET
201630-01													0.00	0	0	201630-01	MINEMYER, JUDY	02	01630.01	405 SPRUCE STREET
201630-02													0.00	0	0	201630-02	LARGENT, ROBYN F. & RACHEL L.	02	01630.00	405 SPRUCE STREET
201630-03													0.00	0	0	201630-03	LEMBO, NATHAN N	02	01630.02	405 SPRUCE STREET
201640-00		300			900	900	700	1000	900	600	600	700	6600.00	9	27	201640-00	OLSON, MARTHA	08	01640	410 SPRUCE STREET
201640-02													0.00	0	0			10		
201650-00			100	100	5800	5200	4400	7800	10900	1700	3000	3200	42200.00	35	195	201650-00	ARRANTS, STAN & EVA	08	01650	411 SPRUCE STREET
201655-00	3000	3900	2200	2200	4000		3800	15700	6000	2400	2500	1600	47300.00	85	173	201655-00	ROBBINS, EVERETT	08	01655	415 SPRUCE STREET
201655-01													0.00	0	0	201655-01	MINEMYER, JUDY	02	01655.01	415 SPRUCE STREET
201655-02													0.00	0	0	201655-02	LARGENT, RACHEL	02	01655.02	415 SPRUCE STREET
201657-00					4000		400	900	600	900	700	900	8400.00	9	37	201657-00	ROBBINS, EVERETT	08	01657	417 SPRUCE STREET
201657-01													0.00	0	0	201657-01	MINEMYER JUDY	02	01657.01	417 SPRUCE STREET
201657-03													0.00	0	0	201657-03	LARGENT, RACHEL	02	01657.03	417 SPRUCE STREET
201659-00					4000		3400	5700	3700	4600	5200	5400	32000.00	59	116	201659-00	ROBBINS, EVERETT	08	01659	419 SPRUCE STREET
201659-01													0.00	0	0	201659-01	LARGENT, ROBYN & RACHEL	02	01659.01	419 SPRUCE STREET
201660-00	3100	2100	1800	1700	18400	29000	40100	26200	23000	3600	1900	2100	153000.00	70	763	201660-00	MINEMYER, J.	08	01660	420 SPRUCE STREET
201665-00	1300	1700	1600	1600	4000	4000	9000		7800	1700	1500	1700	35900.00	52	144	201665-00	BURTNETT, JAMES	08	01665	428 SPRUCE STREET
201670-00	500	600	900	900	8500	10100	9600	16000	11300	12100	3600	700	74800.00	40	367	201670-00	BRAY, DON	08	01670	427 SPRUCE STREET
201680-00	1300	1700	1600	1600	3000	9200	15200	6600	5500	4500	1500	1600	53300.00	51	239	201680-00	VAUGHN, VIRGINIA	08	01680	502 4TH AVENUE W
201680-01													0.00	0	0	201680-01	DEACON, TARA LYNN	02	01680.01	502 4TH AVENUE W
201690-00	3000	2500	3900	3900	18500	4400	7900	20900	32400	2900	2000	3500	105800.00	104	473	201690-00	MILLER DONNA	08	01690	412 4TH AVE WEST
201690-01													0.00	0	0	201690-01	DUFFEL, DEWEY R	02	01690.00	412 4TH AVE WEST
201700-00													0.00	0	0	201700-00	ST. WILLIAM PARISH	08	01700	105 COLUMBIA STREET N
201700-01													0.00	0	0	201700-01	HOYT, TIM R.	02	01700.01	105 N COLUMBIA STREET
201710-00								700	1200	1100	900	2200	6100.00	17	16	201710-00	DENISON, REX & DONNA	08	01710	322 PRESTON AVENUE W
201710-01													0.00	0	0	201710-01	STIPE, GEORGE	02	01710.00	322 PRESTON AVENUE W
201710-02	1300	100	700	10700	9000		100						21900.00	71	49	201710-02	BINGHAM, MICHAEL & MICHELLE	08	01710.01	322 PRESTON AVENUE W
201720-00	3900	3700	3500	3500	3800	4500	8700	6700	4500	4200	3900	4100	55000.00	125	176	201720-00	FRANCK , COREY & ALYSHA	08	01720	109 COLUMBIA STREET N
201720-01													0.00	0	0	201720-01	LYGHT, DAVID & DOROTHY	02	01720.00	109 N COLUMBIA
201720-02													0.00	0	0	201720-02	EPPERSON, ZARACH	02	01720.01	109 N COLUMBIA STREET
201730-00	1900	700	1200	1200	300	1000	1000	1100	2100	1200	1000	1100	13800.00	39	36	201730-00	ARRANTS, STAN & EVA	08	01730	110 COLUMBIA STREET N
201730-02													0.00	0	0	201730-02	MIKE CHENOWETH	02	01730.02	110 N COLUMBIA
201740-00	2000	2000	2200	2200	3100	4300	9800	13800	17400	8200	2700	2400	70100.00	75	308	201740-00	BUCHANAN, SHERLEY & DEBORAH	08	01740	116 COLUMBIA STREET N
201750-00	5600	5200	3900	3900	4000	4000	5000	6000	4700	5700	5400	5300	58700.00	162	160	201750-00	BUCHANAN, SHERLEY & DEBORAH	08	01750	317 OGDEN AVENUE W
201760-00	9500	6200	6200	6700	3500	6600	4900	5100	4800	5500	5400	6000	70400.00	221	165	201760-00	FLETCHER, ANDREW	08	01760	115 COLUMBIA STREET N
201760-01													0.00	0	0	201760-01	PARADIS, LEONARD	02	01760.01	115 N COLUMBIA STREET
201770-01													0.00	0	0	201770-01	ANDERSON, DORA	02	01770.01	203 N COLUMBIA
201780-00	1200	1500	1300	1300	3700	5400	10900	10900	6700	3100	900	1500	48400.00	43	221	201780-00	CLARK, RONALD H.	08	01780	214 COLUMBIA STREET N
201780-01													0.00	0	0	201780-01	THOMPSON FALLS LODGE NO 70	02	01780.01	214 COLUMBIA STREET N
201790-00	4800	5800	5500	5500	6200	4600	4000	1300	8700	6600	5200	5300	63500.00	177	171	201790-00	THOMAS, STEVE	08	01790	207 COLUMBIA STREET N
201800-00	900	1100	1400	1400	1500	1700	1300	1800	1100	1100	1200	2100	16600.00	45	46	201800-00	HUFF, ERNEST J & CHERYL A	08	01800	213 COLUMBIA STREET N
201800-01													0.00	0	0	201800-01	STRANG, DEANNA	02	01800.01	213 N COLUMBIA STREET
201800-02													0.00	0	0	201800-02	THOMAS JR, STEVEN D.	02	01800.02	213 COLUMBIA STREET N
201810-00	8000	1800	9500	400	4100	6300	6700	6800	5000	3900	4300	5300	62100.00	162	178	201810-00	TRAIN, ANTHONY & CHRISTINA	08	01810	222 COLUMBIA STREET N
201810-01													0.00	0	0	201810-01	STRANG CLIFTON & JULIA	02	01810.01	222 N COLUMBIA ST
201810-02													0.00	0	0	201810-02	LARGENT, ROBYN F. & RACHEL L.	02	01810.00	222 COLUMBIA STREET N
201810-03													0.00	0	0	201810-03	RAMSEY, ALAN	02	01810.03	222 N COLUMBIA STREET
201810-04													0.00	0	0	201810-04	LARGENT, ROBYN & RACHEL	02	01810.04	222 N COLUMBIA STREET
201810-05													0.00	0	0	201810-05	FNMA	02	01810.02	222 COLUMBIA STREET N
201810-06													0.00	0	0	201810-06	AMERICAN DREAM REALTY	02	01810.05	222 COLUMBIA STREET N
201820-00						200		1200	1900	700	100	100	4200.00	1	22	201820-00	GIBSON, SANDRA SUE	08	01820	226 COLUMBIA STREET N
201820-01													0.00	0	0	201820-01	WHITTENBURG, SUE	02	01820.01	226 N COLUMBIA ST
201820-02													0.00	0	0	201820-02	HARDING, DALE & TAMMY	02	01820.00	226 COLUMBIA STREET N
201825-00	1100	2200	700	600	1400	2800	6600	7000	10900	1300	1200	1500	37300.00	40	163	201825-00	GRIMM, DORIS	08	01825	405 HALEY AVENUE W
201825-01													0.00	0	0	201825-01	STEVENS, HELEN M.	02	01825.00	405 HALEY AVENUE W
201830-00	1200	900	700	700	1000	1000	1000	1100	900	900	900	1000	11300.00	30	32	201830-00	HALPOP, JOHN	08	01830	406 3RD AVE WEST

201840-00											3600	3500	7100.00	39	0	201840-00	JONES, NATAUSHA & TORTI, MARKUS	08	01840	404 COLUMBIA STREET N
201840-01													0.00	0	0	201840-01	CLAY, DAVID D.	02	01840.00	404 COLUMBIA STREET N
201840-02	2800	1900	6600	6900	4000	4000	200			1400			27800.00	101	52	201840-02	CLAY CHRISTINE	08	01840.01	404 COLUMBIA STREET N
201850-00					2100	5500	7900	3400	8000	2200			29100.00	0	158	201850-00	OVITT, NORMAN L & BETTY L	08	01850	406 COLUMBIA STREET N
201850-01													0.00	0	0	201850-01	BENTON, EARL	02	01850.00	406 COLUMBIA STREET N
201860-00	2200	1500	3400	3400	4000		3000	7800	6700	2400	2500	4200	41100.00	95	130	201860-00	GIEGLING, JOSEPH	08	01860	410 COLUMBIA STREET N
201860-01													0.00	0	0	201860-01	GUNN GERALD & VANEK SHERRIE	02	01860.00	410 COLUMBIA STREET N
201860-02													0.00	0	0	201860-02	FIRST SECURITY BANK	02	01860.01	410 COLUMBIA STREET N
201860-03													0.00	0	0	201860-03	TERRY, ROGER & NORMA JEAN	02	01860.02	410 COLUMBIA STREET N
201865-00	3200	4500	3600	3600	1900	5500	5000	6700	7800	3900	3300	4500	53500.00	125	167	201865-00	DONALDSON, BRUCE M & LAURA C	08	01865	415 COLUMBIA STREET N
201865-01													0.00	0	0	201865-01	GLOVER, DARLENE	02	01865.00	415 N COLUMBIA STREET
201870-00					4000	4000	4000						12000.00	0	65	201870-00	QUIMBY, LEINA GRACE	08	01870	418 COLUMBIA STREET N
201870-01													0.00	0	0	201870-01	ULVER, EDNA	02	01870.00	418 COLUMBIA STREET N
201870-02													0.00	0	0	201870-02	ULVER FAMILY TRUST % VICTOR ULVER	02	01870.01	418 COLUMBIA STREET N
201870-03	2600	600											3200.00	18	0	201870-03	QUIMBY, JOSHUA	02	01870.02	418 COLUMBIA STREET N
201880-00	2100	1800	2000	2000	1400	1900	2500	2800	2100	2200	2600	2900	26300.00	74	70	201880-00	AUSTIN, ROD	08	01880	428 COLUMBIA STREET N
201890-00	2900	3500	2300	3000	9500	13300	20700	22800	17900	3400	3400	3300	106000.00	102	476	201890-00	KOKER, DENNIS & LISA	08	01890	427 COLUMBIA STREET N
201890-01													0.00	0	0	201890-01	JOHNSON, GARY	02	01890.00	427 COLUMBIA STREET N
201900-00					6000	7600	14700	30200	19200	4900			82600.00	0	449	201900-00	ROBINSON, NINA	08	01900	503 COLUMBIA STREET N
201901-00	3100	3600	3000	3500	4000		16700	22900	15800	7400	3100	3200	86300.00	108	363	201901-00	ROBINSON, NINA	08	01901	511 COLUMBIA STREET N
201905-00					4000		1900	3800	5300	2800	2100	2600	22500.00	26	97	201905-00	CHENOWETH, DARRELL & SHAWNA RAE	08	01905	514 COLUMBIA STREET N
201905-02													0.00	0	0	201905-02	CHL	02	01905.02	514 COLUMBIA
201910-00	1200	1300	1100	1400	4000		3400	3200	2300	400	300	1300	19900.00	36	72	201910-00	GRIMM, DARRELL	08	01910	506 COLUMBIA STREET N
201920-00							100						100.00	0	1	201920-00	CHENOWETH, DARRELL & SHAWNA RAE	02	019200	510 COLUMBIA STREET N
201920-01													0.00	0	0	201920-01	PARKER, NOLAN	02	01920.	516 N COLUMBIA
201920-02													0.00	0	0	201920-02	CHEYNEY LENNY D	02	01920	516 N COLUMBIA
201920-03													0.00	0	0	201920-03	PASSALAQUA FAMILY TRUST	02	019200.00	510 COLUMBIA STREET N
201925-00			100	100	400	400	400	400	4600	4800	900	200	12300.00	7	60	201925-00	PLAINS RANGER DISTRICT	08	01925	518 COLUMBIA STREET N
201930-00	100	100	300	300	400		1200	2400	1500	1500	2400	1800	12000.00	28	38	201930-00	MT FISH, WILDLIFE & PARKS	08	01930	601 COLUMBIA STREET N
201935-01													0.00	0	0	201935-01	USDA - PLAINS RANGER DISTRICT	02	01935	TREE ORCHARD
201940-01													0.00	0	0	201940-01	COEN RONALD	02	01940	402 gallatin
201950-00	4700	500	12600	8500	4000		21400	28000	25200	16200	14800	9400	145300.00	279	515	201950-00	LYGHT, DAVID & DOROTHY	08	01950	308 PRESTON
201950-01													0.00	0	0	201950-01	TURK, MRS RAMONA	02	01950.00	312 PRESTON
201960-00	4000	5000	4400	400	4000		5400	5700	4200	4700	4100	7100	49000.00	138	130	201960-00	WELLS, DICK	08	01960	300 PRESTON
201970-00													0.00	0	0			10		
201970-01					4000								4000.00	0	22			10		
201980-00					4000			8100	15200		1400		28700.00	8	148	201980-00	PARKER, NOLAN	08	01980	108 Cedar Street
201990-00													0.00	0	0	201990-00	TRAIN PROPERTIES LLC	08	01990	PRESTON
201990-01													0.00	0	0	201990-01	MCAULIFFE, JIM & ROSELLA	08	01990.01	108 CEDAR STREET
202000-00	4100	5000	4400	4400	6600	11300	10300	15900	15300	8600	3800	4400	94100.00	144	370	202000-00	CARMAN, NEIL	08	02000	115 CEDAR STREET
202010-00	100	100	100	100	4000	4000	10300	2600	11000	5200	1700	200	39400.00	13	202	202010-00	CARMAN, NEIL	08	02010	114 CEDAR STREET
202020-00					4000		20000	19300	2600				45900.00	0	249	202020-00	CARMAN, NEIL & DIXIE	08	02020	
202020-02													0.00	0	0			10		309 OGDEN AVENUE W
202030-00	2900	2600	400	400	4000		3000	4300	3700	3100	600	1000	26000.00	44	98	202030-00	NOWAK, CHRISTINE T	08	02030	202 CEDAR STREET
202030-01													0.00	0	0	202030-01	TORGRIMSON, KENNETH	02	02030.00	202 CEDAR STREET
202040-00	5500	7200	5100	5100	12000	20300	13100	25200	17700	12200	10800	11100	145300.00	248	546	202040-00	HILL, DIXIE	08	02040	207 CEDAR STREET
202050-00						4000	4000		600		100		8700.00	1	47	202050-00	PREVIS, ARTHUR	08	02050	216 CEDAR STREET
202060-00					100	1000	3100	2200			900		7300.00	5	35	202060-00	BOESPFLUG MICHAEL & HOLO MARY LYNN	08	02060	219 CEDAR STREET
202060-01													0.00	0	0	202060-01	KNUTH, RONALD D. & JOELLEN	02	02060.01	219 CEDAR STREET
202060-02													0.00	0	0	202060-02	KATANA, RAYLENE F.	02	02060.00	219 CEDAR STREET
202060-03													0.00	0	0	202060-03	WHITEFISH CU	02	02060.02	219 CEDAR STREET
202070-00	3500	4900	3600	3600	8600	14500	17700	22100	16300	5600	4300	4800	109500.00	136	461	202070-00	WHITTENBURG, KEVIN & SUE	08	02070	211 HALEY AVENUE W
202070-01													0.00	0	0	202070-01	NORMANDEAU, BECKI	02	02070.01	211 HALEY AVENUE W
202070-02													0.00	0	0	202070-02	WHITTENBURG DANIEL	02	02070.02	211 WEST HALEY AVE.
202080-00	20,000	35,000	45,000	80,000	80,000	80,000	580,000	690,000	530,000	588,000	87,000	66,000	2881000.00	1840	13848	202080-00	SCHOOL DISTRICT #2 - JR HIGH SCHOOL	08	02080	212 HALEY AVE W
202090-00	5100	500	4400	4400	2200	3900	700	2000	600	800	500	500	25600.00	85	55	202090-00	ROGERS, BARBARA	08	02090	212 3RD AVE WEST
202090-01													0.00	0	0	202090-01	KONOPKA LATASHA	02	02090.01	212 3RD AVE WEST
202100-00	3300	5000	3000	3700	3700	5100	3300	8800	5400	6300	4200	5200	57000.00	135	177	202100-00	BROWN, RAYMOND C	08	02100	405 CEDAR STREET
202100-01													0.00	0	0	202100-01	HILL, JEAN	02	02100.01	405 CEDAR STREET
202100-02													0.00	0	0	202100-02	MILLER, WILLIAM N.	02	02100.02	405 CEDAR STREET
202105-00	2300	5800	1500	1500	4000		3800	3600	2900	2500	1700	3500	33100.00	90	91	202105-00	WINE, LEROY & KAYLEEN	08	02105.0	411 CEDAR STREET
202105-01													0.00	0	0	202105-01	BROYHILL, TIFFANY	02	02105.00	411 CEDAR STREET
202105-03													0.00	0	0	202105-03	FIRST SECURITY BANK	02	02105.01	411 CEDAR STREET
202110-00	2000	3400	3300	3600	5600	5000	6600	7000	7600	4800	3100	3500	55500.00	104	199	202110-00	ANDERSON, JAMES E.	08	02110	415 CEDAR STREET
202110-01													0.00	0	0	202110-01	MCGREGGOR PAT	02	02110.01	415 CEDAR
202120-00	2300	3000	2000	2000	4000		8700	21500	12000	2900	2400	3200	64000.00	82	267	202120-00	CREEKMORE, ALBERT & DRINDA	08	02120	419 CEDAR STREET
202130-00	2700	2100			4100	13100	4800	12500	7600	11000	60900	1700	120500.00	372	289	202130-00	BRIETENBACH, KATHLEEN	08	02130	414 CEDAR STREET
202140-01													0.00	0	0	202140-01	T.C.I. CABLEVISION	02	02140	422 CEDAR
202150-00					2000	5200	9200	10900	8400	2700	2000	2500	42900.00	25	209	202150-00	FLEMMER, PAUL & RHONDA	08	02150	428 CEDAR STREET
202150-01													0.00	0	0	202150-01	KOSTKA, KATHY	02	02150.00	426 CEDAR STREET
202150-03													0.00	0	0	202150-03	BYCZEK, TODD S & ELIZABETH J	02	02150.01	428 CEDAR STREET
202160-00					1700	3500	5800	9600	8600	2500	2000	2800	36500.00	27	172	202160-00	SHULTZ, DANIEL G & DELLA M	08	02160	427 CEDAR STREET
202160-01													0.00	0	0	202160-01	KNUDSON, NORMAN	02	02160.00	427 CEDAR - 425 CUSTOM CUTTING
202160-02													0.00	0	0	202160-02	LIGHT, CARL & SHIRLEY	02	02160.01	427 CEDAR STREET
202170-00					3600	2400	8600	12400	12700	2100	4100	5700	51600.00	54	227	202170-00	SCHAEFER ENTERPRISES	08	02170	506 CEDAR STREET
202170-01													0.00	0	0	202170-01	JORDON MARION	02	02170.01	506 CEDAR
202170-02													0.00	0	0	202170-02	JONES LUTHER E	02	02170.02	506 CEDAR
202180-00	5600	7200	6800	6800	4000		7200	5000	5100	6400	6100	2900	63100.00	196	151	202180-00	PULFER, CHAD	08	02180	503 CEDAR STREET
202180-01													0.00	0	0	202180-01	PETRI, BRUCE	02	02180.01	503 CEDAR STREET
202190-01													0.00	0	0	202190-01	BORDEN JAMES	02	02190	509 CEDAR
202200-01													0.00	0	0	202200-01	BORDEN JAMES	02	02200	511 CEDAR
202210-01													0.00	0	0	202210-01	BORDEN JAMES	02	02210	513 CEDAR
202220-00					4000		3200	4800	3500	4400	4100	4100	28100.00	45	108	202220-00	BORDEN, JAMES M.	08	02220	515 CEDAR STREET
202230-00	4700	6000	4500	4500	4000		16100	6600	7200	4100	3500	4100	65300.00	151	207	202230-00	ANDERSEN, DAN	08	02230	522 CEDAR STREET
202240-00	16000	20500	12400	17900	17000		10900	15200	37000	10700	7800	9900	175300.00	467	493	202240-00	FOWLE, MICHAEL	08	02240	202 PRESTON AVENUE W
202240-01													0.00	0	0	202240-01	ELLER, WILLIAM	02	02240.01	202 PRESTON AVENUE W
202250-00	4000	4900	3800	3800	4000		17300	22800	16400	8500	4000	4100	93600.00	136	375	202250-00	PARKER NOLAN & LINDA	08	02250	120 PRESTON AVENUE W
202250-02													0.00	0	0	202250-02	GILMORE ROBERT & BILLIE JEAN	02	02250.01	120 PRESTON
202260-00	6100	7600	5800	5800	4000		8900	14800	7100	6300	5100	7600	79100.00	210	223	202260-00	BROWN, JASON D. & JENNA J. S.	08	02260	112 PRESTON AVENUE W
202260-01													0.00	0	0	202260-01	MANFRE MICHAEL	02	02260.01	112 PRESTON
202260-02													0.00	0	0	202260-02	MICHAELS, STEVE & CHRISTINE L.	02	02260.00	112 PRESTON AVENUE
202270-00	4800	6200	6300	6300	4000		7100	12700	7900	6200	4500	4700	70700.00	181	206	202270-00	SHUTTLE, STEVE	08	02270	108 PRESTON AVENUE W
202270-01													0.00	0	0	202270-01	COURTNEY LAWRENCE G	02	0227001	108 PRESTON
202270-02													0.00	0	0	202270-02	GIBSON, SANDRA S.	02	02270.00	108 PRESTON AVENUE
202280-00	600	1100	700	700	4000		800	1600	600	700	700	700	12200.00	25	42	202280-00	WOLLASTON, JEFF	08	02280	116 FERRY STREET N
202290-00	1900	3000	2400	2400	4000		3600	9900	8500	3900	2100	2600	44300.00	80	163	202290-00	DOWELL, JAY & TERRI	08	02290	115 FERRY STREET N
202300-00							4300	8500	7100	2700	2300	2300	27200.00	25	123	202300-00	MATTHEW, KATHERIN F.	08	02300	205 FERRY STREET N
202300-01													0.00	0	0	202300-01	JOHNSON KAREN J	02	02300.01	205 N FERRY
202300-02	1700	2700	2600	2600	4000								13600.00	53	22	202300-02	PHILLIPPI, MEGHAN	08	02300.01	205 FERRY STREET N
202310-00	3700	4600	3800	3800	4000		24000	28400	23700	4900	4000	5100	110000.00	138	462	202310-00	MOSELEY JR, DAVID M	08	02310	204 FERRY STREET N
202310-01													0.00	0	0	202310-01	THOMAS JR., STEVEN & JENNIFER SWANSON	02	02310.01	204 N FERRY
202310-02													0.00	0	0	202310-02	MUNSON, ROBERTA	02	02310.00	204 N FERRY STREET

202320-00													0.00	0	0	202320-00	SCOTT, ROY & TINA	08	02320	209 FERRY STREET N
202320-01													0.00	0	0	202320-01	BOSTWICK, WILLIAM & BARBARA	02	02320.00	209 N FERRY STREET
202320-02													0.00	0	0	202320-02	SHANNON, JUSTIN & KIMBERLY	02	02320.01	209 FERRY STREET N
202320-03											100		100.00	1	0	202320-03	FLATHEAD LAND & HOME INC	08	02320.01	209 FERRY STREET N
202330-00	1000	1000	700	700	4000		17200	13900	17500	5400	4800	5400	71600.00	75	315	202330-00	SANFORD, KENNETH	08	02330	212 FERRY STREET N
202330-01													0.00	0	0	202330-01	TURK ROBERT & ROSALIE	02	02330.00	212 N FERRY
202340-00	3400	2900	2300	3000	4000		16400	18100	12500	5700	1400	2100	71800.00	83	308	202340-00	PEELE, JAKI	08	02340	219 FERRY STREET N
202350-00		100			4000								4100.00	1	22	202350-00	THORPE, WANDA L.	08	02350	216 FERRY STREET N
202360-00	2800	3600	3300	3300	4000		14600	16600	10100	18700	6700	2600	86300.00	123	348	202360-00	SUSIC, JACOB & DEANNE	08	02360	227 FERRY STREET N
202360-01													0.00	0	0	202360-01	BROWN JASON	02	02360.01	227 N FERRY
202360-02													0.00	0	0	202360-02	TERRY, MICHAEL ANDREW	02	0236002	227 N FERRY STREET
202360-03													0.00	0	0	202360-03	PULLAN, CAMERON	02	02360.00	227 FERRY STREET N
202370-00	4300	7700	4100	4100	6800	8100	9500	12000	10000	6900	4600	4600	82700.00	162	290	202370-00	FRANCK, COREY & ALYSHA	08	02370	228 FERRY STREET N
202370-01													0.00	0	0	202370-01	TRAVER, FRANCES	02	02370.01	228 FERRY STREET N
202380-00					3800	7700	20800	15500	17600	4700	3900	4000	78000.00	44	381	202380-00	JONES, CHARLES & BRIDGET	08	02380	304 FERRY STREET N
202380-01													0.00	0	0	202380-01	LARSEN, STERLING	02	02380.01	304 N FERRY STREET
202390-00	3500	200	2600	2600	6500	5100	2700	6100	3600	4300	3800	3600	44600.00	90	154	202390-00	ARRANTS, STANLEY & EVA	08	02390	312 FERRY STREET N
202400-01													0.00	0	0	202400-01	SMITH CHARLES E	02	02400	316 N FERRY
202410-00	3300	3100	1800	1800	4200	3700	2700	15300	7600	2400	2300	2600	50800.00	82	195	202410-00	SMITH, SAIRA	08	02410	320 FERRY STREET N
202440-00					1000	1300	8300	11200	6400	5300	10000	14700	58200.00	136	182	202440-00	CROWDER, JAMES R & SUSAN A	08	02440	326 FERRY STREET N
202440-01													0.00	0	0	202440-01	BRAUER AVERAL	02	02440.00	326 N FERRY
202440-02													0.00	0	0	202440-02	MINEMYER JUDY	02	02440.02	326 N FERRY STREET
202440-03													0.00	0	0	202440-03	TALBOOM, ERICK & ELLEN A.	02	02440.01	326 FERRY STREET N
202440-04													0.00	0	0	202440-04	AMERICAN DREAM REALTY	02	02440.03	326 FERRY STREET N
202440-05													0.00	0	0	202440-05	WHITTENBURG, DANIEL W & MARGARET A	02	02440.04	326 FERRY STREET N
202440-06	1100	1200	1500	1500									5300.00	29	0	202440-06	MCMASTER, VALERIE	02	02440.05	326 FERRY STREET N
202450-01													0.00	0	0	202450-01	MUHN MARK	02	02450	206 3RD AVE WEST
202450-02													0.00	0	0	202450-02	SCHAEFER ENTERPRISES	02	02450TW	206 3RD AVE WEST
202461-00	3400	2500	5800	5800	3000	17800	22900	24400	32000	21800	3400	4300	147100.00	139	663	202461-00	SCHAEFER ENTERPRISES	08	02461	403 FERRY STREET N
202461-01													0.00	0	0	202461-01	MUHN MARK	02	02461.01	403 N FERRY
202462-01													0.00	0	0	202462-01	RIFFLE, MARK & ELIZABETH	02	02462	404 FERRY
202470-00					1600	5400	2800	3700	2700	1600	1100	1700	20600.00	15	97	202470-00	SCHAEFER ENTERPRISES	08	02470	407 FERRY STREET N
202470-01													0.00	0	0	202470-01	MUHN MARK	02	02470.01	407 N FERRY
202475-00	40700	12700	4400	4400	4000		5100	6900	3300	5100	2000	4000	92600.00	377	133	202475-00	RIFFLE, MARK & ELIZABETH	08	02475	408 FERRY STREET N
202480-00	600	300	500	500	400	500	400	600	700	500	500	700	6200.00	17	17	202480-00	SCHAEFER ENTERPRISES	08	02480	409 FERRY STREET N
202480-01													0.00	0	0	202480-01	MUHN MARK	02	02480.01	409 N FERRY
202490-00	1900		6600	6600	4000	4000	2800	3500	4400	2500	2200	2900	41400.00	112	115	202490-00	WEDEL, MARK	08	02490	414 FERRY STREET N
202500-00													0.00	0	0	202500-00	ALBANO, SETH & TASHA	08	02500	413 FERRY STREET N
202500-01													0.00	0	0	202500-01	HENDRICKSON, MIKE & JUDY	02	02500.00	413 FERRY STREET N
202500-02													0.00	0	0	202500-02	DAMASKOS, TODD & DORALENE	02	02500.01	413 FERRY STREET N
202500-03													0.00	0	0	202500-03	HENDRICKSON, JUDITH	02	02500.02	413 FERRY STREET N
202500-04					4800	5300	8500	10900	8200	6900	6100	5700	56400.00	65	242	202500-04	ALBANO, SETH & TASHA	08	02500.01	413 FERRY STREET N
202510-00					3200	8700	20800	9300	16800	2900	2600	2900	67200.00	30	335	202510-00	GREGORY, LISA M. & SHAYNE	08	02510	420 FERRY STREET N
202510-01													0.00	0	0	202510-01	FRANCK FAITH	02	02510.01	420 N FERRY
202520-00	4300	3100	10900	3900	4000		5900	9000	6000	8500	7900	9800	73300.00	220	182	202520-00	MCGANN, KEVIN & TRACY	08	02520	421 FERRY STREET N
202530-00					2700	3500	3900	8100	12800	13800	15200	19800	79800.00	193	243	202530-00	PARKER, NOLAN	08	02530	426 FERRY STREET N
202540-00	5300	2200	2200	2200	13100	17300	12900	24200	21300	8400	4800	6500	120400.00	128	528	202540-00	GREENOUGH, LANA	08	02540	111 4TH AVE W
202540-01													0.00	0	0	202540-01	LAWS, LILLIAN	02	02540.01	111 4TH AVE WEST
202540-02													0.00	0	0	202540-02	KELLY, CHRISTINA	02	02540.02	111 4TH AVE W
202550-00	2400	2800	2600	2600	2400	3000	3700	3300	3000	3700	3500	3900	36900.00	98	104	202550-00	LEFORCE, CLINT & JUDITH	08	02550	425 FERRY STREET N
202550-01													0.00	0	0	202550-01	PARKER, FRANK	02	02550.01	425 N FERRY
202550-02													0.00	0	0	202550-02	BROWN CARLA	02	02550.02	425 N FERRY
202550-03													0.00	0	0	202550-03	WAKEFIELD, CHRISTY	02	02550.03	425 N FERRY STREET
202560-01													0.00	0	0	202560-01	SOULE IRA	02	02560	503 N FERRY
202570-01													0.00	0	0	202570-01	COLE, SHERI	02	02570	504 FERRY N
202580-00	4000	2200	7100	7100	4000	4000	1900	2800	2700	4000	3200	3500	46500.00	150	105	202580-00	SOULE, VONA	08	02580	507 FERRY STREET N
202590-00	2900	2000	4400	4400	2800	6100	11400	17300	15700	3700	2800	3700	77200.00	112	310	202590-00	WRIGHT, RONALD C. SR & RONI	08	02590	518 FERRY STREET N
202590-01													0.00	0	0	202590-01	HAASE, DAVID	02	02590.00	518 N FERRY STREET
202600-00	400							8100	9300	5300	5000	6800	34900.00	67	123	202600-00	GUNDERSON, DOUGLAS K & CONNIE DEE	08	02600	112 4TH AVE WEST
202600-01													0.00	0	0	202600-01	COLE, SHERI	02	02600.01	112 4TH AVE WEST
302610-00	3500	4500	3600	3600	4000		8600	4400	18800	5100	3500	3800	63400.00	124	222	302610-00	PARKER, NOLAN	08	02610	104 PRESTON AVENUE W
302620-00	3300	3700	4100	4100	4000		1700	1600	1700	2000	1500	2700	30400.00	107	60	302620-00	CONTRERAS, EUGENE	08	02620	106 GROVE STREET
302620-01													0.00	0	0	302620-01	MCFARLAND JOHN	03	02620.00	106 GROVE
302630-00	6600	1300	5500	5500	4000		600	600	300	300	100	100	24900.00	106	32	302630-00	THOMPSON, GINGER RENEE'	08	02630	107 GROVE STREET
302630-01													0.00	0	0	302630-01	DENSON, CHARLES	03	02630.01	107 GROVE STREET
302630-02													0.00	0	0	302630-02	PIERCE, ROBERTA ANN	03	02630.00	107 GROVE STREET
302640-00	4000	2000	5100	5100	4000		22400	27800	24700	8800	4400	3800	112100.00	135	477	302640-00	MAGDALENE, CHRISTINE	08	02640	111 GROVE STREET
302650-00	2900	2100	5100	5100	4000		4800	5400	7300	3500	3100	3800	47100.00	122	136	302650-00	GRIMM, DOUG	08	02650	117 GROVE STREET
302660-00	2300	2100	3200	3200	4000	200	1300	1400	700	1200	1300	1500	22400.00	75	48	302660-00	JOHNSON, HELEN M.C.	08	02660	118 GROVE STREET
302670-00									7900	5100	27500	3500	44000.00	171	71	302670-00	TERRAZAS, MARC	08	02670	203 GROVE STREET
302670-01													0.00	0	0	302670-01	BARKER VIRGIL K	03	02670.00	203 GROVE
302670-02													0.00	0	0	302670-02	GRAZIER, AMANDA	03	02670.01	203 GROVE
302670-03													0.00	0	0	302670-03	BARNES, SHANE	03	02670.03	203 GROVE STREET
302670-04													0.00	0	0	302670-04	HARLOW, MELINDA C.	03	02670.02	203 GROVE STREET
302670-05													0.00	0	0	302670-05	MAJESTIC MONTANA PROPERTIES	03	02670.04	203 GROVE STREET
302670-06													0.00	0	0	302670-06	JEWELL, MALLARD & SUSAN	03	02670.05	203 GROVE STREET
302670-08	1200	500			4000		100						5800.00	9	22	302670-08	FARR, MARK RANDALL	08	02670.07	203 GROVE STREET
302680-00	3500	2300	3100	3100	4000		15300	21100	17200	9300	2100	2800	83800.00	93	364	302680-00	TORGRIMSON, DARRELL	08	02680	207 GROVE STREET
302690-00	2000	1200	1000	1000	4000		12900	18500	23100	1600	1500	3000	69800.00	54	327	302690-00	WHITE, JOHN	08	02690	206 GROVE STREET
302700-00		1800			4000		6700	18600	7700	5400	700	100	45000.00	14	230	302700-00	WHITE, JOHN	08	02700	212 GROVE STREET
302700-01													0.00	0	0	302700-01	WHITE JOHN	03	02700.	212 GROVE STREET
302710-00	2500	1200	3500	3500	4000	1700	6800	10900	6200	2700	2000	1900	46900.00	81	176	302710-00	SHEETS, MARK L.	08	02710	215 GROVE STREET
302720-00										900	1100	1300	3300.00	13	5	302720-00	WHITE, JOHN	08	02720	216 GROVE STREET
302720-01													0.00	0	0	302720-01	WHITE, J.	03	02720.00	216 GROVE STREET
302720-02													0.00	0	0	302720-02	WHITE, JOHN	03	02720.02	216 GROVE
302720-03													0.00	0	0	302720-03	KASSAHN, KRISTINE	03	02720.01	216 GROVE STREET
302720-04													0.00	0	0	302720-04	HANFORD, GEORGE D	03	02720.03	216 GROVE STREET
302730-00	1700	2100	2200	2200	2000	2900	4600	4000	3100	2600	2300	2400	32100.00	71	104	302730-00	GRANTHAM, BOYD	08	02730	219 GROVE STREET
302740-00	1800	1500	1000	1000	2300	3800	7700	5400	3500	3400	5100	11500	48000.00	121	142	302740-00	PETERSON, JASON S.	08	02740	224 GROVE STREET
302740-01													0.00	0	0	302740-01	GARRISON MAUDE	03	02740.01	224 GROVE
302750-00					1500	1900	1900	1900	1400	1400	1800	1400	13200.00	18	54	302750-00	MILLIGAN, LAWRENCE & BARBARA	08	02750	303 GROVE STREET
302750-01													0.00	0	0	302750-01	CLARK DAVID	03	02750.01	303 GROVE
302750-02													0.00	0	0	302750-02	MORKERT HAROLD-DECEASED	03	02750.00	303 GROVE
302760-00	3500	2200	3700	3700	4000		5400	8800	3500	4200	1900	2500	43400.00	97	141	302760-00	LOFTHUS, OBERT JR	08	02760	107 HALEY AVENUE E
302770-00	5500	2500				4000	4000	1200	8900	7900	7300	7500	48800.00	126	141	302770-00	NEWBY, BILL R. & SHIRLEY A.	08	02770	309 GROVE STREET
302770-01													0.00	0	0	302770-01	JONES, CHARLES J.	03	02770.01	309 GROVE STREET
302780-00	4200	3000	8500	8500	3200	15000	9700	14200	4700	5800	4300	5200	86300.00	186	286	302780-00	BROWN, JASON D. & JENNA J.S.	08	02780	315 GROVE STREET
302780-01													0.00	0	0	302780-01	SNIEZAK STEVE	03	02780.00	315 GROVE
302780-02													0.00	0	0	302780-02	BROWN, SHANE	03	02780.02	315 GROVE STREET
302790-01													0.00	0	0	302790-01	LOFTHUS, OBERT JR	03	02790	312 GROVE STREET
302800-00	1600	1300	2100	2100	1400	1900	2000	2200	1600	2000	1600	1900	21700.00	59	60	302800-00	LOFTHUS, OBERT JR	08	02800	314 GROVE STREET
302805-00								2000	5000	7500	4800	6100	25400.00	60	79	302805-00	SCOTT, MICHAEL	08	02805	322 GROVE STREET

302805-01													0.00	0	0	302805-01	WISWELL, JANIS	03	02805.01	322 GROVE STREET
302805-02	7200	2100	34200	9900	9900		1100						64400.00	295	60	302805-02	VERLANIC, LYNN R	08	02805.01	322 GROVE STREET
302810-00	2300	2200	2000	2000	1700	2300	2000	2800	1900	2100	1900	2300	25500.00	70	70	302810-00	BURRESE, ROBERT L.	08	02810	323 GROVE STREET
302815-00	8700	1200	18500	9400	9400		59100	121400	53900	13600	6700	8400	310300.00	292	1399	302815-00	CASIDA, M. MICHAEL	08	02815	326 GROVE STREET
302815-01													0.00	0	0	302815-01	THOMPSON, MICHAEL & KARI	03	02815.01	326 GROVE STREET
302815-02													0.00	0	0	302815-02	MCCUAIG, JAMES M. & JOSIE	03	02815.00	326 GROVE STREET
302820-00	1200	1400	13100	1900	4000	4000	5700	13100	10300	3000	2200	2500	62400.00	123	218	302820-00	MOSHER, RICHARD	08	02820	402 GROVE STREET
302823-00													0.00	0	0	302823-00	PATTERSON, MELVIN	08	02823	106 3RD AVENUE W
302823-01													0.00	0	0	302823-01	SHANNON, DANNY	03	02823.01	403 GROVE STREET
302823-02													0.00	0	0	302823-02	KNOEPKE, JON & LARRY	08	02823.01	106 3RD AVENUE W
302830-00							2900	2100	6400	19300	24200	16800	71700.00	227	167	302830-00	SCOTT, PAMELA J	08	02830	410 GROVE STREET
302830-01													0.00	0	0	302830-01	HURST, ROWENA	03	02830.00	410 GROVE STREET
302840-00	3200	2500	800	800	1000	1300	1700	1500	800	1400	1600	3200	19800.00	67	42	302840-00	MAGOFFIN, RICHARD	08	02840	417 GROVE STREET
302850-00	3200	4200	4600	4600	6000	7000	8000	6900	6700	4800	3800	4500	64300.00	138	214	302850-00	O'NEILL, WILLIAM & MARILYN	08	02850	418 GROVE STREET
302860-00					700	5700	8900	9400	9200	800			34700.00	0	189	302860-00	HAMMETT, CHARLES	08	02860	421 GROVE STREET
302860-01													0.00	0	0	302860-01	ROBSON, EVERARD	03	028600.00	421 GROVE STREET
302860-02													0.00	0	0	302860-02	GREVEN, THEODORUS F	03	02860.02	421 GROVE
302860-03													0.00	0	0	302860-03	CHADWICK, LARK L.	03	028600.01	421 GROVE STREET
302870-00		100										600	700.00	4	0	302870-00	SMITH, JAMES W & MARTHA-JO	08	02870	108 4TH AVE EAST
302870-01													0.00	0	0	302870-01	CRADDICK, WARREN	03	02870.01	108 4TH AVE EAST
302880-00	1000	2900	2900	4100	4000	4000	11300	18000	19700	4000	3700	4100	79700.00	103	332	302880-00	HAMMETT, CHARLES	08	02880	427 GROVE STREET
302890-00	1100	1400	1400	1400	1000	1400	1400	1600	1100	1600	1200	1500	16100.00	44	44	302890-00	DEATON, WILLIAM	08	02890	504 GROVE STREET
302890-01													0.00	0	0	302890-01	HARPER TIMOTHY AND CATHY	03	02890.01	
302890-02													0.00	0	0			10		504 GROVE STREET
302890-03													0.00	0	0	302890-03	SHEAR, BRYCE G.	03	02890.03	504 GROVE STREET
302890-04													0.00	0	0	302890-04	HAINES, FRED I. & JUDY L.	03	02890.02	504 GROVE STREET
302900-00	5800	7700	5900	8100	7500	15100	14600	15700	16100	8800	7700	8800	121800.00	243	423	302900-00	MILNER, PAT	08	02900	503 GROVE STREET
302910-01													0.00	0	0	302910-01	WAKEFIELD ALICE	03	02910	516 GROVE
302915-00	3300	4400	3800	3800	4000		14800	29500	15700	4200	4000	4300	91800.00	130	371	302915-00	HALL, DAVID & TRISTA	08	02915	510 GROVE STREET
302920-00													0.00	0	0	302920-00	CULLEN, JAMES	08	02920	513 GROVE STREET
302930-00													0.00	0	0	302930-00	CULLEN, JAMES	08	02930	517 GROVE STREET
302940-00	10900	4200	21800	11000	11000		28300	32000	28100	15700	12700	12700	188400.00	405	626	302940-00	SHEAR, E. W.	08	02940	527 GROVE STREET
302950-00	2700	2100	4900	4600	2900	5700	3400	10100	7500	4800	3200	3200	55100.00	114	187	302950-00	HAASE, DAVE	08	02950	111 5TH AVENUE W.
302955-00	900	1300	1300	1300	4000		8200	7900	4500	1700	1200	1300	33600.00	40	143	302955-00	HALL, MARY LYNN	08	02955	518 GROVE STREET
302960-00	7600	8400	27300	13100	13000	4000	13800		19100	9300	4500	5000	125100.00	364	322	302960-00	HALL, DAVID & TRISTA	08	02960	520 GROVE STREET
302965-00	1100	1400	1000	1900	4000	4000	11000		12700	2000	500	1000	40600.00	38	183	302965-00	FROST, BILL	08	02965	530 GROVE STREET
302970-00	400	10400	4000	4000	4000		1700				1900	1400	27800.00	122	31	302970-00	THOMPSON, GINGER RENEE'	08	02970	604 GROVE STREET
302970-01													0.00	0	0	302970-01	YOUNG, MAYNARD	03	02970.01	604 GROVE STREET
302970-02													0.00	0	0	302970-02	BESAW, JOHN & CHARLOTTE	03	02970.02	604 GROVE STREET
302970-03													0.00	0	0	302970-03	PIERCE, ROBERTA ANN	03	02970.00	601 grove street
302980-00	2100	2700	2200		4000		500	2400	1700	1900	2300	3100	22900.00	69	57	302980-00	BRASS, LAURIE	08	02980	107 GREENWOOD STREET
302990-00	600	1500	1400	1400	4000	4000	17700	5400	43000	34800	400	700	114900.00	33	592	302990-00	TAYLOR, CLINTON	08	02990	326 grove street
303000-00	12900	2000	38400	9600	9600	9600	15100		7300	5700	3700	4600	118500.00	393	257	303000-00	MCCUAIG, JAMES M. & JOSIE	03	02815.00	604 GROVE STREET
303000-01													0.00	0	0	303000-01	LENTZ, HAROLD	03	03000.01	104 GREENWOOD - TRLR - 106 TRLR
303010-01													0.00	0	0	303010-01	LENTZ, HAROLD	03	03010.01	110 GREENWOOD
303014-01													0.00	0	0	303014-01	LENTZ, HAROLD	03	03014	112 GREENWOOD
303015-00	2200	3800	4000	4000	4000		3900	3600	2600	3100	2700	3600	37500.00	112	93	303015-00	VERLANIC, LYNN R	08	03015	117 GREENWOOD STREET
303015-01													0.00	0	0	303015-01	KAZMIERCZAK, RONALD & SANDRA	03	03015.01	117 GREENWOOD
303015-02													0.00	0	0	303015-02	FISHER, BRANDON & KRISTEN	03	03015.02	117 GREENWOOD STREET
303015-03													0.00	0	0	303015-03	VERLANIC, ORVILLE E & LYNN	03	03015.03	117 GREENWOOD STREET
303015-04													0.00	0	0	303015-04	WASHBURN, STACEY	03	03015.04	117 GREENWOOD STREET
303020-00					2000	2900	2200	3100	2000	3000	3000	3200	21400.00	34	83	303020-00	MCCUAIG, JAMES M. & JOSIE	08	03020	116 GREENWOOD STREET - HOUSE
303020-01													0.00	0	0	303020-01	LENTZ, HAROLD	03	03020.01	116 GREENWOOD - HOUSE - 118 TRLR.
303030-00	3000	3000	5400	5400	2700	3000	2800	4800	5100	4300	4200	5000	48700.00	144	123	303030-00	DEXTER, SHARON	08	03030	202 GREENWOOD STREET
303030-01													0.00	0	0	303030-01	BESAW, WM	03	03030.00	202 GREENWOOD STREET
303035-00	2200	200	700	700	4000		5700	13300	11900	5600	2700	3000	50000.00	52	220	303035-00	BRIGHT, CANDACE	08	03035	214 GREENWOOD STREET
303035-02													0.00	0	0	303035-02	BILL BESAW	03	03035.01	214 GREENWOOD STREET
303035-03													0.00	0	0	303035-03	BRIGHT, CANDACE	03	03035TW.02	214 GREENWOOD STREET
303037-00							300	200	300	700	400	100	2000.00	3	8	303037-00	KNUTSON, RODNEY A & RISHELLE O	08	03037	216 GREENWOOD STREET - SHOP
303037-01													0.00	0	0	303037-01	BESAW, WILLIAM D.	03	03037.01	216 GREENWOOD STREET - SHOP
303040-00						4000	4000						8000.00	0	43	303040-00	TAYLOR, TERESA K.	08	03040	201 GREENWOOD STREET
303040-01													0.00	0	0	303040-01	TAYLOR, STEVEN	03	03040.00	201 GREENWOOD STREET
303041-00	6100		11100	7500	4000		4700	5900	4100	4700	5200	5300	58600.00	194	127	303041-00	TAYLOR, STEVE	08	03041	205 GREENWOOD STREET
303070-00	2500	5800	3900	3900	4000	4000	12000		3100	4500	2900	2800	49400.00	120	150	303070-00	HILLCREST RANCH INC.	08	03070	211 spruce
303080-00					3300	3900	4100	6000	4000	4400	3500	3800	33000.00	40	140	303080-00	CORK, TERRY & KIM	08	03080	305 GREENWOOD STREET
303090-00	3000	3100	2300	2700	1800	7000	8500	17200	18200	2600	2600	3500	72500.00	95	301	303090-00	LACY, JERRY	08	03090	323 GREENWOOD STREET
303095-00	1500	1500	1200	1200	4000		3600	2800	2100	2300	2300	3500	26000.00	62	80	303095-00	MOSHER, JOHN	08	03095	414 greenwood street
303100-00	4000	5100	4100	4100	1600	1600	10200	19400	14900	4800	5600	5500	80900.00	157	285	303100-00	DAMASKOS, BARBIE	08	03100	208 HALEY AVENUE E
303110-01													0.00	0	0	303110-01	GRANTHAM ALVIRA	03	03110	411 GREENWOOD
303120-00						4000	4000						8000.00	0	43	303120-00	WHITE, JOHN	08	03120	417 GREENWOOD STREET
303120-01													0.00	0	0	303120-01	GRANTHAM, CHARLES	03	03120.01	417 GREENWOOD STREET
303120-02													0.00	0	0	303120-02	GRANTHAM, BOYD	03	03120.02	417 GREENWOOD STREET
303120-03													0.00	0	0	303120-03	ST MT DOJ AGENCY LEGAL SERVICES BUREAU	03	03120.03	417 GREENWOOD STREET
303121-00	3000	4200	4500	4500	4000	10000	10000		33700	9600	5500	5400	94400.00	150	366	303121-00	DOTY, JESSE	08	03121	403 GREENWOOD STREET
303130-00	2500	6600	2600	2600	3700	8100	13100	13900	7200	5500	3400	4100	73300.00	120	280	303130-00	BEITZ, VICKIE	08	03130	424 GREENWOOD STREET
303140-00	1200		12500	3600	14500	44900	41200	51000	42600	31600	600	700	244400.00	103	1227	303140-00	BASHAM, JOHN	08	03140	425 GREENWOOD STREET
303145-00									100	300		500	900.00	3	2	303145-00	GAMBREL, ROBERT D & CAROL A	08	03145	504 GREENWOOD STREET
303145-01													0.00	0	0	303145-01	MCDONALD, JOHN	03	03145.00	504 GREENWOOD STREET
303145-02													0.00	0	0	303145-02	DOTY, JAMES & RHETA	03	03145.01	504 GREENWOOD STREET
303150-00	2000	1400	1600	1600	4000	4000	12000	10100	40500	44400	9200	2100	132900.00	99	625	303150-00	WILLIAMS, BLANCHE	08	03150	505 GREENWOOD STREET
303150-01													0.00	0	0	303150-01	MARTIN, LEE	03	03150.01	505 GREENWOOD STREET
303160-00						4000	4000				1100	9400	18500.00	58	43	303160-00	HALL, ROBERT J	08	03160	511 GREENWOOD STREET
303160-01													0.00	0	0	303160-01	TERRY, MATTHEW LEE	03	03160.01	511 GREENWOOD STREET
303160-02													0.00	0	0	303160-02	COMPTON, JIM	03	03160.02	511 GREENWOOD
303160-03													0.00	0	0	303160-03	WARD, ANGELA	03	03160.03	511 GREENWOOD STREET
303160-04													0.00	0	0	303160-04	TERRY, MICHAEL A.	03	03160.04	511 GREENWOOD STREET
303170-00						4000	4000						8000.00	0	43	303170-00	BLOUIN, DENNIS	03	03170	520 GREENWOOD
303170-02													0.00	0	0	303170-02	BLOUIN DANIEL SR	03	03170.01	520 GREENWOOD
303180-00	1200	1500	9600	9600	9600	4000		1400	1200	1100	1000	1600	41800.00	135	94	303180-00	JORGENSON, JAMI D	08	03180.00	508 GREENWOOD STREET
303180-01													0.00	0	0	303180-01	KINGDOM HALL	03	03180.01	508 GREENWOOD
303180-02													0.00	0	0	303180-02	VONSEGGERN, KIMBERLY	03	03180.02	508 GREENWOOD STREET
303180-03													0.00	0	0	303180-03	HAYES, LINDA J.	03	03180.03	508 GREENWOOD STREET
303180-04													0.00	0	0	303180-04	HAYES, LINDA	03	03180.04	508 GREENWOOD STREET
303190-00	2500	2100	3100	3100	3400	9600	11600	13400	11900	6500	2400	2800	72400.00	88	307	303190-00	KEITH CHERYL A AND THORNTON SHANNON L	08	03190	517 GREENWOOD STREET
303200-00	1200	5000	2900	2900	4000	4000	4000		3800	3000	2800	3000	36600.00	98	102	303200-00	THOMAS, JAMES & TRACY	08	03200	524 GREENWOOD STREET
303200-01													0.00	0	0	303200-01	HARTMAN JOAN	03	03200.00	524 GREENWOOD
303200-02													0.00	0	0	303200-02	THOMAS, STEVE & KATHERINE	03	03200.01	524 GREENWOOD STREET
303210-00	2300	7900	8500	8500	6800	17700	19000	27900	19400	3500	1500	1300	124300.00	166	513	303210-00	RICHMOND, LISA	08	03210	208 5TH AVE EAST
303210-01													0.00	0	0	303210-01	STAMM, ROD	03	03210.00	208 5TH AVE EAST
303210-02													0.00	0	0	303210-02	FRANCK & DAY, RYAN E & SUMMER L	03	03210.01	208 5TH AVE EAST
303220-00	2500	5600	3900	3900	7200	13200	7700	11800	25100	4100	5100	4400	94500.00	140	376	303220-00	SHAFFORD, JED & KARRIE	08	03220	607 GREENWOOD STREET
303220-01													0.00	0	0	303220-01	HOAGLAND, BRUCE AND CAROL	03	03220.01	607 GREENWOOD STREET

303230-00	900	900	800	800	800	2700	3000	5800	2500	100	2000	100	20400.00	30	81	303230-00	THOME, CLINT	08	03230	612 GREENWOOD STREET
303240-00	3100	8000	13200	8000	3500	4300	3200	4600	4300	7000	8900	10200	78300.00	284	146	303240-00	REICHERT, BETTY ANN	08	03240	105 WOODLAND STREET
303250-00	1700	2000	1500	1500	2400	9400	11400	20600	19200	4300	1500	1600	77100.00	54	366	303250-00	GREAVES JAMES M. & CHADWICK LARK L.	08	03250	108 WOODLAND STREET
303250-01													0.00	0	0	303250-01	HAYES, LINDA	03	03250.01	108 WOODLAND
303260-01													0.00	0	0	303260-01	CURRAN HARVEY	03	03260	WOODLAND - VACANT LOT
303270-00	2200	3000	2600	2600	4000		9100	6700	5600	2700	2400	2800	43700.00	86	153	303270-00	HILL, ROBB & ALICIA	08	03270	114 WOODLAND STREET
303270-01													0.00	0	0	303270-01	OWENS CHRYSTAL	03	03270.01	114 WOODLAND
303280-00	1500	1800	1600	1600	1200	1600	800	100					10200.00	36	20	303280-00	MILES, DAN & GEORGIA	08	03280	117 WOODLAND STREET
303290-00	12400	9600	24600	13100	12500		2800	3400	4300	4700	4000	4300	95700.00	376	151	303290-00	THOMPSON, GINGER RENEE'	08	03290	207 WOODLAND STREET
303290-01													0.00	0	0	303290-01	KIRKLAND, PAUL	03	03290.01	207 WOODLAND
303290-02													0.00	0	0	303290-02	BESAW, JOHN & CHARLOTTE	03	03290.02	207 WOODLAND STREET
303300-00	3900	4600	3800	3800	4000		9700	7800	10400	6700	13400	4900	73000.00	190	210	303300-00	PARKER, NOLAN	08	03300	211 WOODLAND STREET
303305-00	3100	2500	3300	3300	4000		3500	2200	800	800	1900	7400	32800.00	119	61	303305-00	BARRUS, TRAVIS	08	03305	215 WOODLAND STREET
303305-01													0.00	0	0	303305-01	ROWE, CHARLOTTE	03	03305.01	215 WOODLAND STREET
303310-00	2500	1900	2600	2600	5900	13000	12800	15300	20600	6700	1500	2100	87500.00	73	404	303310-00	FRANK, JUDITH	08	03310	204 WOODLAND STREET
303310-01													0.00	0	0	303310-01	MILLS KENNETH	03	03310.00	204 WOODLAND
303310-02													0.00	0	0	303310-02	SAKUSKI JOSHUA & WRIGHT AIMEE	03	03310.01	204 WOODLAND STREET
303320-00	4700	5500	4900	6000	4300	7700	5300	12200	8900	7000	5400	5100	77000.00	175	247	303320-00	VALLEY BANK OF THOMPSON FALLS	08	03320	208 WOODLAND STREET
303320-01													0.00	0	0	303320-01	TURK ROBERT	03	03320.00	208 WOODLAND
303320-02													0.00	0	0	303320-02	HERMANN, MARDA F.	03	03320.02	208 WOODLAND STREET
303320-03													0.00	0	0	303320-03	MILLER, WILLIAM N. & KAREN H.	03	03320.01	208 WOODLAND STREET
303330-00	2200	1900	2100	2100	1600	3800	5000	6000	6500	4400	2500	2300	40400.00	72	148	303330-00	KULAWINSKI, STEPHEN	08	03330	212 WOODLAND STREET
303340-01													0.00	0	0	303340-01	JOHNSON JAMES SR	03	03340	215 WOODLAND
303350-00	6000	6500	6500	6500	4000		6100	6400	7000	6100	5600	6500	67200.00	208	161	303350-00	FRANK, ROBERT & ANGELA	08	03350	222 WOODLAND STREET
303350-01													0.00	0	0	303350-01	LOVELL RANDY	03	03350.01	222 WOODLAND
303360-00	11600	5300	1800	1800	4000		16600	15700	4300	1800	1500	2100	66500.00	133	230	303360-00	WILSON, VICKIE SUE	08	03360	214 HALEY AVENUE E
303360-01													0.00	0	0	303360-01	BESAW, WILLIAM	03	03360.01	214 E HALEY
303360-02													0.00	0	0	303360-02	VAN VALKENBURG, THOMAS & DELLA	03	03360.02	214 HALEY AVENUE E
303365-00						4000	50000	50000	86400	38000			228400.00	0	1241	303365-00	FRATERNAL CEMETERY	08	03365	300 BLOCK WOODLAND
303370-00	1200	1100	2100	2100	4000		1100	1600	800	1200	1300	1100	17600.00	49	47	303370-00	WIDNER, RUTH	08	03370	307 3RD AVE EAST
303380-00	2600	2100	2200	2200	4000	3100	4000	6300	9500	2100	2100	2400	42600.00	75	158	303380-00	STOUT, JOE	08	03380	403 WOODLAND STREET
303380-01													0.00	0	0	303380-01	LUNDY, FRANK	03	03380.00	403 WOODLAND STREET
303390-00						400		3900	2000	500	200	800	7800.00	6	37	303390-00	GARCIA, ALISA & LUIS III	08	03390	413 WOODLAND STREET
303390-01													0.00	0	0	303390-01	BOWDEN, WALTER JR	03	03390.01	413 WOODLAND STREET
303390-02													0.00	0	0	303390-02	MAJESTIC MONTANA PROPERTIES	03	03390.00	413 WOODLAND STREET
303390-03													0.00	0	0	303390-03	SIMMS, DANIEL M.	03	03390.03	413 WOODLAND STREET
303395-00	2900	2300	5500	5500	4000	4000	4000	8000		7300	5900	2500	51900.00	136	148	303395-00	CLARK, STEVE	08	03395	420 WOODLAND STREET
303400-00	7100	7300	11500	8400	9800	29700	29400	80900	35900	11000	9000	9800	249800.00	293	1069	303400-00	DENSON, CHARLES & KRISTI	08	03400	421 WOODLAND STREET
303400-01													0.00	0	0	303400-01	BOWDEN III, WALTER	03	03400.00	421 WOODLAND STREET
303400-02													0.00	0	0	303400-02	DENSON, TIMOTHY & DACEY	03	03400.01	421 WOODLAND STREET
303410-00	1500	3100	2500	2500	4700	19000	16400	23100	17500	20200	10800	7100	128400.00	152	548	303410-00	WITTERS, JEAN M	08	03410	427 WOODLAND STREET
303410-01													0.00	0	0	303410-01	PERKINS, JUDY	03	03410.00	427 WOODLAND STREET
303420-00	2200	1800	2100	2100	5400	7900	25700	23000	13200	8400	1900	2400	96100.00	69	454	303420-00	MORRISON, LORRAINE	08	03420	428 WOODLAND STREET
303430-00	2100	1500	2600	2600	2200	2900	8500	10300	6700	3400	2400	2200	47400.00	74	185	303430-00	FRANK, DOROTHY	08	03430	506 WOODLAND STREET
303430-02													0.00	0	0			10		
303435-00							1300	17700	10300	5400	4300	4600	43600.00	49	189	303435-00	THOMPSON, GINGER	08	03435	217 4TH AVE EAST
303435-01													0.00	0	0	303435-01	CHENEY, JOYCE	03	03435.01	217 4TH AVE EAST
303435-02													0.00	0	0	303435-02	PIERCE, ROBERTA ANN	03	03435.00	217 4TH AVE EAST
303435-03													0.00	0	0	303435-03	RADCILFFE, SUSAN F	03	03435.02	217 4TH AVE EAST
303440-01													0.00	0	0	303440-01	MITCHELL, LONNIE	03	03440.01	505 WOODLAND STREET
303440-02													0.00	0	0	303440-02	CARROLL MATT	03	03440.02	507 WOODLAND
303440-03													0.00	0	0	303440-03	PIERCE, ROBERTA ANN	03	03440	505 WOODLAND STREET
303450-00	3000	3500	2900	3300	4000		12800	33300	20000	4000	1800	1900	90500.00	91	403	303450-00	LEISZ, NAOMI	08	03450	507 WOODLAND STREET
303450-02													0.00	0	0	303450-02	WHITNEY, DARL G.	03	03450.01	505 WOODLAND STREET
303460-00	300	600	100	100	4000	4000	4000		2300	4400	4500	4900	29200.00	58	102	303460-00	MELOY WILLIAM F & WEST MICHAEL D	08	03460	507 1/2 WOODLAND STREET
303460-01													0.00	0	0	303460-01	LOTERBAUER ESTELLA	03	03460.01	507 1/2 WOODLAND
303460-02													0.00	0	0	303460-02	ROHRER, VERNON D. & BRENDA S.	03	03460.00	507 1/2 WOODLAND STREET
303470-00	5000	7500	8200	8200	3400	5400	3800	6200	4000	4000	3100	3900	62700.00	198	146	303470-00	HEISE, RONDA	08	03470	524 WOODLAND STREET
303480-00					4000	4000	4000	1200	6600	2600	1800	2200	26400.00	22	122	303480-00	DOTY, BRYCE	08	03480	523 WOODLAND STREET
303490-00	6800	3500	6400	6400	3400	7300	9000	14000	15100	6300	4800	5600	88600.00	185	299	303490-00	HART, MITZI LEE	08	03490.00	308 5TH AVE EAST
303490-01													0.00	0	0	303490-01	SPARKS, AMY SUE	03	03490.01	308 5TH AVE EAST
303490-02													0.00	0	0	303490-02	FISHER KENNETH	03	03490.02	308 5TH AVE EAST
303490-03													0.00	0	0	303490-03	SPARKS, KEVIN	03	03490.03	308 5TH AVE EAST
303490-05													0.00	0	0	303490-05	STEINWEDEN, KELLY L	03	03490.05	308 5TH AVE EAST
303495-00	2600	3500	2800	2800	4000		20500	23100	20100	11200	3100	3100	96800.00	99	429	303495-00	CZERWINSKI DOUGLAS J & ROPER SARA A	08	03495	305 5TH AVE EAST
303495-01													0.00	0	0	303495-01	QUINN, AARON	03	03495.00	305 5TH AVE EAST
303495-02													0.00	0	0	303495-02	HOMESALES INC	03	03495.01	305 5TH AVE EAST
303500-00	2500	2400	2000	2400	3000	5700	9800	17300	15400	3500	2800	2600	69400.00	81	297	303500-00	STIMPFLING, ELISE M	08	03500	611 WOODLAND STREET
303500-01													0.00	0	0	303500-01	WILHELMSEN DENNIS	03	03500.01	607 WOODLAND
303500-02													0.00	0	0	303500-02	RAYNOR, LESLIE & MICHELL	03	03500.02	611 WOODLAND STREET
303500-03													0.00	0	0	303500-03	MAJESTIC MONTANA PROPERTIES	03	03500.03	611 WOODLAND STREET
303500-04													0.00	0	0	303500-04	JOHNSON, TERRY L	03	03500.00	611 WOODLAND STREET
303500-05													0.00	0	0	303500-05	DEACON, TARA LYNN	03	03500.04	611 WOODLAND STREET
303510-00	2100		1600	1600	3100	2800	4000	6600	12000	3100	1800	2000	40700.00	50	172	303510-00	BRONSON, CLARK D & SHARON M	08	03510	617 WOODLAND STREET
303510-01													0.00	0	0	303510-01	FULLERTON, PATRICIA	03	03510.01	617 WOODLAND STREET
303520-00	3200	3800	5200	5200	2200	8000	14500	12100	14400	1500	600	700	71400.00	103	286	303520-00	CAMPBELL, GARY	08	03520	622 WOODLAND STREET
303530-00					1600	4600	3400	5900	3000	2900	3200	3500	28100.00	37	116	303530-00	TRAIN, ANTHONY & CHRISTINA	08	03530	107 CLAY STREET
303530-01													0.00	0	0	303530-01	LA ROCK, LOUIS	03	03530.01	107 CLAY STREET
303530-02													0.00	0	0	303530-02	BANK OF AMERICA/FANNY MAE	03	03530.02	107 CLAY STREET
303540-00	6200	2000	8700	8700	8700		3100	6000	2800	3500	3300	3100	56100.00	177	131	303540-00	THOMPSON, GINGER	08	03540	104 CLAY STREET
303540-01													0.00	0	0	303540-01	PIERCE, ROBERTA ANN	03	03540.00	104 CLAY STREET
303540-02													0.00	0	0	303540-02	NUESSLE, JERALD	03	03540.01	104 CLAY STREET
303550-00	2200	1200	800	800	4000	4000	4000		4000	4800	4700	3600	34100.00	73	113	303550-00	THOMPSON, GINGER	08	03550	110 CLAY STREET
303550-01													0.00	0	0	303550-01	PIERCE, ROBERTA ANN	03	03550.00	110 CLAY STREET
303550-03													0.00	0	0	303550-03	MERRIMAN, TROY & APRIL	03	03550.02	110 CLAY STREET
303560-00	5100	2800	10600	6600	6900	23200	9100	12200	15200	4700	9800	28800	135000.00	352	388	303560-00	SCHAEFER ENTERPRISES	08	03560	204 CLAY STREET
303560-01													0.00	0	0	303560-01	GRAVIER GILBERT	03	03560.01	204 CLAY
303560-02													0.00	0	0	303560-02	CLAYTON NATIONAL INC	03	03560.02	204 CLAY
303580-00	2700	1900	4600	4600	2400	7900	8300	10000	6400	4400	3600	3700	60500.00	117	214	303580-00	HAUGHTON, JIM	08	03580	210 CLAY STREET
303580-01													0.00	0	0	303580-01	FRANCK, CHARLES L. AND DEBBY	03	03580.01	210 CLAY STREET
303580-02													0.00	0	0	303580-02	POWELL, ALICE	03	03580.00	210 CLAY STREET
303580-03													0.00	0	0	303580-03	GMAC MORTGAGE LLC	03	03580.03	210 CLAY STREET
303590-00					4000	4000	4000	4000					16000.00	0	87	303590-00	JOHNSTON , GREG	03	03590	201 CLAY STREET
303590-02													0.00	0	0	303590-02	COMMERS, STEVE	03	03590.01	201 CLAY STREET
303600-00	1600	1900	1800	1800	1000	1600	1200	1800	1100	2300	2600	2600	21300.00	68	49	303600-00	KOEPPLIN, DAVID L & SHERRY L	08	03600	205 CLAY STREET
303600-01													0.00	0	0	303600-01	VAUGHT, HAROLD	03	03600.00	205 CLAY STREET
303610-00	2200	3400	2300	2300	3800	11700	15100	19800	15700	6000	3100	5300	90700.00	103	392	303610-00	SMITH, CLAYTON	08	03610	211 CLAY STREET
303620-00	1200	1200	2600	2600	900	1400	1500	1700	1400	1600	1600	1700	19400.00	60	46	303620-00	WILBURN, CLYDE	08	03620	218 CLAY STREET
303620-01													0.00	0	0	303620-01	HELUS, JOHN	03	03620.01	218 CLAY
303630-00	1600	1200	4300	4300	4000	4000	4000		2300	2400	1900	2300	32300.00	86	91	303630-00	ELLIOTT, GEORGE & LINDA	08	03630	221 CLAY STREET
303630-01													0.00	0	0	303630-01	HAMMERBERG KENNETH % ROGER HAMMERBERG	03	03630.00	221 CLAY STREET
303635-00	400	900	900	900	300	200	300	500	500	500	500	600	6500.00	23	13	303635-00	CHUBB, BILLIE	08	03635	219 CLAY STREET

303640-00					4500	8300	6200	6200	7900	4200	3700	3800	44800.00	41	203	303640-00	CAMPBELL, STEFANEY	08	03640	222 CLAY STREET
303640-01													0.00	0	0	303640-01	MCGRAW, LINDA	03	03640.01	222 CLAY STREET
303650-00	3200	1400	5000	5000	4000		3200	4500	2900	3700	3400	3600	39900.00	119	99	303650-00	SWOPE, ROY & ALICE & FLOYD	08	03650	228 CLAY STREET
303650-01													0.00	0	0	303650-01	JANES JOSEPH & SHELLEY	03	03650.01	228 CLAY
303650-02													0.00	0	0	303650-02	STARK DAN	03	03650.02	228 CLAY
303660-00	1100	1600	100	100	4000	4000	4000		11700	1800	1900	1600	31900.00	35	139	303660-00	DODGE, RONALD L.	08	03660	225 CLAY STREET
303670-00													0.00	0	0	303670-00	BUTLER, JOHN & DONNA	08	03670	303 CLAY STREET
303670-01													0.00	0	0	303670-01	FRITSCH, H.E.	03	03670.00	303 CLAY STREET
303670-02	300	800	700	700	400	700	1500	4300	5100		100		14600.00	14	65	303670-02	LACK, SANDRA K	08	03670.01	303 CLAY STREET
303680-00	1100	1300	6700	6700	4000	4000	4000		3500	3300	2600	3000	40200.00	118	102	303680-00	GOETZ, PAUL F. & VIOLA M.	08	03680	306 CLAY STREET
303680-01													0.00	0	0	303680-01	HEBERLINE, DENICE	03	03680.01	306 CLAY STREET
303690-00	1200	2400	4700	4700	2000	6800	10600	7800					40200.00	72	148	303690-00	CARTER, MIKE	08	03690	314 CLAY STREET
303700-00	1500	1100	1600	1600	1200	1800	1100	2500	3800	2400	1700	1900	22200.00	52	70	303700-00	MCGUIGAN, ALBERT L	08	03700	324 CLAY STREET
303710-00	100		100	100	4000		200	200		100	100	100	5000.00	3	24	303710-00	HUNTLEY, HARLEY H.	08	03710	311 3RD AVE EAST
303715-00					4000		2800	3400	1500	1400	1200	1300	15600.00	14	71	303715-00	LANIER, LINDA L	08	03715	405 3RD AVE E
303718-00											10	8	18.00	0	0	303718-00	KNERR, JOHN & BRIDGET	08	03718	412 CLAY STREET
303720-00					3700	6200	4700	5600	6300	1900	1300	1500	31200.00	15	154	303720-00	FRANZWA, DARLENE E.	08	03720	415 CLAY STREET
303730-00											400	900	1300.00	7	0	303730-00	KNERR, JOHN & BRIDGET	08	03730	416 CLAY STREET
303730-01													0.00	0	0	303730-01	KNERR, BRUCE & GAIL	03	03730.02	416 CLAY STREET
303730-02													0.00	0	0	303730-02	COMMERS, S.	03	03730.01	416 CLAY STREET
303734-00					4000	8400	21600	24800	15500	16300	17700	11700	120000.00	162	492	303734-00	KNERR, JOHN & BRIDGET	08	03734	420 CLAY STREET
303735-00	900	1400	700	700	4000		16200	15800	16200	2800	1600	1600	61900.00	38	299	303735-00	BAYLOR, CAROL	08	03735	421 CLAY STREET
303740-00	8900	15000	900	900	2800	15100	16900	19900	12200	7800	6100	6000	112500.00	209	406	303740-00	SNELL, STEVEN	08	03740	427 CLAY STREET
303750-00	6300	7400	8700	8000	4000		3200	5500	4900	5500	5100	6500	65100.00	232	126	303750-00	MCEWEN, ARTHUR	08	03750	428 CLAY STREET
303750-01													0.00	0	0	303750-01	COMMERS, S.	03	03750.00	428 CLAY STREET
303760-00	3300	3300	3300	3300	1200	3100	2400	3700	3400	2900	2500	3100	35500.00	104	91	303760-00	CURRY, SCOTT & CELESTE	08	03760	509 CLAY STREET
303760-01													0.00	0	0	303760-01	FANNY MAE	03	03760.00	509 CLAY STREET
303770-00	4100	6000	4100	4100	3000	5100	6400	20500	18100	5600	4300	4900	86200.00	152	319	303770-00	CHRISTIAN, MARJORIE	08	03770	315 4TH AVE EAST
303780-00	2400	3000	2300	2300	14300	19100	34500	49800	49800	31600	6200	3100	218400.00	107	1082	303780-00	JUNGE, GUNNER	08	03780	407 4TH AVE EAST
303800-00	3600	6700	4500	4500	4000		13900	11200	9500	3300	2800	3000	67000.00	139	228	303800-00	HEDAHL, WESLEY A.	08	03800	515 CLAY STREET
303810-00	1900	2200	1700	1700	2500	5000	8000	12900	7500	5900	3200	4000	56500.00	81	227	303810-00	WIECKOWSKI, SHERRY	08	03810	520 CLAY STREET
303820-00	3800	4500	4300	4300	3400	13100	14200	21700	15300	5700	4300	4900	99500.00	144	399	303820-00	BUTLER, CHARLES V & DONNA M	08	03820	521 CLAY STREET
303820-01													0.00	0	0	303820-01	ALBAN, DENISE A.	03	03820.00	521 CLAY STREET
303820-02													0.00	0	0	303820-02	FINGAR, PHILIP L & JEANNE M	03	03820.01	521 CLAY STREET
303830-00	200	1400	1300	1300	1000	15600	13300	27100	20600	1700	1500	1000	86000.00	37	431	303830-00	GROH, KAREN	08	03830	523 CLAY STREET
303840-00					2300	14500	15300	21200	3900	4500	3700	4900	70300.00	48	335	303840-00	BARAJAS, JESU C	08	03840	528 CLAY STREET
303840-01													0.00	0	0	303840-01	TILLMAN, MAYME	03	03840.01	528 CLAY STREET
303850-01													0.00	0	0	303850-01	ANDERSON, DORA	03	03850	605 CLAY STREET
303860-00	3200	2300	2100	2100	2000	7200	14900	28900	17500	5200	4400	4500	94300.00	103	411	303860-00	THOMPSON, GARY & JAN	08	03860	610 CLAY STREET
303870-00										1000	4600	3100	8700.00	43	5	303870-00	ELLUL, MICHAEL & JAMIE	08	03870	604 CLAY STREET
303870-01													0.00	0	0	303870-01	REID ROGER AND LINDA	03	03870.01	604 CLAY
303870-02													0.00	0	0	303870-02	CALKINS, BRIAN & CINDY	03	03870.00	604 CLAY STREET
303870-03	2200	200	300	300	4000			3200	2000				12200.00	17	50	303870-03	MOREHOUSE, GARY	08	03870.01	604 CLAY STREET
303880-00	200	600	100	100	4000	4000	4000		700	800	800	700	16000.00	14	73	303880-00	ANDERSON, DORA	08	03880	617 CLAY STREET
303890-00							18500	13600	14800				46900.00	0	255	303890-00	LEIVESTAD, RUSSLYN A	08	03890	614 CLAY STREET
303890-01													0.00	0	0	303890-01	EPLIN, EVELYN	03	03890.01	614 CLAY STREET
303900-00	3100	6200	4700	4700	7500	18400	3700	5500	2800	20200	3200	4100	84100.00	144	316	303900-00	VICK, KENNETH & PHYLLIS	08	03900	622 CLAY STREET
303910-00	1400	300	200	300	400		5500	3800	2900	2700	2500	2800	22800.00	41	83	303910-00	HERREID, TODD & ANITA	08	03910	625 CLAY STREET
303910-01													0.00	0	0	303910-01	CHURCH, LARRY	03	03910.00	625 CLAY STREET
303910-02													0.00	0	0	303910-02	MAJESTIC MONTANA PROPERTIES	03	03910.01	625 CLAY STREET
303921-00		500			4000		1000	1100	900	900	1000	1200	10600.00	15	43	303921-00	CONWAY, RICHARD	08	03921	626 CLAY STREET
303930-00	4800	5500	5700	5700	2900	11400	4900	5800	4900	5700	6100	5300	68700.00	183	193	303930-00	HAMEL, RON	08	03930	202 CHURCH STREET
303940-00					4000	4000	4000	5700	37300	8900	2800	3600	70300.00	35	347	303940-00	DYKSTRA, DAVID	08	03940	201 CHURCH STREET
303950-00	1300	1800	3300	3300	4000	4000	4000		2200	1500	1500	1300	28200.00	69	85	303950-00	SHEAR, CATHY	08	03950	208 CHURCH STREET
303960-00	7000	3800	13900	7100	4000	4000	15000		17500	18300	9000	8300	107900.00	271	320	303960-00	SAINT, STEVEN G. & BARBARA L.	08	03960	214 CHURCH STREET
303960-01													0.00	0	0	303960-01	FANNIE MAE	03	03960.00	214 CHURCH
303960-02													0.00	0	0	303960-02	DAWSON, WALTER	03	03960.02	214 CHURCH STREET
303970-00					4000	4000	4000	1200	8500	2500	2100	2200	28500.00	24	132	303970-00	LILLY, MICHAEL	08	03970	207 CHURCH STREET
303970-01													0.00	0	0	303970-01	WILSON, WILLIAM C.	03	03970.00	207 CHURCH STREET
303980-01													0.00	0	0	303980-01	PENTECOSTAL CHURCH OF GOD	03	03980	215 CHURCH (TRAILER)
303990-00	500	900	500	500	400	900	1100	1100	1000	800	600	1000	9300.00	22	29	303990-00	PENTECOSTAL CHURCH OF GOD	08	03990	414 HALEY AVENUE E
304000-00	3600		6900	6900	4000		4000	3500	2900	4700	4800	5000	46300.00	150	104	304000-00	VOLD, JOY NICOLE	08	04000	307 CHURCH STREET
304000-01													0.00	0	0	304000-01	CARTER, JEAN ADELE	03	04000.01	307 CHURCH STREET
304010-00	1300	600	3000	3000	4000		1000	2300	1000	1400	1500	1300	20400.00	59	53	304010-00	CHRISTIAN CHURCH	08	04010	306 CHURCH STREET
304020-00	3200	4300	2800	2800	4000		3200	7000	6200	3200	3400	3700	43800.00	112	128	304020-00	KEEFE, RHODA	08	04020	313 CHURCH STREET
304025-00													0.00	0	0	304025-00	KEEFE, RHODA (APARTMENT)	08	04025	313 1/2 CHURCH STREET
304030-00	8100	8800	26200	10900	11000		33800	51000	7600	900	100	1800	160200.00	309	567	304030-00	YODER, JOEL & ERMA	08	04030	318 CHURCH STREET
304030-01													0.00	0	0	304030-01	TRIPLETT JUDY	03	04030.01	318 CHURCH
304030-02													0.00	0	0	304030-02	ROWE, CHARLOTTE	03	04030.03	318 CHURCH STREET
304030-03													0.00	0	0	304030-03	TRIPLETT, JACK & MARGARET	03	04030.02	318 CHURCH STREET
304040-00	2600	2800	2300	2300	4000		16300	25700	18300	5300	3000	2800	85400.00	87	378	304040-00	HAMILTON, JUNE	08	04040	319 CHURCH STREET
304050-00													0.00	0	0	304050-00	PARDEE, CHAD & LEANNA	08	04050	330 CHURCH STREET
304050-01													0.00	0	0	304050-01	WULFEKUHLE AL	03	04050.01	330 CHURCH
304050-02													0.00	0	0	304050-02	JCLB INVESTMENTS	03	04050.00	330 CHURCH STREET
304050-03													0.00	0	0	304050-03	BELLUSCI, CARMEN	03	04050.03	330 CHURCH STREET
304050-04	600	700	600	600	4000		800	800	600	800	1000	1400	11900.00	27	38	304050-04	WILTSE, JACQUE & SHIRLEY	08	04050.01	330 CHURCH STREET
304060-00									1200	1200	1000	1300	4700.00	13	13	304060-00	EPPERSON, ZACHARY	08	04060	403 CHURCH STREET
304060-01													0.00	0	0	304060-01	HENDRICKSON-SWARTHOUT SANDY	03	04060.01	403 CHURCH
304060-02													0.00	0	0	304060-02	SNYDER, BRUCE	03	04060.00	403 CHURCH STREET
304060-03	2000	2600	2000	2000	4000		2600	2800					18000.00	48	51	304060-03	WINE, LEROY N. & KAYLEEN R.	08	04060.01	403 CHURCH STREET
304070-01													0.00	0	0	304070-01	FAULKNER, WALT	03	04070	406 CHURCH
304080-00					4000								4000.00	0	22	304080-00	FAULKNER, WALT	08	04080	408 CHURCH STREET
304090-00	4200	5600	4700	4700	4000		1300	3900	3600	2000	1200	1600	36800.00	122	80	304090-00	STONE, EILEEN	08	04090	415 CHURCH STREET
304100-01													0.00	0	0	304100-01	NORTON, KEN	03	04100	416 CHURCH STREET
304111-00	5100	6400	4600	4600	4000		16900	15400	13800	4200	3600	4400	83000.00	159	295	304111-00	WILSON, JOHN & MELISSA	08	04111	426 CHURCH STREET
304111-01													0.00	0	0	304111-01	CRISTALDI, TERI	03	04111.00	426 CHURCH STREET
304111-02													0.00	0	0	304111-02	JANES J. MATHEW & SHELLEY RAYE	03	04111.01	426 CHURCH
304111-03													0.00	0	0	304111-03	AMERICAN DREAM REALTY	03	04111.02	426 CHURCH STREET
304115-00	800	1200	800	800	4000	4000	4000		3700	2500	1200	1300	24300.00	34	99	304115-00	LACY, GLENN	08	04115	511 4TH AVE EAST
304120-00	1300	1700	1400	1400	4000		1100	1500	1200	1400	1000	1500	17500.00	46	50	304120-00	BURRELL, DON	08	04120	504 CHURCH STREET
304130-00													0.00	0	0	304130-00	FARGHER, RICHARD AND VALERIE	08	04130	509 CHURCH STREET
304130-01													0.00	0	0	304130-01	ALDRICH EVELYN	03	04130.01	509 CHURCH
304130-02	2200	1400	3500	3500	100	100	500	400	100	300			12100.00	59	8	304130-02	ELLIOTT, GEORGE & LINDA	08	04130.01	509 CHURCH STREET
304135-00	700	1100	200	200	4000		7600	11800	11800	2800	1100	1300	42600.00	25	207	304135-00	ELLIOTT, GEORGE & LINDA	08	04135	511 CHURCH STREET
304135-01													0.00	0	0	304135-01	ALDRICH EVELYN	03	04135.01	511 CHURCH
304140-00	13100	14000	10100	14000	12000		52600	106100	75600	9100	8100	10600	325300.00	386	1388	304140-00	STEWART, NANNIE R.	08	04140	512 CHURCH STREET
304140-01													0.00	0	0	304140-01	SEEK-A-WAY INC	03	04140.01	512 CHURCH STREET
304150-00	7400	8100	5600	5600	4000	4000	15000		15000	6500	6600	10400	88200.00	241	242	304150-00	MERRIMAN, TROY & APRIL	08	04150	519 CHURCH STREET
304150-01													0.00	0	0	304150-01	MONROE, KAREN	03	04150.01	519 CHURCH STREET
304150-02													0.00	0	0	304150-02	CROWE, CHRIS	03	04150.02	519 CHURCH STREET
304160-00							800	1400			100		2300.00	1	12	304160-00	COX, TOOTIE	08	04160	414 5TH AVE EAST
304170-00	3400	4600	3300	3300	1600	6900	5600	13700	4400	4000	4300	4200	59300.00	128	197	304170-00	FRANCK, BRANDEN & ERICA	08	04170	507 5TH AVE EAST

304170-01													0.00	0	0	304170-01	BASHAM, MIKE & WANDA	03	04170.01	507 5TH AVE EAST
304170-02													0.00	0	0	304170-02	STEWART CASANDRA & CARLSON BRAD D.	03	04170.02	507 5TH AVE EAST
304170-03													0.00	0	0	304170-03	HANDFORD, DANIEL E. & BETTY JO	03	04170.03	507 5TH AVE EAST
304170-04													0.00	0	0	304170-04	BANK OF AMERICA N.A.	03	04170.04	507 5TH AVE EAST
304180-00	1800	1500	2700	2700	4000		13100	19400	20000	6600	2100	1500	75400.00	68	343	304180-00	DELONG, PAUL & DONNA	08	04180	603 CHURCH STREET
304190-00	2700	2600	2800	2500	9800	31000	35900	54100	35200	3200	2500	3000	185300.00	89	920	304190-00	SPARKS, DAVID G.	08	04190	610 CHURCH STREET
304195-00	3300	3700	3000	3000	4000	4000	4000		4600	3300	3100	6500	42500.00	125	108	304195-00	SHARP, GREG	08	04195	609 CHURCH STREET
304200-00	3200	5700	3200	3200	1700	3100	2800	8800	3200	3600	3500	8800	50800.00	152	126	304200-00	KELLY, TIMOTHY J	08	04200	617 CHURCH STREET
304200-01													0.00	0	0	304200-01	MARICH, JAMES	03	04200.01	617 CHURCH STREET
304210-00	8500	12400	11600	13300	7700	13600	13500	18600	19100	11900	7300	8000	145500.00	338	459	304210-00	BENNETT DAVE - SALEESH	08	04210	510 BIGHORN DRIVE
304220-00	7300		8900	8900	14300	41700	19300	10600	7500	10300	8800	9400	147000.00	239	564	304220-00	BENNETT DAVID - MOUNTAIN HOUSE	08	04220	507 BIGHORN DRIVE
304220-M1	3400	4600	3900	3900	4200	8700	5900	5100	3900	4200	4600	5400	57800.00	143	174	304220-M1	BENNETT DAVE - MOUNTAIN HOUSE	08	0422001	507 BIGHORN DRIVE
304220-M2	3900	6000	5000	5000	2100	4400	3800	5500	3600	6100	4200	4000	53600.00	155	139	304220-M2	BENNETT DAVE - MOUNTAIN HOUSE	08	0422002	507 BIGHORN DRIVE
304225-00	3800	5100	3500	3500	4000		18000	27300	22200	2800	3100	1100	94400.00	111	404	304225-00	FARRINGTON, HAROLD & BARBARA	08	04225	525 BIGHORN DRIVE
304230-00	3200	3600	3500	3500	2100	14500	15000	33000	13000	3600	3600	4100	102700.00	119	441	304230-00	WADSWORTH, LARRY	08	04230	530 BIGHORN DRIVE
304240-00	2400	3100	2000	2000	4000	4000	7800	20600	18000	6600	2400	4100	77000.00	88	332	304240-00	PARKS, DAN	08	04240	538 BIGHORN DRIVE
304246-00	4500	5500	2900	2900	3400	18700	43500	47500	25800	6900	4500	4900	171000.00	139	792	304246-00	ROBINSON, DUSTIN & CHRISTINE	08	04246	549 BIGHORN DRIVE
304246-01													0.00	0	0	304246-01	NORMANDEAU, BECKI	03	04246.01	549 BIGHORN DRIVE
304250-00	4200	1400	1800	1500	1900	6800	10700	15300	14600	5400	1900	3400	68900.00	78	297	304250-00	DERENBURGER LONNA & ROBERTS RANDY	08	04250	546 BIGHORN DRIVE
304253-00	1600	400	200	200	4000		600	900	700	700	500	800	10600.00	20	38	304253-00	DARBY JR, ORVILLE L	08	04253	102 KOO KOO SINT COURT
304253-01													0.00	0	0	304253-01	SHRYNE, TIM & JO	03	04253.00	102 KOO KOO SINT COURT
304257-00	2000	2400	2000	2000	4000		2300	3300	1700	2200	2000	2200	26100.00	70	73	304257-00	MCEWEN, ARTHUR	08	04257	205 KANIKSU CT
304260-00	2500	9500	4500	4500	3600	13400	13100	16100	17400	7700	5000	6400	103700.00	179	388	304260-00	HOEKEMA, STAN & EMERYL	08	04260	104 KOOKOO SINT COURT
304261-00	2900	3600	3100	2700	4000		6900	6600	5700	4000	3600	3700	46800.00	108	148	304261-00	CORK, COURTNEY B	08	04261	105 KANIKSU CT
304261-01													0.00	0	0	304261-01	FRY, NATHANIEL & CHELLE	03	0426101	105 KANIKSU CT
304261-02													0.00	0	0	304261-02	WOOD, RANDY A.	03	04261.00	105 KANIKSU CT
304261-03													0.00	0	0	304261-03	US BANK NATIONAL ASSN ND	03	04261.01	105 KANIKSU CT
304261-04													0.00	0	0	304261-04	ORCHARD TERRACE ESTATES LLC % LAMCO	03	04261.02	105 KANIKSU CT
304261-05													0.00	0	0	304261-05	AMERICAN DREAM REALTY	03	04261.03	105 KANIKSU CT
304262-00	500	1000	700	700	400	1900	4000	4200	5500	1100	1000	800	21800.00	26	93	304262-00	STEPHENS, TRAVIS D.	08	04262	605 BIGHORN DRIVE
304262-01													0.00	0	0	304262-01	MILLS CHUCK	03	04262.01	605 BIGHORN DRIVE
304262-02													0.00	0	0	304262-02	CONRAD, DALE	03	04262.02	605 BIGHORN DRIVE
304262-03													0.00	0	0	304262-03	WOOD, DEBBIE DION	03	04262.03	605 BIGHORN DRIVE
304262-04													0.00	0	0	304262-04	LOWE, JOHN & AMANDA	03	04262.00	605 BIGHORN DRIVE
304262-05													0.00	0	0	304262-05	WELLS FARGO HOME MTG CO	03	04262.04	605 BIGHORN DRIVE
304262-06													0.00	0	0	304262-06	HUD	03	04262.05	605 BIGHORN DRIVE
304264-00	900	1200	800	800	500	1700	4000	3900	3100	1100	1100	900	20000.00	31	78	304264-00	TURK, CAROL	08	04264	101 KOOKOO SINT COURT
304266-00													0.00	0	0	304266-00	WHITEFISH CREDIT UNION	08	04266	108 KANIKSU CT
304266-01	4500	7600	4600	4600	2400	7500	10000	6600	11200	4300	4200	5000	72500.00	169	228	304266-01	SCHILLING, DAVID & CATHY	08	04266.01	
304266-02													0.00	0	0			10		108 KANIKSU CT
304267-00	6500	7600	4500	4500	4000		14400	24700	24000	4200	4900	6000	105300.00	188	388	304267-00	VAUGHT, KEVIN	08	04267	106 KANIKSU CT
304268-00	1500	1800	2000	2000	4000		37100	49200	40200	43800	2400	2000	186000.00	65	947	304268-00	EGGENSPERGER, TOM	08	04268	102 KANIKSU CT
304280-00	3400	4400	3300	3300	4000		10600	9000	8200	4000	3700	5300	59200.00	129	195	304280-00	KEPPNER, THOMAS & MILDRED	08	04280	610 BIGHORN DRIVE
304280-01													0.00	0	0	304280-01	BONNES RICHARD & JEAN	03	04280.01	610 BIGHORN DRIVE
304290-00	2700	2600	800	800	4000		14900	19500	21400	4500	1500	1700	74400.00	56	349	304290-00	PIRKER, RANDY	08	04290	106 BIG BUCK DRIVE
304310-00					4000		28900	35300	32200	12400	300		113100.00	2	613	304310-00	NEAL, GERALD & DONNA	08	04310	777 GRIZZLY DRIVE
313110-00	1900	3000	1400	1400	4000		8500	10600	8400	5100	2600	2500	49400.00	71	199	313110-00	WILSON, GLENN	08	13110	611 GRIZZLY DRIVE
313130-00	4400	5400	3900	3900	4000		3600	4400	5700	3000	3200	3600	45100.00	135	113	313130-00	MILNER, LARRY & THERESA	08	13130	600 GRIZZLY DRIVE
313140-00						4000	4200	51300	28500	16800	700		105500.00	4	570	313140-00	TALLANT DAVID L & DRESSEL LAURA	08	13140	555 GRIZZLY DRIVE
313140-01													0.00	0	0	313140-01	BUTCHER THOMAS	03	13140.00	555 GRIZZLY DRIVE
313150-00	4100		3700	3700	4000		17300	25300	8900	5300	5800	6400	84500.00	131	330	313150-00	HINCK, TROY & ALICE	08	13150	551 GRIZZLY DRIVE
313150-01													0.00	0	0	313150-01	THOMPSON, MICHAEL & KARI	03	13150.00	551 GRIZZLY DRIVE
313150-02													0.00	0	0	313150-02	RATTRAY , LARRY D. & ELIZABETH P.	03	13150.01	551 GRIZZLY DRIVE
313160-00					4000		15100	29800	21600	2600	1700	1000	75800.00	15	397	313160-00	CUDDY, WILLIAM & LOIS	08	13160	556 GRIZZLY DRIVE
313170-00	1200	1900	1300	1300	4000		37700	64300	50700	1900	1500	2100	167900.00	51	862	313170-00	BRUSE, PATRICK M	08	13170	543 GRIZZLY DRIVE
313170-01													0.00	0	0	313170-01	BACHMANN, KENT	03	13170.01	543 GRIZZLY DRIVE
313171-00	3300	3200	3900	3900	4000		14200	20000	18300	6300	4300	3400	84800.00	122	341	313171-00	WORTH, LAURIE & EARL	08	13171	542 GRIZZLEY DRIVE
313210-00					4000		1500	1700	2300	1400	1500	1300	13700.00	15	59	313210-00	JACOBSON, CLETUS A.	08	13210	537 GRIZZLY DRIVE
313210-01													0.00	0	0	313210-01	UNITED STATES OF AMERICA, ACTING	03	13210.01	537 GRIZZLY DRIVE
313215-00	3400	6000	4000	4000	4000		6800	9700	5900	3800	3500	2600	53700.00	130	164	313215-00	WEBSTER KELLY AND ABERCROMBIE KATHRYN	08	13215	525 GRIZZLY DRIVE
313215-01													0.00	0	0	313215-01	EPPERSON, ZARACH	03	13215.01	525 GRIZZLY DRIVE
313215-02													0.00	0	0	313215-02	SHEPHERD, JAILEEN	03	13215.02	525 GRIZZLY DRIVE
313215-03													0.00	0	0	313215-03	HAGEMO, THEODORE J	03	13215.03	525 GRIZZLY DRIVE
313220-00	1900	3300	2400	3200	4000		3100	3300	2400	2500	3600	2600	32300.00	94	83	313220-00	BOON, BLAKE E	08	13220	511 GRIZZLY DRIVE
313220-01													0.00	0	0	313220-01	BRIGHT, NATHAN	03	13220.01	511 GRIZZLY DRIVE
313220-02													0.00	0	0	313220-02	BREITHAUPT, KURT & PAULA	03	13220.00	511 GRIZZLY DRIVE
313220-03													0.00	0	0	313220-03	PETTIS, ROBERT D & GAYE J	03	13220.02	511 GRIZZLY DRIVE
313400-00	1300	1600	1200	1200	4000		1000	1600	1000	1200	1300	1400	16800.00	44	48	313400-00	CURRY, DONNA J.	08	13400	504 GRIZZLY DRIVE
313400-01													0.00	0	0	313400-01	NETZ, ALAN	03	13400.01	504 GRIZZLY DRIVE
313420-00	2800	8800	4700	4700	4000		5400	6600	3500	5700	5600	6000	57800.00	180	137	313420-00	HADDIX, JEFFREY L & PATRICIA G	08	13420	520 GRIZZLEY DRIVE
313420-01													0.00	0	0	313420-01	GORDON, JAMES E.	03	13420.00	520 GRIZZLEY DRIVE
404270-00	8900	11000	9400	4000	7200	26100	36200	46900	36500	13900	8300	12400	220800.00	298	907	404270-00	DAHLKE, GARY	08	04270	511 5TH AVE EAST
404280-00	2600	4100	3900	3900	3200	4400	6400	3800	7200	5100	3700	4600	52900.00	126	164	404280-00	BARTLETT, ROLAND E & WHITNEY N	08	042801	533 MAPLE STREET
404280-01													0.00	0	0	404280-01	ISHAM, DONALD	04	04280.01	533 MAPLE STREET
404290-00													0.00	0	0	404290-00	LEIVESTAD, RUSSLYN A	08	042901	534 MAPLE STREET
404290-01	100		500	500	4000		34700	35800	28700	19300	4600	4900	133100.00	59	666	404290-01	CHENEY, RUTH	08	042901.01	534 MAPLE STREET
404300-00	5900	4700	4500	4500	4000	4000	25000	104400	35900	6300	4800	6100	210100.00	169	976	404300-00	KINKADE, RUSTY	08	04300	526 MAPLE STREET
404305-00	4400	4700	3700	3700	4000		15400	25200	22800	6900	6600	7500	104900.00	169	404	404305-00	GILBERT, AMY J	08	04305	512 5TH AVENUE E
404305-01													0.00	0	0	404305-01	BENNETT, GLORIA D.	04	04305.00	512 5TH AVENUE E
404310-00	4000	3900	2300	2300	1100	8300	9100	12100	14800	3800	3500	3900	69100.00	110	267	404310-00	CONLIN, JAMES	08	043101	514 5TH AVE EAST
404320-00	3600	4000	2800	2800	2300	4900	4700	3600	5800	2800	2800	3300	43400.00	107	131	404320-00	MOREHOUSE, GARY	08	04320	520 MAPLE STREET
404330-00						12500	44200	28600	19500	14600	1900		121300.00	10	649	404330-00	HOEFT, JERRILEE SQUIRE	08	04330	515 MAPLE STREET
404440-00	1000	1600	1000	1000	800	1600	1000	2100	1100	1300	1200	1400	15100.00	40	43	404440-00	SCOTT, FRANCES	08	04440	215 ADAMS STREET
404440-01													0.00	0	0	404440-01	DENISON, LOIS J.	04	04440.00	215 ADAMS STREET
404450-00													0.00	0	0	404450-00	VULLES, MICHAEL B	08	04450	216 ADAMS STREET
404455-01													0.00	0	0	404455-01	VULLES MICK	04	04455	218 ADAMS STREET
404460-00	7000	7800	7000	7800	4000	4000	15000		25200	18500	6400	7800	110500.00	242	363	404460-00	STOVER, JEREMY & SARAH	08	04460	221 ADAMS STREET
404460-01													0.00	0	0	404460-01	LADD JAMES & LOIS	04	04460.01	221 ADAMS STREET
404460-02													0.00	0	0	404460-02	POWELL, ALICE	04	04460.00	221 ADAMS STREET
404470-00	1600	1100	800	600	400	900	1000	1200	1400	1100	1000	900	12000.00	33	33	404470-00	ARRANTS STAN & EVA	08	04470	608 HALEY AVENUE E
404480-00	4900	4300	6300	6300	4000	4000	4000	17300	5900	7000	6300	6500	76800.00	191	229	404480-00	THORNHILL, ROBERT & BRENDA	08	04480	514 HALEY AVENUE E
404480-01													0.00	0	0	404480-01	SCHWINCK, ALAN	04	04480.01	514 E HALEY AVENUE
404490-00	2000	1200	2100	2100	2000	1800	700	1100	1700	1700	7100	5900	29400.00	113	49	404490-00	LA FRINIERE, JOYCE	08	04490	305 ADAMS STREET
404500-00	1200	1300	100		4000	4000	4000		2600	700	900	900	19700.00	24	83	404500-00	SHARP, RONALD & BONNIE	08	04500	607 HALEY AVENUE E
404505-00							25000	30300	25400	19600			100300.00	0	545	404505-00	SHARP RONALD & BONNIE	08	04505	308 ADAMS STREET
404510-00					2800	16200	18700	13800	9100	6000	3100	4100	73800.00	40	362	404510-00	HARRIS, TOM	08	04510	317 ADAMS STREET
404520-00	3900	4400	1300	1300	1300	9100	3400	5800	9100	2800	2300	2400	47100.00	86	171	404520-00	TAYLOR, JANE	08	04520	329 ADAMS STREET
404520-01													0.00	0	0	404520-01	SULLIVAN M J	04	04520.01	329 ADAMS STREET
404520-02													0.00	0	0	404520-02	LARSEN, WANDA K.	04	04520.00	329 ADAMS STREET
404530-00	3800	5800	4100	4100	4000		7400	9100	8900	4500	3900	4100	59700.00	143	184	404530-00	NELSON, WILLIAM A. & TERESA J.	08	04530	409 ADAMS STREET
404530-01													0.00	0	0	404530-01	HOOTEN CHERIE	04	04530.00	409 ADAMS STREET
404530-02													0.00	0	0	404530-02	HOOTEN, DANIEL & LEANN	04	04530.02	409 ADAMS STREET

404540-00								3700	3800	1900	2100	3000	14500.00	28	51	404540-00	ALDERETE, ANGELO & SABRE	08	04540	708 HALEY AVENUE E
404540-01	1100	600	1100		500	25600	14400						43300.00	15	220	404540-01	HOFF, MAYNARD	08	04540.01	708 HALEY AVENUE E
404550-00	600	3800	2000	2000	2100	6600	4300	3800	2200	3900	2800	3100	37200.00	79	124	404550-00	LEAF, BODIE	08	04550	102 GOLF STREET
404550-01													0.00	0	0	404550-01	GAMETT, HOWARD	04	04550.01	102 GOLF STREET
404550-02													0.00	0	0	404550-02	INTRASPECT INVESTMENTS, LLC	04	0455002	102 GOLF STREET
404560-00	4400	5100	4000	4000	2300	10900	11800	16700	21000	4900	4600	4900	94600.00	149	367	404560-00	FEWKES, DOUGLAS & SUEANNE	08	04560	106 GOLF STREET
404560-01													0.00	0	0	404560-01	PLUMMER, BILL	04	04560.01	106 GOLF STREET
404560-02													0.00	0	0	404560-02	MCKINNEY, SHAWNA	04	04560.00	106 GOLF STREET
404560-03													0.00	0	0	404560-03	MALEY, TOM	04	04560.02	106 GOLF STREET
404570-00	3000	4100	3500	3500	4000		6300	6100	5700	4600	3400	4900	49100.00	124	145	404570-00	SHARP, RONALD	08	04570	109 GOLF STREET
404580-00							4000	4000		51700	2400	2400	64500.00	27	324	404580-00	FREEMAN, RONALD & FLORENCE	08	04580	108 GOLF STREET
404580-01													0.00	0	0	404580-01	YOUNG BEA	04	04580.00	108 GOLF STREET
404580-02													0.00	0	0	404580-02	THOMPSON, KIMBERLY R.	04	04580.01	108 GOLF STREET
404580-03													0.00	0	0	404580-03	HURD-BUSH REALTORS	04	04580.02	108 GOLF STREET
404580-04													0.00	0	0	404580-04	BRYANT, TERRANCE R	04	04580.03	108 GOLF STREET
404580-05													0.00	0	0	404580-05	BARE, VERNON L	04	04580.04	108 GOLF STREET
404580-06													0.00	0	0	404580-06	WELLS FARGO BANK & NORTHWEST TRUSTEE SERVICES	04	04580.05	108 GOLF STREET
404580-07						4000							4000.00	0	22	404580-07	VA % MAJESTIC MONTANA PROPERTIES	04	04580.06	108 GOLF STREET
404590-00		100			300	103200	95700	122900	102200	110600	26000	200	561200.00	145	2907	404590-00	THE CHURCH OF JESUS CHRIST OF LATTER-DAY SANITS	08	04590	210 GOLF STREET
404600-00	3700	2800	5800	5800	3200	16600	35200	44400	28300	4800	4400	5100	160100.00	152	720	404600-00	LOFTHUS, JOSHUA & GILLIAN	08	04600	306 GOLF STREET
404600-01													0.00	0	0	404600-01	FLOTRE, TIMOTHY & TAMARA	04	04600.01	306 GOLF STREET
404605-00					4000							900	4900.00	5	22	404605-00	BOUKAL, RUDOLF GEORG	08	04605	307 GOLF STREET
404605-01													0.00	0	0	404605-01	DUFFY, CASEY & STEPHANIE	04	04605.01	307 GOLF STREET
404610-00	4700	2300	8400	8400	17000	37400	42400	56100	43100	46300	5100	5300	276500.00	189	1317	404610-00	KELLEY, ROBERT W.	08	04610	310 GOLF STREET
404620-00	1100	800	2600	2600	700	1700	4100	2000	1400	1800	1300	2100	22200.00	58	64	404620-00	PAINTER, WINIFRED M	08	04620	211 EDDY STREET
404630-01													0.00	0	0	404630-01	CITY OF THOMPSON FALLS	04	04630	506 GOLF STREET
404640-00	15000	36000	17000	15000	15000	15000	40000	218000	250000	425000	362000	297000	1705000.00	4099	5234	404640-00	SCHOOL DISTRICT #2 - HIGH SCHOOL	08	04640	601 GOLF STREET
404645-00	4100	5900	4300	4300	4000		24400	19700	25300	14700	1700	1800	110200.00	122	479	404645-00	BOWDINO LAND LLC	08	04645	1199 BEARPAW TRAIL
404645-01													0.00	0	0	404645-01	BASHAM, MIKE & WANDA	04	04645.00	1199 BEARPAW TRAIL
404650-00	800	800	600	600	300	4500	8100	9300	7800	900	700	700	35100.00	23	168	404650-00	WILLIAMS, PEGGY	08	04650	101 HILL STREET
404658-00	1900	2600	1700	1700	1400	11400	13300	20100	16300	6900	2200	2400	81900.00	69	377	404658-00	CLARK STEVE	08	04658	102 HILL STREET
404660-00	4200	7300	5500	5500	4100	5000	3500	7200	3700	6800	10100	7200	70100.00	220	165	404660-00	FIELDS, JIM & DEBRA	08	04660	107 HILL STREET
404670-00	3000	4500	3100	3100	1500	3300	3100	4300	3800	3800	3600	4700	41800.00	122	108	404670-00	MCQUEEN, KENNETH K. & DONNA	08	04670	111 HILL STREET
404670-01													0.00	0	0	404670-01	EGOSQUE JODIE	04	04670.00	111 HILL STREET
404680-00	1400	1900	1700	1700	1700	5500	6600	5500	2900	2200	1500	1500	34100.00	54	133	404680-00	LACY, GLENN	08	04680	116 HILL STREET
404690-01													0.00	0	0	404690-01	LACY, GLENN	04	04690	106 HILL STREET
404700-00	4200	4800	4300	4300	3100	9300	11600	16800	15000	7100	7100	7900	95500.00	180	342	404700-00	FAUSETT JADE & FAUSETT SCARLETT	08	04700	105 ELK STREET
404700-01													0.00	0	0	404700-01	FAUSETT, J. DOUGLAS & TINA M.	04	04700.00	105 ELK STREET
404710-00	11600	14000	11500	11400	6300	22000	25200	18400	18300	5800	3100	3200	150800.00	303	522	404710-00	CRAIG, FRANCIS & MARLENE	08	04710	104 ELK STREET
404720-00	2400	2800	2300	2300	2400	15300	43700	55300	42800	13000	2500	3900	188700.00	90	938	404720-00	RELLER, PEGGY	08	04720	111 ELK STREET
404730-00	4000	4400	4000	4000	2100	3800	5500	4700	3500	4000	3900	4400	48300.00	136	128	404730-00	MARTIN STEPHANIE L & LLYR KRISTIN M	08	04730	108 ELK STREET
404730-01													0.00	0	0	404730-01	FARRINGTON, HAROLD & BARBARA	04	04730.01	108 ELK STREET
404730-02													0.00	0	0	404730-02	FARRINGTON HAROLD	04	04730.02	108 ELK STREET
404730-03													0.00	0	0	404730-03	JOHNSON, DENNIS	04	04730.00	108 ELK STREET
404740-00	2800	3400	2700	2700	1700	8900	10400	12200	9600	3100	3500	3600	64600.00	103	249	404740-00	JOHNSTON, SANFORD L. & LILA A.	08	04740	115 ELK STREET
404740-01													0.00	0	0	404740-01	EMMONS, MARY J.	04	04740.01	115 ELK STREET
404750-00	5100	9200	9300	9300	11700	36100	41500	53500	45800	9800	8000	7800	247100.00	269	1078	404750-00	KAZMIERCZAK, RONALD V. & SANDRA L.	08	04750	116 ELK STREET
404760-00	1700	2000	1600	1600	4000	4000	15000		25600	4300	3500	2900	66200.00	73	288	404760-00	WAKEFIELD, LARRY & LINDA	08	04760	118 ELK STREET
404770-00	3800	5600	4600	4600	3400	4900	8200	7000	13900	4600	3600	3300	67500.00	141	228	404770-00	OWENS, RICHARD F & SHAUNA J	08	04770	119 ELK STREET
404770-01													0.00	0	0	404770-01	DENSON, CHARLES III	04	04770.00	119 ELK STREET
404770-02													0.00	0	0	404770-02	HURD-BUSH REALTORS	04	04770.01	119 ELK STREET
404780-00	2600	2600	2500	2500	1400	1100	2300	3600	3200	1000	800	1900	25500.00	71	68	404780-00	WOODEN, ANN M	08	04780	123 ELK STREET
404780-01													0.00	0	0	404780-01	MODLIN, HARRY & RUTH	04	04780.01	123 ELK STREET
404780-02													0.00	0	0	404780-02	LADD, JAMES	04	04780.00	123 ELK STREET
404785-00	9200	11800	7100	7100	4000		8900	11300	10100	9700	10000	10800	100000.00	309	239	404785-00	SPAULDING, ROBERT K	08	04785	202 204 BOULDER AVENUE
404785-01													0.00	0	0	404785-01	GAYNOR, DON & NANCY	04	04785.01	202 204 BOULDER AVENUE
404786-00							9700	12600	9400	9300	10400	10700	62100.00	117	223	404786-00	HUTCHINGS, CODY	08	04786	206 208 BOULDER AVENUE
404786-01													0.00	0	0	404786-01	GAYNOR, DON & NANCY	04	04786.01	206 208 BOULDER AVENUE
404786-02	9400	12000	8500	8000	4000								41900.00	209	22	404786-02	SPAULDING, ROBERT K	08	04786.01	206 208 BOULDER AVENUE
404790-00	4900	5600	4400	4400	2000	4100	3900	3900	3600	4500	3800	4500	49600.00	152	120	404790-00	DVOROZNAK, DONALD S.	08	04790	122 ELK STREET
404800-00	4800	5700	4000	4000	6100	8300	8600	5600	5200	4500	4100	3200	64100.00	143	208	404800-00	TRAIN, ANTHONY	08	04800	212 BOULDER AVENUE
404800-01													0.00	0	0	404800-01	CRABTREE TOM	04	04800.01	212 BOULDER AVENUE
404800-02													0.00	0	0	404800-02	WHEELER, SHERRY M.	04	04800.00	212 BOULDER AVENUE
404800-03													0.00	0	0	404800-03	FIRST INTERSTATE BANK	04	04800.02	212 BOULDER AVENUE
404800-04													0.00	0	0	404800-04	US DEPARTMENT OF HUD	04	04800.04	212 BOULDER AVENUE
404800-05													0.00	0	0	404800-05	ASSET MANANGEMENT SPECIALISTS	04	04800.03	212 BOULDER AVENUE
404810-00					4000	4000	4000						12000.00	0	65	404810-00	BODALY, ROBERT	08	04810	218 BOULDER AVENUE
404820-00	2600	2600	1700	2900	14300	45600	47300	64800	69700	24600	1600	3600	281300.00	83	1447	404820-00	PAULI, JERRY	08	04820	219 BOULDER AVENUE
404840-00	7100	6500	6400	6400	4000	4000	15000		21800	8000	6600	6200	92000.00	217	287	404840-00	VAN HUSS, MARK & ANDREA	08	04840	226 BOULDER AVENUE
404840-01													0.00	0	0	404840-01	STICKNEY, WALTER & DELORES	04	04840.00	226 BOULDER AVENUE
404840-02													0.00	0	0	404840-02	GRIFFITHS, HUGH & SUSAN	04	04840.01	226 BOULDER AVENUE
404850-00	5500	6900	4600	4600	3000	6200	5600	7800	5600	7100	6600	7900	71400.00	199	192	404850-00	MCJUNKIN, DANIEL & MELISSA	08	04850.00	225 BOULDER AVENUE
404850-01													0.00	0	0	404850-01	GILBERT, SHARI L.	04	04850.01	225 BOULDER AVENUE
404850-02													0.00	0	0	404850-02	BENNETT, DAVID S	04	04850.02	225 BOULDER AVENUE
404850-03													0.00	0	0	404850-03	MILLER, WILLIAM NEIL & KAREN H.	04	04850.03	225 BOULDER AVENUE
404855-00	1400	1900	1700	1700	4000		51500	73700	59200	35900	1600	1700	234300.00	55	1219	404855-00	HARPER, RITA	08	04855	229 BOULDER AVENUE
404857-01											2700	3600	6300.00	35	0	404857-01	CAMPBELL, GARY & SHIRLEY	08	04857	848 HALEY AVENUE E
404860-00	2600	4800	3300	3300	2600	8500	8500	11300	7800	3900	4200	4500	65300.00	125	232	404860-00	LANTZ, LESLIE D & JOANN	08	04860	908 HALEY AVENUE E
404860-01													0.00	0	0	404860-01	CHISENHALL ESTATE, ALMA E.	04	04860.00	908 HALEY AVENUE E
404860-02													0.00	0	0	404860-02	SHEPHERD, JAILEEN &	04	04860.01	908 HALEY AVENUE E
404870-00	1800	3500	2500	2500	2000	7200	6900	9600	8900	7100	5400	4700	62100.00	113	227	404870-00	DOOLING, TOM R.	08	04870	916 HALEY AVENUE E
404870-01													0.00	0	0	404870-01	BRAUER VERNETTE	04	04870.00	916 E HALEY AVENUE
404880-00	6700	4900	3400	3400	1300	5100	7400	9100	6200	2900	2100	2400	54900.00	127	174	404880-00	STEFFES-EWEN, JO	08	04880	922 HALEY AVENUE E
404880-01													0.00	0	0			10		
404880-02													0.00	0	0	404880-02	WOOD, RICHARD & LILLY	04	04880.	922 E HALEY AVENUE
404880-03													0.00	0	0			10		
404882-00										5700	4700	5600	16000.00	57	31	404882-00	LYONS, RICHARD	08	04882.00	926 HALEY AVE E
404882-01	1000	1800	1800	1800	4000		200	200	3600				14400.00	35	43	404882-01	PETERS, DALE	08	04882.01	926 HALEY AVE E
404883-00	3400	3900	2800	2800	4000		10500	13200	11600	4900	4100	4700	65900.00	120	240	404883-00	GRIFFITHS, HUGH & SUSAN	08	04883	905 HALEY AVENUE E
404883-02													0.00	0	0	404883-02	STICKNEY, WALTER CLINT	04	04883.01	905 E HALEY AVENUE
404885-00							38600	76600	26400	36000	3300	1600	182500.00	27	965	404885-00	MAJERUS, GERARD & YVETTE	08	04885	925 HALEY AVENUE E
404885-01													0.00	0	0	404885-01	MARQUES JIM	04	04885.01	925 E HALEY AVENUE
404885-02					4000								4000.00	0	22	404885-02	NICHOLS, CHRISTOPHER	04	04885.02	925 HALEY AVENUE E
404890-00	3800	4500	8000	8000	6100	8000	3700	16800	10400	3300	3800	4700	81100.00	181	263	404890-00	CHEESMAN HENRY	08	04890	104 EDDY STREET
404890-01													0.00	0	0	404890-01	LAPHAM, ELWOOD	04	04890.01	104 EDDY STREET
404900-00	3400	2300	2800	2800	900	1600	1400	2700	1900	2100	2000	1900	25800.00	84	58	404900-00	LEUFKENS, BUDDY J & JUDY A	08	04900	105 EDDY STREET
404900-01													0.00	0	0	404900-01	WULFEKUHLE, JERRY	04	04900.00	105 EDDY STREET
404904-00	9500	8200	5500	5500	4000		6600	3600	2800	6900	6000	6400	65000.00	227	130	404904-00	SCHOOL DISTRICT #2 - HIGH SCHOOL - NEW ADDITION	08	04904	601 1/2 GOLF STREET
504900-00	700	500	700	700	4000		200	200	400	500	400	400	8700.00	19	29	504900-00	THOMPSON FALLS RURAL FIRE HALL	08	049001	1811 MAIN STREET W
504910-00	300	1300	500	500	4000	4000	4000		300	500	400	700	16500.00	20	70	504910-00	BLACKFOOT TELEPHONE COOPERATIVE	08	04910	1805 MAIN STREET W
504920-00					4000				100				4100.00	0	22	504920-00	MUSTER, JOHN & SANDRA - SHOP	08	04920	1705 MAIN STREET W
504930-00						4000	4000						8000.00	0	43	504930-00	MUSTER, JOHN & SANDRA	01	04930	1715 MAIN STREET W

504940-00	300	300	300	300	4000		200	100	100	400	200	200	6400.00	9	26	504940-00	MUSTER'S SHOP	08	04940	1709 MAIN STREET W
504950-01													0.00	0	0	504950-01	DOUGLASS HARLAN	05	04950	1615 W MAIN STREET
504951-01													0.00	0	0	504951-01	HARLAN DOUGLASS	05	04951	815 E ROSEWOOD
504954-00	1500	1300	1100	1100	4000		1600	5700	1700	3700	2100	1500	25300.00	48	91	504954-00	THOMPSON FALLS AMBULANCE	08	04954	1520 MAIN STREET W
504955-00	100	100	100	100	400	11500	79600	91200	74200	9600	900	1200	269000.00	14	1448	504955-00	US POSTAL SERVICE	08	04955	1611 MAIN STREET W
504960-01													0.00	0	0	504960-01	HARLAN D DOULASS	05	04960	104 S POND STREET
504965-00	200	300	200	200	400		2500	28300	22900	2100	2400	2600	62100.00	33	305	504965-00	THOMPSON FALLS MEDICAL CLINIC	08	04965	120 POND STREET S
504970-00					4000	4000	4000	4000					16000.00	0	87	504970-00	WHITEFISH CREDIT UNION	05	04970	107 POND STREET S HOUSE
504970-01													0.00	0	0	504970-01	SULARZ, PATRICIA	05	04970.01	107 POND STREET
504975-00	100				400		139000	172200	131800	135000	700	400	579600.00	7	3143	504975-00	WHITEFISH CREDIT UNION	08	04975	107 POND STREET S - CU
504980-01													0.00	0	0	504980-01	TOWN PUMP INC/LUCKY LIL'S	05	04980	1315 MAIN STREET
504990-00	2900	3400	2800	3200	3800	3800	4000	13600	75600	59600	45900	42500	261100.00	556	872	504990-00	TOWN PUMP INC.	08	04990	1301 MAIN STREET W
505000-00					4000		2500	3100	2500	2000	1600	900	16600.00	14	77	505000-00	DOUG'S TRUE VALUE/HEALTH	08	05000	1221 MAIN STREET W
505000-01													0.00	0	0			10		
505000-03													0.00	0	0			10		
505015-00	400	500	400	400	4000		400	700	300	600	400	500	8600.00	14	33	505015-00	ELLIOTT REALTY	08	05015	1219 MAIN STREET W
505015-01													0.00	0	0	505015-01	LINDA'S GIFTS	05	05015.00	1219 MAIN STREET W
505020-00	600	800	500	500	4000		500	800	500	600	600	800	10200.00	21	35	505020-00	MANLEY INC	08	05020	1211 MAIN STREET W
505020-01													0.00	0	0	505020-01	FIRST AMERICAN TITLE CO.	05	05020.00	1211 MAIN STREET W
505030-00	20100	26800	20500	15500	20000	20000	25000		24100	38400	9700	15500	235600.00	597	693	505030-00	THOMPSON FALLS FEED & FUEL LLP	08	05030	1201 MAIN STREET W
505040-00	500	600	500	500	400		115600	184200	146800	88800	9700	7600	555200.00	107	2912	505040-00	SANDERS CO CLERK & RECORDER	08	05040	1111 MAIN STREET W
505045-01													0.00	0	0	505045-01	SANDERS CO COURTHOUSE LAWN	05	05045	1111 MAIN
505050-00	1100	1200	900	1000	4000		3500	4800	3200	4000	4100	4100	31900.00	69	106	505050-00	JOHNSON, RODNEY K.	08	05050	1037 MAIN STREET W
505050-01													0.00	0	0	505050-01	LARRY WADSWORTH	05	05050.01	101 S JEFFERSON STREET
505051-01													0.00	0	0	505051-01	JOHNSON, RODNEY K.	05	05051	1037 MAIN STREET W
505060-00	600	700	300	400	4000		400	100		200	200	300	7200.00	14	26	505060-00	REX'S THEATER	08	05060	1033 MAIN STREET W
505060-02													0.00	0	0			10		
505070-00	3400	5300	3500	3500	4000	4000	4000		1400	1800	1400	1500	33800.00	103	83	505070-00	CLARK FORK TITLE INC.	08	05070	1029 MAIN STREET W
505070-01													0.00	0	0	505070-01	BURLINGAME, CLAUDE I.	05	05070.01	1029 W MAIN STREET
505080-00					4000		100					100	4200.00	1	22	505080-00	BLACKFOOT TELEPHONE COOPERATIVE	08	05080	1025 MAIN STREET W
505090-00	1200	1500	900	1000	4000		1100	1500	1000	1300	1200	1300	16000.00	39	48	505090-00	EGGENSPERGER, TOM	08	05090	1017 MAIN STREET W
505101-00	1000	1300	1300	900	4000		1200	4800	1600	11600	3700	1100	32500.00	51	126	505101-00	PROSPECT PROPERTIES	08	05101	1013 MAIN STREET W
505101-01													0.00	0	0	505101-01	BURLINGAME, CLAUDE I.	05	05101.01	1013 W MAIN STREET
505101-02													0.00	0	0	505101-02	SENNE, GENE D. & NANCY K.	05	05101.02	1013 W MAIN STREET - OLD BANK BUILDing
505110-00							4000						4000.00	0	22	505110-00	FIRST SECURITY BANK	08	05110	1003 MAIN STREET W
505110-01													0.00	0	0	505110-01	THOMPSON FALLS HOLDING CO.	05	05110.01	1003 W MAIN STREET
505120-00					4000	4000	4000	400	1300	2500	2400	2500	21100.00	27	88	505120-00	BUCHANAN, SHERLEY & DEBORAH	08	05120	925 MAIN STREET W
505120-01													0.00	0	0	505120-01	METWEST MORTGAGE SERVICES, INC.	05	05120.01	925 MAIN
505130-00	66300	78100	19600	19200	30000	30000	35000	64400	39300	36600	35300	26400	480200.00	1353	1279	505130-00	SEXTON INC. DBA MINNIE'S MONTANA CAFE	08	05130	921 MAIN STREET W
505130-01													0.00	0	0	505130-01	BOOMTOWN CAFE, INC.	05	05130.01	921 MAIN
505140-00	6800	7200	11900	4900	4000		17200	12800	13300	15200	8600	8600	110500.00	265	340	505140-00	PARKER NOLAN & LINDA	08	05140	913 MAIN STREET W
505150-00		400	200	200	400		1400	1400	2200	2200	1800	1400	11600.00	22	41	505150-00	MONTANA RAIL LINK - LOCAL	08	05150	902 MAIN STREET W
505160-01													0.00	0	0	505160-01	THOMPSON FALLS PUBLIC LIBRARY DISTRICT	05	05160	911 MAIN STREET W
505170-00	3300	4400	700	700	4000		3100	4500	3300	3900	4000	3700	35600.00	93	102	505170-00	DOUG'S TRUE VALUE - BGC CORP	08	05170	907 MAIN STREET W
505180-00	600	800	600	800	4000		1800	2200	1500	2200	1000	1800	17300.00	31	64	505180-00	DOUG'S TRUE VALUE/HEALTH	08	05180	901 MAIN STREET W - DOUG'S TRUE VAL
505190-00	300	300	100	100	4000		300	300	300	300	300	400	6700.00	8	28	505190-00	MANLEY, SUE	08	05190	811 MAIN STREET W - FALLS FLORAL
505200-00	13400	1400	10000	10100	10100		11100	16500	10400	12400	12400	12800	120600.00	332	329	505200-00	MOSHER, JOHN W & BARBARA L	08	05200	809 MAIN STREET W
505200-01													0.00	0	0	505200-01	MOTHER LODE	05	05200.01	809 MAIN STREET W
505210-00	5800	7800	5800	5800	4000		9600	10800	7300	7300	6900	7400	78500.00	218	212	505210-00	PLASTER VALERIE E. & HANNAN JEFFREY J.	08	05210	807 MAIN STREET W
505220-00	4000	2000	700	1300	4000		800	1000	800	600	900	900	17000.00	54	39	505220-00	KARLIN, JAMES	08	05220	801 MAIN STREET W
505220-01													0.00	0	0	505220-01	BOONDOGGLERS	05	05220.00	801 MAIN STREET W
505230-00	10600	11500	8900	8900	8900		15200	18900	12800	12200	3400	3100	114400.00	256	370	505230-00	LAI, JERRY	08	05230	709 MAIN STREET W
505230-01													0.00	0	0	505230-01	NEW ASIA	05	05230.00	709 MAIN
505230-02													0.00	0	0	505230-02	NICHOLSON ANNETTE	05	05230.02	709 MAIN
505230-03													0.00	0	0	505230-03	PING LAI	05	05230.03	709 MAIN
505240-00	1500	1200	1300	1300	4000		800	1600	1300	2000	1300	1200	17500.00	43	53	505240-00	FIRST BAPTIST CHURCH	08	05240	705 MAIN STREET W
505250-01													0.00	0	0	505250-01	TRIPLETT - RUMMEL, DIANNE F.	05	05250	701 W MAIN STREET
505260-01													0.00	0	0	505260-01	RON'S CHEVRON	05	05260	606 MAIN STREET W
505265-00								700	4700	4900	20300	18200	48800.00	213	56	505265-00	TOTZAUER, DAVID	08	05265	105 BROAD STREET S
505265-02													0.00	0	0	505265-02	BURGER EXPRESS	05	05265.01	105 S BROAD STREET
505270-00	1300	1900	1500	1500	4000		1400	2600	1600	1700	5100	1800	24400.00	72	61	505270-00	LITTLE BITTERROOT SERVICES INC.	08	05270	607 MAIN STREET W
505270-01													0.00	0	0	505270-01	EGGENSPERGER, JACK	05	05270.01	607 W MAIN STREET
505275-00	800	900	600	600	4000		700	900	800	800	700	1000	11800.00	25	39	505275-00	THOMPSON, GINGER	08	05275	110 HILL STREET S
505275-01													0.00	0	0	505275-01	MCMURRAY, ANGELA	05	05275.00	110 S HILL STREET
505275-02													0.00	0	0			10		
505278-00	800	900	800	800	400		9700	35300	55100	8600	7200	7800	127400.00	101	593	505278-00	LEUFKENS, BUD & JUDY	08	05278	111 BROAD STREET S
505280-00	3100	4400			4000		1700	2800	1700	2100	5700	2200	27700.00	85	67	505280-00	EGGENSPERGER, TOM & BINA	08	05280	603 MAIN STREET W
505290-00		200	200	200	4000		100	400	200	100	100	100	5600.00	4	26	505290-00	EGGENSPERGER, TOM & BINA	08	05290	601 MAIN STREET W
505290-01													0.00	0	0	505290-01	FRANKE, ERNIE	05	05290.00	601 W MAIN STREET
505300-00					4000		3700	5300	3300	4900	3300	2500	27000.00	32	115	505300-00	THOMPSON, GINGER R	08	05300	105 HILL STREET S
505300-01													0.00	0	0	505300-01	PIERCE ANN	05	05300.00	105 HILL STREET S
505300-02													0.00	0	0	505300-02	THOMPSON, GINGER RENEE'	05	05300.01	105 HILL STREET S
505300-03													0.00	0	0	505300-03	WELLS FARGO HOME MORTGAGE	05	05300.02	105 HILL STREET S
505310-00	2600	3700	2800	2800	4000		7300	5900	8100	2000	1100	1000	41300.00	77	148	505310-00	LEUFKENS, BUDDY & JUDY	08	05310	109 HILL STREET S
505320-00	4700	5700	5200	5600	4000		9200	11700	7900	7300	8400	7800	77500.00	207	218	505320-00	THOMPSON, GINGER RENEE'	08	05320	511 MAIN STREET W
505320-01													0.00	0	0	505320-01	PIERCE, ROBERTA ANN	05	05320.01	511 MAIN
505320-02													0.00	0	0	505320-02	PIERCE, ROBERTA ANN	05	05320.00	511 MAIN STREET W
505321-00	6800	8300	7500	8000	4000		2900	3500	2700	3300	3900	3500	54400.00	210	89	505321-00	THOMPSON, GINGER RENEE'	08	05321	103 HILL ST
505321-01													0.00	0	0	505321-01	PIERCE, ROBERTA ANN	05	05321.00	511 MAIN STREET W
505330-00	1900	2300	2100	2100	4000		2400	3500	2600	3100	2800	3100	29900.00	79	85	505330-00	STOLZ, COURTNEY	08	05330	505 MAIN STREET W
505330-02													0.00	0	0	505330-02	WIEGELE JAMES L & MOORE-WIEGELE DAGMAR R	05	05330.02	505 MAIN STREET W
505331-00	300	500	500	500	4000		300	300	300	200	300	200	7400.00	13	28	505331-00	STOLZ, COURTNEY	08	05331	507 MAIN STREET W
505331-01													0.00	0	0	505331-01	VALLEY BANK	05	05331.02	507 MAIN STREET
505331-02													0.00	0	0	505331-02	MUD ENTERPRISES, LLC.	05	05331.01	507 MAIN STREET
505331-03													0.00	0	0	505331-03	PLANTS GALORE	05	05331.03	507 MAIN STREET W
505340-00	500	800	600	600	4000		700	800	600	900	500	700	10700.00	20	38	505340-00	LONE STAR LODGE	08	05340	501 MAIN STREET W
505350-00	2800	5500	3900	3900	4000	4000			13100	2100	1600	2300	43200.00	110	126	505350-00	PARKER, NOLAN	08	05350	108 FERRY STREET S
505360-00	3600	2800	2500	2500	4000		4000	5100	3500	3500	3400	4700	39600.00	108	109	505360-00	GARRISON, GLENN & SUZANNE	08	05360	409 MAIN STREET W
505370-00	1200	1600	500	500	4000		2800	4400	6400	1400	900	2000	25700.00	37	103	505370-00	NELSON, PAULA	08	05370	405 MAIN STREET W
505380-00	1900	3700	2000	2000	4000		2900	4300	2900	3700	3400	5800	36600.00	104	97	505380-00	STOLTZ, STEVEN LEE & TERRILEE	08	05380	401 MAIN STREET W
505380-02													0.00	0	0	505380-02	KELLEY, ROBERT	05	05380.01	401 MAIN STREET W
505390-00													0.00	0	0	505390-00	VINKEY, RAY S.	08	05390	109 PINE STREET S
505390-01													0.00	0	0	505390-01	DEACON, JESSE & ANGELA	05	05390.00	109 PINE STREET
505390-02													0.00	0	0	505390-02	PARKS, DAN & CARLA	05	05390.02	109 S PINE STREET
505390-03													0.00	0	0	505390-03	HENDRICKSON, ALTON P.	05	05390.01	109 PINE STREET
505390-04		500	1400	600	4000						100	300	6900.00	16	22	505390-04	COVINGTON, KELLY M & JENNIFER E	08	05390.01	109 PINE STREET S
505400-00							4000						4000.00	0	22	505400-00	GUTIERREZ, THERESA	01	05400	309 MAIN STREET W
505410-00	2000	2700	2300	1900	4000		1900	3800	2400	2400	2400	2300	28100.00	75	79	505410-00	PARKS, DAN & CARLA	08	05410	303 MAIN STREET W
505420-00	300	11900	6400	6400	4000		15000	17800	14700	16000	15600	19400	127500.00	331	367	505420-00	SCHAEFER ENTERPRISES	08	05420	301 MAIN STREET W
505420-01													0.00	0	0	505420-01	CABRERA RAY & MONA CLAIRE	05	05420.00	301 MAIN STEET
505422-00	400	300	200	200	4000		200	400	200	200	200	200	6500.00	8	27	505422-00	HAGEDORN LAND SURVEYING INC	08	05422	108 PEARL STREET S
505422-01													0.00	0	0	505422-01	MAKING A WAY	05	05422.01	108 PEARL STREET

505422-02													0.00	0	0	505422-02	CHAMBLIN JOHN	05	05422.02	108 PEARL
505425-00	4000	4200	2400	2400	4000	4000	4000				100	1000	26100.00	78	65	505425-00	RINALDI, MICHAEL S	08	05425	109 PEARL STREET S
505425-01													0.00	0	0	505425-01	CHAMBLIN, JOHN S. & CHERYL L.	05	05425.01	109 PEARL STREET
505425-03													0.00	0	0	505425-03	CULBERTSON, DAVE	05	05425.03	109 PEARL STREET
505427-00	5800	6600	4700	5200	4000		12100	6900	4900	4600	4800	4600	64200.00	175	177	505427-00	HUTCHINGS, CODY	08	05427	111 PEARL STREET S
505427-01													0.00	0	0	505427-01	CHEETHAM, CHARLES L.	05	05427.01	111 PEARL STREET S
505427-02													0.00	0	0	505427-02	WHEELER, JIM	05	05427.02	111 PEARL STREET S
505430-00	1900	2000	2200	2200	4000	4000	4000	600	12600	18100	37500	3400	92500.00	272	235	505430-00	CHEETHAM, CHARLES T.	08	05430	229 MAIN STREET W - LITTLE BEAR
505440-00	400	600	500	500	4000		500	500	400	400	300	500	8600.00	15	32	505440-00	ENERGY PARTNERS	08	05440	224 MAIN STREET W
505440-01													0.00	0	0	505440-01	MOUNTAIN WEST COOPERATIVE	05	05440.00	224 MAIN STREET W
505441-00	4200	5400	4600	5200	4000		10900	18400	10200	6900	4100	5000	78900.00	157	274	505441-00	CAMPBELL, MARK W & KATRINA W	08	05441	219 MAIN STREET W
505442-00													0.00	0	0	505442-00	CAMPBELL, MARK & KATRINA	01	05442	215 MAIN STREET W
505442-01													0.00	0	0	505442-01	KATO JEAN	05	05442.00	215 MAIN
505442-02													0.00	0	0	505442-02	BRONNER, MARK R. & CYNTHIA L.	05	05442-02	215 W MAIN STREET
505442-03							4000						4000.00	0	22	505442-03	WHITEFISH CREDIT UNION	01	05442.01	215 MAIN STREET W
505444-00													0.00	0	0	505444-00	CAMPBELL, MARK & KATRINA	01	05444	201 MAIN STREET W
505444-01													0.00	0	0	505444-01	KELGARD, ROBERT AND JULIE	05	05444.01	201 MAIN
505444-02													0.00	0	0	505444-02	PIERCE, ROBERTA ANN	05	05444.02	201 W MAIN STREET
505444-03							4000						4000.00	0	22	505444-03	WHITEFISH CREDIT UNION	01	05444.01	201 MAIN STREET W
505460-00	300	400	200	300	4000		300	900	900	600	300	100	8300.00	9	36	505460-00	BENNETT DAVID - OFFICE	08	05460	223 MAIN STREET W
505470-01													0.00	0	0	505470-01	MONTANA RAIL LINK	05	05470	101 EAST CROSSING
505480-00	2900	3400	3000	300	400		3800	6200	1900	3100	2200	6800	34000.00	103	84	505480-00	NORTHWESTERN ENERGY	08	05480	1625 MAIDEN LANE
505480-01													0.00	0	0	505480-01	PPL	05	05480.01	1625 MAIDEN LANE
505481-00					4000	6400	4000	4000	4000				22400.00	0	122	505481-00	NORTHWESTERN ENERGY	08	05481	1517 MAIDEN LANE
505481-01													0.00	0	0	505481-01	PPL	05	05481.01	1517 MAIDEN LANE
505482-00		300	100		4000		1800	3500	600	400	100	200	11000.00	4	56	505482-00	BURKY, BRIAN & COURTNEY	08	05482	1611 MAIDEN LANE
505490-00	500	700	300	300	4000		8200	12500	17200	3500	400	800	48400.00	17	247	505490-00	DEMMONS, HENRY T.	08	05490	1622 MAIDEN LANE
505490-01													0.00	0	0	505490-01	PHILLIPS, CRAIG	05	05490.01	1622 MAIDEN LANE
505500-00	3800	4500	3700	3800	400		46800	79200	98100	64000	45800	51900	402000.00	627	1568	505500-00	LIONS MANOR BUS & PROPERTY	08	05500	1600 MAIDEN LANE
505510-00	2000	2000	1100	1100	4000		5500	10200	4900	1600	1500	1700	35600.00	52	142	505510-00	BKP PROPERTIES	08	05510	1520 MAIDEN LANE
505510-01													0.00	0	0	505510-01	MCROBERTS GARY	05	05510.01	1520 MAIDEN LANE
505520-00							2900	16000	4800	1300	1100	1700	27800.00	15	136	505520-00	GIFFIN, NICHOLAS E.	08	05520	115 POND STREET S
505520-01													0.00	0	0	505520-01	STRANG, DARYL	05	05520.01	115 POND STREET S
505520-02													0.00	0	0	505520-02	USDA, RURAL DEVELOPMENT	08	05520.01	115 POND STREET S
505530-01													0.00	0	0	505530-01	MONTANA POWER COMPANY	05	05530	124 S POND
505540-01													0.00	0	0	505540-01	MONTANA POWER COMPANY	05	05540	114 S POND & 118 S POND
505550-00	5500	6700	5500	4900	4000	4000	4000		3400	3200	2700	3600	47500.00	160	101	505550-00	LOVELL, RANDY L.	08	05550	1507 MAIDEN LANE
505550-01													0.00	0	0	505550-01	MORROW GARY	05	05550.01	1507 MAIDEN LANE
505560-00	3400	3900	900	900	4000	4000	6600	10800	8900	3300	2600	800	50100.00	69	204	505560-00	FREEMAN, WILLIAM C & CHERYL	08	05560	1506 MAIDEN LANE
505560-01													0.00	0	0	505560-01	GRIFFIN, KENT & MARJORIE	05	05560.00	1506 MAIDEN LANE
505570-01													0.00	0	0	505570-01	PARKER, FRANK	05	05570	1510 1/2 MAIDEN LANE
505580-00					4000		8000	16000	13000	4300	4200	6000	55500.00	56	246	505580-00	PARKER, FRANK	08	05580	1512 1/2 MAIDEN LANE
505590-00									41100	47600	10100	600	99400.00	59	482	505590-00	FREED, CELIA	08	05590	1417 MAIDEN LANE
505590-01		1300	600	600	4000	4000	15000						25500.00	14	125	505590-01	MOORE, MYRTLE	05	05590.01	1417 MAIDEN LANE
505600-00	6200	7000	5800	5800	4000		9000	10600	10200	7600	6100	8400	80700.00	217	225	505600-00	HAGEDORN, RICKY & ROBIN	08	05600	204 LINCOLN STREET S
505600-03													0.00	0	0	505600-03	MCKENZIE BONNIE	05	05600.03	204 S LINCOLN
505610-00					4000		19800	17600	25700	8100	3100	3400	81700.00	36	409	505610-00	FISHER, A. RONALD	08	05610	208 LINCOLN STREET S
505620-00					4000	4000	3600	5500	9400	7900	2100	2100	38600.00	23	187	505620-00	BLAIR, IRENE SANSOM	08	05620	214 LINCOLN STREET S
505630-00	4700	6500	4500	4500	4000	4000	4000		4300	5200	5200	5200	52100.00	169	117	505630-00	BAXTER, ROBERT T & SUSAN J	08	05630	211 LINCOLN STREET S
505630-01													0.00	0	0	505630-01	BAXTER, MICHAEL R. & ELSIE K.	05	05630.00	211 LINCOLN STREET S
505640-01													0.00	0	0	505640-01	COX, BEN & VIOLA	05	05640	212 1/2 LINCOLN STREET S
505650-00	2900	3500	2700	2700	4000		3200	4600	3700	4200	7000	3600	42100.00	124	107	505650-00	BLAIR, IRENE SANSOM	08	05650	216 LINCOLN STREET S
505660-01													0.00	0	0	505660-01	ARNOLD, RODNEY E.	05	05660.00	1319 MAIDEN LANE
505660-02													0.00	0	0	505660-02	BRICKZIN, ROBERT K & WILLIAMETTE	05	05660.02	1319 MAIDEN LANE
505670-00	1900	2600	1400	1400	4000		2200	3100	2500	2300	2400	2100	25900.00	65	77	505670-00	BRICKZIN, BOB	08	05670	1309 MAIDEN LANE
505690-01	12600	21000	15000	15000	9300	9300	9300	2000	57700	27400	20300	23100	222000.00	591	625			10		
505690-04													0.00	0	0	505690-04	FALLS MOTEL	05	05690	112 GALLATIN STREET S
505690-M1	1500	1700	1300	1300	1300	1300	20000	2000	4900	3800	3400	4300	46800.00	75	181	505690-M1	FALLS MOTEL	08	0569001	112 GALLATIN STREET S
505690-M2	8100	14400	9900	9900	4000	4000	20000		28900	19100	14100	15400	147800.00	397	413	505690-M2	FALLS MOTEL	08	0569002	112 GALLATIN STREET S
505690-M3	3000	4900	3800	3800	4000	4000	4000		23900	4500	2800	3400	62100.00	120	220	505690-M3	FALLS MOTEL	08	0569003	112 GALLATIN STREET S
505700-00		2000	800	800	4000		14700	16000	17000	10600	1300	1600	68800.00	36	339	505700-00	HOWE, BETTY J	08	05700	200 GALLATIN STREET S
505700-01													0.00	0	0	505700-01	SHARP, RONALD S (SCOTT)	05	05700.01	200 GALLATIN STREET S
505710-00		100			4000	4000	2800	3700	900	1900	3200	1400	22000.00	26	94	505710-00	HICKOK, CAROLYN	08	05710	206 GALLATIN STREET S
505720-00	1500	600	800	800	4000		3800	4600	12300	1000	800	1400	31600.00	33	140	505720-00	MUSTER, JOHN	08	05720	215 GALLATIN STREET S
505730-00	900	400			4000	4000							9300.00	7	43	505730-00	MUSTER, JOHN & SANDRA - SHOP	08	05730	213 1/2 GALLATIN STREET S
505740-00	2800	6500	4000	4000	4000	4000	4200	11100	8000	5500	4800	4600	63500.00	148	200	505740-00	OSWALD STEVE & NOVAK LINDA	08	05740	203 GALLATIN STREET S
505745-00	800	1100	900	900	4000	4000	4000		1100	1200	1100	1000	20100.00	32	78	505745-00	VALLEY BANK	08	05745	1222 MAIDEN LANE
505750-00					4000							100	4100.00	1	22	505750-00	MUSTER, JOHN	08	05750	1215 MAIDEN LANE
505760-01													0.00	0	0	505760-01	BARNES SALLY	05	05760	110 1/2 & 112 1/2 MADISON
505770-00													0.00	0	0	505770-00	SMITH, MARILYN	08	05770	1211 MAIDEN LANE
505780-00	1300	1300	1200	1200	4000		1200	1500	1200	1300	1300	1000	16500.00	40	50	505780-00	OTTEN, DOUGLAS C	08	05780	1203 MAIDEN LANE
505790-00	1600	1700	1400	1400	4000		2300	1300	1100	1200	1100	1200	18300.00	46	54	505790-00	STYGER, CAROL	08	05790	1204 MAIDEN LANE
505800-00	1400	3500	2000	2000	4000		2600	3700	2700	2400	2500	2500	29300.00	77	84	505800-00	KERSTEN, LYNNE	08	05800	206 MADISON STREET S
505800-01													0.00	0	0	505800-01	LEUFKENS, BUDDY & JUDY	05	05800.01	206 S MADISON
505800-02													0.00	0	0	505800-02	ELLIOTT, GEORGE & LINDA	05	05800.02	206 S MADISON
505800-03													0.00	0	0	505800-03	ROBERTS, DENNIS R. & KATHERINE C.	05	05800.03	206 S MADISON STREET
505811-00	8300	8600	8600	8600	8600	4000	10700	14800	9700	10400	10800	11800	114900.00	313	316	505811-00	MY INVESTMENTS (YURCZYK/ MUSTER)	08	05811	210 MADISON STREET S
505820-00	400	500	400	400	4000	4000	4000		400	500	600	1900	17100.00	23	70	505820-00	YURCZYK, FRANCIS	08	05820	207 MADISON STREET S
505830-00	1600	1900	1700	1700	4000		5900	5200	6300	1900	1600	1800	33600.00	57	127	505830-00	MORRIN, DIANE	08	05830	1119 MAIDEN LANE
505850-00	200	200	6000	6000	4000		1000	600	4300	2600	300	400	25600.00	72	68	505850-00	JENKS ENTERPRISES INC	08	05850	108 MADISON STREET S
505850-01													0.00	0	0	505850-01	MORRISON ALEX - ESTATE	05	05850.01	108 S MADISON STREET
505850-02													0.00	0	0	505850-02	RUMMEL, JIM E. & DIANE F.	05	05850.02	108 MADISON STREET S
505850-03													0.00	0	0	505850-03	FIRST SECURITY BANK OF MISSOULA	05	05850.03	108 MADISON STREET S
505860-00	5200	7300	5100	5400	5400	4000	58300	66800	56900	62800	55000	59500	391700.00	760	1382	505860-00	SANDERS COUNTY JAIL	08	05860	1115 MAIN STREET W
505870-00	7300	6900	5800	5800	4000		8400	8200	6300	9800	3800	6300	72600.00	198	199	505870-00	LEUFKENS, BUDDY & JUDY	08	05870	1111 MAIDEN LANE
505870-02													0.00	0	0	505870-02	MORRIN, DIANE	05	05870.02	1111 MAIDEN LANE
505880-00	300	100	300	300	4000		100	3300	13700	2700	2500	3200	30500.00	37	129	505880-00	ELLIOTT GEORGE & LINDA	08	05880	1105 MAIDEN LANE
505880-01													0.00	0	0	505880-01	BAXTER ELSIE	05	05880.01	1105 MAIDEN LANE
505890-00											200	1600	1800.00	10	0	505890-00	LEUFKENS, BUD & JUDY	08	05890	1101 MAIDEN LANE
505890-01	4100	3400	2500	2500	4000		20500	69700	2300	800			109800.00	69	529	505890-01	HEATER, RICHARD	08	05890.01	1101 MAIDEN LANE
505900-00					400		9500	36100	36200				82200.00	0	447	505900-00	SANDERS CO COURTHOUSE LAWN	08	05900	1111 MAIN STREET W
505901-00					4000		1000	1700	1900		100		8700.00	1	47	505901-00	SANDERS COUNTY OLD JAIL / MUSEUM	08	05901	109 MADISON STREET S
505910-00	5100	3900	6000	6000	4000				2200	1900	1900	1600	32600.00	135	44	505910-00	VAUGHN, VIRGINIA M	08	05910	107 JEFFERSON STREET S
505910-01													0.00	0	0	505910-01	SHOEMAKER, MAURICE	05	05910.01	107 JEFFERSON STREET S
505920-00					4000	4000	100	1700	2500	2500	2600	3100	20500.00	31	80	505920-00	VAUGHN, VIRGINIA M	08	05920	107 1/2 JEFFERSON STREET S
505920-01													0.00	0	0	505920-01	SHOEMAKER, MAURICE	05	05920.01	107 1/2 JEFFERSON STREET S
505930-00					4000		9000	200					13200.00	0	72	505930-00	PODRAT, GARY A.	08	05930	1020 MAIDEN LANE
505940-00	3200	3500	2200	2200	4000		6600	9900	6300	1100	1800	4600	45400.00	97	152	505940-00	DICKMAN, LYNNE ROSDAHL ET ALL	08	05940	1015 MAIDEN LANE
505950-00	1000	1500	900	900	4000	1300	1300	1300	1300	500		1100	15100.00	30	53	505950-00	SAKASKE, STEPHEN	08	05950	1016 MAIDEN LANE
505950-01													0.00	0	0	505950-01	JENSEN, HAROLD	05	05950.01	1016 MAIDEN LANE
505950-02													0.00	0	0	505950-02	MOREHOUSE, GARY E.	05	05950.02	1016 MAIDEN LANE
505960-00	4200	5400	4100	4100	4000		5000	6500	8000	5500	4600	4600	56000.00	149	158	505960-00	ELLIOTT, LYNETTE K	08	05960	1014 MAIDEN LANE

505960-01													0.00	0	0	505960-01	HUXFORD, JEAN T.	05	05960.01	1014 MAIDEN LANE
505960-02													0.00	0	0	505960-02	BURWELL, ERNEST	05	05960.00	1014 MAIDEN LANE
505970-00	4700	5600	4300	4300	4000		5700	7200	7100	5100	3400	5000	56400.00	151	158	505970-00	CALVERT, RON	08	05970	1003 MAIDEN LANE
505990-01													0.00	0	0	505990-01	CITY OF THOMPSON FALL	05	05990	1006 MAIDEN LANE
506000-00	400	400	400	400	400		49200	63000	50500	46100	8500	3600	222900.00	76	1137	506000-00	FIRST SECURITY BANK	08	06000	107 FULTON STREET S
506000-01													0.00	0	0	506000-01	FIRST STATE BANK OF THOMPSON FALLS	05	06000.01	107 FULTON STREET
506010-00							4000						4000.00	0	22	506010-00	FIRST SECURITY BANK	01	06010	917 919 MAIDEN LANE
506010-01													0.00	0	0	506010-01	THOMPSON FALLS HOLDING CO.	05	06010.01	917 919 MAIDEN LANE
506020-00	2700	4600	2800	2800	4000	4000	4000		6300	2300	2700	3000	39200.00	103	112	506020-00	HOYT, TIM	08	06020	905 MAIDEN LANE
506030-01													0.00	0	0	506030-01	NELSON JESSE	05	06030	109 MILL,SHOP-107
506040-01													0.00	0	0	506040-01	NELSON JESSE	05	06040	114 S COLUMBIA
506050-01													0.00	0	0	506050-01	SCHROEDER DAVE	05	06050	103 S MILL STREET
506052-00	6200	7800	6900	6900	4000		6400	7200	5600	6000	5600	6300	68900.00	219	159	506052-00	SCOTT, RICHARD & MAVIS	08	06052	107 MILL STREET S
506053-00	4300	5100	3600	4500	4000		3500	5400	4500	6000	3400	2600	46900.00	130	127	506053-00	BRONNER, MARK R, & CYNTHIA L.	08	06053	109 MILL STREET S
506053-01													0.00	0	0	506053-01	WOOD DALE	05	06053.01	109 MILL STREET
506053-02													0.00	0	0	506053-02	SIMPSON, LINDA M.	05	06053.02	109 MILL STREET
506055-00					4000								4000.00	0	22	506055-00	BRONNER, MARK R. & CYNTHIA L.	08	06055	108 BROAD STREET S
506055-01													0.00	0	0	506055-01	PARKER, NOLAN	05	06055.01	108 S BROAD STREET
506060-00	900	1300	900	1100	4000	4000	700	800	600	700	700	700	16400.00	31	59	506060-00	BOWER JOSEPH M & BAYHON ANNA LIZA	08	06060	109 COLUMBIA STREET S
506060-01													0.00	0	0	506060-01	MCCUAIG, JAMES	05	06060.01	109 S COLUMBIA STREET
506060-02													0.00	0	0	506060-02	SPARKS, AMY SUE	05	06060.02	109 S COLUMBIA
506060-03													0.00	0	0	506060-03	THOMAS, MICHAEL L	05	06060.00	109 S COLUMBIA STREET
506060-04													0.00	0	0	506060-04	MCCUAIG, JAMES M. & JOSIE	05	06060.03	109 COLUMBIA STREET S
506070-00					4000		2500	3300	1500	1300	2600	3900	19100.00	36	68	506070-00	TERRY, MICHAEL A.	08	06070	110 COLUMBIA STREET S
506070-01													0.00	0	0	506070-01	KINDRED, SANDRA	05	06070.01	110 S COLUMBIA STREET
506070-02													0.00	0	0	506070-02	SHEAR MIKE	05	06070.02	110 S COLUMBIA
506075-00	3900	5400	4200	5000	4000		3300	3900	2300	3600	3200	6600	45400.00	156	93	506075-00	HANNUM, MARK P	08	06075	114 COLUMBIA STREET S
506075-01													0.00	0	0	506075-01	SCOTT, RICHARD & MAVIS	05	06075.01	114 COLUMBIA STREET S
506080-00	1800	2600	2000		4000		2400	4000	2900	2700	1500	2500	26400.00	57	87	506080-00	SHEAR, MICHAEL	08	06080	712 MAIDEN LANE
506100-00	800	1700	1300	1700	4000		5700	7300	5700	3900	700	600	33400.00	38	145	506100-00	WESTERN MONTANA MENTAL HEALTH	08	06100	704 MAIDEN LANE
506110-00	1500	2000	2500	2000	4000		2800	5800	2700	3000	2200	2800	31300.00	72	99	506110-00	LEUFKENS, BUDDY & JUDY	08	06110	115 BROAD STREET S
506110-01													0.00	0	0	506110-01	MARTIN R E	05	06110.00	115 S BROAD ST
506120-00					4000		4000	4500	5300	1200	1000	1100	21100.00	12	103	506120-00	LORD, DONALD E & VIRGINIA S	08	06120	109 BROAD STREET S
506120-01													0.00	0	0	506120-01	LORD, DAN	05	06120.00	109 BROAD STREET S
506150-00						4000	4000	221300	114800	25400	17700	19100	406300.00	203	2008	506150-00	SCHILLING, DAVID & CATHY	08	06150	1006 CHURCH STREET
5804951-01													0.00	0	0	5804951-01	HARLAN DOUGLASS	00	NONE	FIRE HYDRANT- CORNER OF HWY 200 & P
600091-01													0.00	0	0			10		
600093-01													0.00	0	0			10		
600095-01													0.00	0	0	600095-01	TWO RIVERS DEVELOPMENT LLC	06	00095	995 MOUNT SILCOX DRIVE
600097-01													0.00	0	0	600097-01	TWO RIVERS DEVELOPMENT LLC	06	00097	997 MOUNT SILCOX DRIVE
600240-01													0.00	0	0	600240-01	OLIVER DAVID	06	00240	1199 MT SILCOX DRIVE
600255-01													0.00	0	0	600255-01	JOKERST CHARLES	06	00255.00	708 SOUTHWOOD COURT
600263-01													0.00	0	0	600263-01	KONEN TOM	06	00263.01	715 SOUTHWOOD COURT
600268-01													0.00	0	0	600268-01	HANSON, TODD & CHERYL	06	00268.01	720 SOUTHWOOD COURT
600270-00	100	100	1100	1000	1000	1000	4000	61600	22100	8800	8400	13200	122400.00	132	535	600270-00	SHEPHERD OF THE VALLEY LUTHERAN CHURCH	08	002701	1192 MOUNT SILCOX DRIVE
600270-01													0.00	0	0	600270-01	SAGE WOOD INC. / LARSEN, BARBARA	06	00270.00	1192 MOUNT SILCOX DRIVE
600270-02													0.00	0	0	600270-02	SANDERS COUNTY	06	00270.01	1192 MOUNT SILCOX DRIVE
600270-03													0.00	0	0	600270-03	LARSEN BARBARA & LARSEN STEVE J	06	00270.02	1192 MOUNT SILCOX DRIVE
600410-02													0.00	0	0	600410-02	HAAS, JARED	06	00410	604 ASPEN COURT
600602-00	4000	5100	4000	2000	4000		4400	5900	4300	5200	5000	5300	49200.00	140	129	600602-00	COLEMAN, AVERY & ROXANNE	08	00602	602 ASPEN COURT
600602-01													0.00	0	0	600602-01	REIMER, JASON & THERESA	06	00602.01	602 ASPEN COURT
600604-00	3500	3200	2600	2800	4000		9200	14700	8600	7100	2600	3200	61500.00	99	237	600604-00	WALWER, GREGG	08	00604	608 ASPEN COURT
600605-00	3300	4400	3500	3100	4000		34800	41000	39000	13200	4200	3500	154000.00	122	717	600605-00	RICKERT, KENNETH A & BABETTE Y	08	00605	605 Aspen
600605-01													0.00	0	0	600605-01	ZANDER, LYNETTE	06	00605.01	617 church street
600708-00	2200	2900	2300	2500	4000		46400	78500	75900	38900	3100	3100	259800.00	89	1324	600708-00	MARICH, KAY OR MIKE	03	04200.01	713 SOUTHWOOD COURT
600711-00	2800	3100	2400	2600	4000		74400	78000	66800	37200	2600	2800	276700.00	90	1415	600711-00	MARKQUART, WAYNE & JULAINE	08	00711	605 ASPEN COURT
600712-00	2000	4000	14900	7100	4000		7400	11600	14400	11200	9400	8600	94600.00	254	264	600712-00	FISHER, KRISTEN M & BRANDON B	08	00712	712 SOUTHWOOD COURT
600712-01													0.00	0	0	600712-01	MCKEEN, JERRY	06	00712.01	712 SOUTHWOOD COURT
600715-00					4000	500	64400	97400	63300	65100	7200	5600	307500.00	71	1602	600715-00	PARDEE, SCOTT & SUNNY	08	00715	715 SOUTHWOOD COURT
600715-01	4000	29000	2300	2900									38200.00	211	0	600715-01	HOJEM, RANDY R. & KATHEE M.	06	00715.01	715 SOUTHWOOD COURT
600716-00	4600	5300	4500	5500	4000		27100	36600	22600	10000	4400	5200	129800.00	163	545	600716-00	MORGAN, SHAWN & JODI	08	00716	716 SOUTHWOOD COURT
600716-01													0.00	0	0	600716-01	FRIEDMAN, CURT & CAROL	06	00716.00	716 SOUTHWOOD COURT
600720-00													0.00	0	0	600720-00	ENGEBERG, CRYSTAL & THOMAS	08	00720.1	720 SOUTHWOOD COURT
600720-01													0.00	0	0	600720-01	MCGUYER, MARK P. & NANCY G.	06	00720.01	720 SOUTHWOOD COURT
600720-02	800		300	300									1400.00	8	0	600720-02	TAYLOR, RICHARD B	06	00720.02	720 SOUTHWOOD COURT
600720-03					4000		13800	27000	28000	36700	6000	1300	116800.00	40	595	600720-03	MCGUYER, MARK & NANCY	08	00720.01	720 SOUTHWOOD COURT
600721-00	1100	1200	1200	1200	4000		21700	37100	50100	900	1200	1400	121100.00	40	618	600721-00	FAIRBANK, RACHEL ANN	08	00721	721 SOUTHWOOD COURT
600721-01													0.00	0	0	600721-01	VANTASSEL CONSTRUCTION	06	00721.01	721 SOUTHWOOD COURT
600723-00					4000		17700	48400	19000	1500	500	2100	93200.00	14	492	600723-00	HANLEY, RYAN & KERRY	08	00723	723 SOUTHWOOD COURT
601107-00	1100	1400	2000	1500	4000		5400	6400	7900	6000	1700	1400	38800.00	50	161	601107-00	JEHOVAH'S WITNESSES	08	01107	1107 MOUNT SILCOX DRIVE
601191-00					400		1900	2600	2000	3400	2300	2600	15200.00	27	56	601191-00	THOMPSON FALLS SENIOR CITIZENS CENTER	08	01191	1191 MOUNT SILCOX DRIVE
601199-00	9800	12300	8300	8000	4000		37400	54100	57800	28900	5300	5500	231400.00	272	990	601199-00	WILHITE, DAVID	08	01199	1199 MOUNT SILCOX DRIVE
601199-01													0.00	0	0	601199-01	CLARIDGE, DANIEL R. & JENNY N.	06	01199.01	1199 MOUNT SILCOX DRIVE
601199-02													0.00	0	0	601199-02	WILHITE, DAVID R. & TERESA	06	01199.02	1199 MOUNT SILCOX DRIVE
601199-03													0.00	0	0	601199-03	JP MORGAN CHASE BANK, NATIONAL ASSN	06	01199.03	1199 MOUNT SILCOX DRIVE
601209-00	5400	6200	5300	5700	4000	4000		8000	78500	10700	9200	10200	147200.00	232	572	601209-00	LEISCHNER, BLAINE L & CHRISTINE	08	01209	1209 MOUNT SILCOX DRIVE
601209-01													0.00	0	0	601209-01	ENGEBRETSON, GUY & ANN	06	01209.00	1209 MOUNT SILCOX DRIVE
601219-00											8800	4700	13500.00	75	0	601219-00	HOFF, RAYMOND	08	01219	1219 MOUNT SILCOX DRIVE
601219-01	3800	4200	3400	3100	4000		54300	76700	62100	53300			264900.00	80	1361	601219-01	SYMON, RANDY	08	01219.01	1219 MOUNT SILCOX DRIVE
601220-00			500	1700	4000		45600	82100	50400	23100	2900		210300.00	28	1115	601220-00	SLAGLE, JAMES	08	012201	704 SOUTHWOOD COURT
601229-00	4400	6100	4300	5100	4000		5500	10300	17600	12800	3000	3800	76900.00	148	273	601229-00	FRANCK, NICHOLAS	08	01229	1229 MOUNT SILCOX DRIVE
601229-01													0.00	0	0	601229-01	BROWN, SHANE	06	01229.01	1229 MOUNT SILCOX DRIVE
601229-02													0.00	0	0	601229-02	WHITEFISH CREDIT UNION	06	01229.02	1229 MOUNT SILCOX DRIVE
601800-00	2700	2800	2200	2800	4000	4000	6600	8000	2800	3300	2200	2500	43900.00	84	156	601800-00	HANDFORD, DANIEL E & BETTY JO	08	018001	1800 PINE TREE HOLLOW
601800-01													0.00	0	0	601800-01	HURST, JAMES	06	01800.01	1800 PINE TREE HOLLOW
601801-00					4000	4000	15000	37900	229800	198300			489000.00	0	2658	601801-00	PINE TREE HOLLOW HOMEOWNERS ASSN	08	01801	1801 PINE TREE HOLLOW - GREENS
601802-00	1300	1700	1400	1900	4000		4300	5800	3500	2400	1600	1600	29500.00	52	109	601802-00	BROWN, NANCY A	08	01802	1802 PINE TREE HOLLOW
601802-01													0.00	0	0			10		
601804-01													0.00	0	0			10		
601806-01													0.00	0	0			10		
601808-00			200	600	4000		700	800	600	700	1000	100	8700.00	10	37	601808-00	LINZMAIER, PETER	08	01808	1808 PINE TREE HOLLOW
601810-00	1100	1500	800	1100	4000		3100	8600	7700	3000	900	1400	33200.00	38	143	601810-00	SOLLIE, BARBARA	08	018101	1810 PINE TREE HOLLOW
601810-01													0.00	0	0	601810-01	WOLF, KAREN L.	06	01810.01	1810 PINE TREE HOLLOW
601812-00	1600	1700	2000	1800	4000	1600	4000	3000	4900	2300	2700	1900	31500.00	65	108	601812-00	SHOEMAKER, MAURICE W & ALBERTA I	08	01812	1812 PINE TREE HOLLOW
601812-01													0.00	0	0	601812-01	MORBELLA, JEAN	06	01812.01	1812 PINE TREE HOLLOW
601814-00	2500	3400	2900	3200	4000		3100	4300	5400	4200	3700	4400	41100.00	111	114	601814-00	ARNOLD, RODNEY E & EDRALINE M	08	01814	1814 PINE TREE HOLLOW
601814-01													0.00	0	0	601814-01	TWO RIVERS DEVELOPMENT LLC	06	01814.00	1814 PINE TREE HOLLOW
601816-00	1100	1500	1200	1100	4000		1700	3700	2700	1300	900	900	20100.00	37	73	601816-00	ALDRICH, FRANCES E	08	01816	1816 PINE TREE HOLLOW
601816-02													0.00	0	0	601816-02	SHEPHERD, JAILEEN	06	01816.01	1816 PINE TREE HOLLOW
601818-00	4900	5000	4100	4200	4000		9300	11700	12300	12000	4800	5400	77700.00	157	268	601818-00	TRUDGEN, DALE E & MARTHA DIANNE	08	01818	1818 PINE TREE HOLLOW
601818-01													0.00	0	0			10		
601900-00	900	1400	1900	2000	4000	4000	4000	5300	3400	2700	1500	4800	35900.00	69	127	601900-00	BARNES, BRUCE M. & ANDREA M.	08	019001	1900 PINE TREE HOLLOW

601900-01													0.00	0	0	601900-01	TWO RIVERS DEVELOPMENT	06	01900.01	1900 PINE HOLLOW
601902-00	1000	900	900	1000	4000	1100	3200	1400	2700	9200	10200	12700	48300.00	148	117	601902-00	THURMAN, WILLIS C & PENNY L	08	01902	1902 PINE TREE HOLLOW
601902-01													0.00	0	0	601902-01	KOSTKA, KATHY	06	01902.00	1902 PINE TREE HOLLOW
601902-02													0.00	0	0	601902-02	DUNBAR SAM L	06	01902.01	1902 PINE TREE HOLLOW
601904-00	2200	2600	2100	2300	4000		9000	11200	8400	5700	2500	2900	52900.00	81	208	601904-00	GLADE, SHIRLEY	08	01904	1904 PINE TREE HOLLOW
601904-02													0.00	0	0			10		
601906-00					4000		1700	900	200				6800.00	0	37	601906-00	NETZ, ALAN & MARY	08	01906	1906 PINE TREE HOLLOW
601906-02													0.00	0	0	601906-02	TWO RIVERS DEVELOPMENT LLC	06	01906.02	1906 PINE TREE HOLLOW
601908-00	600	300	1100	800	4000		5100	5600	5000	7000	1800	600	31900.00	29	145	601908-00	BLOOM, ROSEMARIE	08	01908	1908 PINE TREE HOLLOW
601908-01													0.00	0	0	601908-01	PINE TREE HOLLOW HOMEOWNERS ASSN	06	01908.00	1908 PINE TREE HOLLOW
601908-02													0.00	0	0	601908-02	GERALD, JEFFREY & JILL	06	01908.01	1908 PINE TREE HOLLOW
601908-03													0.00	0	0	601908-03	MC CLINTOCK, BETTY J	06	01908.02	1908 PINE TREE HOLLOW
601910-00	1400	2200	1600	2000	4000		3700	7800	6800	5100	2000	1900	38500.00	61	149	601910-00	WALKER, JIMMY M & FIONA C	08	01910.1	1910 PINE TREE HOLLOW
601910-01													0.00	0	0	601910-01	TWO RIVERS DEVELOPMENT LLC	06	01910.00	1910 PINE TREE HOLLOW
601910-02													0.00	0	0	601910-02	JONES, BRUCE & JOAN	06	01910.01	1910 PINE TREE HOLLOW
700012-00					4000								4000.00	0	22	700012-00	NEBEKER, CLINT & TRACI	08	00012	2414 CAPSTONE COURT
700012-01													0.00	0	0	700012-01	CHAMBERS, PAUL	07	00012.00	2414 CAPSTONE COURT
700012-02													0.00	0	0	700012-02	SENN, MARILEE	07	00012.01	2414 CAPSTONE COURT
700012-03													0.00	0	0	700012-03	HURD-BUSH REALTORS FOR FNMA	07	00012.02	2414 CAPSTONE COURT
700012-04													0.00	0	0	700012-04	AMERICAN DREAM REALTY	07	00012.03	2414 CAPSTONE COURT
700040-00													0.00	0	0	700040-00	SCHUBERT, RUSSELL	08	00040.1	2413 CAPSTONE COURT
700040-01													0.00	0	0	700040-01	CHAMBERS, LUKE	07	00040.00	2413 CAPSTONE COURT
700040-02													0.00	0	0	700040-02	AMERICAN DREAM REALTY	07	00040.01	2413 CAPSTONE COURT
700040-03	2700	1200	2800	3000	4000		15200	16900	14600	7200	12400	1100	81100.00	128	315	700040-03	BENSON, MICHAEL & CHRISTIE	08	00040.01	2413 CAPSTONE COURT
700041-00					4000		200	400					4600.00	0	25	700041-00	YEAGER, ERNEST W & JANET L	08	00041	2419 CAPSTONE COURT
700050-00	1500	1700	1100	1500	4000		1300	2000	1100	1300	1400	1500	18400.00	48	53	700050-00	INKS JR, HOWARD R	08	00050.1	2503 MOSSY ROCK COURT
700050-01													0.00	0	0	700050-01	NEMES, WILLIAM	07	00050.01	2503 MOSSY ROCK COURT
700053-00	1800	2600	2000	2400	4000		5100	8400	8900	3800	2000	2700	43700.00	75	164	700053-00	LAWRENCE, ROBERT G & MARILYN I	08	00053	2620 CORNERSTONE ROAD
700053-01													0.00	0	0	700053-01	THORNTON, BILL & CAROL	07	00053.01	2620 CORNERSTONE ROAD
700054-00					4000		400	500	300	300	1100		6600.00	6	30	700054-00	CARMOUCHE, RAINA	08	00054	2611 CORNERSTONE ROAD
700060-00	3800	3400	2500	3500	4000		13700	16900	15300	5600	3000	3800	75500.00	110	302	700060-00	FIELDS, SHERMAN & NANCY	08	00060.1	2715 CORNERSTONE ROAD
700061-00							2800	2900	2400	3000	1200	1100	13400.00	13	60	700061-00	TAYLOR, GAYLE	08	00061	2719 CORNERSTONE ROAD
700061-01													0.00	0	0	700061-01	MOONEY, RICHARD A. & JOAN C.	07	00061.00	2719 CORNERSTONE ROAD
700061-02					4000								4000.00	0	22	700061-02	ASCHER, THOMAS R	07	00061.01	2719 CORNERSTONE ROAD
700063-00		200	100	200	4000		3900	4300	8100	3800	2800	3300	30700.00	36	131	700063-00	KNUTSON, ROD & RISHELLE	08	00063	2727 CORNERSTONE ROAD
700075-01													0.00	0	0			10		
700080-00	1700	2500	1900	2300	400	400	3000	3000	20900	29600	69600	58900	194200.00	756	311	700080-00	RIMROCK LODGE	08	000801	4946 HWY 200
Month Total	2040900	2087500	2405600	2179600	2965000	2622000	7430900	9872800	9615700	6139200	3343210	3263108	53965518	58	144					
Avg day (gpd)	65835.4839	74553.5714	77600	72653.3333	95645.1613	87400	239706.4516	318477.419	320523.3333	198038.7097	111440.333	105261.548	147850.73	84557	209965					
PerConnection (gpd)	119.5	135.1	140.6	133.1	147.4	267.3	365.4	520.4	496.9	309.4	174.1	166.0	101.3							

APPENDIX BB

Sewer Main Cleaning Reports

2014

SEWER LINE CLEANING LOG

SEGMENT	FROM / TO	LENGTH	DATE / TIME / OTHER
#1 WEST	SOLID ROCK SUBDIVISION	5000	30 Jun 0700
#1A WEST	BEHIND BLACKFOOT TO RURAL FIREHALL	340	30 Jun 0700
#2 WEST	PP&L SUBSTATION TO BEHIND BLACKFOOT SHOP	240	" 0715
#3 WEST	BEHIND POST OFFICE TO PP&L SUBSTATION	183	" 0725
#4 WEST	NORTHWEST OF CLINIC TO BEHIND POST OFFICE	230	" 0735
#5 WEST	NORTHEAST OF CLINIC TO NORTHWEST OF CLINIC	150	" 0745
#6 WEST	CLINIC PARKING TO NORTHEAST OF CLINIC	230	" 0800
#7 WEST	POND AT CLINIC TO CLINIC PARKING LOT	47	" 0805
#8WEST	POND AT MAIDEN TO POND AT CLINIC	197	" 0815
#9 WEST	PP&L PARK TO POND AT MAIDEN	200	" 0825
#10 WEST	ALLEY EAST OF PP&L PARK NORTH IN ALLEY TO AINSWORTH FIELD	475	" 0900
#11 WEST	ALLEY WEST OF LINCOLN TO PP&L PARK	500?	" 0930
#12 WEST	LINCOLN ST. TO END OF ALLEY WEST OF LINCOLN	143	" 0950
#13 WEST	LINCOLN AT MAIDEN TO SOUTH END OF LINCOLN	153	" 1010
#14 WEST	MAIDEN AT FALLS MOTEL TO LINCOLN AT MAIDEN	183	" 1020
#15 WEST	MAIDEN AT FALLS MOTEL NORTH THRU PARKING LOT TO TOWN PUMP	228	" 1030
#16 WEST	MAIDEN AT GALLATIN WEST TO MAIDEN AT FALLS MOTEL PARKING	158	" 1040
#17 WEST	MAIDEN AT GALLATIN NORTH TO MANHOLE AT WEST END OF ALLEY	250	" 1050
#18 WEST	MANHOLE AT WEST END OF ALLEY EAST TO MANHOLE BEHIND CONOCO	300	" 1110
#19 WEST	MAIDEN AT GALLATIN SOUTH TO CLEANOUT AT ALLEY ENTRANCE	150	" 1120
#20 WEST	MAIDEN AT MADISON WEST TO MAIDEN AT GALLATIN	350	" 1230
#21 WEST	MAIDEN AT MADISON SOUTH TO MADISON AT ALLEY ENTRANCE	135	" 1300
#22 WEST	MADISON AT ALLEY ENTRANCE WEST TO MANHOLE IN ALLEY	200	" 1310
#23 WEST	MAIDEN AT JEFFERSON WEST TO MAIDEN AT MADISON	340	" 1325

SEGMENT	FROM / TO	LENGTH	DATE / TIME / OTHER
#25 WEST	JEFFERSON AT ALLEY ENTRANCE EAST TO MANHOLE BEHIND BLACKFOOT EXCHANGE BUILDING	175	" 1350
#26 WEST	MANHOLE BEHIND BLACKFOOT EXCHANGE BUILDING EAST TO MANHOLE NW OF FIRE HALL	170	" 1400
#27 WEST	MANHOLE NEAR 1014 MAIDEN WEST TO MAIDEN AT JEFFERSON	235	" 1410
#28 WEST	MAIDEN AT FULTON WEST TO MANHOLE NEAR 1014 MAIDEN	350	" 1425
#29 WEST	MAIDEN AT FULTON NORTH TO MANHOLE AT ALLEY ENTRANCE	170	" 1455
#30 WEST	FULTON AT ALLEY ENTRANCE EAST TO CLEANOUT BEHIND TRUE VALUE	300	" 1510
#31 WEST	MAIDEN BELOW FIRST STATE BANK WEST TO MAIDEN AT FULTON	220	" 1520
#32 WEST	MAIDEN AT MILL WEST TO MANHOLE BELOW FIRST SATE BANK	200	" 1535
#33 WEST	NEAR LIFT STATION NORTH TO MAIDEN AT MILL	65	" 1545
#34 WEST	LIFT STATION NORTHEAST TO MANHOLE NEAR LIFT STATION	20	

SEGMENT	FROM / TO	LENGTH	DATE / TIME / OTHER
#1 EAST	MILL AT ALLEY WEST TO CLEANOUT BEHIND TRUE VALUE	60	0830 2 July 2014
#2 EAST	COLUMBIA AT ALLEY WEST TO MILL AT ALLEY	200	" " 0845
#3 EAST	BROAD AT ALLEY WEST TO COLUMBIA AT ALLEY	225	" " 0900
#4 EAST	MANHOLE IN ALLEY BEHIND BURGER EXPRESS WEST TO ALLEY AT BROAD	75	" " 0915
#5 EAST	ALLEY AT HILL WEST TO MANHOLE IN ALLEY BEHIND BURGER EXPRESS	160	" " 0925
#6 EAST	ALLEY AT FERRY WEST TO ALLEY AT HILL	245	" " 0945
#7 EAST	ALLEY AT FERRY SOUTH TO MANHOLE AT FERRY AND RIVER BANK	100	" " 1000
#8 EAST	FERRY AT RIVER BANK EAST TO MANHOLE AT PINE AND RIVER BANK	220	" " 1010
#9 EAST	PINE AND RIVER BANK NORTH TO PINE AT ALLEY ENTRANCE	100	" " 1025
#10 EAST	PINE AT ALLEY ENTRANCE NORTH TO CLEANOUT	50	" " 1035
#11 EAST	PINE AT ALLEY ENTRANCE EAST TO PEARL AT ALLEY	205	" " 1045
#12 EAST	PEARL AT ALLEY ENTRANCE SOUTH TO MANHOLE AT END OF PEARL	30	" " 1100
#13 EAST	SOUTH END OF PEARL EAST TO MANHOLE AT END OF LINE	305	" " 1110
#14 EAST	SOUTH END OF HILL EAST TO FERRY AT RIVER BANK	205	" " 1230
#15 EAST	SOUTH END OF BROAD EAST TO SOUTH END OF HILL	225	" " 1250
#16 EAST	SOUTH END OF COLUMBIA EAST TO SOUTH END OF BROAD	200	" " 1300
#17 EAST	LIFT STATION EAST TO SOUTH END OF COLUMBIA	220	" " 1320

2016

WEST END SEWER LINE CLEANING LOG

SEGMENT	FROM / TO	LENGTH	DATE/ TIME / OTHER
#1 West	Rural Fire Hall west to end of Cornerstone Road	4300	Sept. 27, 1030
#2 West	Manhole behind Blackfoot north to Rural Fire Hall	340	Sept. 27, 1130
#3 West	Northwest Energy Substation west to Blackfoot	240	Sept. 27, 1200
#4 West	Manhole behind Post Office west to NWE Substation	183	Sept. 27, 1230
#5 West	Manhole NW of clinic north to behind Post Office	230	Sept. 27, 1250
#6 West	Manhole NE of clinic west to manhole NW of Clinic	150	Sept. 27, 1310
#7 West	Clinic parking lot north to manhole NE of Clinic	230	Sept. 27, 1330
#8 West	Pond at Clinic west to clinic parking lot	47	Sept. 27, 1350
# 9 West	Pond at Maiden Lane north to Pond at clinic	197	July 13, 0800
#10 West	NWE Park north to Pond at Maiden	200	July 13, 0830
#11 West	Alley east of NWE Park north to Ainsworth	475	Feb. 24 - 1400
#12 West	Alley west of Lincoln street west to NWE Park	500	Oct 19 830
#13 West	Lincoln street west to alley	143	Oct 19 845
#14 West	Lincoln at Maiden south to end	153	Oct 19 900
#15 West	Maiden at Falls west to Lincoln at Maiden	183	Oct 19 915
#16 West	Maiden at Falls north to Town Pump	128	Oct 19 930
#17 West	Maiden at Gallatin west to Maiden at Falls	158	Oct 19 945
#18 West	Maiden at Gallatin north to alley	250	Oct 19 10:00
#19 West	Gallatin at alley east to end of alley	300	Oct 19 10:10
#20 West	Maiden at Gallatin south to alley	150	Oct 19 11:00
#21 West	Maiden at Madison west to Gallatin	350	Oct 19 11:[illegible]5
#22 West	Maiden at Madison south to alley	135	Oct 19 11:30
#23 West	Madison at alley west to end of line	200	Oct 19 11:40
#24 West	Maiden at Jefferson west to Madison	340	Oct 19 11:45
#25 West	Maiden at Jefferson north to alley	160	Aug 8, 1100 Oct 19 1200
#26 West	Jefferson at alley east to end of line	345	Oct 19 12:15
#27 West	Maiden near 1014 west to Jefferson	235	Oct 19 12:20
#28 West	Maiden at Fulton west to near 1014	350	Oct 19 12:30
#29 West	Maiden at Fulton north to alley	170	Oct 19 12:45
#30 west	Fulton at alley east to end of line	300	Oct 19 1:00
#31 West	Maiden at First Security west to Fulton	220	Oct 19 1:10
#32 West	Maiden at Mill west to First Security	200	Oct 19 1:20
#33 West	Near lift station north to Mill	65	Oct 19 1:30
#34 West	Lift station northeast	20	

2016

EAST END SEWER LINE CLEANING LOG

SEGMENT	FROM / TO	LENGTH	DATE / TIME / OTHER
#1 East	Mill at alley west to line end	60	10/20/16 930
#2 East	Columbia at alley west to Mill	200	10/20/16 945
#3 East	Broad at alley west to Columbia	225	10/20/16 955
#4 East	Manhole behind Grill west to Broad	75	10/20 16 10:10
#5 East	Alley at Hill west to Grill	160	10/20/16 10:25
#6 East	Ferry west to Hill	245	Feb. 1, 1600 / July 13, 0700 Plugged 10/20/16 10:35
#7 East	Ferry at river north to manhole	100	July 13, 0730
#8 East	South end of Pearl east to end of line	304	10/24/16 12:00
#9 East	Pearl at alley south to manhole	30	10/24/16 12:15
#10 East	Pine at alley east to Pearl	205	10/24/16 12:22
#11 East	Pine at alley north to cleanout	50	10/24/16 12:35
#12 East	Pine at river north to manhole	100	10/24/16 12:55
#13 East	Ferry at river east to Pine	220	10/20/16 10:30
#14 East	Hill at river east to Ferry	205	10/20/16 10:35
#15 East	Broad at river east to Hill	225	10/20/16 10:42
#16 East	Columbia at river east to Broad	200	10/20/16 10:48
#17 East	Lift station east to Columbia	220	10/20/16

Clean + camera 3702'

SEWER LINE CLEANING LOG

SEGMENT	FROM / TO	LENGTH	DATE / TIME / OTHER
#1 WEST	SOLID ROCK SUBDIVISION	5000	
#1A WEST	BEHIND BLACKFOOT TO RURAL FIREHALL	340	
#2 WEST	PP&L SUBSTATION TO BEHIND BLACKFOOT SHOP	240	
#3 WEST	BEHIND POST OFFICE TO PP&L SUBSTATION	183	
#4 WEST	NORTHWEST OF CLINIC TO BEHIND POST OFFICE	230	
#5 WEST	NORTHEAST OF CLINIC TO NORTHWEST OF CLINIC	150	
#6 WEST	CLINIC PARKING TO NORTHEAST OF CLINIC	230	
#7 WEST	POND AT CLINIC TO CLINIC PARKING LOT	47	
#8WEST	POND AT MAIDEN TO POND AT CLINIC	197	
#9 WEST	PP&L PARK TO POND AT MAIDEN	200	
#10 WEST	ALLEY EAST OF PP&L PARK NORTH IN ALLEY TO AINSWORTH FIELD	475	
#11 WEST	ALLEY WEST OF LINCOLN TO PP&L PARK	500?	
#12 WEST	LINCOLN ST. TO END OF ALLEY WEST OF LINCOLN	143	
#13 WEST	LINCOLN AT MAIDEN TO SOUTH END OF LINCOLN	153	
#14 WEST	MAIDEN AT FALLS MOTEL TO LINCOLN AT MAIDEN	183	
#15 WEST	MAIDEN AT FALLS MOTEL NORTH THRU PARKING LOT TO TOWN PUMP	228	
#16 WEST	MAIDEN AT GALLATIN WEST TO MAIDEN AT FALLS MOTEL PARKING	158	
#17 WEST	MAIDEN AT GALLATIN NORTH TO MANHOLE AT WEST END OF ALLEY	250	
#18 WEST	MANHOLE AT WEST END OF ALLEY EAST TO MANHOLE BEHIND CONOCO	300	
#19 WEST	MAIDEN AT GALLATIN SOUTH TO CLEANOUT AT ALLEY ENTRANCE	150	
#20 WEST	MAIDEN AT MADISON WEST TO MAIDEN AT GALLATIN	350	
#21 WEST	MAIDEN AT MADISON SOUTH TO MADISON AT ALLEY ENTRANCE	135	
#22 WEST	MADISON AT ALLEY ENTRANCE WEST TO MANHOLE IN ALLEY	200	
#23 WEST	MAIDEN AT JEFFERSON WEST TO MAIDEN AT MADISON	340	

#24 WEST	MAIDEN AT JEFFERSON NORTH TO ALLEY ENTRANCE	160	
SEGMENT	**FROM / TO**	**LENGTH**	**DATE / TIME / OTHER**
#25 WEST	JEFFERSON AT ALLEY ENTRANCE EAST TO MANHOLE BEHIND BLACKFOOT EXCHANGE BUILDING	175	
#26 WEST	MANHOLE BEHIND BLACKFOOT EXCHANGE BUILDING EAST TO MANHOLE NW OF FIRE HALL	170	
#27 WEST	MANHOLE NEAR 1014 MAIDEN WEST TO MAIDEN AT JEFFERSON	235	
#28 WEST	MAIDEN AT FULTON WEST TO MANHOLE NEAR 1014 MAIDEN	350	
#29 WEST	MAIDEN AT FULTON NORTH TO MANHOLE AT ALLEY ENTRANCE	170	
#30 WEST	FULTON AT ALLEY ENTRANCE EAST TO CLEANOUT BEHIND TRUE VALUE	300	
#31 WEST	MAIDEN BELOW FIRST STATE BANK WEST TO MAIDEN AT FULTON	220	
#32 WEST	MAIDEN AT MILL WEST TO MANHOLE BELOW FIRST SATE BANK	200	
#33 WEST	NEAR LIFT STATION NORTH TO MAIDEN AT MILL	65	
#34 WEST	LIFT STATION NORTHEAST TO MANHOLE NEAR LIFT STATION	20	

GREYLINE instruments inc.

QUALITY CONTROL CALIBRATION AND TEST CERTIFICATE

Instrument Description	Model	Serial Number
Level/Flow Meter	OCF 5.0 A-1-A-1-D-1-A-2-A	57428
Transducers		
Level Type	PZ15	PZ30729

Greyline's quality control calibration and testing program includes distance measurement verification using fixed, calibrated targets.

Reference (in)	Output (in)
8.00	8.03
24.00	24.02
144.00	143.90

Temperature: 22.4 °C Relative Humidity: 10 %

Calibration Date: January 28, 2014

The above product has been tested to meet or exceed the following specifications

Accuracy	± 0.25%
Repeatability	± 0.1%
Linearity	± 0.1%

and has also passed the following tests:

1. Functional test including verification of output signals.
2. Reliability test (burn-in) 48 hr.

Quality Control Manager

Date of Issue: January 28, 2014

B Duff

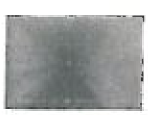
Peninsular Technologies
555 Ada Drive
Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
Nash Enterprises	Thomson fall	MH 6	MH 7	07-Jul-2015

Surveyor	Street	City	Weather
DAN	PINE ST.	THOMSONFALL S	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	216.4

Comments	Pre-Cleaning	TV Length
	Jetting	215.2

	Ftg.	Code	Description	Position	Severity	Comment
	0.0	GO	General Observation			
	95.5	S	Sag	4 to 8	4	
	169.5	S	Sag	5 to 7	4	
	202.1	S	Sag	5 to 7	4	1 INCH
	215.2	H	Hole		4	

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Peninsular Technologies
555 Ada Drive
Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
Nash Enterprises	Thomson fall	MH 6	MH 7	07-Jul-2015

Surveyor	Street	City	Weather
DAN	PINE ST.	THOMSONFALLS	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	216.4

Comments	Pre-Cleaning	TV Length
	Jetting	215.2

GO - General Observation @ 0.0 ft.

S - Sag @ 95.5 ft.

S - Sag @ 169.5 ft.

S - Sag @ 202.1 ft. 1 INCH

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Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
Nash Enterprises	Thomson fall	MH 6	MH 7	07-Jul-2015

Surveyor	Street	City	Weather
DAN	PINE ST.	THOMSONFALL S	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	216.4

Comments	Pre-Cleaning	TV Length
	Jetting	215.2

H - Hole @ 215.2 ft.

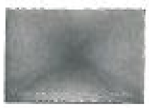
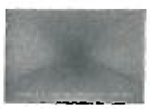
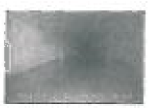
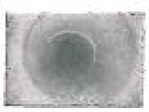
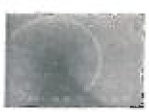
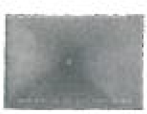
Peninsular Technologies
555 Ada Drive
Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTERPRISES	THOMSON FALL	MH 7	MH 8	07-Jul-2015

Surveyor	Street	City	Weather
DAN	FERRY ST	THOMSONFALL	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	223.4

	Ftg.	Code	Description	Position	Severity	Comment
	0.0	GO	General Observation			
	13.6	SC	Service Connection	12 to 3		
	23.6	S	Sag	4 to 7	4	1.5 INCH
	68.6	S	Sag	4 to 8	4	2.5 INCH
	104.0	S	Sag	4 to 8	4	3 INCH SAGE
	109.8	SC	Service Connection	12 to 3		
	118.6	S	Sag	5 to 7	4	OUT OF SAGE
	171.9	S	Sag	4 to 8	4	1 INCH
	223.4	MH	Manhole			MH-8

Peninsular Technologies
555 Ada Drive
Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTERPRISES	THOMSON FALL	MH 7	MH 8	07-Jul-2015

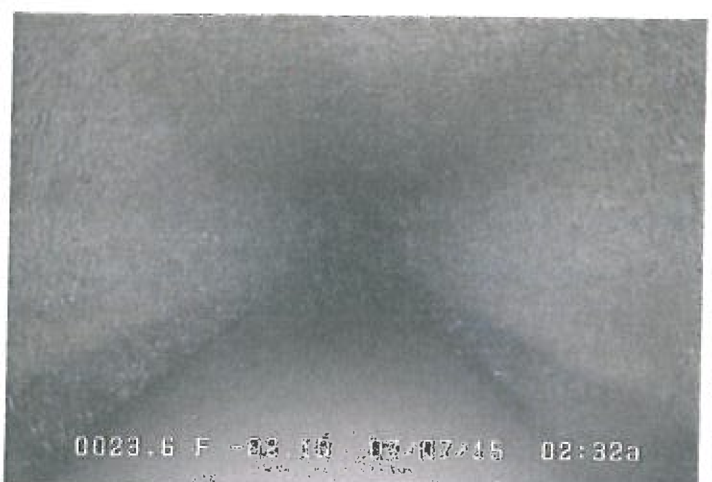
Surveyor	Street	City	Weather
DAN	FERRY ST	THOMSONFALL	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	223.4

GO - General Observation @ 0.0 ft.

SC - Service Connection @ 13.6 ft.



S - Sag @ 23.6 ft. 1.5 INCH

S - Sag @ 68.6 ft. 2.5 INCH

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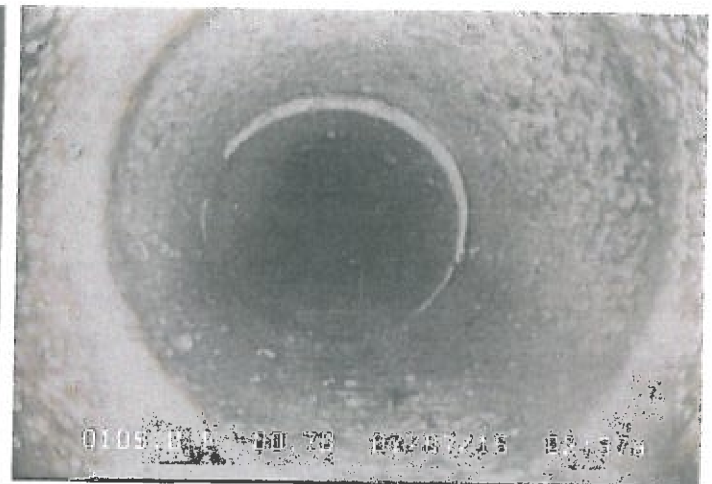
Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTERPRISES	THOMSON FALL	MH 7	MH 8	07-Jul-2015

Surveyor	Street	City	Weather
DAN	FERRY ST	THOMSONFALL	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	223.4

S - Sag @ 104.0 ft. 3 INCH SAGE


SC - Service Connection @ 109.8 ft.

S - Sag @ 118.6 ft. OUT OF SAGE

S - Sag @ 171.9 ft. 1 INCH

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Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTERPRISES	THOMSON FALL	MH 7	MH 8	07-Jul-2015

Surveyor	Street	City	Weather
DAN	FERRY ST	THOMSONFALL	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	223.4

MH - Manhole @ 223.4 ft. MH-8

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Peninsular Technologies
555 Ada Drive
Ada, MI 49301
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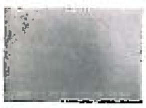
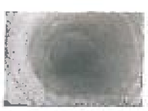
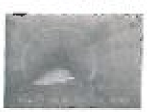
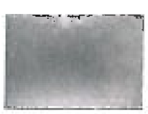
Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTPRISES	THOMPSONFALL	MH-8	MH-9	07-Jul-2015

Surveyor	Street	City	Weather
DAN	HILL ST	THOMPSONFALL	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	1641

Image	Ftg.	Code	Description	Position	Severity	Comment
	0.0	GO	General Observation			
	104.4	SC	Service Connection	12 to 3		
	112.7	S	Sag	5 to 7	4	START OF SAGE 1.5 INCH
	164.1	S	Sag	4 to 8	4	3.5 INCH
	191.1	S	Sag	4 to 8	4	GETTING DEEPER
	222.3	MH	Manhole			MH

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Peninsular Technologies
555 Ada Drive
Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTPRISES	THOMPSONFALL	MH-8	MH-9	07-Jul-2015

Surveyor	Street	City	Weather
DAN	HILL ST	THOMPSONFAL L	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	1641

GO - General Observation @ 0.0 ft.

SC - Service Connection @ 104.4 ft.

S - Sag @ 112.7 ft. START OF SAGE 1.5 INCH

S - Sag @ 164.1 ft. 3.5 INCH

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Peninsular Technologies
555 Ada Drive
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Phone: (616) 676-9811

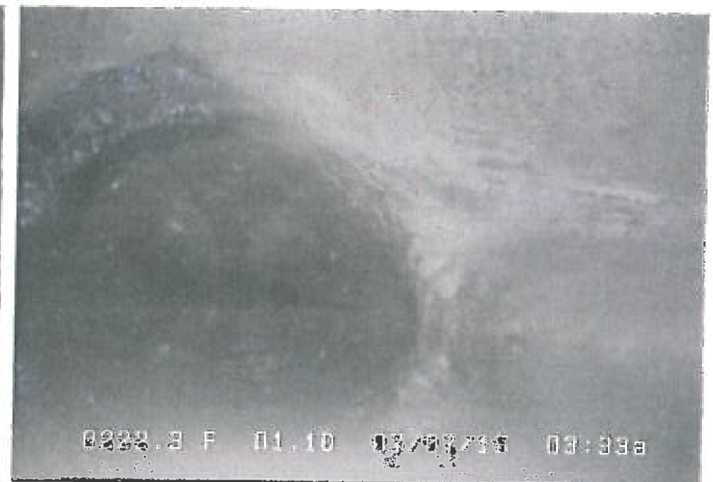
Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTPRISES	THOMPSONFALL	MH-8	MH-9	07-Jul-2015

Surveyor	Street	City	Weather
DAN	HILL ST	THOMPSONFALL	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	1641

S - Sag @ 191.1 ft. GETTING DEEPER



MH - Manhole @ 222.3 ft. MH

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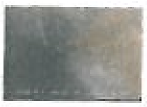
Ada, MI 49301
Phone: (616) 676-9811

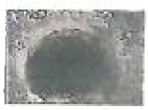
Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTERPRISES	THOMPSON FALLS	MH 9	MH 10	08-Jul-2015

Surveyor	Street	City	Weather
DAN	BROAD ST	THOPSON FALLS	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	1963




Ftg.	Code	Description	Position	Severity	Comment
0.0	GO	General Observation			
47.6	SC	Service Connection	12 to 3		
143.5	SC	Service Connection	12 to 3		
167.5	SC	Service Connection	10 to 1		
1963.0	MH	Manhole			

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Peninsular Technologies
555 Ada Drive
Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTERPRISES	THOMPSON FALLS	MH 9	MH 10	08-Jul-2015

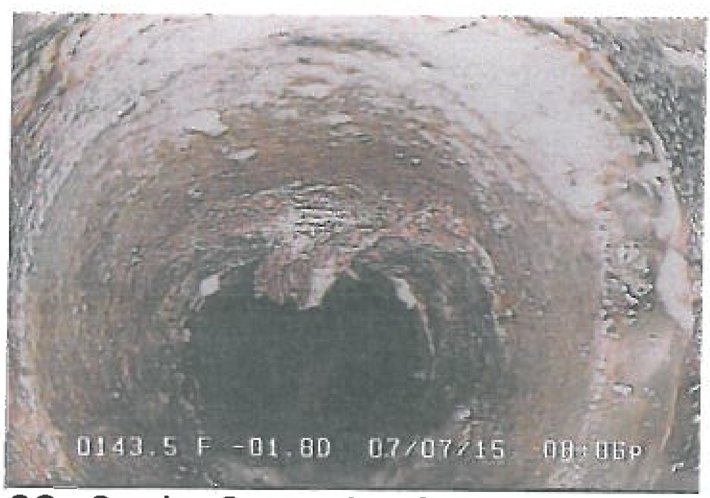
Surveyor	Street	City	Weather
DAN	BROAD ST	THOPSON FALLS	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	1963

GO - General Observation @ 0.0 ft.

SC - Service Connection @ 47.6 ft.



SC - Service Connection @ 143.5 ft.

SC - Service Connection @ 167.5 ft.

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Peninsular Technologies
555 Ada Drive
Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTERPRISES	THOMPSON FALLS	MH 9	MH 10	08-Jul-2015

Surveyor	Street	City	Weather
DAN	BROAD ST	THOPSON FALLS	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	1963

MH - Manhole @ 1963.0 ft.

Peninsular Technologies
555 Ada Drive
Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTERPRISES	THOPSON FALLS	MH -10	MH-11	08-Jul-2015

Surveyor	Street	City	Weather
DAN	COLUMBIA ST	THOPSON FALLS	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	211.1

GO - General Observation @ 0.0 ft.

JS - Joint Separated @ 204.8 ft. WATER COMMING IN FROM JOINT

MH - Manhole @ 211.1 ft.

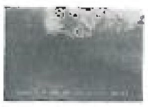
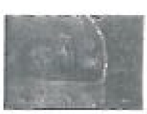
Peninsular Technologies
555 Ada Drive
Ada, MI 49301
Phone: (616) 676-9811

Owner	Customer	Upstream MH	Downstream MH	Date
NASH ENTERPRISES	THOPSON FALLS	MH -10	MH-11	08-Jul-2015

Surveyor	Street	City	Weather
DAN	COLUMBIA ST	THOPSON FALLS	Dry

Size	Material	Sewer Use	Purpose	Length
12	Clay Tile	Sanitary	Routine Assessment	

Comments	Pre-Cleaning	TV Length
	Jetting	211.1


Ftg.	Code	Description	Position	Severity	Comment
0.0	GO	General Observation			
204.8	JS	Joint Separated	1 to 4	3	WATER COMMING IN FROM JOINT
211.1	MH	Manhole			

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APPENDIX CC

Phasing Flow Estimate Calculations

Residential 2.1 people/residence Estmimated from Census Blocks

100 gpcd Population/Residential Structures

	Residential Flow		Non Res Flow					
	Residential Structures	Residential Wastewater Estimate	school	church	other	Non Res. Flow		
Phase 1	173	36127	4745	200	120	5065	**41191.91**	74431.91
Phase 2	205	42818		1000		1000	**43818.46**	118250.4
Phase 3	120	25063		600	800	1400	**26463.29**	144713.7
Phase 4	55	11491	4275	200	100	4575	**16066.34**	160780
Subtotal	***553***	***115500***	***9020***	***2000***	***1020***	***12040***	**127540**	
						11699		
Existing	76	15873.41772					33240	
Total	**629**	**131373.4177**				**12040**	160780	