



**MONTANA COMMUNITY DEVELOPMENT
BLOCK GRANT (CDBG) PROGRAM
ENVIRONMENTAL ASSESSMENT**

Gallatin Gateway County Water and Sewer District
Wastewater Treatment, Collection and Disposal System

August 2014

Prepared For

Gallatin County

Prepared By

Morrison-Maierle, Inc.
2880 Technology Blvd. W.
Bozeman, Montana 59771

Acknowledgment of comments from:

Gallik Law Firm, P.C.

Prepared by Morrison-Maierle, Inc., September 3, 2014

Gallatin County and the preparer of the EA (Morrison-Maierle, Inc.) received comments from the Gallik Law Firm via letter dated August 25, 2014 regarding:

"Comments and Objection to Findings of No Significant Impact Re: Release of Funds for Gateway Community Wastewater System, Dated August 10, 2014.

Morrison-Maierle, Inc. provides the following responses to the aforementioned Gallik letter.

Paragraphs 1 through 5: The preparer of the EA and this response relied on the following design reports for information and data regarding the proposed wastewater treatment system design:

Wastewater Collection System & Wastewater Pumping Stations Design Report, prepared for Gallatin Gateway County Water and Sewer District, June 2014, prepared by Stahly Engineering and Associates, Inc.

Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report prepared for Gallatin Gateway County Water and Sewer District in June 2014 by Stahly Engineering and Associates, Inc.

The documents followed appropriate MDEQ design specifications and were peer reviewed and stamped by licensed engineers. MDEQ also reviewed the project data, prepared their own EA and issued a groundwater discharge permit. The preparer of the report and this response relied on peer reviewed data from licensed engineers and water quality and regulatory professionals at MDEQ in determining potential impact.

The preparer of the EA quotes the following information that was provided in Stahly's report entitled: *Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report* prepared for Gallatin Gateway County Water and Sewer District (June 2014). This report was provided in Appendix A of the EA prepared by Morrison-Maierle, Inc. (2014).

The Gallatin Gateway County Water & Sewer District received its Authorization to Discharge Under via Montana Ground Water Pollution Control System Permit No. MTX000229 which was issued 9/9/2013. The permit contains the following discharge limitations for total nitrogen and phosphorus:

Total Nitrogen: 10.7 pounds/day daily maximum

Total Phosphorous: 486 pounds/year annual maximum

Total Nitrogen Limit Compliance Strategy

Compliance with the total nitrogen limit will be achieved using a suspended growth biological treatment process having both nitrification and denitrification capability. Under design average flow conditions the projected influent total nitrogen is expected to range from 10.4 pounds/day initially to 16 pounds per day at full build out. Initially, the required level of nitrogen removal will be minimal gradually rising to about 33 percent at full build out. From a practical standpoint, the proposed system is expected to achieve an effluent total nitrogen of 10 mg/l which gives a design average effluent total nitrogen loading of 2.2 to 3.3 pounds/day, well below the limit.

The preparer of the EA reviewed Dr. Michael Nicklin's June 2013 technical memorandum entitled "Review of Gallatin Gateway Water and Sewer District Vaughn Site Test Well Pumping Test Analysis". In this analysis, Nicklin provides data demonstrating that the nitrate concentrations from the original level II system would exceed water quality standards set by MDEQ if Stahly's analysis overestimated aquifer properties threefold. The updated proposed SBR system would meet MDEQ water standards at the point of discharge, therefore Nicklin's analysis does not pertain to the new proposed SBR system. Nitrate concentrations at the end of the mixing zone would obviously be met if they are met at the point of discharge. Since allowable nitrate concentrations will be met at the point of discharge, the transmissivity/hydraulic conductivity of the aquifer is not as critical as it is when using a level II type treatment system.

Paragraph 6 and 7: MDEQ is the regulatory agency that has approved the groundwater discharge permit. MDEQ has not yet approved the gravel pit. The preparer of the EA is simply stating that impacts to any future use of the adjacent Gateway Villages property are impossible to assess as the future use of this property is unknown. Currently, the Gateway Village's property is an agricultural field. The preparer of the EA is not expressing concerns with the proposed gravel pit.

Paragraph 8: The discharge permit has not been amended with data from the updated proposed SBR system at the time the EA was prepared. The discharge permit is still valid as long as the terms and conditions of the permit are met. Please see the above information provided in the response to Paragraphs 1 through 5 as to how the updated SBR system will meet MDEQ's effluent limits. Claims that MDEQ imposed stricter standards upon Gateway Village's proposed SBR system are irrelevant to this EA.

Paragraph 9: No impacts to down-gradient wells are anticipated to occur with the implementation of the proposed project. As stated above, effluent requirements set forth by MDEQ will be met at point of discharge. The fact that Gateway Village is in litigation concerning the wrongful denial of its subdivision is irrelevant to this EA.

Paragraphs 10 through 15: Comments provided in the concluding paragraphs appear to be irrelevant to the EA.

Acknowledgment of comments from:

Terry Threlkeld, PE or Innovative Engineering

Prepared by Morrison-Maierle, Inc, September 3, 2014

Gallatin County and the preparer of the EA (Morrison-Maierle, Inc.) received comments from the Terry Threlkeld via letter dated August 24, 2014 regarding:

"Comments and Objection to Finding of No Significant Impact for the Community Wastewater System Proposed for Gallatin Gateway, Montana"

Morrison-Maierle, Inc. provides the following responses to the aforementioned Innovative Engineering letter.

Please see above comments to address water quality concerns.

- The EA does address the Buffalo Jump Bar's public drinking water well. The following passage is taken from the EA:

On April 3, 2013, MDEQ Water Protection Bureau prepared a deficiency letter to the initial groundwater discharge permit submitted by Gallatin Gateway County Water and

Sewer District. MDEQ expressed concern regarding the existing public water supply well near the primary and replacement area mixing zone boundary. They quoted Administrative Rules of Montana (17.30.506 et seq.) protect existing beneficial uses from being impaired or threatened by proposed mixing zones. These rules specifically state mixing zones are not appropriate when adjacent to a drinking water well intake or the zone of influence around a drinking water well.

Stahly Engineering submitted a response to the MDEQ deficiency letter on April 24, 2014. This letter provides the following response:

"The proposed new drainfield is in a similar location as the existing drainfield serving the Buffalo Station. Buffalo Station under previous ownership was taking water samples (Bacteria) on a monthly basis as well as annual nitrate samples. The water samples did not show any adverse impacts to the Buffalo Station water supply from the drainfield. There were no coliform bacteria in the water supply and nitrate levels were not elevated. It was clear the well was not impacted by the current drainfield.

If the well is moved to the secondary location shown on the Proposal Disposal Site exhibit, the separation from the new well location to the closest point of the primary drainfield mixing zone is 235 feet, which should provide ample cross gradient separation."

The environmental professional contacted Kurt Thomson of Stahly Engineering on July 25, 2014 to verify that they were planning on moving the Buffalo Station public water supply well. Mr. Thomson confirmed that the Buffalo Station public water supply well will be moved to the location provided on Figure 11.4 Treatment Area Site Plan. The figure can be reviewed in the report entitled: Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report for Gallatin Gateway County Water and Sewer District (Stahly Engineering 2014). The aforementioned report is located in Appendix A.

- Seeking comments from Indian Reservations is not a "superficial issue" but follows the guidelines set forth by National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.), particularly sections 106 & 110 and requirements of US Department of Housing and Urban Development for Community Planning and Development projects. The tribe that was contacted was identified by the Tribal Directory Assessment Tool as having interest in Gallatin County, Montana.
- The Gateway Neighborhood Plan was referenced heavily as it sets forth goals for the unincorporated community of Gallatin Gateway.
- To quote Mr. Threlkeld's attached "Engineering Review Report" with comments provided by Kate Miller, P.E. Montana Department of Commerce dated November 2010: "It is practical and quite common to have groundwater disposal areas up gradient of wells as long as nondegradation requirements are met. Almost all wastewater systems that discharge to groundwater are up-gradient from somebody's well."

EXHIBIT 2-M

MONTANA COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) PROGRAM

CONSOLIDATED ENVIRONMENTAL ASSESSMENT FORM

INTRODUCTION

The following form is for the use of Community Development Block Grant (CDBG) recipients who must prepare an Environmental Assessment (EA) as required by HUD Environmental Review procedures for the CDBG program (24 CFR 58.36). Satisfactory completion of this form will meet the requirements of the federal Housing and Community Development Act as well as the National Environmental Policy Act (NEPA).

CDBG recipients must also demonstrate compliance with the environmental requirements of the other related federal environmental laws and regulations listed in the HUD Statutory Checklist (24 CFR 58.5). For this reason, the Statutory Checklist requirements have been combined into this single consolidated form. An index of the applicable federal statutes and regulations is found at the end of this form. Where noted, the numbers that appear to the right of the environmental subject areas listed in the checklist correspond to the listing of statutes found in the index.

The requirements of the Montana Environmental Policy Act (MEPA) and the uniform State administrative rules adopted pursuant to the Act have also been integrated into the consolidated form.

PROJECT IDENTIFICATION

Recipient: **Gallatin County, Montana**

Chief Elected Official: **Pierre Martineau, Chairman, Gallatin County Commission**

Environmental Certifying Officer: **Larry Watson, Gallatin County Grants and Projects Administrator**

CDBG Contract #: **MT- CDBG – 12PF-02**

Project Name: **Gallatin Gateway County Water and Sewer District Wastewater Treatment, Collection and Disposal System**

Person Preparing this Environmental Assessment: **Christine Percy, Environmental Scientist Morrison-Maierle, Inc**

Phone Number: **406-922-6846**

Instructions for Completing this Form

The following instructions should be presented and evaluated in a level of detail which is appropriate to the following considerations:

- (a) the complexity of the proposed action;
- (b) the environmental sensitivity of the area affected by the proposed action;
- (c) the degree of uncertainty that the proposed action will have a significant impact on the quality of the human environment;
- (d) the need for and complexity of mitigation required to avoid significant environmental impacts.

In all cases, the CDBG grant recipient should reference and attach additional narrative providing the specific information requested or documentation supporting the evaluation of the impact of the proposed project or activity as it relates to each environmental subject area. The narrative should also note, where applicable, the source of the evaluation, including date of contact, page reference to pertinent source documents, and the name and title or persons contacted, along with the name of the specific organization or agency.

Environmental information and assistance in preparing an environmental assessment can be obtained from a wide variety of sources. Possible sources of information include existing plans and studies, knowledgeable local residents and officials such as the county sanitarian, city or county planning board or department, local officials with the U.S. Soil and Conservation Service (SCS) or local conservation district, as well as local representatives of the State Fish, Wildlife & Parks Department, to list just a few examples. Grant recipients may also contact the State and federal agencies listed in **Exhibit 2-O** for information and assistance.

The Department of Commerce Community Development Bureau maintains copies of environmental assessments prepared on previous projects that may be useful to grant recipients, as well as full copies of applicable federal and State environmental statutes and related information. Copies of the HUD publication, *Environmental Review Guide for Community Development Block Grant (CDBG) Programs*, can be requested from the CDBG program specialist assigned to your project.

EVALUATION OF ENVIRONMENTAL IMPACT

Provide the information requested below and attach additional narrative as appropriate.

1. Describe the proposed action or activity, including construction and end-product (attach maps and graphics as necessary).

In 2010, Great West Engineering compiled a Preliminary Engineering Report (PER) for Gallatin Gateway County Water and Sewer District (District) wastewater system improvements (the PER is available for review in Appendix A). The following introduction and background for the proposed project was provided in that report:

"The community of Gallatin Gateway reached a point during a period of accelerated growth in Gallatin County to embark on a planning effort to ensure their community would grow in a reasonable and prudent manner. The neighborhood planning process brought the need for a

centralized wastewater system to the forefront. The citizens became more aware of their water quality problems and the potential health hazards they faced with older congested onsite septic systems. Gallatin Gateway could not meet the goals of their community plan, especially in their designated community core area, without a municipal wastewater treatment facility."

The District's proposed action is to provide the community of Gallatin Gateway with a community wastewater system. The proposed project will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant. The preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping.

The District encompasses 109 acres with a current population of approximately 190 residents. (See Figures 1 and 2 located immediately after the Exhibit 2-M Environmental Checklist.) There are approximately 137 lots within the district, with 71 different lot owners. Current development includes 77 homes with 15 non-residential and commercial users (Stahly Engineering 2014). Non-residential and commercial users include: the Gateway Market, Big Timberworks, Amend Construction, YS Interior Design, Renneberg Hardwoods, Ice Age Performance, Rocky Mountain Choppers, Stacey's Bar and Steakhouse, Post Office Pizza, Gallatin Gateway Inn, Gateway Fire Department, Post Office, Gateway Community Center, Gateway School, and the Buffalo Station Sports Bar.

According to the Wastewater Collection System and Wastewater Pumping Stations Design Report prepared by Stahly Engineering (June 2014), the sewer system was designed in accordance to Montana Department of Environmental Quality (MDEQ) *Circular DEQ-2 Design Standards for Public Sewage Systems* (October 2012). Stahly Engineering states that the sewer system is designed to accommodate the peak hour of the 20-year build-out design flow of 40,000 gallons per day. The District also selected the following design criteria for the proposed project: sewers run in alleys where possible to facilitate easier connection to existing sewer lines; sewer depth sufficient to allow basements where possible in the "town core"; sewer services provided only to existing occupied buildings with future service connections at the lot owner's expense. The Gallatin Gateway School and the Gallatin Gateway Inn will be served by private sewer mains, due to their larger flows.

There is not a municipal water supply system in the community of Gallatin Gateway. The system has been designed to locate sewer mains 100 feet from public water supply wells and 50 feet from private water supply wells.

The wastewater pumping station for the District was designed in accordance to MDEQ *Circular DEQ-2 Design Standards for Public Sewage Systems* (October 2012). Stahly Engineering states that the lift station will be located in the northwest corner of town at the natural low point of the collection system. The lift station will pump wastewater approximately 5,900 feet to the wastewater treatment plant through a 6 inch HDPE forcemain. The lift station was designed to accommodate the full build out peak hour flow of 125 gallons per minute, as described in the Preliminary Engineering Report (PER) prepared by Great West in 2010. See Sheets C 1.0 and C 1.1 directly after the wastewater collection system report in Appendix A.

The wastewater treatment and groundwater disposal facility is detailed by Stahly Engineering in their report entitled: *Wastewater Treatment and Groundwater Disposal Facility Preliminary Design Report for Gallatin Gateway County Water and Sewer District* (June 2014). The design is also

based on MDEQ *Circular DEQ-2 Design Standards for Public Sewage Systems* (October 2012). This report serves as an update to the original PER prepared in 2010. Since the original alternative analysis completed in 2010 and documented in the PER, a number of factors have changed which resulted in the District changing the selected alternative to the Sequencing Batch Reactor (SBR) treatment system instead of the Level 2 system. Additionally, the District located and acquired a site for the treatment system and groundwater disposal facilities and applied for and received a groundwater discharge permit from MDEQ containing limitations on nitrogen and phosphorus. The advantage to the SBR treatment system over the Level 2 system is that the SBR system produces a higher quality effluent including the additional benefit of phosphorus removal capability. As a result, the District has selected the Intermittent Cycle Extended Aeration System (ICEAS) mechanical wastewater treatment plant offered through the Sanitare Corporation.

Treated wastewater will be disposed of in a community drainfield. The discharge of wastewater is governed by the Groundwater Discharge Permit MTX000229 (available for review in Appendix C). The Groundwater Discharge Permit contains the non-degradation analysis that shows that the drainfield discharge does not significantly impact groundwater. The drainfield is designed in accordance MDEQ Circular DEQ 4 Montana Standards for Subsurface Wastewater Treatment Systems (2004) and requirements dictated by the non-degradation analysis.

Full design reports for both the Wastewater Collection System & Wastewater Pumping Station Design Report and the Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report prepared for Gallatin Gateway County Water and Sewer District are available for review in Appendix A of this report.

There are two situations surrounding this project that will be acknowledged in this report, but any attempt in examining their impact would be considered speculative as they are not approved or finalized.

- The first situation is the "Petition for Judicial Review and/or complaint for declaratory and injunctive relief". In this case, the Petitioner, Gateway Village, LLC petitions the court for judicial review of the final decision of the Montana Department of Environmental Quality to issue a wastewater discharge permit to the Gallatin Gateway County Water & Sewer District.
- The second situation is an application for an open-cut gravel pit that has been submitted by Gateway Village LLC for the property directly north of the lot designated for the proposed groundwater disposal facility located off of Cottonwood Road. The public comment period for this application ended on July 22, 2014. Based on the information obtained from the public meeting held at the Gallatin Gateway School on July 15, 2014, MDEQ will either extend the agency review period or send a deficiency letter to Gateway Village LLC by July 28, 2014. The environmental professional received a "Notice of Extended Review for the Application for Opencut Mining Permit Gateway Pit Site, Opencut #2520" on July 28, 2014 (a copy of this communication can be found in Appendix B). This notice stated the proposed gravel pit does not adequately protect shallow groundwater resources that local residents use for drinking water and domestic needs and as a result, the proposed plan does not satisfy the following requirements of the Opencut Mining Act. MDEQ stated that it will conduct an extended review within the following timeframes:

(a) For a complete application subject to an extended review, the department shall, within 60 days from the date the department determines the application warrants an extended review, inspect the proposed site if the department determines an inspection is

necessary and notify the applicant as to whether or not the application is acceptable pursuant to 82-4-432. If the application is unacceptable, the notice must include a detailed explanation of the deficiencies.

(b) Within 30 days of receipt of the applicant's response to the identified deficiencies, the department shall review the responses and notify the applicant as to whether or not the application is acceptable. If the application is unacceptable, the department shall notify the applicant in writing and include a detailed identification of the deficiencies.

(c) The department may for sufficient cause extend either or both of the review periods in subsection (2)(a) or (2)(b) for an additional 30 days if it notifies the applicant of the extension prior to the end of the respective original period. The department shall include in the notification of extension the reason for the extension.

(d) If the application is acceptable, the department shall issue a permit or a permit amendment to the operator that entitles the operator to engage in the opencut operation on the land described in the application.

See Section 82-4-439(2)(a-d), MCA.

Because this action has not yet received local approval for implementation, proposed project related impacts cannot be assessed within this document.

2. Describe the project site and surrounding area(s), including existing site use and environmental conditions (attach map as applicable).

The Gallatin Gateway County Water and Sewer District is located approximately 15 miles southwest of Bozeman, Montana along US Highway 191 (See Figures 1 and 2 located immediately after the Exhibit 2-M Environmental Checklist). The Gallatin River abuts the Gallatin Gateway Community to the west and light commercial, rural residential, and agricultural uses surround the community to the east, north and south.

The proposed project area includes the "town core" of Gallatin Gateway where sewer collection lines and a lift station will be installed. The proposed wastewater treatment and groundwater disposal facility will be located in a 5-acre vacant lot south of Gallatin Gateway off of Cottonwood Road directly behind the Buffalo Station Bar. Environmental conditions are discussed in depth in Exhibit 2M Environmental Checklist. See Sheet C1.0 and Sheet C1.1 for details and locations of sewer collection mains and lift stations located in Appendix A; and Figures 11.3 and 11.4 located within the Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report in Appendix A (Stahly Engineering, 2014).

3. Describe the benefits and purpose of the proposed action.

The purpose of the proposed action is 1) protect human health, safety, and the environment, and 2) to support ongoing and future growth and development initiatives in the Gallatin Gateway Community.

According to the PER (2010), the community of Gallatin Gateway was originally established in 1865 and was previously named Slabtown (1865) and Salesville (1883-1928). Gallatin Gateway is a rural unincorporated community in which much of the development and building was carried out prior to the establishment of Health Department regulations in 1966. Many of the buildings, homes, and residences have individual septic disposal systems that do not comply with current regulations. The majority of these systems are cesspools, seepage pits, or metal septic tanks with drainfields that have either failed or have a high potential of failing in the near future.

The coarse-grained soils that provide only limited filtering or treatment, closeness of drinking water wells to individual septic systems, and proximity of the developed town area to the Gallatin River present a threat to human health, safety, and the environment.

Gallatin Gateway is considered an "Area of Concern" by the Gallatin City-County Board of Health and Health Department (correspondence dated February 17, 2010, located in Appendix J of the PER prepared by Great West Engineering in 2010). Small lot sizes within the community prohibit the adherence to State and County septic regulations (100-foot separation requirement between a water well and a septic disposal area or a 10-foot separation from a septic disposal area and a property boundary line). New construction or replacement of failed systems in Gallatin Gateway require variances, which often cannot be granted due to potential threat to human health, safety, and the environment.

The proposed wastewater treatment system will benefit the human health of the residents of Gallatin Gateway, promote clean drinking water for the residents of Gallatin Gateway, reduce potential pollution impacts to groundwater and potentially surface water, and increase the potential of controlled community growth and expansion (a referenced priority in the Gallatin Gateway Community Plan 2009).

4. Describe all sources of project funding:

The project is to be funded through a combination of grants and loans as described in the table below:

Funding Entity	Type of funding	Amount
Montana Department of Commerce CDBG Public Facilities Grant	Grant ¹	\$450,000
US Department of Agriculture, Rural Development Water and Wastewater Disposal Direct Loans and Grant	Grant	\$1,815,000
Montana Department of Commerce Treasure State Endowment Grant	Grant	\$750,000

Montana Department of Natural Resources Renewable Resource Grants and Loans Program	Grant	\$100,000
US Department of Agriculture, Rural Development Water and Wastewater Disposal Direct Loans and Grants	Loan (secured by revenue Bond ²)	\$863,000
US Department of Agriculture Rural Development Water and Wastewater Disposal Direct Loans and Grants	Loan (Secured by special assessment Bond ³)	\$787,000
Montana Board of Investments INTERCAP Loan Program	Bridge Loan ⁴ Secured by USDA loan commitment	\$1,650,000

Notes to the funding table:

¹Gallatin County is the CDBG grant recipient. The intended and authorized use of funds is to support the Gallatin Gateway County Water & Sewer District's wastewater collection and treatment system project.

²A revenue bond election was held on January 31, 2012. The bond issue passed by a margin of 51 to 18, with a 77 percent turnout. The term of this loan is 40 years with an interest rate of approximately 3.375%.

³After public notification and comment, the Gallatin Gateway County Water and Sewer District Board of Directors passed a special assessment on August 6, 2012. The Gallatin County Treasurer will begin levying the assessment upon project completion. The term of this loan is 40 years with an interest rate of approximately 3.375%.

⁴The INTERCAP loan is a bridge loan used during the construction phase. This loan is to be "paid off" upon project completion using proceeds from the two USDA loans.

5. Describe any project plans or studies which are relevant to the project.

Several plans and studies were reviewed that are relevant to the proposed project.

- Gallatin Gateway County Water and Sewer District Preliminary Engineering Report (PER), Wastewater System Improvements (Great West Engineering 2010): This report describes the necessity of the Gallatin Gateway wastewater treatment project and provides an alternative screening process that considered numerous alternatives aimed at resolving the problems faced by the community of Gallatin Gateway.
- Gallatin Gateway County Water and Sewer District Groundwater Discharge Permit Application prepared by Terry Threlkeld of Innovative Engineering. This Groundwater Discharge Permit was prepared for MDEQ and contains data related to estimated wastewater flows, existing sources of commercial and nonresidential flows, test well construction summaries, water sampling results, nitrate sensitivity, phosphorus breakthrough, percolation test results, groundwater gradient calculations, and Level 2 Treatment performance history (February 2013).
- Request for modification (submitted June 24, 2013) to the Groundwater Discharge Permit Application submitted on February 23, 2013, for the Gallatin Gateway County Water and Sewer District. The amendment requested that 50,000 gallons per day of treated wastewater to be discharged into the ground near Gallatin Gateway. The amendment

request was accompanied by a figure showing the site layout with updated dimensions to the drainfield, new non-degradation calculations, pump test results from June 7, 2013, on the test well that was drilled on June 5, 2013, and test pit and percolation test results from tests conducted the week of June 17, 2013.

- An Environmental Assessment prepared by the Montana Department of Environmental Quality (MDEQ) Permitting and Compliance Division, Water Protection Bureau (June 7, 2013) for the Gallatin Gateway County Water and Sewer District. This Environmental Assessment was prepared as a part of the Discharge of Wastewater to Groundwater under the Montana Ground Water Pollution Control System (MGWPCS) permit program. The proposed permit evaluated in this assessment authorizes the permittee to discharge treated wastewater into Class I ground water through a subsurface drainfield at an established discharge structure.
- Permit Fact Sheet for the Montana Ground Water Pollution Control System (MGWPCS) for Gallatin Gateway County Water and Sewer District Permit Number: MTX000229. This document was prepared by the MDEQ Water Protection Bureau and includes detail on the facility, permit status, and technical details of the permitted activity (May 30, 2013).
- MDEQ Groundwater Discharge Permit Number MTX000229 (Issued September 9, 2013)
- Gateway Village LLC Opencut Mining Plan of Operation and Application received by MDEQ on May 14, 2014. Affiliated supporting documents include well logs, site map, area map, boundary coordinate table, county noxious weed control plan, reclamation bond spreadsheet, NRCS soil data sheet, seed mix guideline and groundwater monitoring history.
- Wastewater Collection System & Wastewater Pumping Stations Design Report, prepared for Gallatin Gateway County Water and Sewer District, June 2014, prepared by Stahly Engineering and Associates, Inc. This report provides detailed design information for the wastewater collection and pumping station improvements. The report provides an update to preliminary design information presented in the Preliminary Engineering Report (PER) prepared by Great West Engineering in April 2010.
- Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report prepared for Gallatin Gateway County Water and Sewer District in June 2014 by Stahly Engineering and Associates, Inc. This report presents the relevant sections of the 2010 facility plan (as described in the PER by Great West Engineering) followed by a presentation of design criteria for the District's selected wastewater treatment system (ICEAS Sequencing Batch Reactor).
- Gallatin Gateway Community Plan: A Revision to the Gallatin County Growth Policy; prepared in 2009. This document provides three layers of guidance for residents and decision makers by providing guiding principles, goals and policies.
- Meeting minutes from a special meeting of the Board of Directors of the Gallatin Gateway County Water and Sewer District meeting that was held on April 18, 2013. These meeting minutes summarized concerns by the board of directors with Stahly Engineering teaming with Terry Threlkeld of Innovating Engineering who was working on both the District sewer project as well as the proposed Gateway Village project.
- Preliminary Geologic Map of the Bozeman 30' x 60' Quadrangle, Southwestern Montana, Montana Bureau of Mines and Geology Open File Report MBMG 469.
- Geology and Ground-Water Resources of the Gallatin Valley, Gallatin County, Montana from 1960 (Hackett et al 1960).
- Draft Report of Ground-Water Supply Evaluation for Gateway Village Subdivision prepared by Nicklin Earth and Water Inc. in October 2006. This report summarizes the results of a ground-water supply evaluation by Nicklin Earth and Water, Inc., for the proposed subdivision Gateway Village. The focus of the evaluation was to determine the adequacy of the groundwater to supply needs of the subdivision while not negatively impacting existing

- nearby groundwater users.
- A letter of clarification from the Gallatin County Floodplain Administrator on February 10, 2014 that none of the project activities will take place within the FEMA-established floodplain boundary of the West Gallatin River.

The preparer of this Environmental Assessment also relied on the comments from several regulatory agencies. Agency correspondence can be reviewed in Appendix B of this report.

6. Proposed implementation schedule.

Due to pending litigation of this project, it is difficult to estimate a proposed schedule. At this time, it is assumed that the project will go to bid in January 2015 with construction taking place for 9 to 11 months during 2015.

7. Compliance with any applicable local plans, ordinances, or regulations.

	Project is in Compliance		
	Yes	No	Not Applicable
Local Comprehensive (Growth Management) Plans including housing, land use and public facilities elements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local zoning ordinances or land use regulations, such as permit systems or soil conservation district requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Evaluation of impact, including cumulative and secondary impacts, on the **Physical Environment:**

Please complete the following checklist. Attach narrative containing more detailed analysis of topics and impacts that are potentially significant.

Key Letter: **N** - No Impact/Not Applicable; **B** - Potentially Beneficial; **A** - Potentially Adverse;
P - Approval/ Permits Required; **M** - Mitigation Required

KEY	Impact Categories-- PHYSICAL ENVIRONMENT	Source of Documentation Note date of each contact or page reference. Attach additional material as applicable. Where appropriate, please fully explain in attached materials.
N	Soil Suitability, Topographic and/or Geologic Constraints	<p>According to the Wastewater Treatment and Groundwater Disposal Facility Preliminary Design Report (Stahly 2014), soil conditions beneath the drainfield were evaluated by excavation of eight, 10-foot deep soil test pits and conducting eight percolation tests. In general, the soil consisted of approximately 16 inches of fine soil grading to sand and gravel at approximately 28 inches below ground surface. The report also states that the depth to groundwater in the drainfield area varies seasonally from a depth of approximately 35 to 50 feet below ground surface.</p> <p>According to the Permit Fact Sheet for the Montana Ground Water Pollution Control System (MGWPCS) Permit Number MTX000229, the Gateway area consists of alluvium covering Tertiary strata. Cobbles, and gravel mix with sand, silt and clay to compose the overlying alluvium. The alluvium is approximately 55 feet thick.</p> <p>The proposed project was permitted by MDEQ on September 9, 2013. No impacts to soil suitability, topographic and/or geologic constraints were identified during the environmental document review.</p> <p>Sources: Wastewater Treatment and Groundwater Disposal Facility Preliminary Design Report (Stahly 2014); Permit Fact Sheet for the Montana Ground Water Pollution Control System (MGWPCS) Permit Number MTX000229 (2013), and Geology and Ground-Water Resources of the Gallatin Valley Gallatin County Montana (Hackett et al., 1960).</p>
	HUD Environmental Criteria--24 CFR Part 51:	This space intentionally left blank.
N	51(b) Noise-- Suitable Separation Between Housing & Other Noise Sensitive Activities & Major Noise Sources	<p>The proposed project activities will consist of the design and construction of a wastewater collection system, lift station and wastewater treatment plant. Temporary and unavoidable construction noise will occur within the community of Gallatin Gateway and behind the Buffalo Station Sports Bar (See Figures 1 and 2). Temporary noise generated by construction activities associated with the proposed project is not considered a significant impact.</p> <p>Bozeman Yellowstone International Airport is approximately 15 miles from the</p>

Key Letter: **N** - No Impact/Not Applicable; **B** - Potentially Beneficial; **A** - Potentially Adverse;
P - Approval/ Permits Required; **M** - Mitigation Required

KEY	Impact Categories--	Source of Documentation Note date of each contact or page reference. Attach additional material as applicable. Where appropriate, please fully explain in attached materials.
	PHYSICAL ENVIRONMENT (Aircraft, Highways & Railroads) ^{6*}	<p>center of Gallatin Gateway, Montana. Noise generated from the Bozeman Yellowstone International Airport will have no impact on proposed project activities.</p> <p>According to the Montana Rail System Map produced by Montana Department of Transportation in 2013 (See Appendix C), no railroads currently exist within the community of Gallatin Gateway.</p> <p>US Highway 191 (Hwy 191) bisects the project area from north to south. However, noise from Hwy 191 will not have a deleterious impact on proposed project activities.</p>
N	51(c) Hazardous Facilities-- Acceptable Separation Distance from Explosive and Flammable Hazards (Chemical/ Petrochemical Storage Tanks & Facilities-- ex., Natural Gas Storage Facilities & Propane Storage Tanks) ^{7*}	<p>The Underground Storage Tank (UST) Facility Operating Permit Status table maintained by the MDEQ Underground Storage Tank Program indicate that there are two gas stations in Gallatin Gateway that maintain current permits and are not under corrective action. These two facilities are Casey's Corner # 6 and Gateway Exxon Market. A copy of the permit status table is located in Appendix C.</p> <p>Additionally, the MDEQ's online data mapper was queried for the presence of waste handlers, petro fund sites, response sites, opencut permits, underground storage tanks and water quality monitoring stations. The search revealed that a petro fund site is located at the Buffalo Station Sports Bar. The Facility ID is 5614002/56-14002 and the release ID is 4505. MDEQ records indicate that the site was considered resolved on October 23, 2007.</p> <p>MDEQ's online data mapper also revealed the presence of the CMC Asbestos Gallatin Gateway Site. CMC Asbestos - Gallatin Gateway, located in a rural residential area one-quarter mile north of Gallatin Gateway, is an inactive, 38-acre railroad facility used for storage and transport of asbestos ore between 1927 and 1978. A large pile of asbestos ore was apparently abandoned at the site sometime in the 1950s. Since then, the site has remained vacant and evidence indicates dirt bikes were ridden over and around the ore pile, spreading the asbestos and causing it to become airborne. The nearest residences are about 250 feet away.</p>

*See index at end of form.

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		<p>A 1990 Montana Department of Health and Environmental Sciences (MDHES) investigation indicated the ore pile consisted of asbestos ore and on-site soil was contaminated with asbestos. In 1990, in response to a MDHES notice letter, CMC Heartland Partners (CMC), the reorganized Chicago Milwaukee Corporation, covered the ore pile and conducted emergency fencing. In August 1991, CMC conducted initial sampling activities with MDHES oversight.</p> <p>In 1992, CMC removed the ore pile and the contaminated soils directly beneath and around the ore pile and re-fenced the area under MDHES direction. In 1994, CMC conducted an investigation to determine the extent of the remaining on-site contamination. The results of the investigation indicated that further remediation was required.</p> <p>CMC conducted soil removal activities in August 1995. The Montana Department of Environmental Quality (MDEQ; formerly MDHES) has declared the site "No Further Action." In December 1996 the site was delisted from the CECRA Priority List (MDEQ 1996). The CMC Asbestos site should not impact proposed project activities.</p> <p>An application for an open-cut gravel pit has been submitted by Gateway Village LLC for the property directly north of the lot designated for the proposed groundwater disposal facility located off of Cottonwood Road. The public comment period for this application ended on July 22, 2014. Based on the information obtained from the public meeting held at the Gallatin Gateway School on July 15, 2014, MDEQ will either extend the agency review period or send a deficiency letter to Gateway Village LLC by July 28, 2014. The environmental professional received a "Notice of Extended Review for the Application for Opencut Mining Permit Gateway Pit Site, Opencut #2520" on July 28, 2014 (a copy of this communication can be found in Appendix B). This notice stated the proposed gravel pit does not adequately protect shallow groundwater resources that local residents use for drinking water and domestic needs and as a result, the proposed plan does not satisfy the following requirements of the Opencut Mining Act. MDEQ stated that it will conduct an extended review within the following timeframes:</p> <p style="text-align: center;"><i>(a) For a complete application subject to an extended review, the department shall, within 60 days from the date the department determines the application warrants an extended review, inspect the proposed site if the department determines an inspection is necessary and notify the applicant as to whether or not the</i></p>

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	PHYSICAL ENVIRONMENT	<p><i>application is acceptable pursuant to 82-4-432. If the application is unacceptable, the notice must include a detailed explanation of the deficiencies.</i></p> <p><i>(b) Within 30 days of receipt of the applicant's response to the identified deficiencies, the department shall review the responses and notify the applicant as to whether or not the application is acceptable. If the application is unacceptable, the department shall notify the applicant in writing and include a detailed identification of the deficiencies.</i></p> <p><i>(c) The department may for sufficient cause extend either or both of the review periods in subsection (2)(a) or (2)(b) for an additional 30 days if it notifies the applicant of the extension prior to the end of the respective original period. The department shall include in the notification of extension the reason for the extension.</i></p> <p><i>(d) If the application is acceptable, the department shall issue a permit or a permit amendment to the operator that entitles the operator to engage in the open-cut operation on the land described in the application.</i></p> <p>See Section 82-4-439(2)(a-d), MCA.</p> <p>Because this action has not yet received local approval for implementation, proposed project related impacts cannot be assessed within this document.</p> <p>An above ground fuel storage tank was identified on the west side of the fire station located on Mill Street. The above-ground tank appeared to be in good working order and no signs of spills or stains were observed.</p> <p>No impacts from hazardous facilities are anticipated to occur with the implementation of the proposed project.</p>
N	51(d) Airport Runway Clear Zones--Avoidance of Incompatible Land Use in Airport Runway Clear	Bozeman Yellowstone International Airport is approximately 15 miles from the center of Gallatin Gateway, Montana. No major airports are located near the subject property. The subject property is not located within a 51(d) Airport Runway Clear Zone, and therefore will not have an incompatible land use in an Airport Runway Clear Zone.

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_____	PHYSICAL ENVIRONMENT Zones ^{7*}	
N	EPA Hazardous Waste Sites, or Other Hazards or Nuisances Not Covered Above	No other EPA Hazardous Waste Sites or other hazards or nuisances not covered above were revealed during this investigation.
N	Lead-based Paint ¹³	The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant. No materials involving lead-based paint will be used in the proposed project. Therefore, no impact to existing structures containing lead-based paint and no impact resulting from the use of new materials containing lead-based paint are anticipated to occur from proposed project activities.
N	Asbestos ¹⁴	<p>The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant. No materials containing asbestos will be used in the proposed project.</p> <p>CMC Asbestos - Gallatin Gateway, located in a rural residential area one-quarter mile north of Gallatin Gateway, is an inactive, 38-acre railroad facility used for storage and transport of asbestos ore between 1927 and 1978. A large pile of asbestos ore was apparently abandoned at the site sometime in the 1950s. Since then, the site has remained vacant and evidence indicates dirt bikes were ridden over and around the ore pile, spreading the asbestos and causing it to become airborne. The nearest residences are about 250 feet away.</p> <p>A 1990 Montana Department of Health and Environmental Sciences (MDHES) investigation indicated the ore pile consisted of asbestos ore and on-site soil was contaminated with asbestos. In 1990, in response to a MDHES notice letter, CMC Heartland Partners (CMC), the reorganized Chicago Milwaukee Corporation, covered the ore pile and conducted emergency fencing. In August 1991, CMC conducted initial sampling activities with MDHES oversight.</p> <p>In 1992, CMC removed the ore pile and the contaminated soils directly beneath and around the ore pile and re-fenced the area under MDHES direction. In 1994, CMC conducted an investigation to determine the extent of the remaining on-site contamination. The results of the investigation indicated that further remediation was required.</p>

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		<p>CMC conducted soil removal activities in August 1995. The Montana Department of Environmental Quality (MDEQ; formerly MDHES) has declared the site "No Further Action." In December 1996, the site was delisted from the CECRA Priority List (MDEQ 1996).</p> <p>The CMC Asbestos site should not impact proposed project activities.</p>
N	<p>Effects of Project on Surrounding Air Quality or Any Effects of Existing Air Quality Project*</p>	<p>According to MDEQ Air Quality Nonattainment Information webpage, there are no sites within Gallatin County located in an air quality nonattainment area or within a State Implementation Plan (SIP).</p> <p>The proposed project is located in an area of ongoing agricultural operations and can expect associated fumes, dust and noise. There are other residential land uses in the immediate vicinity of the project area as well. The proposed development of a wastewater treatment plant would not generate any negative impacts to existing air quality and rural residential/agricultural natures of the adjacent land uses.</p> <p>As of July 7, 2014, a gravel pit is under application with MDEQ Opencut Mining Program. According to MDEQ, an air quality permit is required for the operation of any mineral crushing or other processing plants.</p> <p>Preliminary specifications of the proposed project include: 12,820 linear feet of 8-inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4-inch sanitary sewer service line, a lift station with 5,550 linear feet of 6-inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The installation of proposed materials and associated construction activities will potentially generate temporary impacts to air quality by producing dust and fumes from construction equipment. Best Management Practices (BMPs) can be used to control dust and fumes to the greatest extent practicable.</p> <p>No permanent impacts to surrounding air quality are anticipated as a result of implementing proposed project activities.</p> <p>Source: MDEQ Air Quality Nonattainment Information http://deq.mt.gov/AirQuality/Planning/AirNonattainment.mcp</p>
	Groundwater	

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N	Resources & Aquifer ^{a 10*}	<p>According to the PER (Great West 2010), depth to groundwater varies across the District, but generally gets shallower from east to west. Depth to groundwater is 30 to 40 feet below ground surface on the bench east of the highway and only 5 to 10 feet below ground surface in the western portion of the District along the Gallatin River.</p> <p>A Groundwater Discharge Permit Application was submitted to MDEQ by Terry Threlkeld of Innovative Engineering on February 28, 2013. This permit application documented the site of the proposed 5.03-acre drainfield as being located off of Cottonwood Road directly east of the Buffalo Station Sports Bar and is legally described as Tract 1B1 of Minor Subdivision 309A. The permit application seeks a permit to inject 40,000 gallons per day of treated wastewater into the ground near Gallatin Gateway. The permit application (located in Appendix C) contains information from a detailed hydrologic study performed by Nicklin Earth and Water in 2006. This data and information derived from the 2006 Nicklin study are referenced in the application.</p> <p>On April 3, 2013, MDEQ issued a Deficiency Notification to Gallatin Gateway County Water and Sewer District requesting additional information and clarification. The deficiency letter is located in Appendix C.</p> <p>On April 24, 2013, Kurt Thompson of Stahly Engineering responded to the deficiency letter from MDEQ and provided the requested additional information. The deficiency response letter is located in Appendix C.</p> <p>On June 24, 2013, Stahly Engineering sent a request of modification letter for the Groundwater Discharge Permit Application that was submitted on February 23, 2013. The amendment requested for a discharge of 50,000 gallons per day of treated wastewater to be discharged into the ground near Gallatin Gateway. In support of this amendment, Stahly provided a figure showing the site layout with updated dimensions to the drainfield, new non-degradation calculations, pump test results from June 7, 2013, on the test well that was drilled on June 5, 2013, and test pit and percolation test results from tests conducted the week of June 17th, 2013. The modification letter is located in Appendix C.</p> <p>The Environmental Assessment (EA) prepared by MDEQ Permitting and</p>

^aIncluding Sole Source Aquifer. Contact DOC for further information regarding Missoula-area projects.

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		<p>Compliance Division Water Protection Bureau on June 7, 2013 was reviewed. The following information was provided by MDEQ:</p> <ul style="list-style-type: none"> • Water Quality, Quantity, and Distribution: "Ground water within the area is Class I ground water with a specific conductance less than or equal to 1,000 uS/cm. The Department authorized a standard mixing zone for nitrate from the outfall; however, as long as the permittee adheres to the effluent limits established with the permit, water quality standards outside of the mixing zone should be met. Monitoring and reporting of the effluent is required prior to discharge to ensure compliance with applicable standards and rules." • Summary of Magnitude and Significance of Potential Impacts: "Impacts were assessed with the assumption that the facility will comply with the terms and conditions of the permit. Violations of the permit could lead to significant adverse impacts to state waters. Violations of the permit are not an effect of the agency action since the permit itself forbids such activities. However, the Department has taken steps to ensure that violations do not occur. The Department provides assistance to applicants in understanding and implementing the requirements of the permit. The Department also conducts periodic inspections of permitted facilities, and identifies potential problems with design or management practices. If violations of the permit do occur, the Department will take appropriate action under the water quality act (75-5-617, MCA). Enforcement sanctions for violations of the permit include injunctions, civil and administrative penalties, and cleanup orders." <p>The EA prepared by MDEQ concluded that no further environmental analysis would be required for the proposed project because the project lacks significant adverse effects to the human and physical environment. The EA prepared by MDEQ is located in Appendix C.</p> <p>The Fact Sheet for Groundwater Discharge Permit No. MTX000229 (located in Appendix C) summarizes non-degradation compliance and nonsignificant determinations. The Fact Sheet summarizes the Nonsignificant Determination as follows:</p> <p>"Because the proposed discharge from GGCWSD would result in a change in existing water quality on or after April 29, 1993, MDEQ conducted the required significant determination (ARM 17.30.702(18); ARM 17.30.715). The applicable water quality standards for Class I ground water and non-degradation significance criteria are summarized in Table 5. DEQ has determined these discharges to be nonsignificant with respect to nitrogen</p>

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		<p><i>concentrations at the end of the mixing zone; nitrogen concentrations are predicted to be less than 7.5 mg/L. Phosphorus load limits were developed using the most conservative data available, and are based on non-degradation significance criteria for 50-year breakthrough to surface water in accordance with ARM 17.30.715(1)(e). Therefore, discharges in compliance with the limitations of this permit constitute nonsignificant degradation. This permit includes monitoring and reporting requirements to establish, confirm, and maintain compliance with the permit limits."</i></p> <p>On July 8, 2013, MDEQ issued Public Notice MT-13-17 stating MDEQ's intent to renew a Montana Ground Water Pollution Control System wastewater discharge permit to Gallatin Gateway County Water and Sewer District. The public had until August 8, 2013, to review the draft permit, fact sheet, and environmental assessment (all of these documents are located in Appendix C).</p> <p>On September 9, 2013, Ted Border, President of Gallatin Gateway Water and Sewer District, was issued a Montana Groundwater Pollution Control System Permit No. MTX 000229 for the Gallatin Gateway Water and Sewer District.</p> <p>The preparer of this Environmental Assessment received the Wastewater Collection System and Wastewater Pumping Stations Design Report (Stahly Engineering June 2014) in addition to the Wastewater Treatment and Groundwater Disposal Facility Preliminary Design Report (Stahly Engineering June 2014) for the Gallatin Gateway County Water and Sewer District on July 15, 2014. These reports detail revisions made to the Alternative Evaluation and Alternative Analysis documented in the original PER report. The Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report states:</p> <p><i>"Since the alternatives analysis was completed in 2010, a number of factors have changed which resulted in the District changing the selected alternative to the Sequence Batch Reactor (SBR) treatment system instead of the Level 2 System. Most importantly, the District located and acquired a site for the treatment system and groundwater disposal facilities and applied for and received a groundwater discharge permit contained limitations on nitrogen and phosphorus. (The phosphorous limit was not expected back in 2010, so the alternative analysis process did not specifically consider the impacts of a phosphorus limit.)</i></p> <p><i>Knowing the actual discharge limits, the District decided to re-evaluate and</i></p>

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	PHYSICAL ENVIRONMENT	<p><i>compare a Level 2 treatment system, with the necessary modifications to provide phosphorus removal capability, to a SBR type treatment system which is well-suited for both nitrogen and phosphorus removal. In December 2013, the District issued a formal Request for Proposal to Level 2, and SBR system suppliers requesting information including scope of supply, cost and effluent quality.</i></p> <p><i>Based on the results of the competitive procurement process, the District has determined that the life cycle for the Level 2 and SBR-type systems are essentially the same except the latter (SBR) produces a higher quality effluent including the additional benefit of phosphorus removal capability. As a result, the District has selected the ICEAS mechanical wastewater treatment plant (Intermittent Cycle Extended Aeration System) offered through Sanitaire Corporation."</i></p> <p>Based on the review of the aforementioned information, groundwater and aquifer resources are not likely to be adversely impacted as long as the permitted systems are operated as proposed.</p> <p>The proposed project area does not overlay the Missoula Sole Source Aquifer. See the Location Map from Missoula Valley Water Quality District, Missoula County located in Appendix C. The proposed project will not impact a sole source aquifer.</p>
B	Surface Water/Water Quality, Quantity & Distribution ^{10.*}	<p>Several surface water bodies exist in and around the community of Gallatin Gateway (see Figure 3). The Gallatin River borders the community to the west. Additionally, Wortman Creek bisects the District Boundary and terminates in the Gallatin River. South Cottonwood Creek is just north of the district boundary and several un-named irrigation ditches and canals also exist in and around the district boundary.</p> <p>Water-use classifications for Montana State waters are defined in Administrative Rules of Montana (ARM) 17.30.607. The Gallatin River from Spanish Creek to the mouth of the Missouri River is the reach located near the project area and has a designated water-use classification of B-1 during the 2014 reporting cycle. According to ARM17.30.607, waters classified as 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 wildlife, waterfowl, and furbearers; and agricultural and industrial water supply. The designated</p>

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		<p>beneficial uses stated above determine the water quality standards that are applied to a water body. If water quality does not meet defined water quality standards for the identified beneficial uses, the water body is considered impaired. Under 303d of the Clean Water Act (CWA), states are required to identify impaired water bodies and submit the results to the EPA every two years.</p> <p>All water bodies in the state are placed in one of 8 categories of water quality. Category 1 is the most pristine in the state in which all beneficial uses are determined to be fully supported. Category 2A indicates that some, but not all beneficial uses are supported. Category 2B indicates that a water quality standard is not met due to an apparent natural source and not due to any identified man-made sources. Category 3 is given to water bodies in which insufficient data is available to make a determination. Category 4A identifies water bodies in which total maximum daily load (TMDL) calculations have been completed and approved. Category 4B indicates other pollution control requirements are in place and supersede the requirements of a TMDL. Category 4C identifies impairments resulting from dewatering or habitat modification and no TMDL is required. Category 5 waterways are determined to have one or more beneficial uses impaired and a TMDL calculation is required to address the factors causing the impairment. The reach of the Gallatin River near Gallatin Gateway Montana is currently listed (as of 2014 draft data) as Category 4-C due to low flow alterations and irrigated crop production.</p> <p>Comments received from the Gallatin Gateway County Water and Sewer District in a letter dated July 16, 2014, state: "<i>The community of Gallatin Gateway abuts the Gallatin River. The community is currently un-sewered, meaning that each individual property discharges raw, untreated wastewater to the ground. The standard lot size is approximately 50 feet by 150 feet. The drainfields for these lots are in close proximity to the Gallatin River and in close proximity to potable water wells.</i>" Additionally, the letter notes that some of the point sources for this wastewater are less than 100 feet from the river. This letter can be reviewed in Appendix B.</p> <p>While no evidence has been revealed that the Gallatin River is currently being contaminated by untreated wastewater, it is reasonable to assume that containing, transporting and treating wastewater from the community of Gallatin Gateway could have a potentially beneficial impact on surface water within the project area.</p>

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		Sources: MDEQ Clean Water Act Information Center section 303(d) documents. http://deq.mt.gov/wqinfo/cwaic/reports.mcp x
N	Floodplains & Floodplain Management ⁵ *	<p>The proposed project area is located within Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) number 30031C0905D for Gallatin County, Montana, and Incorporated Areas with an effective date of September 2, 2011. The map generally depicts floodplains associated with the Gallatin River.</p> <p>The map depicts the majority of the project area as well outside of the 100-year floodplain. Additional clarification of floodplain boundaries was sought during a previous Environmental Assessment effort for this project. In a letter dated February 10, 2014, from Sean O'Callaghan, Gallatin County Floodplain Administrator to CDBG Program Bureau Chief Jennifer Olson, the 100-year floodplain boundary was verified to be outside of the limits of the project area. This letter can be reviewed in Appendix C.</p> <p>Therefore, no impacts to the floodplain or floodplain management are anticipated with the implementation of the proposed project activities.</p> <p>Source: FEMA FIRM #30031C0905D</p>
N	Wetlands Protection ¹¹ *	<p>During the on-site investigation, the environmental professional did not observe any wetlands or non-wetland waterways that would be impacted by proposed project activities. No hydric soil, hydric vegetation, or proximity to surface hydrology was observed where earth disturbing activities are proposed to take place.</p> <p>No mitigation will be required because wetlands and non-wetland waterways will not be impacted by the proposed project.</p> <p>Additionally, a review of the US Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Map did not reveal the presence of wetlands on any areas where earth disturbing activities as a part of proposed project construction would take place. A USFWS NWI map is available in Appendix C for review.</p> <p>Therefore, no impact to wetlands or wetlands protection will occur as a part of</p>

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N/P	Agricultural Lands, Production, & Farmland Protection ^{3*}	<p>this project.</p> <p>Preliminary proposed specifications of the proposed project include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The majority of these items will be installed under streets and alleys within the community of Gallatin Gateway.</p> <p>Ground disturbance will occur with the installation of materials for the treatment disposal site located behind the Buffalo Station Sports Bar (Figure 2). The Natural Resources Conservation Service (NRCS) identifies the soil type in this lot as Hyalite-Beaverton complex, 0 to 4 percent slopes (748A). The Soil Map for the Gallatin County Area (2012) identifies soil map until 748A as <i>Farmland of local importance</i>. Appendix C contains site-specific NRCS Web Soil Survey data for the project area.</p> <p>The lot behind the Buffalo Station Sports Bar is not currently managed for agricultural purposes, and it is assumed that the lot will not be used for agricultural purposes in the future. However, a NRCS Farmland Conversion Form should be completed for the portion of the property that is located within NRCS soil type 748A.</p>
B	Vegetation & Wildlife Species & Habitats, Including Fish ^{4*}	<p>The proposed project area consists of the community of Gallatin Gateway and a 5-acre parcel of land located directly behind the Buffalo Station Sports Bar (Figures 1 and 2). The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant. The majority of these materials will be installed below ground surface.</p> <p>The community of Gallatin Gateway consists of homes, streets, businesses, and associated infrastructure. The Gallatin River borders the community of the west side. No significant native vegetation, wildlife species or habitats exist within the community of Gallatin Gateway. However, it can be assumed that replacing aging and malfunctioning septic systems in the Gallatin Gateway Community with a modern wastewater collection and treatment system will likely have a beneficial impact to both groundwater and subsequently surface water. Reducing groundwater and subsequent surface water contamination from aging and malfunctioning septic systems could potentially benefit aquatic species (including fish) that live in the Gallatin River.</p>

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		<p>The 5-acre parcel of property where the proposed treatment facility will be located is currently vacant. Vegetated soil stockpiles, pasture grass, and noxious weeds are located on this property. The property is located between the Buffalo Station Sports Bar and parking lot, rural residential homes, and agricultural fields. This parcel of property does not support native vegetation, wildlife, significant habitat, or fish.</p> <p>The proposed project will likely result in a beneficial impact to aquatic species living in the Gallatin River by reducing groundwater contamination and subsequent surface water contamination from failing septic systems located in the community of Gallatin Gateway. The proposed project will have no significant impact to native vegetation, wildlife, and native habitat.</p>
N	Unique, Endangered, Fragile, or Limited Environmental Resources, Including Endangered Species ^{2*}	<p>As discussed in the section above entitled "Vegetation and Wildlife Species and Habitat including Fish", significant wildlife habitat does not exist within the project area.</p> <p>According to the US Fish and Wildlife Service (USFWS), seven species have been listed as Endangered, Threatened, Proposed, or Candidate species for Gallatin County (see Appendix C for list). These species include:</p> <ul style="list-style-type: none"> • Ute Ladies' Tresses (<i>Spiranthes diluvialis</i>) -Listed Threatened • Canada Lynx (<i>Lynx canadensis</i>) – Listed Threatened, Critical Habitat • Grizzly Bear (<i>Ursus arctos horribilis</i>) – Listed Threatened • Greater Sage-Grouse (<i>Centrocercus urophasianus</i>) – Candidate • Sprague's Pipit (<i>Anthus spragueii</i>) – Candidate • Wolverine (<i>Gulo gulo luscus</i>) – Proposed • Whitebark Pine (<i>Pinus albicaulis</i>) – Candidate <p>Habitat characteristics for the species listed above do not exist within the project area.</p> <p>The Montana Natural Heritage Program Species of Concern Data Report indicate that the great blue heron (<i>Ardea herodias</i>) and the Yellowstone Cutthroat Trout (<i>Oncorhynchus clarkia bouvieri</i>) were identified as potentially occurring in Section 11, Township 3 South, Range 4 East in Gallatin County, Montana. Habitats for these species, riparian forests and mountain streams, rivers, and lakes (respectively) will not be adversely impacted as a result of</p>

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	PHYSICAL ENVIRONMENT	<p>proposed project activities.</p> <p>No impacts to unique, endangered, fragile, or limited environmental resources, including endangered species are anticipated to occur as a result of implementation of the proposed project.</p> <p>Source: USFWS Endangered, Threatened, Proposed, and Candidate Species for Montana Counties, June 2014; and Montana Natural Heritage Project Species of Concern Data Report dated Thursday, July 10, 2014.</p>
N	Unique Natural Features	<p>The proposed project area consists of the community of Gallatin Gateway and a 5-acre parcel of land located directly behind the Buffalo Station Sports Bar (Figure 1 and 2). The community of Gallatin Gateway consists of homes, streets, businesses, and associated infrastructure. The 5-acre parcel of property where the proposed treatment facility will be located is currently vacant. Vegetated soil stockpiles, pasture grass, and noxious weeds are located on this property.</p> <p>No unique natural features have been identified within the project area. Therefore, no impact to unique natural features is anticipated to occur with the implementation of proposed project activities.</p>
N	Access to and Quality of Recreational & Wilderness Activities, and Public Lands, Including Federally Designated Wild & Scenic Rivers ^{12*}	<p>The proposed project area is located within the community of Gallatin Gateway and behind the Buffalo Station Sports Bar off of Highway 191. The majority of the materials to be installed as a part of the proposed project will be subsurface.</p> <p>The Gallatin National Forest is located approximately 4 miles south of the subject property. The proposed project will have no impact on access to and quality of recreational and wilderness activities and public lands.</p> <p>Two federally designated Wild and Scenic rivers are located in the State of Montana. These include portions of the Flathead River and portions of the Missouri River. Designated reaches of the Flathead River include: the North Fork from the Canadian border downstream to its confluence with the Middle Fork; the Middle Fork from its headwaters to its confluence with the South Fork; and the South Fork from its origin to the Hungry Horse Reservoir.</p> <p>Designated reaches of the Missouri River include: the segment from Fort Benton downstream to Robinson Bridge.</p>

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KEY	Impact Categories-- PHYSICAL ENVIRONMENT	Source of Documentation Note date of each contact or page reference. Attach additional material as applicable. Where appropriate, please fully explain in attached materials.
		There are no rivers designated Wild and Scenic located within Gallatin County. See Appendix C for federal designated wild and scenic rivers in Montana. There will be no impact to federally designated Wild and Scenic rivers as a result of the implementation of proposed project.

9. Evaluation of impact, including cumulative and secondary impacts, on the **Human Population** in the area to be affected by the proposed action:

Please complete the following checklist. Attach narrative containing more detailed analysis of topics and impacts that are potentially significant.

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<u>N</u>	Visual Quality-- Coherence, Diversity, Compatible Use, and Scale Aesthetics	<p>Preliminary proposed specifications of the proposed project include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The majority of these items will be installed under streets and alleys within the community of Gallatin Gateway.</p> <p>Ground disturbance will occur with the installation of materials for the treatment disposal site located behind the Buffalo Station Sports Bar (Figure 2).</p> <p>Because the majority of the equipment will be installed below the ground surface, no impact to visual quality in terms of coherence, diversity, compatible use, and scale aesthetics are anticipated to occur as a result of the proposed project.</p>
<u>N</u>	Historic Properties, Cultural, and Archaeological Resources ⁶	The Montana State Historic Preservation Office (MSHPO) was contacted regarding potential cultural resources in or around the subject property. A response from Damon Murdo, Cultural Records Manager from the State Historic Preservation Office, stated that "As long as there will be no disturbance or alteration to structures

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		<p><i>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."</i></p> <p>A copy of this correspondence is located in Appendix B.</p> <p>Additionally, the environmental professional contacted two tribal entities with interest in Gallatin County, Montana. Both Floyd Azure, Chairman; and Darrell "Curly" Youpee, Tribal Historic Preservation Officer of the Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation were contacted because of their presence on the Tribal Directory Assessment Information for Gallatin County. No information was received from these tribal contacts. A copy of this correspondence is located in Appendix B.</p> <p>No impact to historic properties, cultural and archaeological resources are anticipated to occur as a result of proposed project activities.</p>
B	Changes in Demographic (Population) Characteristics	<p>According to the Gallatin Gateway County Water and Sewer Wastewater System Preliminary Engineering Report (Great West 2010), the community of Gallatin Gateway has experienced a slow growth rate within the last decade due to the difficulty that arises in permitting new or replacement individual septic systems. The proposed project will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant that will relieve the community of this problem. New developments are expected to occur as a result of the installation of a centralized wastewater treatment system.</p> <p>Controlled growth within the Gallatin Gateway community is consistent with the Gallatin Gateway Community Plan (2009) and the Gallatin County Growth Policy (2003). These documents are located in Appendix C. The implementation of the proposed project is likely to increase (change) the population characteristics of Gallatin Gateway. Because controlled growth is not viewed in a negative manner, the change in population characteristics is likely to be considered a beneficial impact.</p> <p>Sources: Gallatin Gateway Community Plan (2009) and Gallatin County Growth Policy (2003)</p>
N	Environmental Justice ¹³	<p>The goal of environmental justice is to ensure that all people regardless of race, national origin or income, are protected from disproportionate impacts of environmental hazards. The NRCS maintains a list of Montana's Environmental Justice Communities.</p> <p>(http://www.nrcs.usda.gov/wps/portal/nrcs/detail/mt/home/?cid=nrcs144p2_057864)</p>

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		<p>There are no communities documented in Gallatin County on this list. Additionally, this project will not cause disproportionate impacts to people of any race, national origin, or income level with respect to environmental hazards, since the proposed facility will not create deleterious environmental impacts that will disproportionately impact only minority or low-income populations.</p>
B	General Housing Conditions--Quality & Quantity	<p>According to the PER (Great West 2010) several of the residents in Gallatin Gateway have individual water wells located in close proximity to failing septic systems. The following information was taken out of the PER:</p> <p><i>"Gallatin Gateway is an unincorporated community that for the most part was built prior to the establishment of Health Department regulations in 1966, thus many individual septic disposal systems do not comply with current regulations. The majority of these systems are cesspools, seepage pits or metal septic tank with drainfields that have either failed, or have a high potential of failing in the near future. The soils in this particular area consist of coarse grained sands and gravels, so when a system fails, there is an increasingly high probability of quickly contaminating the groundwater and water supply wells. This situation creates a public health hazard for the community and warrants the need for a centralized wastewater collection and treatment system. Without this type of system in place, the local residents face a serious health risk. Additionally, the Gallatin County Board of Health (currently referred to as Gallatin City – County Board of Health) will not allow the construction of new homes or businesses in the area unless the proposed septic systems can meet all the required regulations. The end result is a moratorium on new construction, and a very difficult dilemma for health officials when pre-dated septic systems fail."</i></p> <p>While the proposed project may not have a direct impact on General Housing Condition quality, it is reasonable to assume that this project will help to eliminate a contamination source in drinking water in Gallatin Gateway. Additionally, as stated above, growth is anticipated to occur as the direct result of the implementation of a centralized wastewater treatment system. Therefore, it is expected that the number of homes will increase in quantity. No evidence has been revealed that the increase in home numbers is viewed as a negative scenario for Gallatin Gateway. Therefore, it is determined that the proposed project will have a beneficial impact to general housing conditions with respect to quality and quantity.</p>
N	Displacement or Relocating of Businesses or Residents	<p>The proposed project will involve designing and installing a centralized wastewater treatment system for the community of Gallatin Gateway. This action is not likely to result in the displacement or relocation of businesses or residences.</p>

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B	Human Health	<p>According to the PER (Great West 2010), several residents of Gallatin Gateway have individual water supply wells located within close proximity to failing septic systems. These wells are not part of a public water supply system and are not required to be tested or disinfected.</p> <p>An excerpt from the PER talks specifically of an occasion where a resident of Gallatin Gateway has become ill: <i>"At a public meeting held on March 22, 2010, a resident living in the town core area, Brooke Savage of 214 Adams Street, came forth and proclaimed that she had gotten sick from her well water and doctors diagnosed her with having large volumes of parasites living in her digestive system. She stated that once she switched to bottled water, the symptoms went away. At one point, she witnessed her neighbor's septic system, which is in close proximity of her well head, overflowing and they were pumping it out by hand."</i></p> <p>The proposed project would reduce the opportunity for individual wells to become contaminated from leaking and failing septic systems. Therefore, the proposed project will have a beneficial impact on human health.</p> <p>Source: PER (Great West 2010)</p>
B	Local Employment & Income Patterns-- Quantity and Distribution of Employment	<p>As discussed in the section above entitled "Changes in Demographic (population) Characteristics", it is likely that the proposed project will result in an increase in development in the Gallatin Gateway community. This could also result in an increase in businesses and job opportunities within the community.</p> <p>Therefore, the proposed project will likely result in beneficial impact to local employment and income patterns in terms of quantity and distribution of employment.</p>
B	Local and State Tax Base & Revenues	<p>As discussed in the section above entitled "Local Employment and Income Patterns – Quantity and Distribution of Employment", it is reasonable to assume that an increase in businesses and job opportunities in the community of Gallatin Gateway would provide an increase in local and state tax base and revenues.</p> <p>Therefore, the proposed project will likely result in a beneficial impact to local and state tax base and revenues.</p>
B	Educational Facilities	<p>According to the Gallatin Gateway Community Plan (2009), the Gallatin Gateway School currently houses grades Kindergarten through 8th grade, and school enrollment has increased consistently over the past 20 years.</p>

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		<p>Ann Prescott, Chairman of the Gallatin Gateway School Board was interviewed via telephone by the environmental professional on July 24, 2014. Ms. Prescott stated that there is a general sense of support for the proposed project from the school board. Ms. Prescott believes that the public sewer system will benefit Gallatin Gateway School in two ways: 1) the sewer system will promote controlled growth within the community; and 2) the sewer system will provide more flexibility in how the community grows.</p> <p>It is reasonable to assume that if the proposed project leads to increased population growth within the community of Gallatin Gateway, then the Gallatin Gateway School could experience an increase in enrollment. No detrimental impacts were identified as a result of the implementation of proposed project activities.</p> <p>Source: Gallatin Gateway Community Plan (2009)</p>
N	Commercial and Industrial Facilities, Production & Activity	The proposed project will take place within the streets and alleys of Gallatin Gateway and a vacant field to the east of Buffalo Station Bar. No disruption to commercial and industrial facilities are anticipated to occur as a result of proposed project activities.
N	Health Care	Health care services are not currently available in the community of Gallatin Gateway. Therefore, this project will have no impact on health care services for the community of Gallatin Gateway.
N	Social Services	Social services are available in greater Gallatin County for the residents of Gallatin Gateway. No direct impact to social services has been identified as a result of the implementation of the proposed project.
N	Social Structures & Mores (Standards of Social Conduct/Social Conventions)	No impacts to standards of social conduct and social convention have been identified as a result of the implementation of the proposed project.
N	Land Use Compatibility	<p>The land use within the surrounding project area includes residential, rural residential, light industrial, commercial, and agricultural. The proposed project involves the design and construction of a wastewater collection system, lift station and wastewater treatment plant. The majority of the infrastructure needed to implement this project will be installed below the ground surface. Temporary noise during construction of the proposed project is expected. No permanent noise impact will result from the implementation of the proposed project.</p> <p>No impact to land use compatibility is anticipated as a result of proposed project implementation.</p>

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<u>N</u>	Energy Consumption	Modern codes and regulations will be used to design a system that has normal rates of energy consumption and is therefore unlikely to be an abnormal or negative impact to energy consumption by the type of use, scale, and scope of the proposed wastewater collection and treatment system.
<u>N</u>	Solid Waste Disposal ^{9*}	No negative impacts to solid waste disposal have been identified as associated with the proposed project.
<u>B</u>	Waste Water--Sewage System	<p>According to the PER (Great West 2010), the community of Gallatin Gateway does not have public wastewater collection or treatment systems. Wastewater treatment and disposal is by individual, on-site wastewater treatment systems, several of which are obsolete and do not properly treat wastewater. Consequently, this has led to contamination of domestic water wells in some areas of the community. A moratorium is in place that prevents the installation of new drain field systems within Gallatin Gateway.</p> <p>As stated above, the proposed action is to provide the community of Gallatin Gateway with a community wastewater system. The proposed project will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant. The preliminary specifications include: 12,820 linear feet of inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping.</p> <p>According to the Wastewater Treatment and Groundwater Disposal Facility Preliminary Design Report for Gallatin Gateway County Water and Sewer District (District) (Stahly Engineering June 2014), the proposed wastewater treatment facility will service the existing wastewater flows and organic loads from the Gallatin Gateway County Water and Sewer District. The District boundaries are shown on Figures 1 and 2 of this report. The District currently encompasses approximately 109 acres with a 2010 population of approximately 168 residents in 67 dwellings. There are 15 non-residential and commercial users including the Gateway Market, Big Timberworks, Amend Construction, YS Interior Design, Renneberg Hardwoods, Ice Age Performance, Rocky Mountain Choppers, Stacy's Bar and Steakhouse, Post Office Pizza, Gallatin Gateway Inn, Gateway Fire Department, Post Office, Gateway Community Center, Gateway School, and the Buffalo Station Sports Bar.</p> <p>The District received a MDEQ Wastewater Discharge Permit on September 9, 2013.</p> <p>The proposed installation of a community wastewater system in District will be a</p>

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N	Storm Water	<p>beneficial impact to the current lack of a community wastewater and sewage system in the community of Gallatin Gateway.</p> <p>During construction activities, the contractor would need to apply for coverage under MDEQ's General Permit for Storm Water Discharges Associated with Construction Activities. No impacts to stormwater were identified to be associated with the proposed project.</p> <p>Source: http://www.deq.mt.gov/wqinfo/mpdes/stormwaterconstruction.mcp</p>
B	Community Water Supply	<p>The community of Gallatin Gateway does not have a public water supply system. As stated in the PER, residents have individual wells, often located within close proximity of their septic system. The community of Gallatin Gateway does not currently have public wastewater collection or treatment systems. Wastewater treatment and disposal is by individual, on-site wastewater treatment systems, several of which are obsolete and do not properly treat wastewater. Consequently, this has led to contamination of domestic water wells in some areas of the community (Great West 2010).</p> <p>Five public water supply wells located within the Gallatin Gateway County Water and Sewer District boundary are: Stacey's Old Faithful Bar, Gallatin Gateway School District, Gateway Restaurant and Market, Comfort Inn (as referenced in the data; there is no Comfort Inn in Gallatin Gateway), and Gallatin Gateway Inn. There is also a public water supply well at the Buffalo Station Bar near the treatment disposal site (Montana Natural Resource Geographic Information Service 2014).</p> <p>On April 3, 2013, MDEQ Water Protection Bureau prepared a deficiency letter to the initial groundwater discharge permit submitted by Gallatin Gateway County Water and Sewer District. MDEQ expressed concern regarding the existing public water supply well near the primary and replacement area mixing zone boundary. They quoted Administrative Rules of Montana (17.30.506 et seq.) protect existing beneficial uses from being impaired or threatened by proposed mixing zones. These rules specifically state mixing zones are not appropriate when adjacent to a drinking water well intake or the zone of influence around a drinking water well.</p> <p>Stahly Engineering submitted a response to the MDEQ deficiency letter on April 24, 2014. This letter provides the following response: <i>"The proposed new drainfield is in a similar location as the existing drainfield serving the Buffalo Station. Buffalo Station under previous ownership was taking water samples (Bacteria) on a monthly basis as well as annual nitrate samples.</i></p>

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		<p><i>The water samples did not show any adverse impacts to the Buffalo Station water supply from the drainfield. There were no coliform bacteria in the water supply and nitrate levels were not elevated. It was clear the well was not impacted by the current drainfield.</i></p> <p><i>If the well is moved to the secondary location shown on the Proposal Disposal Site exhibit, the separation from the new well location to the closest point of the primary drainfield mixing zone is 235 feet, which should provide ample cross gradient separation."</i></p> <p>The environmental professional contacted Kurt Thomson of Stahly Engineering on July 25, 2014 to verify that they were planning on moving the Buffalo Station public water supply well. Mr. Thomson confirmed that the Buffalo Station public water supply well will be moved to the location provided on Figure 11.4 Treatment Area Site Plan. The figure can be reviewed in the report entitled: Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report for Gallatin Gateway County Water and Sewer District (Stahly Engineering 2014). The aforementioned report is located in Appendix A.</p> <p>Containing, transporting, and treating wastewater from the community of Gallatin Gateway will have a beneficial impact on the Gallatin Gateway community water supply.</p>
N	Public Safety: Police	The community of Gallatin Gateway is served by the Gallatin County Sheriff's office. No impacts to public safety (police) have been identified with the implementation of the proposed project.
N	Fire	The community of Gallatin Gateway is served by the Gallatin Gateway Rural Fire Department. No impacts to public safety (fire protection) have been identified with the implementation of the proposed project.
N	Emergency Medical	Emergency medical facilities are located at Bozeman Deaconess Hospital. No impacts to public safety (emergency medical) have been identified with the implementation of the proposed project.
N	Parks, Playgrounds, & Open Space	The proposed project involves the design and construction of a wastewater collection system, lift station, and wastewater treatment plant; the majority of which will be installed below the ground surface. No parks, playgrounds or public open space will be impacted as a result of the implementation of the proposed project.

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N	Cultural Facilities, Cultural Uniqueness, & Diversity	No impacts to cultural facilities, cultural uniqueness, and diversity have been identified with the implementation of the proposed project.
N	Transportation--Air, Rail & Auto (Including Local Traffic)	<p>The proposed project involves the design and construction of a wastewater collection system, lift station and wastewater treatment plant. Many portions of this proposed system will be installed beneath roads and alleys within the community of Gallatin Gateway. This will likely result in a temporary disturbance in local transportation during periods of construction.</p> <p>Highway 191 bisects the project area from north to south. There is potential that temporary inconvenience to local travelers could exist during periods of construction of the proposed project.</p> <p>Bozeman Yellowstone International Airport is approximately 15 miles from the center of Gallatin Gateway Montana. The proposed project will not disrupt air transportation at Bozeman Yellowstone International Airport.</p> <p>According to the Montana Rail System Map produced by Montana Department of Transportation in 2013 (See Appendix C), no railroads currently exist within the community of Gallatin Gateway.</p> <p>The proposed project will likely only result in temporary disturbances in local transportation. No permanent impact to transportation is anticipated to occur as a result of proposed project activities.</p>
B	Consistency with Other State Statutes or Local Ordinances, Resolutions, or Plans (to be added by local community)	<p>The proposed project is consistent with other state statutes or local ordinances, resolutions or plans. Specifically, it is consistent with the Gallatin Gateway Neighborhood Plan (2009). The Gallatin Gateway Community Plan is located in Appendix C. Gallatin Gateway Community Plan Policy 3.3 <i>Central Sewer and Water</i> states the following:</p> <p><i>"The Gallatin Gateway community and Gallatin County will jointly explore options to form a public water and sewer district and provide central water and sewer to the Town Core to protect the area's water quality. Specifically, the following policies are adopted:</i></p> <p><i>3.3.1 Formation of a public water and sewer district in the Town Core will require significant investment of time and energy from local residents and Gallatin County. Adoption of this policy shows commitment from both Gallatin Gateway and Gallatin County to explore options for system types, funding mechanisms,</i></p>

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	HUMAN POPULATION	<p>and location of facilities.</p> <p>3.3.2 To protect the rural character of the area, dense development shall only be allowed in the Town Core area, as shown in the adopted Land Use Map. The development standards and map adopted to implement this plan will provide standards assigning densities in the Gallatin Gateway Town Core area and rural Gallatin Gateway.</p> <p>3.3.3 Residents of Gallatin Gateway also recognize that provision of central water and sewer could, with careful control, be provided in other ways. New development in the Town Core requiring centralized water and wastewater shall coordinate with the water and sewer district for eventual inclusion in the District. It is the general policy of the Gallatin Gateway Community Plan that new development in the Town Core connect to the water and sewer systems controlled and operated by the District. In the event that new development requiring central water and/or sewer precedes the Districts construction of central water and/or sewer infrastructure, the development could coordinate with the District to jointly provide service or infrastructure for existing development.”</p> <p>Additionally, Gallatin Gateway County Water and Sewer District applied for and obtained a MDEQ Montana Ground Water Pollution Control System (MGWPCS) Permit (Permit No. MTX000229) which is available for review in Appendix C.</p> <p>The proposed project was not found to be inconsistent with other state statutes or local ordinances, resolutions, or plans.</p>

10. Describe and analyze reasonable alternatives to the proposed activity whenever alternatives are reasonably available and prudent to consider, and discuss how the alternatives could be implemented, if applicable.

The alternatives screening process was originally presented in the Gallatin Gateway County Water & Sewer District Wastewater System (District) Preliminary Engineering Report (PER) developed by Great West Engineering in 2010 (See Appendix A for document). An overview of the alternatives developed for this project in the original PER is presented below. As the project evolved, additional alternatives were considered and eventually chosen by the District. The updated alternative analysis and chosen alternative is also presented below.

The following is a summary of the original alternative analysis presented in the PER prepared by Great West Engineering in 2010:

“The alternative screening process considered numerous alternatives aimed at resolving the problems faced by the community of Gallatin Gateway to ensure that the best possible solution was not overlooked.

After an initial evaluation, it was determined that several of the potential alternatives were not viable options for the Gallatin Gateway and were eliminated from further review. Climate and project feasibility were the primary reasons for the initial eliminations. Alternatives that were considered for a more detailed review include:

Collection System

- Alternative CS-1: Gravity Collection – Street Layout
- Alternative CS-2: Gravity Collection – Alley Layout

Lift Station

- Alternative L-1: Single Centralized Lift Station

Treatment System

- Alternative T-1: No Action Alternative
- Alternative T-2: Connection to Utility Solutions Wastewater Treatment Plant
- Alternative T-3: Storage and Irrigation (Low Rate Land Application)
- Alternative T-4: Septic Tank/Level 2 Treatment/Pressure Dosed Drainfield
- Alternative T-5: Biological Nutrient Removal (BNR) Mechanical Treatment Plant

Site Selection

- Alternative S-1: West of Highway 191
- Alternative S-2: East of Highway 191
- Alternative S-3: Utility Solutions Facility

No Action Alternative

The No Action Alternative means no improvements would be made and the existing individual onsite treatment systems would continue as the only means of septic disposal. Without centralized wastewater management facilities, degradation of groundwater and surface water resources will continue. With dated and failing individual septic systems, marginally treated to untreated wastewater is undoubtedly reaching the groundwater aquifers. Over time, the nutrients and fecal coliforms in the discharge will contaminate and degrade the water quality in the groundwater and surrounding surface waters.

Each of the alternatives presented above were analyzed in detail. A decision matrix was developed to compare alternatives and help select a preferred alternative. The decision matrix included environmental impacts, technical feasibility, 20-year life cycle costs, public health and safety, operation and maintenance and public opinion. A public meeting was held by the District board and Great West Engineering presented the preliminary engineering report to the public in order to get their opinion and support of the project.

Based on the results of the decision matrix, the preferred alternative was determined to include:

- Alternative CS-2: Gravity Collection System – Alley Layout
- Alternative L-1: Single Centralized Lift Station – Packaged Submersible
- Alternative T-4: Septic Tank/Level 2 Treatment/Pressure Dosed Drainfield
- Alternative S-2: East of Highway 191”

The following information is provided in the 2014 report entitled *Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report for Gallatin Gateway County Water and Sewer District* (Stahly Engineering 2014). This report is located in Appendix A.

“Since the alternatives analysis was completed in 2010, a number of factors have changed which

resulted in the District changing the selected alternative to the SBR treatment system instead of the Level 2 system. Most importantly, the District located and acquired a site for the treatment system and groundwater disposal facilities and applied for and received a groundwater discharge permit containing limitations on nitrogen and phosphorus. (The phosphorus limit was not expected back in 2010, so the alternatives analysis process did not specifically consider the impacts of a phosphorous limit.)

Knowing the actual discharge limits, the District decided to re-evaluate and compare a Level 2 treatment system, with the necessary modifications to provide phosphorous removal capability, to a Sequencing Batch Reactor (SBR) type treatment system which is well-suited for both nitrogen and phosphorus removal. In December 2013, the District issued a formal Request for Proposal to Level 2 and SBR system suppliers requesting information including scope of supply, cost and effluent quality.

Based on the results of the competitive procurement process, the District has determined that the life cycle costs for the Level 2 and SBR-type systems are essentially the same except the latter produces higher quality effluent, including the additional benefit of phosphorus removal capability. As a result, the District has selected the ICESAS mechanical wastewater treatment plant (Intermittent Cycle Extended Aeration System) offered through the Sanitaire Corporation. Based on currently available information from the prequalification bidding process, annual operation and maintenance costs for the ICEAS system are \$27,900 per year including labor, energy, consumables, and sludge disposal. Similarly, annual costs for the Advantex Level 2 system are \$21,000 per year."

11. Where applicable, list and evaluate mitigation actions, stipulations, and other controls which will be enforced by the local government or another governmental agency.

The following permits/regulatory requirements will likely be required as a part of the proposed project activities:

- Coverage under MDEQ's General Permit for Stormwater Discharges Associated with a Construction Activity.
- Soil Disturbance: An approved noxious weed management and revegetation plan from Gallatin County Weed Board.
- Prime Farmland Conversion worksheet to document impacts to soil designated as "Farmland of local importance"– Natural Resources Conservation Service
- MDEQ Montana Ground Water Pollution Control System (MGWPCS) Permit – Obtained (Permit No. MTX000229) available in Appendix C
- MDEQ Water Protection Bureau – Plan Review Permit

No other mitigation actions, stipulations or governmental controls are anticipated at this time.

12. Is the proposed project in compliance with all applicable Federal, State, and local laws and regulations?

Yes No

LEVEL OF CLEARANCE FINDING:

Based on the foregoing environmental review, it is concluded that:

FINDING: A request to the Montana Department of Commerce for release of funds for the within project **is not** an action significantly affecting the quality of the human environment, and no EIS is required. A Finding of No Significant Impact (FONSI) can be made.

OR

FINDING: A request to the Montana Department of Commerce for release of funds for the within project **is** an action significantly affecting the quality of the human environment, and an EIS is required.

Finding Executed by:

Name (Typewritten):

Title: Environmental Certifying Officer

Signature:

Date:

INDEX OF APPLICABLE FEDERAL STATUTES AND REGULATIONS INCLUDED IN THE CHECKLIST

1. Air Quality

- a. Clean Air Act (42 U.S.C. 7401 et seq.) as amended; particularly section 17(c) and (d) (42 U.S.C. 7506(c) and (d)).
- b. Determining Conformity of Federal Actions to State or Federal Implementation Plans (Environmental Protection Agency-- 40 CFR parts 6, 51, and 93).

2. Endangered Species

- a. The Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) as amended; particularly section 7 (16 U.S.C. 1536).

3. Farmlands

- a. Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.) particularly sections 1540(b) and 1541 (7 U.S.C. 4201(b) and 4202).
- b. Farmland Protection Policy (U.S. Department of Agriculture 7 CFR Part 658).

4. Fish and Wildlife

- a. Fish and Wildlife Coordination Act (16 U.S.C. 661-666c).

5. Floodplain

- a. Executive Order 11988, Floodplain Management, May 24 1977 (42 FR 26951, 3 CFR, 1977 Comp., as interpreted in HUD regulations at 24 CFR Part 55).
- b. Flood Disaster Protection Act of 1973, as amended (42 U.S.C. 4001-4128).
- c. National Flood Insurance Program (44 CFR 59-79).

6. Historic Properties

- a. The National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 et seq.), particularly sections 106 and 110 (16 U.S.C. 470 and 470h-2), except as provided in §58.17 for Section 17 projects.
- b. Executive Order 11593 - Protection and Enhancement of the Cultural Environment, May 13, 1971 (36 FR 8921), 3 CFR 1971-1975 Comp., particularly section 2(c).

- c. 36 CFR Part 800 with respect to HUD programs other than Urban Development Grants (UDAG)
- d. The Reservoir Salvage Act of 1960 as amended by the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469 et seq.), particularly section 3 (16 U.S.C 469a-1).

7. Man-made Hazards

- a. Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature, 24 CFR Part 51, Subpart C, (49 FR 5103, 2/10/84).
- b. HUD Notice 79-33, Policy Guidance to Address the Problems Posed by Toxic Chemicals and Radioactive Materials, 9/10/79.
- c. Siting of HUD Assisted Projects in Runway Clear Zones at Civil Airports and Clear Zones and Accident Potential Zones at Military Airfields, 24 CFR Part 51, Subpart D (49 FR 880, 1/6/84)

8. Noise

- a. Noise Abatement and Control, 24 CFR Part 51, Subpart B, (44 FR 40861, 7/12/79, as amended at 61 FR 13333, 3/26/96).

9. Solid Waste Disposal

- a. Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901-6987).
- b. U.S. Environmental Protection Agency (EPA) Implementing Regulations 40 CFR Parts 240-265.

10. Water Quality

- a. Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1376).
- b. The Safe Drinking Water Act of 1974, as amended (42 U.S.C. 69-01-6978, 300f-300j-10).
- c. U.S. Environmental Protection Agency (EPA) Implementing Regulations 40 CFR Parts 100-149.
- d. Missoula, Montana Sole Source Aquifer, in accordance with Section 1424 (e) of the Safe Drinking Water Act, 42 U.S.C. Section 300h-3 (1982).

11. Wetlands

- a. Executive Order 11990, Protection of Wetlands, May 24, 1977 (42 FR 26961), 3 CFR, 1977 Comp., particularly sections 2 and 5; and Applicable State Legislation or Regulations.

12. Wild and Scenic Rivers

- a. Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et. seq.) as amended, particularly section 7(b) and (c), (16 U.S.C. 1278 (b) and (c)).

Note: *In Montana, this act applies to the North Fork of the Flathead River from the Canadian border downstream to its confluence with the Middle Fork; the Middle Fork from its headwaters to its confluence with the South Fork; and the South Fork from its origin to Hungry Horse Reservoir; and, the Missouri River consisting of the segment from Fort Benton, one hundred and forty-nine miles downstream to Fred Robinson Bridge.*

13. Environmental Justice

- a. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994 (59 FR 7629), 3 CFR, 1994 Comp. P. 859. (24 CFR Part 58.5, April 30, 1996)

14. Lead-based Paint

- a. HUD Lead-based Paint Standards (24 CFR Part 35) and Sections 1012 and 1013 of the Residential Lead-Based Paint Hazard Reduction Act that appear within Title X of the Housing and Community Development Act of 1992.

15. Asbestos

- a. OSHA's asbestos standard (29 CFR 1926.1101) and EPA asbestos sections of NESHAP (National Emission Standard for Hazardous Air Pollutants), administered by Montana Department of Environmental Quality's Asbestos Control Program.

List of Appendices

Appendix A: Wastewater System Specific Technical Reports

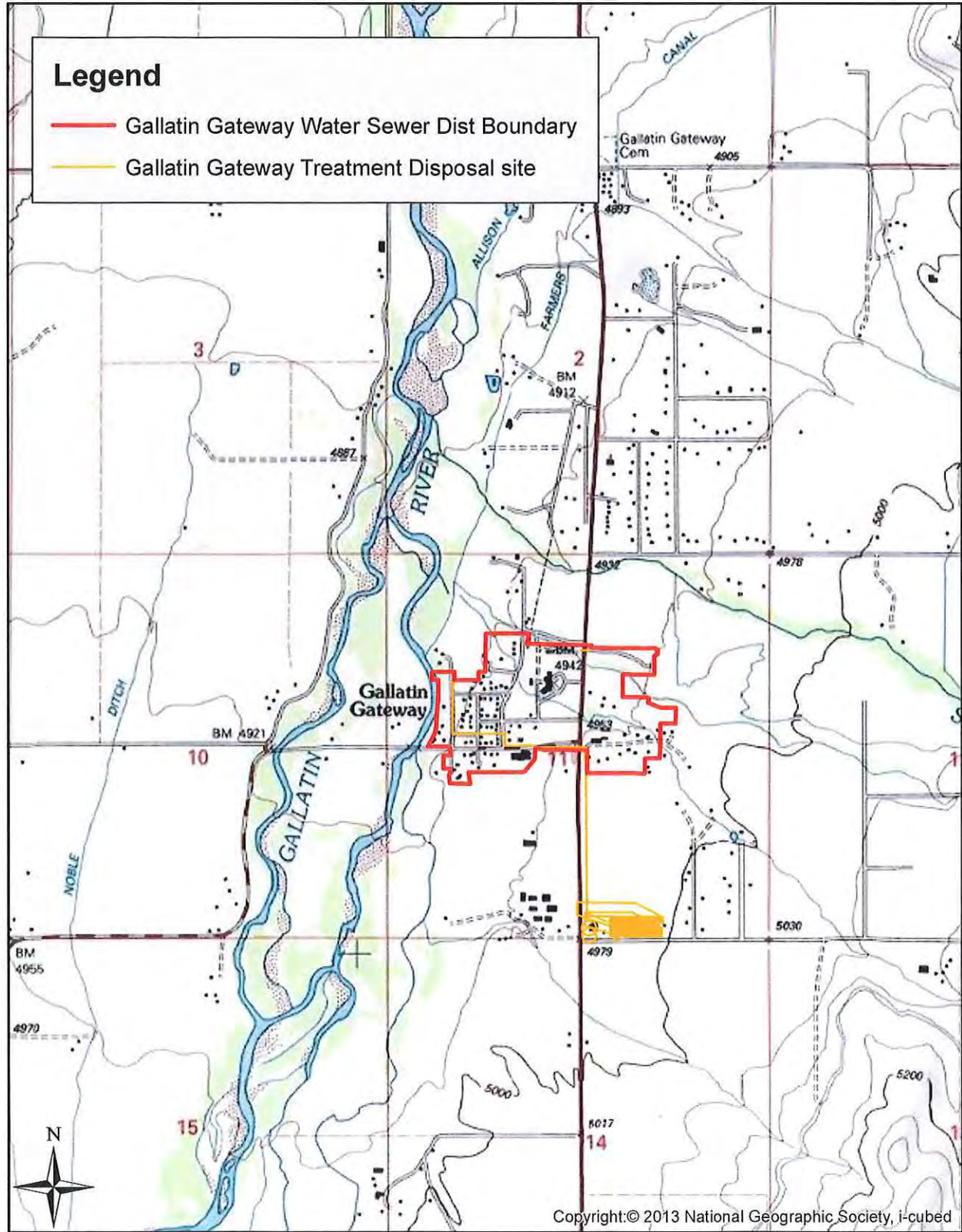
- 1. Gallatin Gateway County Water & Sewer District Wastewater System Preliminary Engineering Report (Great West 2010)**
- 2. Wastewater Collection System & Wastewater Pumping Stations Design Report for Gallatin Gateway County Water and Sewer District (Stahly Engineering 2014)**
- 3. Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report for Gallatin Gateway County Water and Sewer District (Stahly Engineering 2014)**

Appendix B: Agency Correspondence

Appendix C: Site Specific Data

Appendix D: Public Comments (currently blank 8/1/2014)

Appendix E: Cumulative Impact Analysis



Legend

- Gallatin Gateway Water Sewer Dist Boundary
- Gallatin Gateway Treatment Disposal site

Copyright: © 2013 National Geographic Society, i-cubed

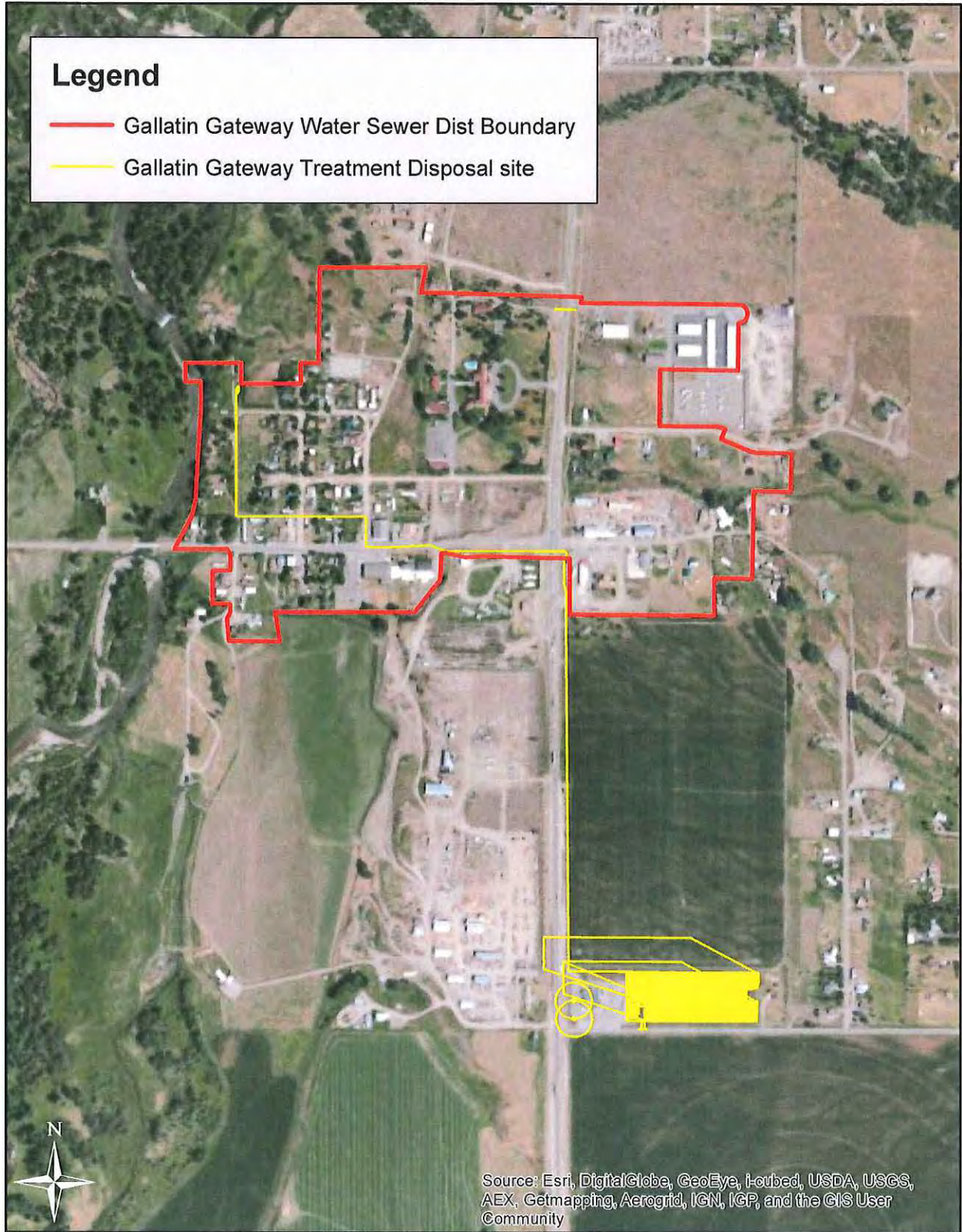



2880 Technology Blvd. W.
Bozeman, MT 59718
Phone: (406) 587-0721
Fax: (406) 922-6702
COPYRIGHT © MORRISON-MAIERLE, INC. 2010

DRAWN BY: CAP
CHK'D BY: LW
APPR. BY: LW
DATE: 06/2014

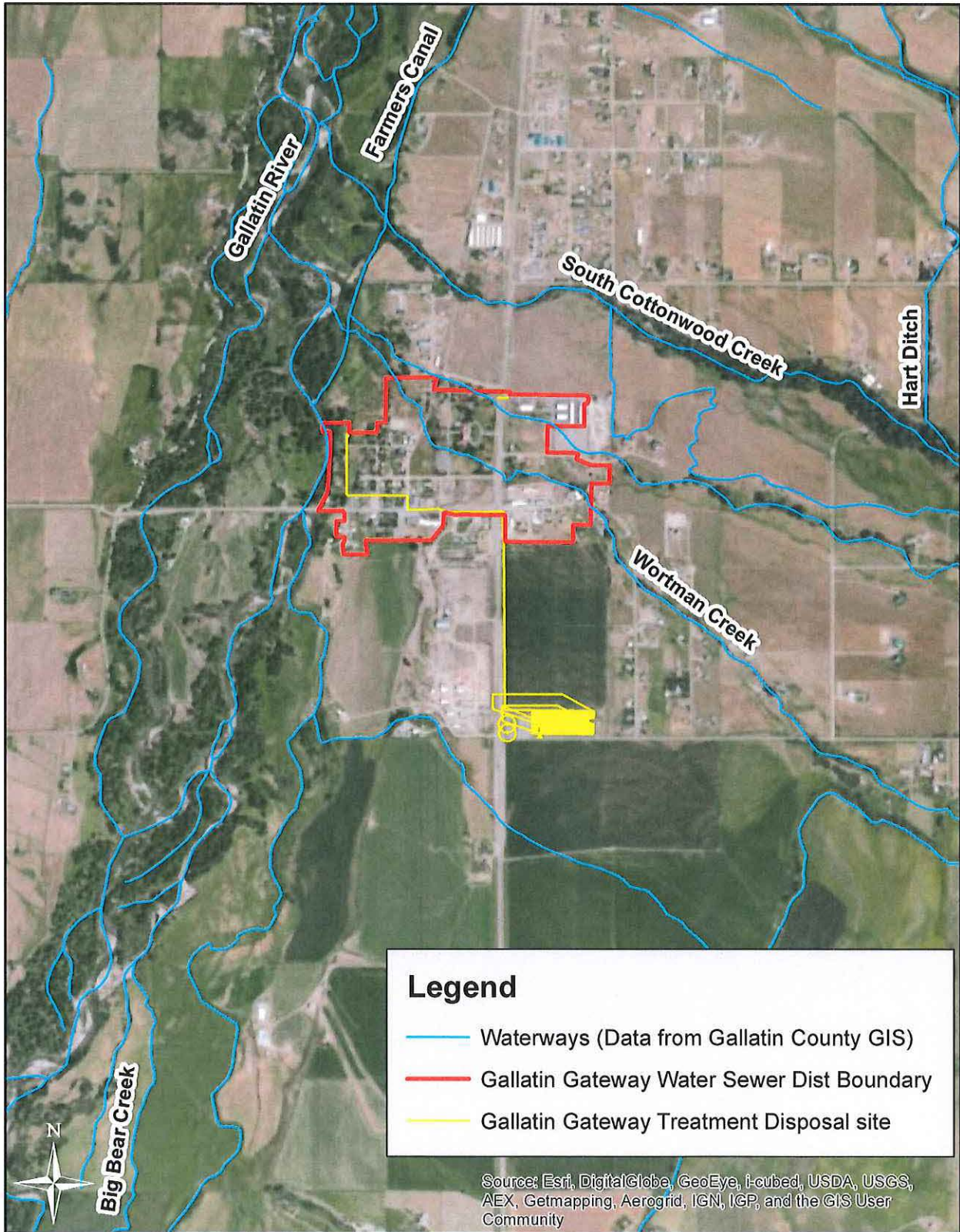
VICINITY MAP
Gallatin Gateway
**GALLATIN GATEWAY
WATER & SEWER DISTRICT**

PROJECT NO.
N:10928.209
FIGURE NUMBER
FIG. 1



 MORRISON MAIERLE, INC. <i>An Employee-Owned Company</i>	Engineers Surveyors Scientists Planners 2880 Technology Blvd. W. Bozeman, MT 59718 Phone: (406) 587-0721 Fax: (406) 922-6702 COPYRIGHT © MORRISON-MAIERLE, INC., 2010	DRAWN BY: CAP CHK'D BY: LW APPR. BY: LW DATE: 06/2014	AERIAL MAP Gallatin Gateway MT	PROJECT NO. N:10928.209
		GALLATIN GATEWAY WATER & SEWER DISTRICT		FIGURE NUMBER FIG. 2

N:10928.209\ARC\GIS



APPENDIX B

Resource Agency Correspondence



July 7, 2014

Christine Pearcy
Morrison-Maierle
PO Box 1113
Bozeman MT 59771



RE: GALLATIN GATEWAY WATER AND SEWER DISTRICT EA. SHPO Project #: 2014070714

Dear Christine:

I have conducted a cultural resource file search for the above-cited project located in Section 11, T3S R4E. According to our records there have been a few previously recorded sites within the designated search locale. In addition to the sites there have been a few previously conducted cultural resource inventories done in the area. I've attached a list of these sites and reports. If you would like any further information regarding these sites or reports you may contact me at the number listed below.

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. Site 24GA0749 is the historic Gallatin Gateway Inn, which is already listed 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,

A handwritten signature in blue ink, appearing to read "Damon Murdo".

Damon Murdo
Cultural Records Manager
State Historic Preservation Office

File: HUD/CDBG/2013

Big Sky. Big Land. Big History.

Montana Historical Society

Montana State Historic Preservation Office

1410 8th Avenue, PO Box 201202

Helena, MT 59620-1202

(406)444-7715

montanahistoricalsociety.org

FILE SEARCH INVOICE

DATE: 7-Jul-14

SHPO Invoice #: 2014070714

Bill To:

Contact Name: Christine Pearcy

Organization: Morrison-Maierle

Address: PO Box 1113

City/State/Zip: Bozeman MT 59771

File Search Fee Structure

1-3 Sections (\$25)

4-300 Sections (\$8/Section)

> 300 Sections (\$10/Section)

For questions contact:

Damon Murdo dmurdo@mt.gov (406) 444-7767

Project Name:

GALLATIN GATEWAY WATER AND SEWER
DISTRICT EA

Total Cost:

\$25

Total sections searched for SHPO Project #: 2014070714

1

Please make all checks payable to:

Montana Historical Society

PO Box 201201

Helena, MT 59620

Or

Pay Online by clicking

https://app.mt.gov/cgi-bin/cashier/cashier.cgi?REG_ID=356

Due upon receipt. Please pay within 30 days.

Big Sky. Big Land. Big History.

Montana

Historical Society

STATE HISTORIC PRESERVATION OFFICE

Cultural Resource Information Systems

CRIS Township, Range, Section Report

Report Date:

07/07/2014

Site #	Twp	Rng	Sec	Qs	Site Type 1	Site Type 2	Time Period	Owner	NR Status
24GA0998	3 S	4 E	11	NW	Historic Irrigation System	Historic Agriculture	Historic Period	Private	Ineligible
24GA0746	3 S	4 E	11	comb	Historic Recreation/Tourism	Historic Hotel/Motel	1920-1930	Private	NR Listed

Site #	Twp	Rng	Sec	Qs	Site Type 1	Site Type 2	Time Period	Owner	NR Status
24GA0998	3 S	4 E	11	NW	Historic Irrigation System	Historic Agriculture	Historic Period	Private	Ineligible
24GA0746	3 S	4 E	11	comb	Historic Recreation/Tourism	Historic Hotel/Motel	1920-1930	Private	NR Listed



P.O. Box 201800 • 1515 East Sixth Avenue • Helena, MT 59620-1800 • fax 406.444.0266 • tel 406.444.5354 • <http://mtnhp.org>

July 10, 2014

Christine Pearcy
Morrison Maierle Inc.
Bozeman, Montana
cpearcy@m-m.net

Dear Christine,

I am writing in response to your recent request regarding Montana Species of Concern in the vicinity of the Gallatin Gateway Water and Sewer District EA, in Section 11, T03S, R04E, in Gallatin County. I checked our databases for information in this general area and have enclosed 5 species occurrence reports for 2 animal species of concern, and a map depicting species of concern and wetland locations. Note that the maps are in Adobe GeoPDF format. With the appropriate Adobe Reader, it provides a convenient way to query and understand the information presented on the map.

Please keep in mind the following when using and interpreting the enclosed information and maps:

- (1) These materials are the result of a search of our database for species of concern that occur in an area defined by the requested township, range and section(s) with an additional one-mile buffer surrounding the requested area. This is done to provide a more inclusive set of records and to capture records that may be immediately adjacent to the requested area. Please let us know if a buffer greater than 1 mile would be of use to your efforts. Reports are provided for the species of concern that are located in your requested area with a one-mile buffer. Species of concern outside of this buffered area may be depicted on the map due to the map extent, but are not selected for the SOC report.
- (2) On the map, polygons represent one or more source features as well as the locational uncertainty associated with the source features. A source feature is a point, line, or polygon that is the basic mapping unit of a Species Occurrence (SO) representation. The recorded location of the occurrence may vary from its true location due to many factors, including the level of expertise of the data collector, differences in survey techniques and equipment used, and the amount and type of information obtained. Therefore, this inaccuracy is characterized as locational uncertainty, and is now incorporated in the representation of an SO. If you have a question concerning a specific SO, please do not hesitate to contact us.
- (3) This report may include sensitive data, and is not intended for general distribution, publication, or for use outside of your organization. In particular, public release of specific location information

may jeopardize the welfare of threatened, endangered, or sensitive species or biological communities.

- (4) The accompanying map(s) display land management status, which may differ from ownership. Features shown on this map do not imply public access to any lands.
- (5) Additional biological data for the search area(s) may be available from other sources. We suggest you contact the U.S. Fish and Wildlife Service for any additional information on threatened and endangered species (406-449-5225). For additional fisheries information in your area of interest, you may wish to contact Montana Fish, Wildlife, and Park's Montana Fisheries Information System (phone: 406-444-3373, or web site: <http://fwp.mt.gov/fishing/mFish/>).
- (6) **Additional information on species habitat, ecology and management is available on our web site in the Plant, Animal, and ecological Systems Field Guides, which we encourage you to consult for valuable information. You can access these guides at <http://mtnhp.org>. General information on any species can be found by accessing the link to NatureServe Explorer.**

The results of a data search by the Montana Natural Heritage Program reflect the current status of our data collection efforts. These results are not intended as a final statement on sensitive species within a given area, or as a substitute for on-site surveys, which may be required for environmental assessments. The information is intended for project screening only with respect to species of concern, and not as a determination of environmental impacts, which should be gained in consultation with appropriate agencies and authorities.

In order to help us improve our services to you, we invite you to take a simple survey. The survey is intended to gather some basic information on the value and quality of the information and services you recently received from the Montana Natural Heritage Program. The survey is short and should not take more than a few minutes to complete. All information will be kept confidential and will be used internally to improve the delivery of services and to help document the value of our services. Use this link to go to the survey: <http://www.surveymonkey.com/s/RYN8Y8L>.

I hope the enclosed information is helpful to you. Please feel free to contact me at (406) 444-3290 or via my e-mail address, below, should you have any questions or require additional information.

Sincerely,



Martin P. Miller
Montana Natural Heritage Program
martinm@mt.gov



Species of Concern Data Report

Visit <http://mtnhp.org> for additional information.

Report Date:
 Thursday, July 10, 2014

Ardea herodias

[View Species in MT Field Guide](#)

Common Name: Great Blue Heron

General Habitat: Riparian forest

Description: Birds

Mapping Delineation:

Confirmed nesting area buffered by a minimum distance of 6,500 meters in order to be conservative about encompassing the areas commonly used for foraging near the breeding colony and otherwise buffered by the locational uncertainty associated with the observation up to a maximum distance of 10,000 meters.

Species Status

[Click Status for Explanations](#)

Natural Heritage Ranks:

State: S3
Global: G5

Federal Agency Status:

[U.S. Fish & Wildlife Service:](#)

[U.S. Forest Service:](#)

[U.S. Bureau of Land Management:](#)

FWP CFWCS Tier: 3

MT PIF Code:

Species Occurrences

Species Occurrence Map Label: 10065510

First Observation Date: 02/16/1988

SO Number:

Last Observation Date: 12/14/1988

Acreage: 32,799

Species Occurrence Map Label: 10065528

First Observation Date: 06/05/2010

SO Number:

Last Observation Date: 06/05/2010

Acreage: 32,799

Species Occurrence Map Label: 10065531

First Observation Date: 06/05/2010

SO Number:

Last Observation Date: 06/05/2010

Acreage: 32,799

Species Occurrence Map Label: 10065534

First Observation Date: 06/05/2010

SO Number:

Last Observation Date: 06/05/2010

Acreage: 32,799

Oncorhynchus clarkii bouvieri

[View Species in MT Field Guide](#)

Common Name: Yellowstone Cutthroat Trout

General Habitat: Mountain streams, rivers, lakes

Description: Fish

Mapping Delineation:

Stream reaches and standing water bodies where the species presence has been confirmed through direct capture or where they are believed to be present based on the professional judgement of a fisheries biologist due to confirmed presence in adjacent areas. In order to reflect the importance of adjacent terrestrial habitats to survival, stream reaches are buffered 100 meters, standing water bodies greater than 1 acre are buffered 50 meters, and standing water bodies less than 1 acre are buffered 30 meters into the terrestrial habitat based on PACFISH/INFISH Riparian Conservation Area standards.



Natural Resource Information System
Montana State Library
PO Box 201800
Helena, MT 59620-1800
(406)444-3009 mtnhp@mt.gov

Species of Concern Data Report

Visit <http://mtnhp.org> for additional information.

Report Date:
Thursday, July 10, 2014

Species Status

[Click Status for Explanations](#)

Natural Heritage Ranks:

State: S2
Global: G4T2

FWP CFWCS Tier: 1

MT PIF Code:

Federal Agency Status:

U.S. Fish & Wildlife Service:

U.S. Forest Service: SENSITIVE

U.S. Bureau of Land Management: SENSITIVE

Species Occurrences

Species Occurrence Map Label: 10040535

First Observation Date:

SO Number:

Last Observation Date:

Acreage: 5,040



GALLATIN COUNTY

Morrison-Maierle, Inc.
Attn: Christine Pearcy
P.O. Box 1113
Bozeman, MT 59771

July 7, 2014

Re: Gallatin Gateway Wastewater Treatment Plan Environmental Assessment

Dear Christine:

Thank you for the opportunity to provide comment on potential impacts associated with the Gallatin Gateway Water and Sewer District's proposed wastewater treatment plant. The Gallatin County Planning Department's primary interests in the development of the wastewater treatment system are compliance with the adopted Gallatin Gateway Community Plan and compliance with the Gallatin County Floodplain Regulations.

Gallatin Gateway Community Plan: The Gallatin Gateway Community Plan was adopted as part of the Gallatin County Growth Policy on March 17, 2010 and per Section 76-1-605(1) Mont. Code Ann., must be considered.

One of the guiding principles of the plan states: "As Gateway grows, sufficient infrastructure should be in place, including central sewer and water, a strong, well-funded school, and a fire department which can provide efficient and safe services." The Plan also stresses that implications on development density and the financial impact to residents who do not have an immediate need to hook up to such a system must be considered carefully.

Policy 3.3 of the Plan advocates for exploration of "options to form a public water and sewer district and provide central water and sewer in the Town Core to protect the area's water quality." Wastewater treatment options are necessary to serve existing development, but also to serve future development in the Town Core. Policy 3.3.1 acknowledges the time and energy commitment necessary to bring a system to fruition.

Policy 7.4 states: "New development shall be required to include necessary infrastructure concurrent with the impacts and demands of new development." The plan includes sewer/treatment facilities in the list of infrastructure.

Gallatin County Floodplain Regulations: The proposed wastewater treatment site is well outside of the FEMA-established floodplain boundary, but the western edge of the Water & Sewer District boundary is much closer to the West Gallatin River. Please be advised that for regulatory and permitting purposes, the floodplain boundary is not based on the FEMA maps, but rather is based on comparison of the ground elevation to the 100-year water-surface-elevation.

The County does have LiDAR data available in this area and would be happy to share it with you if it would be helpful.

Thanks again for the opportunity to comment. Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean O'Callaghan". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Sean O'Callaghan, CFM
Senior Planner/Floodplain Administrator

F:\PLNR\Sean\Misc\Gateway_WSD EA.docx

Christine Pearcy

From: DeVaney, Rainie <rdevaney@mt.gov>
Sent: Thursday, July 17, 2014 10:41 AM
To: Christine Pearcy
Subject: RE: Fact Sheet-Gallatin Gateway County Water & Sewer District discharge permit
Attachments: FinalSignedEA.pdf; LineDiagramPBreak.pdf

Attached is the final signed EA, line diagram and Phosphorus Breakthrough sheet.

Let me know if I can help with anything else.

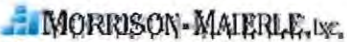
Rainie DeVaney
Environmental Science Specialist
Water Protection Bureau
(406) 444-6769

From: Christine Pearcy [<mailto:cpearcy@m-m.net>]
Sent: Thursday, July 17, 2014 10:08 AM
To: DeVaney, Rainie
Subject: RE: Fact Sheet-Gallatin Gateway County Water & Sewer District discharge permit

Rainie,
Thanks again for speaking with me today regarding my request for technical guidance on this permitting process. I'll look forward to receiving:

1. The line drawings from the fact sheet
2. The phosphorus breakthrough analysis referenced in the fact sheet
3. The final DEQ EA for the permit.

Have a great day!
Christine

Christine Pearcy

Direct: 406.922.6846

This communication is the property of Morrison-Maierle, Inc. and may contain confidential or privileged information. Unauthorized use of this communication is strictly prohibited and may be unlawful. If you have received this communication in error, please immediately notify the sender by reply e-mail and destroy all copies of the communication and any attachments.

From: DeVaney, Rainie [<mailto:rdevaney@mt.gov>]
Sent: Wednesday, July 16, 2014 4:44 PM
To: Christine Pearcy
Subject: Fact Sheet-Gallatin Gateway County Water & Sewer District discharge permit

Attached is the fact sheet for GGCW&SD.

Rainie DeVaney
Environmental Science Specialist
Water Protection Bureau
(406) 444-6769



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

July 15, 2014

Christine Percy, Environmental Scientist
Morrison Maierle, Inc.
P.O. Box 1113
Bozeman, MT 59771

RE: Community Development Block Grant Program Environmental Assessment for Gallatin Gateway County Water & Sewer District

Dear Christine:

Thank you for your efforts to coordinate with state agencies and your request for information on July 1, 2014, regarding potential impacts from the Gallatin Gateway County Water & Sewer District wastewater treatment system. The Montana Department of Environmental Quality (DEQ), more specifically the Water Protection Bureau (WPB), issued a Montana Ground Water Pollution Control System discharge permit, MTX000229, to Gallatin Gateway County Water & Sewer District on September 9, 2013, with effective permit coverage beginning November 1, 2013. At this time WPB has no comments regarding the potential project impacts from the construction of the wastewater treatment system under the Community Development Block Grant Program. WPB prepares an Environmental Assessment with each issued permit and this document is available to the public. If Morrison Maierle would like copies of the Environmental Assessment, Final Permit, or Fact Sheet outlining the ground water discharge permitting rationale, please contact Rainie DeVaney at (406) 444-6769.

In addition to discharge permitting concerns, the Department would also like to identify that the new treatment system will require plan and specification review. John McDunn at (406) 444-6782 will likely be the review engineer. As previously discussed with the District through the Public Water Supply program, the adjacent public water supply well will have to be relocated so the drain field replacement area mixing zone does not intersect the 100-foot well continued protection zone.

Sincerely,

Bonnie Lovelace
Regulatory Affairs Manager
Director's Office
Department of Environmental Quality
406-444-1760

Kainie DeVaney 7/17/2014

- Proposed Facility
- need to submit a modification.
- 5 year ~~modification~~ to renewal
- 5000 ↑ gallon a day is permissive action
- Fact Fact sheet May 30, 2013

GALLATIN GATEWAY COUNTY WATER & SEWER DISTRICT

July 16, 2014

Morrison-Maierle, Inc
Attn: Christine Percy
PO Box 1113
Bozeman, MT 59771

Re: CDBG EA for Gallatin Gateway County Water & Sewer District (GGWSD)

Dear Christine,

Thank you for your July 1, 2014 letter soliciting comments on the CDBG EA for Gallatin Gateway's public sewer project. This letter constitutes our response. We are aware that you have obtained documentation from the public record regarding the proposed project, and we trust this information is sufficient for the purpose of drafting a comprehensive EA. In our comments we simply wish to offer a summary perspective on the project's primary and intended beneficial environmental impact.

The community of Gallatin Gateway abuts the Gallatin River. The community is currently unsewered, meaning that each individual property discharges raw, untreated wastewater to the ground. The standard lot size is approximately 50 feet x 150 feet. The drainfields for these lots are in close proximity to the Gallatin River and in close proximity to potable water wells. Therefore GGWSD undertook this project to improve water quality in our community.

CFR 58.32(a-c) states, "A responsible entity must group together and evaluate as a single project all individual activities which are related... [T]he purpose of project aggregation is to group together related activities so that the responsible entity can: (1) Address adequately and analyze, in a single environmental review, the separate and combined impacts of activities that are similar." Some comments related to this project, previously submitted during public review periods, have unfairly singled out one aspect of the overall project without taking into account the beneficial environmental impacts of the aggregated project. The GGWSD wishes to provide the following estimates as one example of the environmental benefits of this project.

Our best estimate of the existing flow of untreated wastewater in the community is 26,000 gal/day¹. Assuming a nitrogen concentration of 45 mg/l the community is currently putting 9.8 lb/day of nitrogen into soil with a depth to groundwater of about 15 ft at an average distance of 600 feet from the river². After completion of the project the same 26,000 gal/day will be contributing only 1.2 lb/day of nitrogen into soils with an average depth to water of 35 feet at a distance of about 2500 feet from the river.

1 Great West Engineering, "Preliminary Engineering Review," April 2010. See Table 3.1.1.

2 Note that this total nitrogen load is delivered to the soil as many point sources with very high nitrogen concentration. Some of these point sources are less than 100 feet from the river.

Gallatin Gateway Water & Sewer District
PO Box 383, Gallatin Gateway, MT 59730
www.gatewaywsd.com

GALLATIN GATEWAY COUNTY WATER & SEWER DISTRICT

It clearly represents a net benefit to the environment when raw, untreated wastewater is collected, treated to a high level, and transported away from the river and away from potable water wells for discharge to deeper soils. When viewed in the proper context, the net environmental benefit of undertaking this project is tremendous.

If you have questions related to our response, or if you need further information, please do not hesitate to contact me.

Sincerely Yours,
/s Matt Donnelly
General Manager
Gallatin Gateway County Water & Sewer District
gm@gatewaywsd.com



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
HELENA REGULATORY OFFICE
10 WEST 15TH STREET, SUITE 2200
HELENA MT 59626



July 21, 2014

Regulatory Branch
Montana State Program
Corps No. NWO-2014-01640-MTH

Subject: Community Development Block Program Environmental Assessment – Wastewater Treatment Improvements

Morrison-Maierle, Inc.
Attn: Christine Pearcy
P.O. Box 1113
Bozeman, Montana 59771

Dear Ms. Pearcy:

We have reviewed your letter requesting information concerning the above-referenced project, which was mailed to our Helena office and dated November 5, 2013. The proposed work is located in Section 11, Township 3 South, Range 4 East, in Gallatin County, Montana.

The mission of the U.S. 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, Department of the Army (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. If no waters of the U.S. will be impacted by the project, no DA permit is required. Based on the limited information provided in your letter, we are unable to ascertain if there are jurisdictional resources or regulated activities proposed.

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. The project area identified on the map provided should be evaluated to determine if any wetlands are present. If wetlands are identified within the project area, they should be evaluated in accordance with the Corps' 1987

Wetland Delineation Manual and appropriate Regional Supplement. The wetland delineation report and mapping should be prepared in accordance with the enclosed Wetland Delineation Checklist.

Please contact me at (406) 441-1365 if you have questions and reference Corps File Number NWO-2014-01640-MTH.

Sincerely,



Jess J. Davies
Natural Resources Specialist

Enclosure:

Wetland Delineation Checklist

Copy Furnished:

Gallatin Gateway County Water & Sewer District
PO Box 383
Gallatin Gateway, MT 59730



US Army Corps of Engineers
BUILDING STRONG

Montana Wetland Boundary Verification Checklist

Montana Regulatory Program - Updated November 2013

Montana Regulatory Program

All applications for Permits from the U.S. Army Corps of Engineers must include a delineation of special aquatic sites, including delineations of wetland boundaries. The content of acceptable wetland delineations is listed below. The same information is required if you are requesting verification of a wetland boundary in conjunction with pre-application reviews.

1. Contact information for the property owner and written permission from the property owner for the Corps to enter the property.
2. Contact information for the individual(s) performing the wetland delineation.
3. Location of the site:
 1. Latitude/Longitude
 2. Written directions
 3. Location map showing the limits of the study area
4. Reference Information
 1. Color photographs with labels
 2. Aerial photograph with study area shown
 3. National Wetland Inventory (NWI) maps (where available) with study area shown
 4. Soil Surveys with study area shown
 5. Topographic maps/USGS Quadrangle maps
 6. Floodplain/FEMA Flood Insurance Rate Maps maps if applicable
5. Describe methodologies used, including Regional Delineation Supplements, and the rationale for the choice of methodology (routine, comprehensive, difficult wetland situations).
6. Completed data forms for wetland and upland sampling points
7. Results of field investigation and summary of findings
 1. Name each aquatic resource and provide size in acres or square feet of wetlands, as well as lakes, ponds, and linear feet of stream/tributary (i.e. Wetland A, Pond B, Trib-1, Miller Creek).
8. Site map with clearly marked wetland boundaries and all other aquatic resources (streams, ponds, lakes, ditches, etc.)
 1. Appropriate scale (1"=50' or 1"=100' is recommended)
 2. Wetland boundary flag numbers
 3. Title block with north arrow, date, scale, legend, drawing name, revision dates
9. Stream drainage area at the site, stream size, qualitative environmental assessment of aquatic resources on site, Cowardin classification of wetland areas, etc.
10. In the Field:
 1. Wetland boundaries marked with numbered flags corresponding to numbers on the map.
 2. Recommend all other aquatic resources are marked in the field with flagging.

Contact:

Phone call w/ Ann Prescott, Chairman of the School Board (Gallatin Gateway)

- Over all impression that the sewer system will be good for the community
- School board is generally supportive of the project
- will help the school w/ food safety.
- Sewer System will help in 2 main ways:
 1. Promote Steady Controlled growth
 2. Promote flexibility in how we grow.



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2800 TECHNOLOGY BOULEVARD WEST • PO BOX 1113 • BOZEMAN, MT 59771
OFFICE: 406-587-0721 • FAX: 406-922-6702 • WWW.M-M.NE

July 1, 2014

Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation
Floyd Azure, Chairman
PO Box 1027
Poplar, MT 59255

Subject: HUD-Funded Montana Community Development Block Grant Project
Gallatin Gateway Water and Sewer District – Environmental Assessment
MMI# 0928.209

Dear Mr. Azure,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Morrison-Maierle, Inc. is performing the environmental assessment and historic preservation review on behalf of Gallatin County. In accordance with 36 CFR Part 800, "Protection of Historic Properties," regulations that implement Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC470f), you are being contacted to determine if your tribe may attach traditional, religious, or cultural importance to any historic resources affected by the proposed project. The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant. Preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The purpose of the proposed action is: 1) protect human health, safety, and the environment; and 2) to support ongoing and future growth and development in the Gallatin Gateway community. Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

The goal of consultation under Section 106 is to allow your tribe the opportunity to help identify historic properties potentially affected by this HUD-assisted project; assess the effects of the project on any historic resources; and consider ways to avoid, minimize or mitigate any adverse effects. Based on the information we have to date, we do not believe the project will affect cultural or historic resources. However, we would appreciate hearing from you regarding any known archeological, historical, or cultural resources on the proposed project site.

Please note that we will require all partners to halt work and contact any potentially affected federally-recognized Tribes, the State Historic Preservation Officer, and the Advisory Council on



Mr. Floyd Azure
July 1, 2014
Page 2 of 2


Historic Preservation within forty-eight hours of discovery (pursuant to protocol established at 36 CFT Part 800, Section 800.13(b)(3)) should human remains or cultural artifacts be discovered during the construction period for this project.

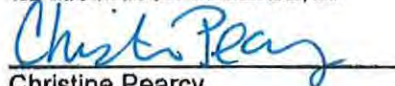
We respectfully request that your comments be forwarded to us within thirty (30) calendar days of receipt of this letter. Please be as specific as you can with any comments or information to assist with our decision making. Thank you for your assistance with this endeavor. Please send any comments to:

Morrison-Maierle, Inc.
Attn: Christine Pearcy,
P.O. Box 1113
Bozeman, Montana 59771

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846 or cpearcy@m-m.net.

Sincerely,

 MORRISON-MAIERLE, INC.



Christine Pearcy
Environmental Scientist

And



Larry Watson
Environmental Certifying Officer
311 West Main Street
Room 204
Bozeman, MT 59715
(406) 582-3096

Enclosures



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2680 TECHNOLOGY BOULEVARD WEST • PO BOX 1113 • BOZEMAN, MT 59771
OFFICE: 406-597-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

Montana State Historic Preservation Office
Damon Murdo
1410 8th Avenue, PO Box 201202
Helena, Montana 59620

Subject: Consultation under 36 CFR Part 800 Community Development Block
Program
Gallatin Gateway Water and Sewer District – Environmental Assessment
MMI# 0928.209

Dear Mr. Murdo,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Morrison-Maierle, Inc. is performing the environmental assessment and historic preservation review on behalf of Gallatin County. We request that you review the enclosed data and notify us either of (1) any sites, structures, or districts already listed in or determined eligible for listing in the National Register of Historic Places which could be affected by the proposed project or (2) your recommendations regarding the need for archeological or historical and architectural inventory of the project area. We understand that the effects of the proposed undertaking on properties listed in or determined to be eligible for listing in the National Register (already determined or determined as a result of inventory) will be discussed with you and the Advisory Council on Historic Preservation later.

The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant. Preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The purpose of the proposed action is: 1) protect human health, safety, and the environment; and 2) to support ongoing and future growth and development

in the Gallatin Gateway community. Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

If we do not receive a reply within 30 days, we will assume that you know of no properties or sites which are included in or eligible for inclusion in the National Register, which may be affected by the proposed undertaking. Also, if we do not identify any cultural property during our review process, we will proceed with the project assuming that cultural resources have been adequately addressed.

Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Pearcy,
P.O. Box 1113
Bozeman, Montana 59771

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846 or cpearcy@m-m.net.

Sincerely,

 MORRISON-MAIERLE, INC.



Christine Pearcy
Environmental Scientist

And



Larry Watson
Environmental Certifying Officer
311 West Main Street
Room 204
Bozeman, MT 59715
(406) 582-3096

Enclosures



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2880 TECHNOLOGY BOULEVARD WEST • PO BOX 1113 • BOZEMAN, MT 59711
OFFICE: 405-587-0721 • FAX: 405-922-6702 • WWW.M-M.IE

July 1, 2014

Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation
Darrell "Curly" Youpee, THPO
PO Box 1027
Poplar, MT 59255

Subject: HUD-Funded Montana Community Development Block Grant Project
Gallatin Gateway Water and Sewer District – Environmental Assessment
MMI# 0928.209

Dear Mr. Youpee,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Morrison-Maierle, Inc. is performing the environmental assessment and historic preservation review on behalf of Gallatin County. In accordance with 36 CFR Part 800, "Protection of Historic Properties," regulations that implement Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC470f), you are being contacted to determine if your tribe may attach traditional, religious, or cultural importance to any historic resources affected by the proposed project. The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant. Preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The purpose of the proposed action is: 1) protect human health, safety, and the environment; and 2) to support ongoing and future growth and development in the Gallatin Gateway community. Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

The goal of consultation under Section 106 is to allow your tribe the opportunity to help identify historic properties potentially affected by this HUD-assisted project; assess the effects of the project on any historic resources; and consider ways to avoid, minimize or mitigate any adverse effects. Based on the information we have to date, we do not believe the project will affect cultural or historic resources. However, we would appreciate hearing from you regarding any known archeological, historical, or cultural resources on the proposed project site.

Please note that we will require all partners to halt work and contact any potentially affected federally-recognized Tribes, the State Historic Preservation Officer, and the Advisory Council on



Mr. Darrell "Curly" Youpee
July 1, 2014
Page 2 of 2

Historic Preservation within forty-eight hours of discovery (pursuant to protocol established at 36 CFT Part 800, Section 800.13(b)(3)) should human remains or cultural artifacts be discovered during the construction period for this project.

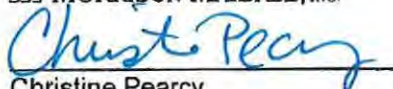
We respectfully request that your comments be forwarded to us within thirty (30) calendar days of receipt of this letter. Please be as specific as you can with any comments or information to assist with our decision making. Thank you for your assistance with this endeavor. Please send any comments to:

Morrison-Maierle, Inc.
Attn: Christine Pearcy,
P.O. Box 1113
Bozeman, Montana 59771

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846 or cpearcy@m-m.net.


Sincerely,

 MORRISON-MAIERLE, INC.

A handwritten signature in blue ink that reads "Christine Pearcy".

Christine Pearcy
Environmental Scientist

And

A handwritten signature in blue ink that reads "Larry Watson".

Larry Watson
Environmental Certifying Officer
311 West Main Street
Room 204
Bozeman, MT 59715
(406) 582-3096

Enclosures



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OFFICE: 406-587-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

Gallatin Gateway Water and Sewer District
PO Box 383
Gallatin Gateway, MT 59730

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Proposed Activity Description

The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant for the community of Gallatin Gateway, Montana. Preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The purpose of the proposed action is: 1) protect human health, safety, and the environment; and 2) to support ongoing and future growth and development in the Gallatin Gateway community.

Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Gallatin Gateway Water and Sewer District (GGWSD) resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to GGWSD resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the GGWSD will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will




take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the public comment period.

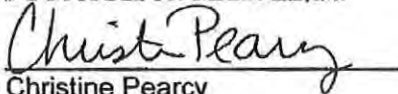
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Percy
P.O. Box 1113
Bozeman, Montana 59771
cpercy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.

A handwritten signature in cursive script that reads "Christine Percy".

Christine Percy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator



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OFFICE: 406-587-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

Gallatin County Department of Planning and Community Development
Gallatin County Courthouse
311 West Main, Room 108
Bozeman 59715

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Proposed Activity Description

The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant for the community of Gallatin Gateway, Montana. Preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The purpose of the proposed action is: 1) protect human health, safety, and the environment; and 2) to support ongoing and future growth and development in the Gallatin Gateway community.

Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Gallatin County Department of Planning and Community Development resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to Gallatin County Department of Planning and Community Development resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the Gallatin County Department of Planning and Community Development will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please




provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the public comment period.

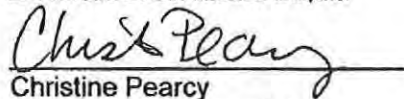
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Percy
P.O. Box 1113
Bozeman, Montana 59771
cpercy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.

A handwritten signature in cursive script that reads "Christine Percy". The signature is written in black ink and is positioned above a horizontal line.

Christine Percy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator

July 1, 2014

Gallatin Gateway School
P.O. Box 265
Gallatin Gateway, MT 59730

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Proposed Activity Description

The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant for the community of Gallatin Gateway, Montana. Preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The purpose of the proposed action is: 1) protect human health, safety, and the environment; and 2) to support ongoing and future growth and development in the Gallatin Gateway community.

Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Gallatin Gateway School resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to Gallatin Gateway School resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the Gallatin Gateway School will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that



Gallatin Gateway School
July 1, 2014
Page 2 of 2


time period, we will take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the public comment period.

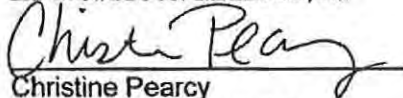
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Percy
P.O. Box 1113
Bozeman, Montana 59771
cpercy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.

A handwritten signature in cursive script that reads "Christine Percy".

Christine Percy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator

July 1, 2014

Gallatin Local Water Quality District
215 West Mendenhall, Suite 300
Gallatin Co. Courthouse Annex
Bozeman, MT 59715

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Proposed Activity Description

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Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Gallatin Local Water Quality District resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to Gallatin Local Water Quality District resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the Gallatin Local Water Quality District will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that



Gallatin Local Water Quality District
July 1, 2014
Page 2 of 2


time period, we will take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the public comment period.

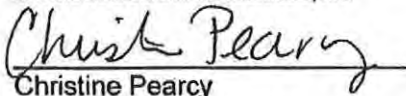
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Percy
P.O. Box 1113
Bozeman, Montana 59771
cpercy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.



Christine Percy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator



ENGINEERS
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PLANNERS
SCIENTISTS

2880 TECHNOLOGY BOULEVARD WEST • PO BOX 1113 • BOZEMAN, MT 59771
OFFICE: 406-587-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

Gallatin County Health Department
Environmental Health
215 W. Mendenhall
Bozeman, MT 59715

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Proposed Activity Description

The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant for the community of Gallatin Gateway, Montana. Preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The purpose of the proposed action is: 1) protect human health, safety, and the environment; and 2) to support ongoing and future growth and development in the Gallatin Gateway community.

Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Gallatin County Health Department resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to environmental health resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the Gallatin County Health Department will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no




later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment.


Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Percy
P.O. Box 1113
Bozeman, Montana 59771
cpercy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.


Christine Percy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator



ENGINEERS
SURVEYORS
PLANNERS
SCIENTISTS

2880 TECHNOLOGY BOULEVARD WEST • PO BOX 1113 • BOZEMAN, MT 59771
OFFICE: 406-587-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

Montana Department of Natural Resources Conservation
Water Resources Division
1424 Ninth Avenue
PO Box 201601
Helena, MT 59602

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

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Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Montana Department of Natural Resources Conservation (MDNRC) resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to MDNRC resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the MDNRC will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar




days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment.

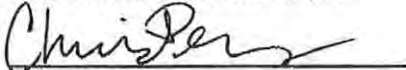
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Percy
P.O. Box 1113
Bozeman, Montana 59771
cpercy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.

A handwritten signature in cursive script, appearing to read "Christine Percy", written over a horizontal line.

Christine Percy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator



ENGINEERS
SURVEYORS
PLANNERS
SCIENTISTS

2880 TECHNOLOGY BOULEVARD WEST • PO BOX 1113 • BOZEMAN, MT 59771
OFFICE: 406-587-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

Gallatin County Conservation District
PO Box 569
Manhattan, MT 59741

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Proposed Activity Description

The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant for the community of Gallatin Gateway, Montana. Preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The purpose of the proposed action is: 1) protect human health, safety, and the environment; and 2) to support ongoing and future growth and development in the Gallatin Gateway community.

Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Gallatin County Conservation District (GCCD) resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to GCCD resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the GCCD will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment.




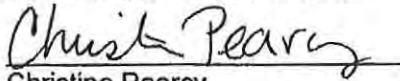
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Percy
P.O. Box 1113
Bozeman, Montana 59771
cpercy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.

A handwritten signature in cursive script that reads "Christine Percy".

Christine Percy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator



ENGINEERS
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PLANNERS
SCIENTISTS

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OFFICE: 406-587-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

Montana Department of Environmental Quality
Water Protection Bureau
1520 E. Sixth Avenue
PO Box 200901
Helena, MT 59620

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Proposed Activity Description

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Gallatin Gateway is a rural unincorporated community in which much of the development and building was carried out prior to the establishment of Health Department regulations in 1966. Many of the buildings, homes and residences have individual septic disposal systems that do not comply with current regulation. The majority of these systems are cesspools, seepage pits or metal septic tanks with drainfields that have either failed, or have a high potential of failing. The coarse-grained soils that provide only limited filtering or treatment, closeness of drinking water wells to individual septic disposal systems, and proximity of the developed town area to the Gallatin River present a threat to human health, safety and the environment.

Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Montana Department of



Environmental Quality (MDEQ) resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to MDEQ resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.


A written response from the MDEQ will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the public comment period.


Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Pearcy
P.O. Box 1113
Bozeman, Montana 59771
cpearcy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.


Christine Pearcy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator

July 1, 2014

Montana Fish, Wildlife and Parks
Ms. Julie Cunningham, Region 3 Wildlife Biologist
1400 South 19th Ave.
Bozeman, MT 59718

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

Dear Ms. Cunningham,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

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Information Request

We are requesting a review of potential project-related effects to Montana Fish, Wildlife and Parks (MFWP) resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to MFWP resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the MFWP will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or




potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the 30-day public comment period.

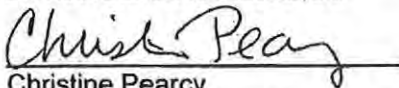
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P.O. Box 1113
Bozeman, Montana 59771
cpearcy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.



Christine Pearcy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator



ENGINEERS
SURVEYORS
PLANNERS
SCIENTISTS

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OFFICE: 406-587-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

USDA Natural Resources Conservation Service
Bozeman Field Office
3710 Fallon Street, Suite B
Bozeman, MT 59718

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

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Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Natural Resources Conservation Service (NRCS) resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to NRCS resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the NRCS will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will




take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the 30-day public comment period.

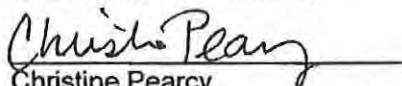
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Morrison-Maierle, Inc.
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P.O. Box 1113
Bozeman, Montana 59771
cpearcy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.


Christine Pearcy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator



ENGINEERS
SURVEYORS
PLANNERS
SCIENTISTS

2880 TECHNOLOGY BOULEVARD WEST • PO BOX 1113 • BOZEMAN, MT 59771
OFFICE: 406-587-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

US Forest Service, Gallatin National Forest
P.O. Box 130
Bozeman, MT 59771

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

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Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to US Forest Service (USFS), Gallatin National Forest resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to USFS resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the USFS will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will



US Forest Service, Gallatin National Forest
July 1, 2014
Page 2 of 2


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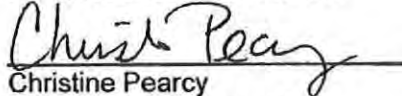
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Pearcy
P.O. Box 1113
Bozeman, Montana 59771
cpearcy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.


Christine Pearcy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator



ENGINEERS
SURVEYORS
PLANNERS
SCIENTISTS

2880 TECHNOLOGY BOULEVARD WEST • PO BOX 1113 • BOZEMAN, MT 59771
OFFICE: 406-587-0721 • FAX: 406-922-6702 • www.m-m.net

July 1, 2014

US Fish and Wildlife Service
Ms. Jodi Bush, Project Leader
585 Shepard Way
Helena, MT 59601

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

Dear Ms. Bush,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

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Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a US Fish and Wildlife Service (USFWS) review of potential project-related effects on threatened and endangered (T&E) species within and in the vicinity of the project area for environmental documentation, as follows:

1. In accordance with Section 7(a) of the Endangered Species Act, please identify any listed or proposed T&E species that may occur in the project area. MMI has reviewed the Powell County list of T&E species corresponding to the project area and requests site-specific information regarding possible presence and potential effects on T&E species.

2. Please provide any site-specific information from your review (including the presence of critical habitat) regarding T&E species identified as potentially being present, which will allow Morrison-Maierle Inc. to complete comprehensive T&E documentation for the project.

We would also appreciate any additional information or comment that your agency finds applicable to the proposed project. Included for your use is an aerial map of the project area with proposed areas of improvements reflected.

A written response from the USFWS will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the public comment period.

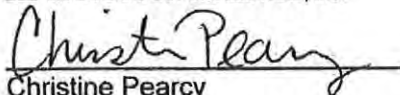
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Percy
P.O. Box 1113
Bozeman, Montana 59771
cpercy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.



Christine Percy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator

July 10, 2014

US Army Corps of Engineers
Mr. Todd Tillinger
10 West 15th Street, Suite 2200
Helena, MT 59626

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

Dear Mr. Tillinger,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

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Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to US Army Corps of Engineers (USACE) resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to USACE resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the USACE will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or


potentially helpful information, please provide your written response to me no later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the 30-day public comment period.

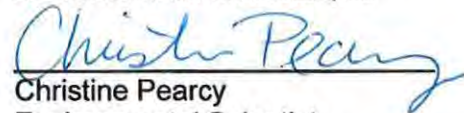
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Percy
P.O. Box 1113
Bozeman, Montana 59771
cpercy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.



Christine Percy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator

July 10, 2014

Gallatin County Commissioners
311 West Main
Room 306
Bozeman, MT 59715

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

To Whom It May Concern,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Proposed Activity Description

The proposed project activities will consist of the design and construction of a wastewater collection system, lift station, and wastewater treatment plant for the community of Gallatin Gateway, Montana. Preliminary specifications include: 12,820 linear feet of 8 inch sanitary sewer main, 54 manholes, 9,610 linear feet of 4 inch sanitary sewer service line, a lift station with 5,550 linear feet of 6 inch force main, one ICEAS SBR (Sequencing Batch Reactor) with headworks, and 11,580 linear feet of drainfield disposal piping. The purpose of the proposed action is: 1) protect human health, safety, and the environment; and 2) to support ongoing and future growth and development in the Gallatin Gateway community.

Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Gallatin County resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to Gallatin County resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the Gallatin County Commissioners will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no


later than 30 calendar days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment.

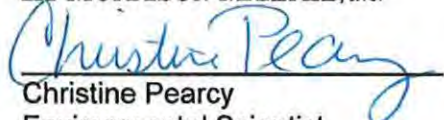
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Pearcy
P.O. Box 1113
Bozeman, Montana 59771
cpearcy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 **MORRISON-MAIERLE, INC.**


Christine Pearcy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator

July 10, 2014

Montana Fish, Wildlife and Parks
Mr. Michael Vaughn, Region 3 Fisheries Biologist
1400 South 19th Ave.
Bozeman, MT 59718

Subject: Community Development Block Program Environmental Assessment
Gallatin Gateway Water and Sewer District
MMI# 0928.209

Dear Mr. Vaughn,

Gallatin County, Montana has approval for a Montana Community Development Block Grant (CDBG) from the Montana Department of Commerce. This grant will involve the construction of a wastewater treatment system for the community of Gallatin Gateway, Montana. This Environmental Assessment (EA) is being conducted by the engineering firm of Morrison-Maierle, Inc. (MMI) in accordance with NEPA requirements and guidelines. MMI is initializing consultation with various agencies that may have affected areas of interest. The legal description of the project is portions of Section 11, Township 3 South, Range 4 East, Gallatin County, Montana.

Proposed Activity Description

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Enclosed, please find two maps (Figure 1. Vicinity Map and Figure 2. Aerial Map) that will give you a better understanding of the area and resources that will be affected.

Information Request

We are requesting a review of potential project-related effects to Montana Fish, Wildlife and Parks (MFWP) resources within and in the vicinity of the project area for environmental documentation. Please provide any comments concerning potential impacts from the proposed project to MFWP resources within the vicinity of the project. We would also appreciate any additional information or comment that your agency finds applicable to the proposed project.

A written response from the MFWP will assist Morrison-Maierle Inc. in the completion of environmental documentation for the referenced project. Any response on these matters may result in further coordination to mitigate potential effects of the proposed action. If you have comments or potentially helpful information, please provide your written response to me no later than 30 calendar


days from the date of this letter. Should no comments be received within that time period, we will take that as there being no comment. Your office will be advised again at the time that the draft EA is advertised for the 30-day public comment period.

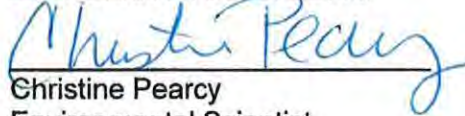
Please send your written response to the following address:

Morrison-Maierle, Inc.
Attn: Christine Pearcy
P.O. Box 1113
Bozeman, Montana 59771
cpearcy@m-m.net

If you have any questions pertaining to the information provided, please do not hesitate to contact me at (406) 922-6846.

Sincerely,

 MORRISON-MAIERLE, INC.



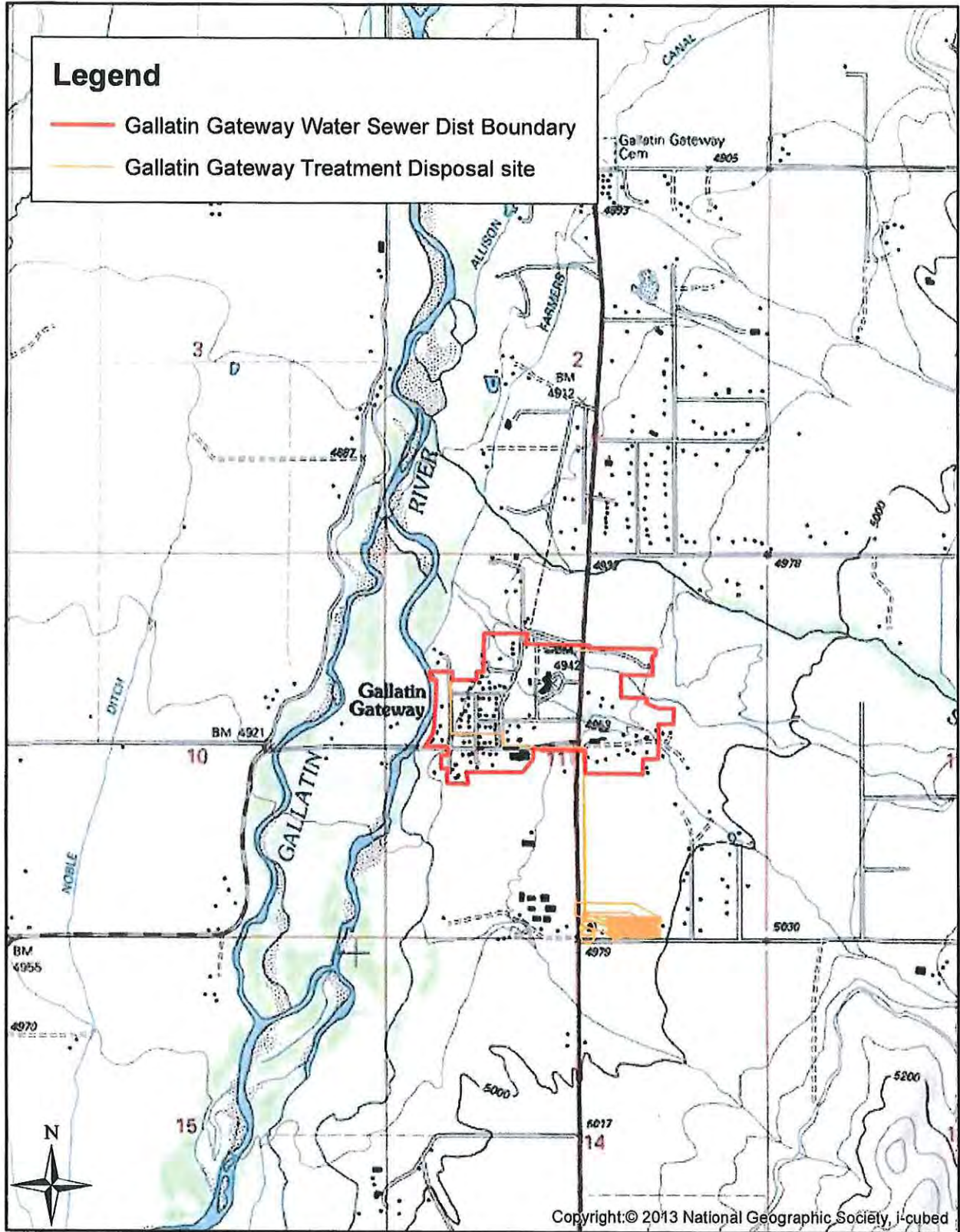
Christine Pearcy
Environmental Scientist

Enclosures

CC: Larry Watson, Gallatin County Grants and Project Administrator

Legend

- Gallatin Gateway Water Sewer Dist Boundary
- Gallatin Gateway Treatment Disposal site



Copyright: © 2013 National Geographic Society, i-cubed



2880 Technology Blvd. W.
Bozeman, MT 59718
Engineers
Surveyors
Scientists
Planners
Phone: (406) 587-0721
Fax: (406) 922-6702
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DRAWN BY: CAP
CHK'D BY: LW
APPR. BY: LW
DATE: 06/2014

Gallatin Gateway

VICINITY MAP

MT

PROJECT NO.
N:0928.209

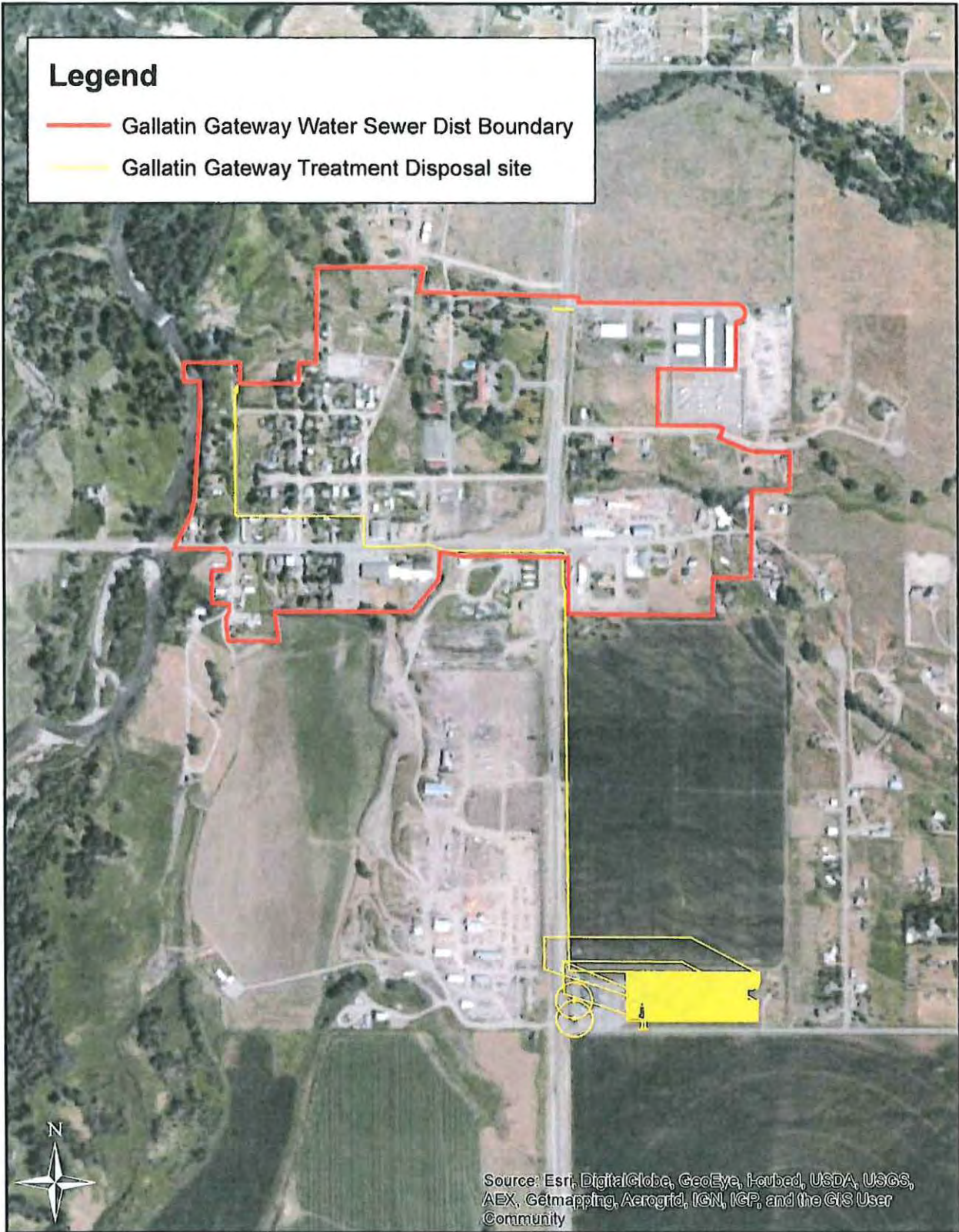
GALLATIN GATEWAY WATER & SEWER DISTRICT

FIGURE NUMBER

FIG. 1

Legend

- Gallatin Gateway Water Sewer Dist Boundary
- Gallatin Gateway Treatment Disposal site



Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community

0 500 1,000 2,000 Feet



2880 Technology Blvd. W.
Bozeman, MT 59716
Phone: (406) 587-0721
Fax: (406) 922-6702
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DRAWN BY: CAP
CHK'D BY: LW
APPR. BY: LW
DATE: 06/2014

AERIAL MAP
Gallatin Gateway MT

**GALLATIN GATEWAY
WATER & SEWER DISTRICT**

PROJECT NO.
N:10928.209

FIGURE NUMBER

FIG. 2

Christine Pearcy

From: Brewer, Kris <KBrewer@mt.gov>
Sent: Tuesday, July 29, 2014 6:57 AM
Subject: NOTICE OF EXTENDED REVIEW: Gateway Village LLC - Gateway Pit Site



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

July 28, 2014

Sent via email to dplmont@aol.com
Hard copy sent via US Mail

Gateway Village LLC
Attn: David Loseff
PO Box 850
Bozeman, MT 59771-0850

RE: Notice of Extended Review
Application for Opencut Mining Permit
Gateway Pit Site, Opencut #2520
Gallatin County, Montana

Dear Mr. Loseff:

The Department of Environmental Quality (DEQ) conducted a public meeting for the above-referenced permit application on July 15, 2014. The meeting was held at Gallatin Gateway School in Gallatin Gateway, Montana pursuant to the Opencut Mining Act, Section 82-4-432, Montana Code Annotated (MCA) and was attended by at least 65 citizens.

The DEQ has determined that public comments received at the meeting reveal substantial issues not adequately satisfied in the proposed Plan of Operation. As a result, the application will be the subject of extended review in accordance with Section 82-4-439, MCA.

Specifically, citizens identified that the proposed plan does not adequately protect the shallow groundwater resources that local residents use for drinking water and domestic needs. As a result, the proposed plan does not satisfy the following requirements of the Opencut Mining Act:

The department may not accept a Plan of Operation unless the plan provides that:

- *Surface water and ground water will be given appropriate protection, consistent with state law, from deterioration of water quality and quantity that may arise as a result of the Opencut operation; . . . and*
- *Any additional procedures, including monitoring, that are necessary, consistent with the purposes of this part, to prevent significant physical harm to the affected land or adjacent land, structures, improvements, or life forms will be implemented.*

See Section 82-4-434(3)(l & n), MCA.

In accordance with Section 82-4-439, MCA the DEQ will conduct the extended review in accordance with the following timeframes:

(a) For a complete application subject to an extended review, the department shall, within 60 days from the date the department determines the application warrants an extended review, inspect the proposed site if the department determines an inspection is necessary and notify the applicant as to whether or not the application is acceptable pursuant to 82-4-432. If the application is unacceptable, the notice must include a detailed explanation of the deficiencies.

(b) Within 30 days of receipt of the applicant's response to the identified deficiencies, the department shall review the responses and notify the applicant as to whether or not the application is acceptable. If the application is unacceptable, the department shall notify the applicant in writing and include a detailed identification of the deficiencies.

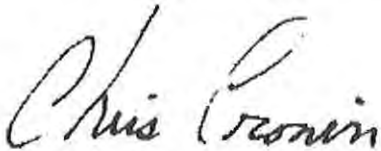
(c) The department may for sufficient cause extend either or both of the review periods in subsection (2)(a) or (2)(b) for an additional 30 days if it notifies the applicant of the extension prior to the end of the respective original period. The department shall include in the notification of extension the reason for the extension.

(d) If the application is acceptable, the department shall issue a permit or a permit amendment to the operator that entitles the operator to engage in the opencut operation on the land described in the application.

See Section 82-4-439(2)(a-d), MCA.

If you have any questions on the above, please contact the Program at (406) 444-4970 or DEQopencut@mt.gov.

Sincerely,



Chris Cronin
Opencut Mining Program Supervisor
Department of Environmental Quality
P.O. Box 200901, Helena, MT 59620-0901
Phone: (406) 444-2871; Fax: (406) 444-4988
ccronin@mt.gov

C: Gallatin County Commissioners
Interested Parties List

Christine Pearcy

From: O'Callaghan, Sean <Sean.OCallaghan@gallatin.mt.gov>
ent: Tuesday, July 29, 2014 1:51 PM
ro: Christine Pearcy
Subject: RE: subdivisions in the gateway area

Christine – here is what we found pursuant to your request.

Sean O'Callaghan, AICP, CFM

Planning Director

Floodplain Administrator

Department of Planning & Community Development
Gallatin County
311 W. Main St., Rm. 108
Bozeman, MT 59715

Phone: (406) 582-3130

Fax: (406) 582-3135

sean.ocallaghan@gallatin.mt.gov

From: Vaughan, Warren
Sent: Tuesday, July 29, 2014 1:25 PM
To: O'Callaghan, Sean
Subject: subdivisions in the gateway area

Sean,

From what I can find, there have been no subdivisions in the past 5 years within a 1 mile radius of Gallatin Gateway. There have been two boundary relocations. Here's the full list:

- Minor sub 129 = 1994
- Minor sub 7 = 1974
- Minor sub 377 = 2005
- Minor sub 262 = 1999
- Minor sub 213A = 2008
- Minor sub 213 = 1997
- Minor sub 56A = 1993
- Minor sub 56C = 2002
- Minor sub 56B = 1995
- Minor sub 56 = 1985
- Minor sub 424 = 2008
- **Minor sub 424A = 2011 (boundary relocation)**
- Minor sub 374 = 2005
- Minor sub 54 = 1985
- **Minor sub 309C = 2013 (boundary relocation)**

- Minor sub 309 = 2002

Warren Vaughan
Gallatin County Planning and Community Development
311 W. Main Room 108
Bozeman, MT 59715
(406) 582-3130

APPENDIX C

Site Specific Information



**MONTANA DEPARTMENT OF
ENVIRONMENTAL QUALITY**

Permitting and Compliance Division
Water Protection Bureau
P.O. Box 200901, Helena, MT 59620-0901

**Permit Fact Sheet
Montana Ground Water Pollution Control System (MGWPCS)**

Applicant: Gallatin Gateway County Water & Sewer District

Permit Number: MTX000229

Facility Name: Gallatin Gateway County Water & Sewer District

Facility Location: Southeast ¼ of Section 11, Township 3 South, Range 4 East,
Gallatin County

Facility Address: Tract 1B1 of Minor Sub 309A, Cottonwood Road
Gallatin Gateway, MT

Facility Contact: Ted Border, President
P.O. Box 383
Gallatin Gateway, MT 59730
(406) 580-0635

Receiving Water: Class I Ground Water

Number of Outfalls: One (for fee determination only)

Outfall(s)/Type: 001 – Subsurface Drainfield

I. Permit Status

The following fact sheet outlines the basis for issuing a new Montana Ground Water Pollution Control System (MGWPCS) wastewater discharge permit to the Gallatin Gateway County Water & Sewer District (GGCWSD). The application (Form 1 and GW-1) and supplemental material provide the information used to develop effluent limits and monitoring requirements outlined within this fact sheet. During the permit issuance process, the Montana Department of Environmental Quality (DEQ) evaluates all specifications and characteristics of the proposed GGCWSD wastewater treatment system.

On March 6, 2013, DEQ received the permit application submitted by the owner and operator, Gallatin Gateway County Water & Sewer District (applicant) (DEQ, 2013b). DEQ identified deficiencies in the permit application and notified the applicant in a letter dated April 3, 2013 (DEQ, 2013a). The applicant provided supplemental application information on April 31, 2013, allowing DEQ to determine the application complete on May 13, 2013 (ARM 17.30.1023; DEQ, 2013c).

II. Facility Information

A. Facility History

The appropriate fees were paid and received on March 20, 2013, allowing DEQ to begin the permit application completeness review. During the completeness review, DEQ noted several deficiencies within the GGCWSD application and supplemental material. On April 3, 2013, DEQ sent a letter requesting additional information regarding but not limited to drainfield construction, mixing zone placement, and long-term ground water monitoring wells. On May 13, 2013, DEQ determined that the permit application is complete (ARM 17.30.1023; DEQ, 2013c).

The GGCWSD proposes to discharge treated effluent into Class I ground water and requests a standard 500 foot mixing zone for nitrate (as N). DEQ considers GGCWSD a new source because the proposed discharge would change existing water quality on or after April 29, 1993 (ARM 17.30.702(18)). DEQ conducted the required significance determination within the associated permit (ARM 17.30.715) and concluded the proposed discharge, within the defined limits, would not significantly degrade ground water quality.

B. Description and Location of Proposed Facility

The proposed location for GGCWSD is on Cottonwood Road south of Gallatin Gateway, MT. The GGCWSD would treat domestic wastewater from existing residential and existing non-residential sources. Sixty seven (67) households with a total estimated population of 168, nine (9) businesses, and five (5) community facilities including a school, post office, a community center, a church, and the Gallatin Gateway Rural Fire District would use the newly established wastewater treatment system (DEQ, 2013b).

C. Description of Proposed Wastewater Treatment System

The GGCWSD proposed facility will direct all community wastewater through a collective treatment system. Appendix 1 provides a flow line diagram showing an overview of the treatment process. First, gravity fed sewer lines collect the wastewater and route it to a lift station. The lift station pumps the wastewater through a force main and into an 112,500 gallon (gal) septic tank for primary treatment. The effluent will run through a filter when leaving the septic tank. After primary treatment, the effluent enters a recirculating tank. The recirculating tank delivers the wastewater to the trickle filter. The recirculating tank routes a portion of the wastewater back to the recirculation tank while the remaining portion is diverted into a 4,000 gal drainfield dose tank. Effluent leaving the dose tank is pressure-dose into a subsurface drainfield (Outfall 001). The drainfield divides into four (4) zones with valves to evenly distribute the effluent. The subsurface drainfield discharges the treated effluent into Class I ground water.

A licensed septic hauler will pump and dispose of all sludge.

One Badger mag flow meter will measure the instantaneous and accumulated effluent flow rate. The proposed location for the flow meter is between the dose tank and the three (3) valves supplying effluent to the drainfield. Table 1 (below) summarizes the GGCWSD wastewater treatment and disposal system.

Table 1: Proposed Collection, Treatment, and Disposal System Summary	
Description/Method of Disposal: Subsurface drainfield to ground water.	
SIC Code: 4952-Sewerage System	
Outfall 001	Latitude: 45° 35' 7" North Longitude: 111° 11' 43" West
Effluent Monitoring Location: Outfall 001 drainfield dose tank.	
Construction Date: Proposed treatment system, not yet constructed.	
Service Connections: Domestic wastewater	
Average Daily Design Flow (gpd): 30,000	Daily Maximum Design Flow (gpd): 50,000
Flow Monitoring Equipment: One Badger mag flow meter	
Flow Monitoring Location: Between dose tank and drainfield.	
Collection System: Gravity sanitary sewer lines to lift station through force main to septic tank.	
Primary Treatment: One 112,500 gallon septic tank.	Disinfection Method: None proposed
Advanced Treatment: Recirculating Trickling Filter	
Disposal Structure: Pressure-dosed drainfield	

D. Description of Discharge Point

The permit authorizes discharge from one proposed discharge structure (Outfall 001). The receiving water for Outfall 001 is ground water. Outfall 001 is located in Gallatin County in the Southeast ¼ of Section 11, Township 3 South, Range 4 East; or 45° 35' 7" North Latitude and 111° 11' 43" West Longitude.

E. Soil Characteristics

The Natural Resources Conservation Service (NRCS) Soil Survey indicates the proposed GGCWSD site falls exclusively in the Hyalite-Beaverton Complex (NRCS, 2013). Hyalite-Beaverton Complex has 0 to 4% slope and loamy alluvium to alluvium parent.

F. Site Hydrogeology

The Gallatin Valley is an intermontane basin drained by the Gallatin River and its tributaries. The Gateway subarea, which includes the town of Gallatin Gateway, consists of alluvium covering Tertiary strata. Cobbles and gravel mix with sand, silt, and clay to compose the overlying alluvium. The alluvium is, on average, 55 feet thick (Hackett et al., 1960).

The application materials describe the hydrogeological conditions of the proposed GGCWSD treatment system. A 2006 study of an adjacent land parcel conducted by Nicklin Earth & Water serves as the basis for the hydrogeological conditions. Initial measurements by Nicklin Earth & Water (NE&W, 2006) and subsequent monitoring (2006, 2011, 2012) by Innovative Engineering showed the gradient and ground water flow direction remains approximately constant. The application reports a hydraulic gradient of 0.012 ft/ft with ground water flowing N66°W. Multiple pump tests provided within the Nicklin Earth & Water Report produce an estimated average hydraulic conductivity of 327 ft/day (NE&W, 2006). Stahly Engineering & Associates drilled an additional test well within the boundaries of the proposed site and conducted a 5-hour pump test yielding a hydraulic conductivity value of 326 ft/day, supporting the value reported within the permit application (SE&A, 2013a). Minimum depth to ground water is 35 feet below ground surface. Test pits excavated during the system design exposed no bedrock.

Form GW-1 identifies four (4) surface water bodies within one mile of proposed Outfall 001. Two of the surface waters, Wortman Creek and Cottonwood Creek, are east of Outfall 001 and therefore not hydraulically downgradient based on ground water flow direction. The other two (2) surface waters, Gallatin River and an unnamed irrigation ditch, are west of the proposed site. The Gallatin River, 2,800 feet from the proposed Outfall 001, is the nearest downgradient receiving surface water (DEQ, 2013b).

G. Ground Water Characteristics and Upgradient Ground Water Quality

Three existing monitoring wells (TW-3, TW-4, TW-5) were used to established background ground water quality for the proposed wastewater treatment site. In the future, however, these existing monitoring wells may not be available for sampling due to their location on a private lot. In addition, once the proposed Outfall 001 is constructed the existing monitoring wells may no longer represent ambient water quality for GGCWSD. Therefore, within a letter dated April 24, 2013, Stahly Engineering & Associates, Inc. agreed to install an upgradient monitoring well during the construction of the proposed wastewater treatment system (SE&A, 2013b). The monitoring well must represents the first 15 feet of receiving ground water and be placed upgradient within 1,000 feet of the treatment site.

The application reports average background specific conductance level of 383 microsiemens/cm ($\mu\text{S}/\text{cm}$), while the laboratory reports included in the supplemental material indicate an average level of 378 $\mu\text{S}/\text{cm}$. Based on the provided information DEQ determined that the receiving water is Class I ground water. Receiving waters with natural specific conductance less than or equal to 1,000 at 25 °C are defined as Class I ground water (ARM 17.30.1006).

Table 2 (below) summarizes the results from ground water quality samples collected from TW-3, TW-4, and TW-5 to characterize the background water quality conditions. The highest value of total Nitrogen, 3.82 mg/L, reported within the permit application will be used to develop effluent limits (DEQ, 2013b).

Table 2: Ground Water Monitoring Results

Location	Depth ft-bgs	Representative	Parameter	Units	Min Value	Avg Value	Max Value	No. of Samples	Source of Data
TW-5	60	S	Chloride (as Cl)	mg/L	2	2.5	3	2	(2)
			<i>Escherichia coli</i> Bacteria	mpn/100ml	<1	<1	<1	1	
			Nitrite+Nitrate (as N)	mg/L	1.82	1.825	1.83	2	
			Organic Carbon	mg/L	0.9	1.0	1.1	2	
			pH	s.u.	7.2	7.25	7.3	2	
			Specific Conductivity @ 25°C	umhos/cm	397	415.5	434	2	
			Total Dissolved Solids	mg/L	232	247	262	2	
			Total Kjeldahl Nitrogen	mg/L	ND	1.0	2.0	2	
			Total Nitrogen ⁽¹⁾	mg/L	1.83	2.83	3.82	2	
			Total Phosphorus as P	mg/L	0.13	0.146	0.163	2	
TW-4	90	D	Chloride (as Cl)	mg/L	2	2.75	3.0	4	(2)
			<i>Escherichia coli</i> Bacteria	mpn/100ml	0	<1	<1	2	
			Nitrite+Nitrate (as N)	mg/L	ND	1.46	1.96	4	
			Organic Carbon	mg/L	0.9	1.275	2.2	4	
			pH	s.u.	7.5	8.0	8.7	4	
			Specific Conductivity @ 25°C	umhos/cm	163	342	431	4	
			Total Dissolved Solids	mg/L	74	203.5	254	4	
			Total Kjeldahl Nitrogen	mg/L	ND	1.2	3.4	4	
			Total Nitrogen ⁽¹⁾	mg/L	1.93	2.66	3.4	4	
			Total Phosphorus as P	mg/L	ND	0.072	0.13	4	
TW-3	112	D	Chloride (as Cl)	mg/L	3	3	3	3	(2)
			<i>Escherichia coli</i> Bacteria	mpn/100ml	Absent	Absent	Absent	2	
			Nitrite+Nitrate (as N)	mg/L	0.15	1.02	1.93	3	
			Organic Carbon	mg/L	0.7	0.8	0.9	3	
			pH	s.u.	7.4	7.7	8.2	3	
			Specific Conductivity @ 25°C	umhos/cm	357	400	436	3	
			Total Dissolved Solids	mg/L	215	243	289	3	
			Total Kjeldahl Nitrogen	mg/L	ND	0.57	1.7	3	
			Total Nitrogen ⁽¹⁾	mg/L	0.15	1.59	2.68	3	
Total Phosphorus as P	mg/L	0.035	0.068	0.11	3				

Footnotes:

Period of Record: 03/30/2011 through 10/29/2012.

ft-bgs = feet below ground surface

mpn= most probable number

S = Shallow, constructed to be representative approximately of first contact to twenty feet in depth of the first saturated water bearing unit.

D = Deeper, approximately constructed to be representative of at least twenty feet in depth, or deeper, of the first saturated water bearing unit.

(1) Total Nitrogen is the sum of the Nitrate + Nitrite and Total Kjeldahl Nitrogen parameters.

(2) Laboratory Analysis Report

H. Sampling Location

1. Effluent

The drainfield dose tank is the proposed effluent sampling point. The effluent sampling point must represent the last point of control and will be used to determine compliance with the final numeric effluent limits.

I. Estimated Effluent Characteristics

DEQ requires the applicant to disclose the quality and characterize the composition of the effluent discharged (ARM 17.30.1023). This allows DEQ to identify potential pollutants and examine the potential for the discharge to pollute state waters (75-5-605(1)(a), MCA). Table 3 (below) summarizes the estimated effluent water quality. The effluent characteristics reported below represent the estimated discharge from proposed GGCWSD wastewater treatment system (WWTS) at Outfall 001.

Table 3: Estimated Effluent Quality – Outfall 001.

Parameter	Location	Units	Average Value	Maximum Value	Source of Data
Biochemical Oxygen Demand (BOD ₅)	EFF	mg/L	15	40	(1)
Chloride	EFF	mg/L	2	5	
Flow rate	EFF	gpd	NR	27,320	
Nitrate + Nitrite (as N)	EFF	mg/L	10	20	
Oil & Grease	EFF	mg/L	10	25	
Specific Conductivity	EFF	µS/cm	700	1,200	
Total Ammonia (as N)	EFF	mg/L	1.0	1.5	
Total Dissolved Solids	EFF	mg/L	400	700	
Total Kjeldahl Nitrogen (as N)	EFF	mg/L	10	20	
Total Nitrogen (as N)	EFF	mg/L	20	40	
Total Phosphorus (as P)	EFF	mg/L	6	8	
Total Suspended Solids (TSS)	EFF	mg/L	10	20	

Footnotes:
NR= Not Reported
BOD₅ = Biochemical Oxygen Demand
CFU = Colony Forming Unit
EFF = Effluent at drainfield dose tank
(1) As reported in permit application and based on similar system or estimates from engineering studies (DEQ, 2013b).

III. Mixing Zone

The Montana Water Quality Act (75-5-103(21), MCA) states that a mixing zone is an area of the receiving water, established in a permit or final decision on nondegradation, where the water quality standards may be exceeded. Mixing zones are subject to the conditions imposed by DEQ and consistent with the rules adopted by the Board of Environmental Quality (Board).

A mixing zone is a portion of an aquifer with a defined width and depth that receives and dilutes discharge. The mixing of receiving water with discharge changes the water quality. These changes may include levels of individual parameters from the discharge elevating the receiving water levels beyond water quality standards (ARM 17.30.502(6)). When appropriate, DEQ authorizes a mixing zone for individual parameters present in the discharge (ARM 17.30.505(a)). For new or increased sources, the levels within the mixing zone of these individual parameters must be nonsignificant at the boundaries of the mixing zone (ARM 17.30.505(b)).

A requested mixing zone, standard or source specific, requires the applicant to supply DEQ with sufficiently detailed information to determine if a mixing zone is appropriate (ARM 17.30.515(2)). DEQ determines whether or not to authorize a mixing zone using the established requirements, guidelines, and procedures of ARM 17.30.501 et seq. and the information supplied by the applicant. A water quality assessment along with aquifer characteristics and supplemental site information (ARM 17.30.506(2)(a-i)) are required to determine if and which type of mixing zone to authorize.

A mixing zone may be denied if it threatens or impairs existing beneficial uses (ARM 17.30.506(1)). In making this determination, DEQ considers whether the available data accurately predicts ground water or pollutant movement.

Gallatin Gateway County Water & Sewer District requested a standard mixing zone of 500 feet for nitrate (as N) in the permit application (DEQ, 2013b). When determining if a mixing zone is appropriate, DEQ estimates the concentrations of pollutants at the downgradient boundary of the mixing zone. To estimate the concentration of pollutants, DEQ first calculates the volume of ground water available for mixing (Q_{GW}) using Darcy's Equation (below). Darcy's Equation calculates Q_{GW} based on the dimensions of the mixing zone and aquifer properties (ARM 17.30.517(1)(d)(i)).

$$Q_{GW} = KIA$$

Where:

- Q_{GW} = ground water flow volume (ft³/day)
- K = hydraulic conductivity (ft/day)
- I = hydraulic gradient (ft/ft)
- A = cross-sectional area (ft²) at the downgradient boundary of the mixing zone

$$Q_{GW} = (327 \text{ ft/day})(0.012 \text{ ft/ft})(8,362.5 \text{ ft}^2)$$
$$Q_{GW} = 32,814 \text{ ft}^3/\text{day}$$

The cross-sectional area of the aquifer, A, equals depth of ground water multiplied by the width. The mixing zone width is calculated by multiplying the length of a standard mixing zone, 500 feet, by twice the tangent of 5° or 0.0875 (ARM 17.30.517(1)(d)(iii)(B)). This value is added to the width of the drainfield perpendicular to groundwater flow, 470 feet at GGCWSD, resulting in a downgradient boundary width for the mixing zone of 557.5 feet. The depth of a standard mixing zone extends from the top of the water table down 15 feet (ARM 17.30.517 (1)(iii)(A)), when no impermeable layers lie within this depth. The adjusted width multiplied by the depth yields the cross-sectional aquifer area, 8,362.5 ft².

The permit application and supplemental materials report the following site characteristics: ground water gradient (I) of 0.012 ft/ft, ground water flow direction of N66°W, and hydraulic conductivity (K) of 327 ft/day (DEQ, 2013b; NW&E, 2006). Table 4 (below) summarizes the mixing zone characteristics.

Table 4: Mixing Zone Information

Parameter	Units	Value
Mixing Zone Type	-	Standard
Authorized Individual Parameter	-	Total Nitrogen
Ambient Ground Water, Total Nitrogen	mg/L	3.82
Ground Water Flow Direction	azimuth/bearing	N66 ^o W
Hydraulic Conductivity (K)	feet/day	327
Hydraulic Gradient (I)	ft/ft	0.012
Length of Mixing Zone	feet	500
Outfall Width, Perpendicular to Ground Water Flow Direction	feet	470
Thickness of Mixing Zone	feet	15
Width of Mixing Zone at Down Gradient Boundary	feet	557.5
Cross Sectional Area of Mixing Zone (A)	ft ²	8,362.5
Volume of Ground Water Available for Mixing (Q _{gw})	ft ³ /day	32,814

The requested standard mixing zone for nitrate (as N) is appropriate (ARM 17.30.505). The determination to authorize is based on the description of the mixing zone above and analysis presented in Section IV.B. The applicant did not request and therefore, is not authorized a mixing zone for any additional parameters.

IV. Rationale for Proposed Discharge Limitations and Conditions

Section IV presents the basis for discharge limitations in accordance with the requirements at ARM 17.30.1031. Section IV.A. identifies the water use classification for the receiving water, the lowest applicable water quality standards for individual parameters, and describes applicable nondegradation requirements for the proposed discharge. Section IV.B. develops effluent limits for each individual parameter based on the applicable rules (ARM 17.30.1005(1-3); ARM 17.30.1006(2); ARM 17.30.1031). Section IV.C. presents the final effluent limits included in the draft permit (ARM 17.30.1031; ARM 17.30.1005; 75-5-402(3), MCA).

A. Water Use Classification and Applicable Water Quality

Class I ground waters, by definition, have a natural specific conductance less than or equal to 1,000 $\mu\text{S}/\text{cm}$ at 25°C (ARM 17.30.1006(2)). Based on the definition the proposed receiving ground waters at GGCWSD are Class I with an average specific conductance of 382 $\mu\text{S}/\text{cm}$. The

quality of Class I ground waters must be maintain for the following beneficial uses with little to no treatment (ARM 17.30.1006(2)(a)):

- Public and private water supplies;
- Culinary and food processing purposes;
- Irrigation;
- Drinking water for livestock and wildlife; and
- Commercial and industrial purposes.

Persons may not cause a violation of the following specific water quality standards in Class I ground water (ARM 17.30.1006 (2)(b)(i-iii)), except within a DEQ approved mixing zone as provided in ARM 17.30.1005(2):

- The human health standards for ground water listed in Circular DEQ-7 (DEQ,2012b);
- For concentrations of parameters for which human health standards are not listed in Circular DEQ-7, no increase of a parameter to a level that renders the water harmful, detrimental, or injurious to the beneficial uses listed for Class I ground water. DEQ may use any pertinent credible information to determine these levels;
- No increase of a parameter that causes a violation of the nondegradation provisions of 75-5-303, MCA; and
- General water quality requisite to support the designated beneficial uses listed above.

The nondegradation rules (ARM 17.30.701 et seq.) implement Montana's Nondegradation Policy, which applies to any activity of man resulting in a new or increased source of pollutants that may cause degradation to state waters (ARM 17.30.705(1)). DEQ is required to determine whether a new or increased source has the potential to cause degradation or whether it is nonsignificant (ARM 17.30.706(2), ARM 17.30.715).

DEQ designated the wastewater treatment system at GGCWSD as a new source. The designation of new source refers to the starting date of changes in existing water quality. DEQ considers any activity that changes water quality occurring on or after April 29, 1993, a new source (ARM 17.30.702(18)). Table 5 (below) summarizes the applicable ground water standards and the corresponding nondegradation significance criteria.

Table 5: Applicable Ground Water Quality Standards		
Parameter⁽¹⁾	Water Quality Standard⁽²⁾	Nondegradation Significance Criteria⁽³⁾
Nitrate + Nitrite (as N)	10.0 mg/L	7.5 mg/L ⁽²⁾
Phosphorus, Total Inorganic	-	Surface water breakthrough time greater than 50 years ⁽⁴⁾
Footnotes: (1) Includes parameters of concern only. (2) Circular DEQ-7 (2012b), footnote 3, states the concentration of no single sample may exceed the listed values; similarly, ARM 17.30.715(1)(d) indicates the applicable significance criteria for nitrate is also a no single sample shall exceed value. (3) Changes in water quality that do not comply with the listed criteria are significant degradation. (4) Changes in receiving ground water quality are not significant if water quality protection practices approved by DEQ have been fully implemented and if the listed significance criteria are met (ARM 17.30.715(c)).		

B. Development of Effluent Limits

Administrative Rules of Montana (ARM) 17.30.1005 states that the ground water standards (See Section IV.A.) establish the maximum allowable changes in ground water quality; are the basis for limiting discharges to ground water; and may only be exceeded within a mixing zone authorized by DEQ (see Section III). For new sources discharging to high quality waters, the nonsignificance criteria in ARM 17.30.715 are the basis for limiting discharges to ground water. This section develops the applicable effluent limits for each parameter.

1. Water Quality-Based Effluent Limitations (WQBEL)

Effluent limits based on water quality are developed within ARM 17.30.1006 and ARM 17.30.715. The water quality standards state that the nitrate concentrations in ground water at the end of the mixing zone shall not exceed the applicable numeric standard of 10 mg/L (ARM 17.30.1006). While the significance criteria state that the nitrate concentrations in ground water at the end of the mixing zone shall not exceed the applicable numeric criteria of 7.5 mg/L (ARM 17.30.715(1)(d)). DEQ will use the most restrictive standards in determining water quality based effluent limits. The significance criteria of ARM 17.30.715(1)(e) states that the phosphorus concentration must be removed for a period of 50 years prior to discharge to any surface water.

To meet the nonsignificant criteria standards, a mass-balance equation calculates the effluent concentrations needed in order to meet the standards at the end of the mixing zone. The effluent limit developed using the mass-balance equation is then expressed as a load. Numeric effluent limits expressed as load incorporates both strength of waste and volume (75-5-402(3), MCA). Load limits also ensure compliance with the ground water standards at the end of the mixing zone.

a. Total Nitrogen

The nitrogen present in raw wastewater is primarily in the form of organic matter and ammonia. After primary treatment, wastewater is 85% ammonia. Once discharged into the drainfield,

ammonia is almost entirely converted to nitrite, and ultimately to nitrate (EPA, 2002). To predict the Nitrate + Nitrite concentration in the ground water at the end of mixing zone, DEQ assumes that the entire nitrogen load in the treated wastewater is converted into and enters the ground water as nitrate. DEQ will limit total nitrogen, TN, in this permit.

To limit TN, the allowable discharge concentration is derived from a mass-balance equation (ARM 17.30.517(1)(d)(vi-vii)). The mass-balance equation incorporates the ground water volume available for dilution and background concentration of the receiving water. Section III describes the calculation, using Darcy's equation, of the volume of receiving water available to dilute effluent (Q_{GW}). The mass balance equation (below) has been rearranged to determine the allowable discharge expressed as a load:

$$L_{EFF} = [C_{STD}(Q_{GW} + Q_{EFF})]X - C_{AMB}Q_{GW}X$$

Where:

- L_{EFF} = daily maximum load (lbs/day)
- C_{STD} = most stringent applicable ground water quality standard (mg/L)
- C_{AMB} = ambient ground water concentration (mg/L) of nitrate + nitrite (as N)
- Q_{GW} = ground water volume (gpd) available for mixing at the end of the mixing zone
- Q_{EFF} = volume of effluent (gpd)
- X = 8.34×10^{-6} , the conversion factor that converts concentration (mg/L) and flow (gpd) into load (lbs/day)

As indicated by Table 6, the most stringent applicable ground water quality standard (C_{STD}) for Nitrate + Nitrite (as N) is 7.5 mg/L. The ambient concentration of Nitrate + Nitrite (as N) in the receiving water (C_{AMB}) is 3.82 mg/L. As described in Section III, Q_{GW} is 245,452 gpd (32,814 ft³/day). The reported daily discharge flow (Q_{EFF}) of up to 50,000 gpd (6,684 ft³/day) is based on the designed maximum flow capacity of the system. Solving for L_{EFF} :

$$L_{EFF} = [7.5 \text{ mg/L}(245,452 \text{ gpd} + 50,000 \text{ gpd})]8.34 \times 10^{-6} - (3.82 \text{ mg/L})(245,542 \text{ gpd})(8.34 \times 10^{-6})$$

$$L_{EFF} = 10.66 \text{ lbs/day}$$

Thus, the TN WQBEL for Outfall 001 is 10.7 lbs/day.

b. Total Phosphorus

Soil sorption processes remove portions of phosphorus present in wastewater. The amount of phosphorus removed depends on the soil composition. To determine if the portion of phosphorus remaining in the effluent will discharge to the closest downgradient gaining surface water system within 50 years, DEQ uses a method called the 50-year breakthrough. The 50-year breakthrough nondegradation criterion calculates the number of years before the phosphorus is likely to discharge to surface waters. The calculation depends on the amount of soil available to adsorb the phosphorus load between the discharge point (Outfall 001) and the closest downgradient gaining surface water system.

The proposed location for the GGCWSD drainfield covers an existing and operational drainfield used by a local business. Because the removal of phosphorus from the wastewater depends on the amount of soil available, the land area of the existing drainfield will be subtracted from the total proposed drainfield area when calculating a phosphorus limit. The existing drainfield covers an area of 24,700 ft² (650 feet long and 38 feet wide) and represents approximately 29% of the total land area, 85,800 ft² (660 feet long and 130 feet wide), proposed for the new drainfield.

The developed effluent limits will be expressed as total phosphorus (TP) in a load (lb/yr) to remain consistent with surface water phosphorus measurements. The implementation of a TP effluent limitation ensures that the quality of the effluent meets the nondegradation criteria developed to prevent the discharge of phosphorus to surface water (ARM 17.30.715(1)(e)).

This limit is based on an average daily design flow rate of 30,000 gpd as indicated by the applicant and a representative effluent TP concentration of 10.6 mg/L based on DEQ's Nondegradation Analysis for Subsurface Wastewater Treatment Systems (DEQ, 2009). During the significance determination using the values reported on the permit application and accepted DEQ values phosphorus would be expected to reach gaining surface waters in 25.1 years resulting in degradation of state waters. The phosphorus load was adjusted to achieve the required 50 years from discharge to downgradient surface water (see Attachment). Therefore, DEQ proposes a limit 486 lbs/year. The proposed limit would not impact the nearest hydraulically downgradient surface water for the required 50 years.

DEQ proposes a TP numerical effluent limit of 486 lbs/year.

C. Proposed Effluent Limits

Total nitrogen and total phosphorus each have a Montana Numeric Water Quality Standard. Therefore a limit needs to be established. Table 6 (below) summarizes the proposed effluent limits.

Table 6: Proposed Final Effluent Limits – Outfall 001				
Parameter	Units	Effluent Limitations		Rationale
		Daily Maximum⁽¹⁾⁽²⁾	Annual Maximum⁽¹⁾	
Total Nitrogen (as N)	lbs/day	10.7	NA	Nondegradation Significance Criteria ARM 17.30.715(1)(d)(iii)
Total Phosphorus (as P)	lbs/year	NA	486	Nondegradation Significance Criteria ARM 17.30.715 (1)(e)
Footnotes:				
NA= Not Applicable				
(1) See definition in Part V of permit.				
(2) Report highest measured daily value for reporting period on Discharge Monitoring Report (DMR) form.				

D. Final Effluent Limits

Sections III and IV describe the development of the proposed final effluent limits (TN and TP) using the most stringent applicable limitations (75-5-402(3) MCA; ARM 17.30.1031(2)). DEQ proposes the following numerical effluent limitations.

1. Nitrogen

The TN effluent limit (developed in Section IV.B.1.a) is 10.7 lbs/day. This limit is effective at Outfall 001.

2. Phosphorus

The TP load limit based on an annual maximum and is 486 lbs/year. This limit is effective at Outfall 001.

3. Final Effluent Limits

These final limitations are the most stringent applicable limitations as developed in the previous sections. Table 7 (below) summarizes the final effluent limits. Upon issuance of the MGWPCS permit, any changes to the wastewater collection system or treatment design may require a modification of the permit.

Table 7: Final Effluent Limits – Outfall 001			
Parameter Name	Units	Effluent Limitations	
		Daily Maximum⁽¹⁾⁽²⁾	Annual Maximum⁽¹⁾
Total Nitrogen (as N)	lbs/day	10.7	NA
Total Phosphorus (as P)	lbs/year	NA	486
Footnotes: (1) See definition in Part V of permit. (2) Highest measured daily value for the reporting period as indicated on the Discharge Monitoring Report (DMR) form.			

V. Rationale for Monitoring and Reporting Requirements

Effluent and ground water monitoring are required (ARM 17.30.1031). For additional information and more details refer to the Administrative Rules of Montana (17.30.1031).

DEQ may require the submission of additional data and information with any MGWPCS permit application where warranted by the potential impacts of a source (ARM 17.30.1023(5)). DEQ therefore is requiring this information to be provided as a condition of the permit.

A. Effluent Monitoring

The applicant is required to monitor and report the quality and quantity of the effluent (see Part II of the permit). The effluent monitoring location is at the dose tank prior to discharge into the drainfield. Effluent quality and quantity sampling must be conducted that is representative of the wastewater discharged into the drainfield. Parameter analytical methods must be in accordance with 40 CFR Part 136 unless otherwise specified.

1. Compliance Monitoring

Effluent monitoring is required to ensure compliance with the permit limits developed to protect water quality. Final numeric effluent limits are developed within this document with specific magnitudes and durations based on site-specific conditions that protect state water from degradation and ensure that the discharge does not cause or contribute to an exceedance of an applicable water quality standard (see Sections III and IV of this fact sheet). ARM 17.30.1031 requires that all issued MGWPCS permits contain monitoring requirements that assure compliance with the developed numeric effluent limitations and the water quality standards. Accordingly, the applicant is required to monitor and report the effluent quality at a specified frequency in order to demonstrate compliance with the applicable effluent limits.

Effluent flow monitoring is required to assess hydraulic loading rate of the facility and to assess the loading rate of nutrients to the ground water. Continuous flow monitoring of the effluent at the last point of control prior to discharge into the drainfield is required. The applicant shall report the daily maximum and average quarterly flow rates on a DMR. The measurement method must be either by recorder or a totalizing flow meter; dose counts or pump run-times are unacceptable. The applicant indicated a flow meter will be installed. The permit requires that samples and/or measurements represent the volume and nature of the monitored discharge. The flow rate of the effluent is recorded when the required sampling is conducted (i.e. the flow measurement must correspond to the sample collection time in order to calculate an accurate load value). Table 9 (below) summarizes the effluent flow rate monitoring and reporting requirements.

Table 9: Effluent Monitoring and Reporting Requirements

Parameter	Influent or Effluent	Monitoring Location	Units	Sample Type ⁽¹⁾⁽²⁾	Minimum Sampling Frequency	Reporting Requirements ⁽¹⁾⁽³⁾	Report Frequency	Rationale
Flow Rate ⁽⁴⁾⁽⁵⁾	Effluent	Flow Meter	gpd	Continuous	Continuous	Daily Max and Quarterly Average	Quarterly	Permit Compliance/ Effluent Characterization
Biochemical Oxygen Demand (BOD ₅)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Quarterly Average	Quarterly	Proper O & M/ Effluent Characterization
Total Suspended Solids (TSS)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Quarterly Average	Quarterly	Proper O & M/ Effluent Characterization
Nitrate + Nitrite (as N)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Daily Max and Quarterly Average	Quarterly	Permit Compliance/ Proper O & M
Total Ammonia (as N)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Daily Max and Quarterly Average	Quarterly	Proper O & M
Total Kjeldahl Nitrogen (as N)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Daily Max and Quarterly Average	Quarterly	Permit Compliance
Total Nitrogen (as N) ⁽⁵⁾⁽⁶⁾	Effluent	Dose Tank	mg/L	Calculate	1/Quarter	Daily Max and Quarterly Average	Quarterly	Permit Compliance
			lbs/day ⁽⁸⁾	Calculate				
Total Phosphorus (as P) ⁽⁵⁾⁽⁸⁾	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Quarterly Average	Quarterly	Permit Compliance
			lbs/day ⁽⁸⁾	Calculate				
			lbs/year ⁽⁹⁾		1/year	Annual Maximum ⁽⁷⁾	Annually	

Footnotes:

NA = Not Applicable

(1) See definitions in Part V of the permit.

(2) Grab sample will represent concentration for a 24 hour period.

(3) Daily Maximum: Report highest measured daily value for the reporting period on Discharge Monitoring Report (DMR) form.

(4) If no discharge occurs during the reporting period, "No Discharge" shall be recorded on the DMR report form.

(5) Requires recording device or totalizing meter, must record daily effluent volume.

(6) Total Nitrogen is the sum of the Nitrate + Nitrite and Total Kjeldahl Nitrogen parameters.

(7) Annual maximum load shall be reported on an annual basis on a DMR (due on January 28 of each year of the permit cycle).

(8) Load calculation: lbs/day = concentration (mg/L) x flow (gpd) x $[8.34 \times 10^{-6}]$.

(9) Load calculation: lbs/year = [the average of all quarterly loads (lbs/day) for the calendar year] * 365.

2. Supplemental Effluent Monitoring

Supplemental effluent monitoring is water quality monitoring required ensuring the proper operation and maintenance of the WWTS, to evaluate the treatment of wastes, and to assess, if necessary, the causes of system failure or exceedances of permit limits (see Part III of the permit). Wastewater treatment systems operated within the designed hydraulic loading rates and properly maintained are more likely to provide effective treatment of wastewater and less likely to either

physically fail or violate numeric permit limits. The indicator parameters, 5-day Biochemical Oxygen Demand (BOD₅) and Total Suspended Solids (TSS), demonstrate effective waste treatment and properly operated and maintained treatment system. Table 9 (above) summarizes the BOD₅ and TSS monitoring and reporting requirements.

B. Ground Water Monitoring

Ground water monitoring is not established within this fact sheet. However, as discussed above (Section G.) a permanent monitoring well representative of first receiving water needs to be installed to remain compliant with the permits Duty to Reapply condition (Part IV.D.).

VI. Special Conditions

Special conditions have not been established within Section VI of this fact sheet.

VII. Compliance Schedule

A compliance schedule has not been established within this fact sheet.

VIII. Nonsignificant Determination

Because the proposed discharge from GGCWSD would result in a change of existing water quality on or after April 29, 1993, DEQ conducted the required significance determination (ARM 17.30.702(18); ARM 17.30.715). The applicable water quality standards for Class I ground water and nondegradation significance criteria are summarized in Table 5. DEQ has determined these discharges to be nonsignificant with respect to nitrogen concentrations at the end of the mixing zone; nitrogen concentrations are predicted to be less than 7.5 mg/L. Phosphorus load limits were developed using the most conservative data available, and are based on nondegradation significance criteria for 50-year breakthrough to surface water in accordance with ARM 17.30.715(1)(e). Therefore, discharges in compliance with the limitations of this permit constitute nonsignificant degradation. This permit includes monitoring and reporting requirements to establish, confirm, and maintain compliance with the permit limits.

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Prepared by Rainie DeVaney May 30, 2013

X. Appendix-Line Drawing
Phosphorus Breakthrough Analysis



Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

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September 9, 2013

Ted Border, President
Gallatin Gateway County Water & Sewer District
P.O. Box 383
Gallatin Gateway, MT 59730

RE: Notice of Final Decision; Montana Ground Water Pollution Control System (MGWPCS) Permit No.:
MTX000229, Gallatin Gateway County Water & Sewer District

Dear Mr. Border:

In accordance with the Administrative Rules of Montana (ARM) 17.30.1024, enclosed are the response to comments and a copy of the final wastewater discharge permit for Gallatin Gateway County Water & Sewer District. The Montana Department of Environmental Quality (DEQ) is issuing this permit pursuant to the Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated (MCA).

The enclosed document addresses the issues identified during 30-day public comment period which closed on August 8, 2013. No major changes were made to the permit, only minor typographical changes in formulating the final permit.

In accordance with ARM 17.30.1024 and ARM 17.30.1378, DEQ's final permit decision is effective as of November 1, 2013. The applicant may appeal this decision in accordance with 75-5-403 and 75-5-611, MCA.

A copy of the permit should be made available to the person in charge of the facility so that person is aware of the general requirements in the permit including the Duty to Reapply found within Part IV of the permit.

If you have any questions, please contact the permit writer, Rainie DeVaney at 406-444-6769.

Sincerely,

Bob Habeck, Chief
Water Protection Bureau

cc: Kurt Thomson, Senior Project Manager
Stahly Engineering & Associates, Inc.
7585 Shedhorn Drive, Bozeman, MT 59718
Tillman McAdams, U.S. EPA Region 8

Enclosures: Response to Comments
Permit No. MTX000229

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I. EFFLUENT LIMITS, MONITORING REQUIREMENTS & OTHER CONDITIONS

A. Description of Discharge Point and Mixing Zone

The authorization to discharge provided under this permit is limited to the outfall specially designated below as discharge location. Discharges at any location not authorized under an MGWPCS permit is a violation of the Montana Water Quality Act and may subject the person(s) responsible for such discharge to penalties under the Act. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge within a reasonable time from first learning of an unauthorized discharge could subject such person to criminal penalties as provided under Section 75-5-632 of the Montana Water Quality Act.

<u>Outfall</u> 001	<u>Description</u> Location: Drainfield located at 45° 35' 7" North Latitude and 111° 11' 43" West Longitude; Southeast ¼ of Section 11, Township 3 South, Range 4 East, Gallatin County.
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Mixing Zone: A standard 500 foot length by 15 foot depth ground water mixing zone for the parameter nitrate (as nitrogen).

Treatment Works: Recirculating Tricking Filter

B. Effluent Limits

Upon the effective date of the permit and lasting until the term of the permit; the quality of effluent discharged at each outfall shall, as a minimum, meet the final effluent limitations set forth in Table 1.

Table 1: Final Effluent Limits			
Parameter Name	Units	Effluent Limitations	
		Daily Maximum⁽¹⁾⁽²⁾	Annual Maximum⁽¹⁾
Total Nitrogen (as N)	lbs/day	10.7	NA
Total Phosphorus (as P)	lbs/year	NA	486

Footnotes:
 (1) See definition in Part V of permit.
 (2) Highest measured daily value for the reporting period as indicated on the Discharge Monitoring Report (DMR) form.

C. Effluent Monitoring and Reporting Requirements

1. Samples representative of effluent quality must be collected from the drainfield dose tank immediately prior to the drainfield dosing pumps. Samples or measurements shall be representative of the volume and nature of the monitored discharge. The required sampling frequency is individually listed in Table 2 for each respective parameter. The required sample type is individually listed in Table 2 for each respective parameter. The permittee shall report the required monitoring data to the Department at the frequency respectively listed in Table 2 for each parameter.
2. The load calculations shall use the daily flow measured during the same 24 hour period that analytical samples are collected.
3. Analytical methods must be in accordance with the Code of Federal Regulations, 40 CFR Part 136, unless approved by the Department.
4. Submittal of Discharge Monitoring Report Forms (DMR) will be required, regardless of the operational status of the facility. If no discharge occurs during an individual monitoring period, it shall be stated on the DMR that no discharge or overflow occurred.

Table 2: Effluent Monitoring and Reporting Requirements

Parameter	Influent or Effluent	Monitoring Location	Units	Sample Type ⁽¹⁾⁽²⁾	Minimum Sampling Frequency	Reporting Requirements ⁽¹⁾⁽³⁾	Report Frequency
Flow Rate ⁽⁴⁾⁽⁵⁾	Effluent	Flow Meter	gpd	Continuous	Continuous	Daily Max and Quarterly Average	Quarterly
Biochemical Oxygen Demand (BOD ₅)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Quarterly Average	Quarterly
Total Suspended Solids (TSS)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Quarterly Average	Quarterly
Nitrate + Nitrite (as N)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Daily Max and Quarterly Average	Quarterly
Total Ammonia (as N)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Daily Max and Quarterly Average	Quarterly
Total Kjeldahl Nitrogen (as N)	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Daily Max and Quarterly Average	Quarterly
Total Nitrogen (as N) ⁽⁵⁾⁽⁶⁾	Effluent	Dose Tank	mg/L	Calculate	1/Quarter	Daily Max and Quarterly Average	Quarterly
			lbs/day ⁽⁸⁾	Calculate			
Total Phosphorus (as P) ⁽⁵⁾⁽⁸⁾	Effluent	Dose Tank	mg/L	Grab	1/Quarter	Quarterly Average	Quarterly
			lbs/day ⁽⁸⁾	Calculate			
			lbs/year ⁽⁹⁾		1/year	Annual Maximum ⁽⁷⁾	Annually

Footnotes:

NA = Not Applicable

(1) See definitions in Part V of the permit.

(2) Grab sample will represent concentration for a 24 hour period.

(3) Daily Maximum: Report highest measured daily value for the reporting period on Discharge Monitoring Report (DMR) form.

(4) If no discharge occurs during the reporting period, "No Discharge" shall be recorded on the DMR report form.

(5) Requires recording device or totalizing meter, must record daily effluent volume.

(6) Total Nitrogen is the sum of the Nitrate + Nitrite and Total Kjeldahl Nitrogen parameters.

(7) Annual maximum load shall be reported on an annual basis on a DMR (due on January 28 of each year of the permit cycle).

(8) Load calculation: lbs/day = concentration (mg/L) x flow (gpd) x [8.34 x 10⁻⁶].

(9) Load calculation: lbs/year = [the average of all quarterly loads (lbs/day) for the calendar year] * 365.

D. Special Conditions

There are no special conditions associated with the issuance of this permit.

II. MONITORING, RECORDING AND REPORTING REQUIREMENTS

- A. Representative Sampling
Samples taken in compliance with the monitoring requirements established under Part I of the permit shall be collected from the effluent prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge.
- B. Monitoring Procedures
Monitoring must be conducted according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations, unless other test procedures have been specified in this permit. All flow-measuring and flow-recording devices used in obtaining the data submitted in self-monitoring reports must indicate values within 10 percent of the actual flow being measured.
- C. Penalties for Tampering
The Montana Water Quality Act 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.
- D. Reporting of Monitoring Results
Self-monitoring results shall be submitted to the Department. Monitoring results obtained during the previous monitoring period shall be summarized and reported on a Discharge Monitoring Report Form (EPA No. 3320-1) and postmarked no later than the 28th day of the month following the completed reporting period. If no discharge occurs during the reporting period, then "No Discharge" shall be reported on the report form. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the "Signatory Requirements" (see Part IV.G. of this permit), and submitted to the Department at the following address:
- Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901
Phone: (406) 444-3080
- E. 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 unless otherwise specified in this permit.

F. Additional Monitoring by the Permittee

If the permittee monitors any additional pollutants or any pollutant more frequently than required by this permit using approved analytical methods as specified in this permit, the results of this monitoring shall be included in the analysis and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

G. Records Contents

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;
2. The initials or name(s) of the individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The time analyses were initiated;
5. The initials or name(s) of individual(s) who performed the analyses;
6. References and written procedures, when available, for the analytical techniques or methods used; and
7. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

H. 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. This period may be extended by the request of the Department at any time. Data collected on site, copies of Discharge Monitoring Reports, and a copy of this MGWPCS permit must be maintained on site during the duration of activity at the permitted location.

I. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee shall report any serious incidents of noncompliance affecting the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Protection Bureau at (406) 444-3080 or the Office of Disaster and Emergency Services at (406) 324-4777. The following examples are considered serious incidents:

- a. Any noncompliance which may seriously endanger health or the environment; or
 - b. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part III.G. of this permit, "Bypass of Treatment Facilities").
2. 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. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected; and
 - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 3. The Department 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, at (406) 444-3080.
 4. Reports shall be submitted to the addresses in Part II.D. of this permit, "Reporting of Monitoring Results."

J. Other Noncompliance Reporting

Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for Part II.D. of this permit are submitted. The reports shall contain the information listed in Part II.I.2. of this permit.

K. Inspection and Entry

The permittee shall allow the head of the Department, the Director, or an authorized representative thereof, upon the presentation of credentials and other documents as may be required by law, to:

1. 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;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

F. Removed Substances

Collected screenings, grit, solids, sludge, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard.

G. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which 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 of Parts III.G.2. and III.G.3. of this permit.
2. Notice:
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part II.I. of this permit, "Twenty-four Hour Reporting."
3. Prohibition of bypass:
 - a. Bypass is prohibited and the Department may take enforcement action against a permittee for a bypass, unless:
 - 1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) 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 which occurred during normal periods of equipment downtime or preventive maintenance; and
 - 3) The permittee submitted notices as required under Part III.G.2. of this permit.

- b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part III.G.3.a. of this permit.

IV. GENERAL REQUIREMENTS

A. Planned Changes

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit; or
2. There are any planned substantial changes to the existing sewage sludge management practices of storage and disposal. The permittee shall give the Department notice of any planned changes at least 180 days prior to their implementation.

B. Anticipated Noncompliance

The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Permit Actions

This permit may be revoked, modified 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.

D. 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 apply for and obtain a new permit. The application must be submitted at least 180 days before the expiration date of this permit.

E. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for revoking, modifying and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

F. Other Information

When 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 the Department, it shall promptly submit such facts or information with a narrative explanation of the circumstances of the omission or incorrect submittal and why they weren't supplied earlier.

G. Signatory Requirements

All applications, reports or information submitted to the Department shall be signed and certified.

1. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer:
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by the Department 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:
 - a. The authorization is made in writing by a person described above and submitted to the Department; and
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, 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).
3. Changes to authorization. If an authorization under Part IV.G.2. of this permit 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 of Part IV.G.2. of this permit must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. 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.”

H. Penalties for Falsification of Reports

The Montana Water Quality Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports

All reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the EPA. Permit applications, permits and effluent data shall not be considered confidential and shall also be available for public inspection.

J. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

K. Property or Water Rights

The issuance of this permit does not convey any property or water rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

L. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

M. Transfers

This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Department at least 30 days in advance of the proposed transfer date;

2. 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;
3. The Department does not notify the existing permittee and the proposed new permittee of the intent to revoke or modify and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part IV.M.2. of this permit; and
4. Required annual and application fees have been paid.

N. 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, the Department may:

1. Impose additional fee assessment(s) computed at the rates established under ARM 17.30.201; and
2. 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. The Department 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 sub-section. Suspensions are limited to one year, after which the permit will be terminated.

O. Reopener Provisions

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

1. Water Quality Standards: The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit; or
2. Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values, excluding mixing zones designated by ARM 17.30.501-518, for parameters included in the permit or others, the department may modify the effluent limits or water management plan.

V. DEFINITIONS

1. **"30-day (and monthly) average"** other than for fecal coliform bacteria, means the arithmetic average of all samples collected during a consecutive 30-day

period or calendar month, whichever is applicable. Geometric means shall be calculated for fecal coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data.

2. **"90-day (and quarterly) average"** other than for fecal coliform bacteria, means the arithmetic average of all samples collected during a consecutive 90-day period or calendar quarter, whichever is applicable. Geometric means shall be calculated for fecal coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data.
3. **"180-day (and six month) average"** other than for fecal coliform bacteria, means the arithmetic average of all samples collected during a consecutive 180-day period or calendar half-year, whichever is applicable. Geometric means shall be calculated for fecal coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data.
4. **"Annual Average Load"** means the arithmetic mean of all 30-day or monthly average loads reported during the calendar year for a monitored parameter.
5. **"Annual Maximum Limit"** means the maximum allowable discharge of a pollutant during a calendar year.
6. **"BOD₅"** 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. **"Composite samples"** shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
 - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
 - c. Constant sample volume, time interval between samples proportional to flow (i.e. sample taken every "X" gallons of flow); and,

- d. Continuous collection of sample, with sample collection rate proportional to flow rate.
9. **"Continuous"** means the measurement of effluent flow which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance process changes, or other similar activities.
10. **"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.
11. **"Daily Maximum Limit"** means the maximum 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.
12. **"Department"** means the Montana Department of Environmental Quality.
13. **"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.
14. **"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.
15. **"Instantaneous"** measurement, for monitoring requirements, means a single reading, observation, or measurement.
16. **"Load Limits"** are mass-based discharge limits expressed in units such as lbs/day
17. **"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.
18. **"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 the Department prior to April 29, 1993.

19. **"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.
20. **"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.
21. **"TSS"** means the pollutant parameter total suspended solids.

**Response to Comments
Gallatin Gateway County Water & Sewer District
MGWPCS Permit No. MTX000229**

On July 8, 2013, the Montana Department of Environmental Quality (DEQ) issued Public Notice MT-13-17, stating DEQ's intent to renew a Montana Ground Water Pollution Control System (MGWPCS) wastewater discharge permit to Gallatin Gateway County Water & Sewer District. The notice stated DEQ prepared a draft permit, fact sheet, and an environmental assessment.

The public notice required that all substantive comments must be received or postmarked by August 8, 2013, in order to be considered in formulation of the final determination and issuance of the permit. DEQ received and considered the following comments in preparation of the final permit and decision.

Comments on Draft MGWPCS Permit No. MTX000229

Commenter: Kurt Thomson, Stahly Engineering on behalf of Gallatin Gateway County Water & Sewer District (permittee)

Comment (portion of comment letter): In accordance with the original application we are proposing an average phosphorus concentration in the effluent of 6.0 mg/L. At the maximum flow of 50,000 gpd this represents an annual maximum loading of 913 lbs/year. If the phosphorus adsorption analysis is conducted using the original conservative depth to limiting layer of 35 feet below the drainfield, and the updated drainfield dimensions, this results in a "breakthrough" time of 70.1 years. Based on the information provided previously and in this letter we are requesting the annual maximum total phosphorus limit be 913 lbs/year.

Response: The test pit data provided describes the lithological conditions within the first approximately 8 feet below ground surface directly under the proposed drainfield location. The newly drilled well provides soil profile information to a greater depth below ground surface, but with less detail, particularly because the drilling method was not provided. Given the unknown lithology between the test pits to the nearest downgradient receiving surface water, the presence of clay lenses, and that the nearest downgradient receiving water is the Gallatin River the total phosphorus (TP) load limit developed within the fact sheet and draft permit has not be changed. In addition the proposed drainfield location is over an existing and operational drainfield significantly decreasing the phosphorus adsorption capacity of the soil directly beneath the drainfield.

Commenter: Terry Threlkeld

Comment 1 (summarized and paraphrased): Gallatin Gateway County Water & Sewer District collected background water quality samples from three wells including MW-3, MW-4, and MW-5. These wells are downgradient of the proposed discharged structure and not all three of the wells represent the first fifteen feet of aquifer. Form GW-1 states that a minimum of three samples must be

collected within the two year period prior to date of submittal of the application. This requirement has not been met.

Response: The instructions included within Form GW-1 are an interpretation of the Administrative Rules of Montana (ARM). ARM 17.30.1023(5)(a) states that the applicant needs to describe the local ground water characteristics. The permit application submitted was determined to be complete in accordance with ARM 17.30.1023, meaning that during the application review process the ambient ground water quality results provided are adequate to develop a ground water discharge permit decision. To develop conservative and applicable effluent limits the largest single occurrence of nitrate was used to describe ambient when calculating effluent limits. In addition, because the discharge structure is proposed and not yet constructed there is no true "upgradient", however, prior to permit renewal the permittee will be required to establish an upgradient long term monitoring well and sample the well to establish ambient ground water conditions.

Comment 2: There have been a couple of groundwater reports recently completed by Michael Nicklin regarding the value calculated for groundwater aquifer conductivity in the application. These values are considerably less than those used in the application and if the Nicklin values for conductivity are used for the nitrate sensitivity calculation the Gallatin Gateway WSD's project will violate Montana's nondegradation laws immediately when the wastewater system first begins to operate.

Response: The reports submitted by Michael Nicklin have been reviewed and considered during the development of the final ground water discharge permit. However, DEQ accepts the hydraulic conductivity value submitted within the permit application signed by an authorized signatory under penalty of the law. The hydraulic conductivity value describes the overall local aquifer conditions allowing for natural heterogeneous variations.

Comment 3: The Department appears to not be requiring a point of compliance in a downgradient groundwater monitoring well. How will the DEQ be assured of downgradient groundwater quality without a groundwater monitoring requirement?

Response: The effluent limits developed use the most conservative and applicable aquifer characteristics and ground water quality information in order to protect water quality of existing and future beneficial uses outside the mixing zone boundaries. Transient ground water flow direction and gradient conditions, current land use practices including agriculture, and an existing drainfield would make it difficult to attribute changes in downgradient water quality to any one source.

Comment 4 (paraphrased): A clay lens exists below the proposed drainfield location. This clay lens will impede effluent mixing with groundwater to achieve the required total nitrogen (TN) level of 7.5 mg/L at the end of the mixing zone.

Response: DEQ acknowledges the presence of clay lenses within and near the proposed location of the wastewater treatment system; clay lenses are common within this depositional environment and there is no evidence that these lenses are continuous or connected.

Comment 5: According to Nicklin's calculations and modeling, the effluent discharged onto the proposed disposal site will likely flow downgradient through the Gateway School and down through the center of the community. The proposed wastewater project was supposed to improve a present situation where neighbors are currently drinking each other's drainfield effluent from the typically shallow wells that exist throughout the community. Does collecting up the effluent and disposing of it after Level II treatment on site that is upgradient of most of the community really constitute an improvement?

Response: DEQ evaluates and considers all existing beneficial uses when making a permit decision to authorize a point of discharge. The process aims to ensure the protection of state waters including future and existing beneficial uses. The ground water model referenced was not submitted to DEQ and therefore was not considered in formulating the final permit decision.

Comment 6: Nearly all of the proposed mixing zone will be placed on an unwilling neighbor's property, adversely impacting him, which constitutes a taking of some of his private property rights. DEQ should require Gallatin Gateway WSD to keep the mixing zone on property that they own, or have specific easements for that express purpose.

Response: The Montana Ground Water Pollution Control System (MGWPCS) and The Water Quality Act rules do not require mixing zone to remain within the boundaries of the property.

Comment 7: I am requesting DEQ hold a public hearing in Gallatin Gateway to present the details of the project and take questions and answers from the public so there is better understanding of the project, its impact and benefits to the community. Please consider this a formal request as part of the public comment process for the above mentioned project.

Response: The department may hold a hearing on its own initiative or when it determines good cause exists to hold such a hearing upon request of any person (ARM 17.30.1024 (6)). Requests for public hearing must list the reasons why a hearing is warranted (ARM 17.30.1024 (5)). The department did not identify good cause to hold a public hearing based on the reasons listed within the request and therefore, no public hearing will be held.

Commenter: Denise Moldroski

Comment 1: This comment is in regard to the public water supply well on the property adjacent and to the west of the proposed drainfield area (Buffalo Station well PWSID #MT0004197). The 100 foot well isolation zone of this PWS well will be overlapped by the mixing zone from the replacement drainfield for the Gallatin Gateway W&SD system at the time it is constructed. What provisions are made to move this well or otherwise provide an alternative water supply when this situation arises in the future?

Response: Permits issued under Montana Ground Water Pollution Control System (MGWPCS) regulate the source (Outfall 001) or point of discharge, not the replacement point of discharge and associated replacement mixing zone. If, in the future, the permittee wants to discharge from the replacement drainfield and request a mixing zone associated with the replacement drainfield the wastewater discharge permit will need to be modified to reflect the new point of discharge as outlined with Part IV General Requirements of the permit and in The Montana Water Quality Act (75-5-605, MCA). During permit modification the point of discharge along with mixing zones and public supply wells would be re-evaluated. In addition, the permittee (Gallatin Gateway County Water & Sewer District) along with the Stahly Engineering (consultant for GGWS&D) understand the required 100 foot setback between a public supply well and both the primary and replacement drainfield mixing zones for Public Water Supply Plan Review.

Comment 2: There are no downgradient monitoring wells proposed at the end of the 500 foot mixing zone in this permit. This issue was brought before the wastewater subcommittee of the Gallatin City-County Board of Health for discussion. We strongly recommend that downgradient monitoring wells be placed at the end of the 500 foot mixing zone or as can best be accommodated given property ownership issues and estimate gradient direction. Downgradient monitoring wells are the best way to get an accurate picture of what is actually happening and to verify that the effluent limits being used are appropriate for the situation.

Response: See response to Comment 3 (above) received from Terry Threlkeld.

Commenter: Kim DeBruycker

Comment: Tonight is a board meeting for the Gallatin Gateway School Board. As you can see (attachment), it is a topic on the agenda tonight; however we only recently found out about this easement and feel we could use more information to make a comment at this time about the health and safety of our students and our staff. We will be learning more about the project from Matt Donnelly this evening, but remain interested in learning more.

The school board meets again on August 19, 2013 or would it be possible to request a public hearing locally in Gallatin Gateway which the school board could attend or a presentation to the school board directly to help us understand this entire project more clearly. The project at this time looks to have a financial impact on our K-8 school of about \$1000 per month and \$72,000 in hook up fees, and a need for an easement on our school property. We are a small school and we would like to feel confident that we know all the facts.

Response: Thank you for inviting and allowing DEQ to attend the August 19th school board meeting. DEQ appreciates the opportunity to provide the public with information regarding the Montana Ground Water Pollution Control System (MGWPCS) policies and procedures.

Commenter: Brian K. Gallik

Comment 1 (summarized and paraphrased): DEQ performed analysis with inadequate data to support the conclusion that the total nitrogen concentration at the end of the mixing zone will be below the required 7.5 mg/L.

Response: During the permit application review process DEQ determined the permittee supplied adequate information to make a tentative determination to issue a Montana Ground Water Pollution Control System (MGWPCS) ground water discharge permit. DEQ develops conservative effluent limits to protect existing and future beneficial uses when authorizing a ground water discharge permit.

Comment 2 (summarized and paraphrased): The existing public supply well serving Buffalo Station is threatened and within the mixing zone boundaries.

Response: See response to Comment 1 (above) received from Denise Moldroski.

Comment 3 (summarized and paraphrased): The proposed mixing zone crosses the property boundary and extends onto the neighbor's property without consent.

Response: See response to Comment 6 (above) received from Terry Threlkeld.

End of Comments

Geology and Ground-Water
Resources of the
Gallatin Valley
Gallatin County
Montana

By O. M. HACKETT, F. N. VISHER, R. G. McMURTRY,
and W. L. STEINHILBER

With a section on SURFACE-WATER RESOURCES

By FRANK STERMITZ and F. C. BONER

And a section on CHEMICAL QUALITY OF THE WATER

By R. A. KRIEGER

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1482

*Prepared as part of the program of the
Department of the Interior for develop-
ment of the Missouri River basin*



posits in the vicinity of Logan and in the Camp Creek Hills west of Gallatin Gateway.

No wells within the valley derive water from the Paleozoic rocks.

CAMBRIAN SYSTEM

The Cambrian system is represented by the Flathead quartzite, Wolsey shale, Meagher limestone, and Park shale, all of Middle Cambrian age, and the Pilgrim limestone and Snowy Range formation of Late Cambrian age. An unconformity separates the Cambrian rocks from the underlying Precambrian rocks, and there is a disconformity between the Cambrian rocks and the overlying Devonian system. Within the Cambrian system the contacts between formations are conformable and gradational.

The Flathead quartzite is a resistant, ridge-forming formation composed principally of pink and reddish-brown quartzite and sandstone. The average thickness of the Flathead is about 130 feet; however, in the Gallatin Range the Flathead thins to less than 100 feet.

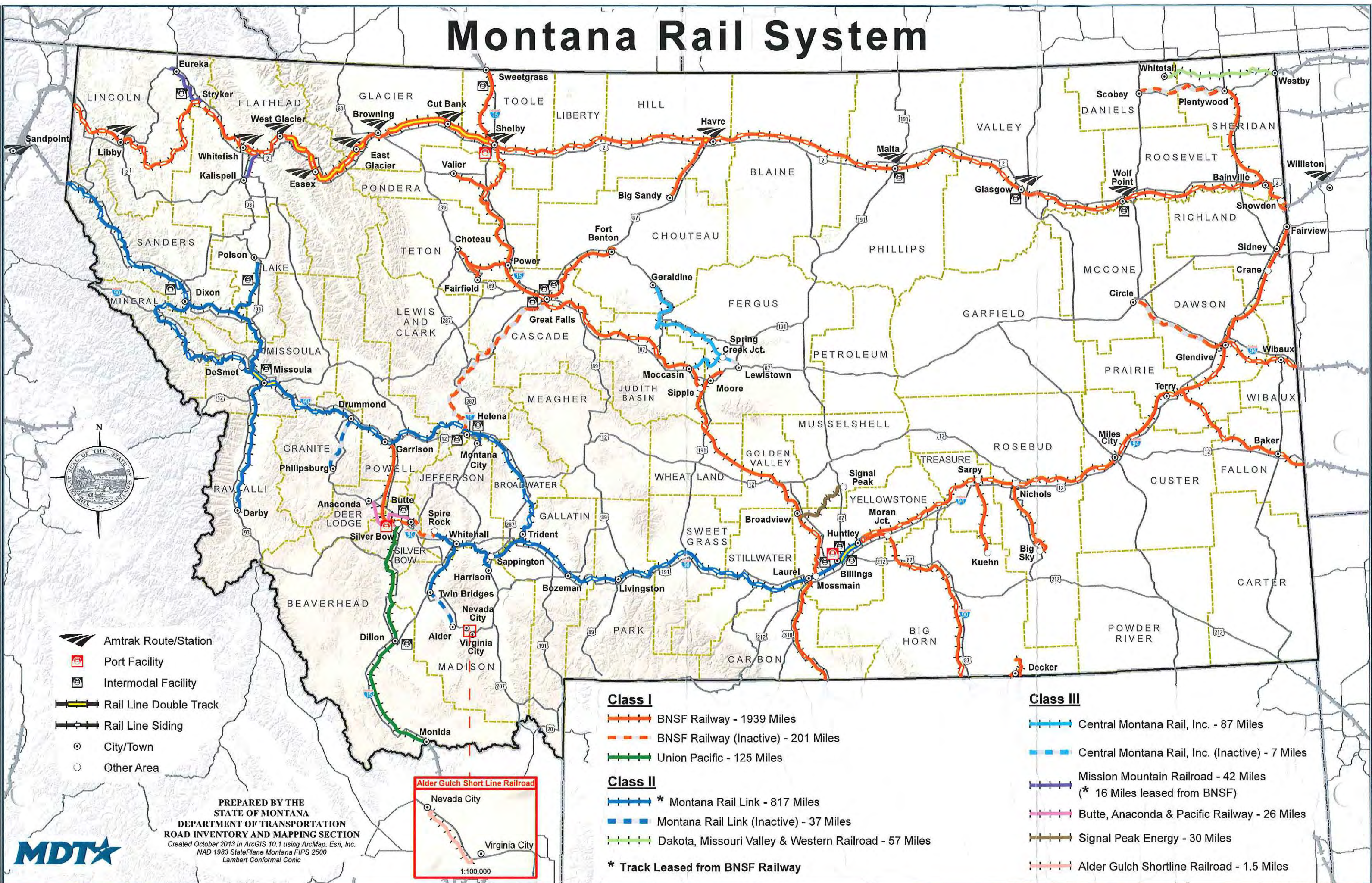
The Wolsey shale, which overlies the Flathead quartzite, is a greenish-gray, black, and purple micaceous shale, interbedded in its lower part with quartzite and sandstone and in its upper part with limestone. Worm casts in the sandy layers characterize the basal part. The Wolsey weathers readily, and, where steeply dipping, usually forms a troughlike depression between outcrops of the Flathead quartzite and the Meagher limestone. The thickness of the Wolsey shale differs considerably from place to place but averages about 200 feet.

The Meagher limestone is a massive-appearing cliff-forming gray to brown limestone, interbedded with shale near its base. Parts of this formation are mottled. The Meagher limestone has a relatively uniform thickness of about 350 feet.

The Park shale is mostly green, brown, and maroon fissile shale, containing limestone layers in its basal part. Like the Wolsey shale, it weathers more readily than the immediately underlying and overlying formations. Its average thickness is about 200 feet.

The Pilgrim limestone is similar in general appearance to the Meagher limestone. It is a massive-appearing cliff-forming gray to brown limestone containing many layers of dark, mottled oolite and limestone conglomerate. It is about 400 feet thick. The term Maurice limestone also has been applied to this formation in the vicinity of the Gallatin Valley (Lochman, 1950, p. 2205).

Montana Rail System



- Amtrak Route/Station
- Port Facility
- Intermodal Facility
- Rail Line Double Track
- Rail Line Siding
- City/Town
- Other Area

Class I

- BNSF Railway - 1939 Miles
- BNSF Railway (Inactive) - 201 Miles
- Union Pacific - 125 Miles

Class II

- * Montana Rail Link - 817 Miles
- Montana Rail Link (Inactive) - 37 Miles
- Dakota, Missouri Valley & Western Railroad - 57 Miles

Class III

- Central Montana Rail, Inc. - 87 Miles
- Central Montana Rail, Inc. (Inactive) - 7 Miles
- Mission Mountain Railroad - 42 Miles
(* 16 Miles leased from BNSF)
- Butte, Anaconda & Pacific Railway - 26 Miles
- Signal Peak Energy - 30 Miles
- Alder Gulch Shortline Railroad - 1.5 Miles

* Track Leased from BNSF Railway

PREPARED BY THE
STATE OF MONTANA
DEPARTMENT OF TRANSPORTATION
ROAD INVENTORY AND MAPPING SECTION
Created October 2013 in ArcGIS 10.1 using ArcMap. Esri, Inc.
NAD 1983 StatePlane Montana FIPS 2500
Lambert Conformal Conic



**Montana Department of Environmental Quality
Waste and Underground Tank Management Bureau
Underground Storage Tank - Leak Prevention Program**

Montana UST Facility Operating Permit Status

NOTE: Montana law prohibits use of this information as a mailing list for unsolicited mass mailings, house calls or distributions or telephone calls. Section 2-6-109 MCA "Prohibition on distribution of mailing lists -- exceptions -- penalty," provides in relevant part as follows:

(1)(b) a list of persons prepared by the agency may not be used as a mailing list except by the agency or another agency without first securing the permission of those on the list.

(9) a person violating the provisions of subsection (1)(b) is guilty of a misdemeanor.

Purple Underlined Dates indicate that this facility is within the 90 day timeframe for its compliance inspection.

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
<u>BEAVERHEAD</u>	<u>DELL</u>	109843	DELL AIRPORT CANYON RANCH	Nov 02, 2012	INACTIVE	
		101523	DELL CENTER LLC	Nov 04, 2011	FEB 07, 2015	
<u>BEAVERHEAD</u>	<u>DILLON</u>	105668	COUNTY COURTHOUSE	JUL 02, 2014	Nov 06, 2014	
		105401	DIETRICH'S COLLEGE EXXON UST	OCT 17, 2012	INACTIVE	
		5613894	DILLON AIRPORT	SEP 26, 2011	MAR 04, 2015	
		113101	GATEWAY CANYON TRAVEL PLAZA	NOV 02, 2012	INACTIVE	
		110034	ROCKY MOUNTAIN SUPPLY INC DILLON	JAN 10, 2013	FEB 19, 2016	
		5613989	SAFeway 1581 DILLON	JUN 13, 2013	Nov 05, 2016	
		101215	THE MINI INC	FEB 22, 2013	APR 29, 2016	
		108695	TOWN PUMP INC DILLON 1	MAY 25, 2012	OCT 14, 2015	
	108696	TOWN PUMP INC DILLON 2	MAY 25, 2012	OCT 14, 2015		
<u>BEAVERHEAD</u>	<u>JACKSON</u>	107024	CIRCLE S RANCH	MAR 13, 2014	JUN 03, 2017	
<u>BEAVERHEAD</u>	<u>LIMA</u>	107158	LIMA SCHOOL DIST 12 INC	AUG 18, 2011	JAN 17, 2015	
		100671	RALPHS EXXON	AUG 09, 2013	SEP 21, 2016	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
BEAVERHEAD	WISDOM	102173	BIG HOLE PETROLEUM INC	MAY 01, 2014	JUL 30, 2017	
BEAVERHEAD	WISE RIVER	102080	WISE RIVER STORE	MAY 21, 2013	OCT 13, 2016	
BIG HORN	CROW AGENCY	210867	BATTLEFIELD COUNTRY STORE	DEC 21, 2011	JAN 06, 2015	
		208937	LITTLE BIG HORN CAMP	SEP 11, 2013	INACTIVE	JAN 02, 2014
		207334	TEEPEE SERVICE INC	APR 16, 2013	JUL 07, 2016	
BIG HORN	FORT SMITH	209815	BIGHORN CANYON MAINTENANCE FACILITY	DEC 18, 2012	APR 26, 2016	
		5613877	OK A BEH MARINA	DEC 03, 2012	DEC 16, 2015	
		205862	YELLOWTAIL MARKET	JUL 27, 2012	OCT 20, 2015	
BIG HORN	GARRYOWEN	203284	GARRYOWEN CONOCO	JUN 28, 2011	AUG 13, 2014	
BIG HORN	HARDIN	205752	BAIRS TRUCK STOP HARDIN	APR 16, 2013	JUN 01, 2016	
		210287	BIG HORN COUNTY COMMUNITY SERVICE FACILITY	DEC 21, 2011	JAN 17, 2015	
		200061	DOLLIES CONVENIENCE STORE	JAN 13, 2012	MAR 14, 2015	
		200538	GOOD 2 GO STORE LLC	AUG 22, 2013	DEC 11, 2016	
		213635	HARDIN C STORE	SEP 23, 2013	DEC 10, 2016	
		205856	L & B LAST STOP	MAY 29, 2013	JUL 16, 2016	
		213423	MATOVICH OIL CO INC	JAN 13, 2012	MAR 05, 2015	
		201403	TOWN AND COUNTRY SUPPLY #48	Nov 05, 2013	DEC 10, 2016	
		208703	TOWN PUMP INC HARDIN	MAR 07, 2013	APR 27, 2016	
204841	WAGNER TRAVEL SHOPPE EXPRESS STOP	DEC 21, 2011	JAN 06, 2015			
BIG HORN	LODGE GRASS	209976	FARMERS UNION OIL CO LODGE GRASS	APR 09, 2012	JUL 20, 2015	
		210772	LODGE GRASS SCHOOL DIST 27	OCT 17, 2011	Nov 19, 2014	
BIG HORN	PRYOR	201131	PLENTY COUPS HIGH SCHOOL	JUN 28, 2012	AUG 26, 2015	
		210164	PRYOR SELF SERVICE	MAR 03, 2014	MAY 16, 2017	
		5604505	SAINT CHARLES MISSION	JAN 16, 2012	FEB 11, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
<u>BIG HORN</u>	<u>SAINT XAVIER</u>	204504	PRETTY EAGLE SCHOOL	NOV 05, 2013	DEC 31, 2016	
<u>BIG HORN</u>	<u>WYOLA</u>	213762	WYOLA ELEMENTARY SCHOOL	JUN 29, 2013	JUL 12, 2016	
<u>BLAINE</u>	<u>CHINOOK</u>	307801	EZZIES WHOLESALE INC CHINOOK	OCT 19, 2012	OCT 30, 2015	
		310274	MILK RIVER COOP	DEC 18, 2012	MAY 07, 2016	
		308688	TOWN PUMP INC CHINOOK FOOD STORE	DEC 01, 2012	APR 01, 2016	
<u>BLAINE</u>	<u>HARLEM</u>	305982	E Z MART	JUN 20, 2013	JUL 09, 2016	
		309729	FORT BELKNAP KWIK STOP	NOV 22, 2011	MAR 10, 2015	
<u>BLAINE</u>	<u>TURNER</u>	5613805	FARMERS UNION OIL CO TURNER	APR 04, 2014	JUN 21, 2017	
<u>BROADWATER</u>	<u>THREE FORKS</u>	1608721	TOWN PUMP INC THREE FORKS	MAY 25, 2012	OCT 27, 2015	
		5614009	WHEAT MONTANA FARMS INC	MAR 28, 2013	JUL 07, 2016	
<u>BROADWATER</u>	<u>TOWNSEND</u>	407862	ROCKY MOUNTAIN SUPPLY INC TOWNSEND	FEB 28, 2013	APR 15, 2016	
		403456	TOWN PUMP INC TOWNSEND	MAY 25, 2012	OCT 27, 2015	
<u>BROADWATER</u>	<u>WINSTON</u>	400280	WINSTON STORE LLC	JAN 26, 2012	INACTIVE	
<u>CARBON</u>	<u>BELFRY</u>	502954	BLACKS SERVICE STATION	MAY 08, 2013	JUN 08, 2016	
<u>CARBON</u>	<u>BRIDGER</u>	500218	MAVERIK INC #7	AUG 03, 2012	SEP 15, 2015	
		504498	TOWN & COUNTRY SUPPLY BRIDGER	JUL 16, 2012	OCT 27, 2015	
<u>CARBON</u>	<u>JOLIET</u>	501853	CARBON COUNTY DIST 2 SHOP	APR 22, 2013	SEP 14, 2016	
		505577	COUNTRY CORNER JOLIET	FEB 14, 2014	APR 22, 2017	
		505353	JOLIET SCHOOL DIST 7	APR 24, 2014	JUN 25, 2017	
		500189	TOWN OF JOLIET	MAR 17, 2014	MAY 16, 2017	
<u>CARBON</u>	<u>RED LODGE</u>	509926	6 ASSISTED LLC	OCT 31, 2013	INACTIVE	
		505655	RAY JUDD FORD INC	NOV 19, 2011	FEB 19, 2015	
		509748	ROCK CREEK CONVENIENCE STORE	JAN 05, 2012	MAR 05, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
<u>CARBON</u>	<u>RED LODGE</u>	5613935	ROCK CREEK NORTH	JAN 05, 2012	MAR 31, 2015	
<u>CARBON</u>	<u>ROBERTS</u>	506599	Y STOP C STORE INC	JAN 05, 2012	FEB 20, 2015	
<u>CARBON</u>	<u>SILESIA</u>	507633	ROCKVALE TRAVEL PLAZA UST	DEC 13, 2011	FEB 27, 2015	
<u>CARTER</u>	<u>ALZADA</u>	5613910	B & J CONVENIENCE STORE	SEP 11, 2012	SEP 17, 2015	
<u>CARTER</u>	<u>EKALAKA</u>	604710	EKALAKA ELEMENTARY SCHOOL	SEP 11, 2012	JAN 30, 2016	
		601681	FRUIT SERVICE & REPAIR INC MAIN ST	SEP 11, 2012	FEB 10, 2016	
		603234	FRUIT SERVICE & REPAIR INC SR 323	SEP 11, 2012	FEB 10, 2016	
		600863	HOSPITAL COURTHOUSE	DEC 17, 2012	FEB 09, 2016	
<u>CASCADE</u>	<u>BELT</u>	704613	BELT PUBLIC SCHOOLS DIST 29 UST	APR 02, 2014	AUG 04, 2017	
		713653	BELT VALLEY GROCERY	AUG 09, 2013	Nov 29, 2016	
		708984	MALMSTROM AFB A 10	OCT 04, 2011	APR 06, 2015	
		708985	MALMSTROM AFB A 11	OCT 04, 2011	APR 06, 2015	
		708976	MALMSTROM AFB A 2	OCT 05, 2011	APR 06, 2015	
<u>CASCADE</u>	<u>BLACK EAGLE</u>	704232	MOUNTAIN VIEW COOP BLACK EAGLE	APR 23, 2013	AUG 04, 2016	
<u>CASCADE</u>	<u>CASCADE</u>	709043	MALMSTROM AFB G 3	JUL 24, 2013	AUG 06, 2016	
		709044	MALMSTROM AFB G 4	JUL 24, 2013	AUG 06, 2016	
		709045	MALMSTROM AFB G 5	JUN 23, 2013	JUN 27, 2016	
		709063	MALMSTROM AFB I 1	JUN 18, 2013	JUN 27, 2016	
		709065	MALMSTROM AFB I 3	SEP 29, 2011	MAR 09, 2015	
		709066	MALMSTROM AFB I 4	SEP 28, 2011	MAR 09, 2015	
		709067	MALMSTROM AFB I 5	SEP 28, 2011	MAR 09, 2015	
		709068	MALMSTROM AFB I 6	SEP 27, 2011	MAR 09, 2015	
		704520	OLSON FARM	JAN 29, 2012	MAR 07, 2015	
		704148	TOMS IGA	AUG 09, 2013	SEP 20, 2016	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
CASCADE	FORT SHAW	709057	MALMSTROM AFB H 6	AUG 30, 2011	DEC 19, 2014	
		710840	MALMSTROM AFB I 08	DEC 06, 2011	MAR 09, 2015	
		709071	MALMSTROM AFB I 9	JUN 18, 2014	OCT 06, 2014	
CASCADE	GREAT FALLS	707573	15TH STREET SERVICE	DEC 13, 2011	MAR 27, 2015	
		712071	AUTOMATED FLIGHT SERVICE STATION	FEB 25, 2012	INACTIVE	
		706552	BENEFIS HEALTH CARE EAST CAMPUS UST	NOV 22, 2011	MAR 20, 2015	
		703298	BENEFIS HEALTH CARE WEST CAMPUS	NOV 22, 2011	JAN 29, 2015	
		710262	BENNETT MOTORS INC	MAY 09, 2014	JUL 05, 2017	
		705852	BEST OIL DISTRIBUTING INC	FEB 09, 2012	APR 11, 2015	
		700077	BISON FORD	JAN 21, 2013	APR 30, 2016	
		701190	BLACK EAGLE SERVICE CENTER	NOV 25, 2013	JAN 28, 2017	
		700621	CARL'S AUTOCARE INC	JAN 12, 2012	MAR 18, 2015	
		704562	CASCADE COUNTY EMERGENCY SERVICES	NOV 09, 2011	MAR 17, 2015	
		713772	CASCADE COUNTY SHERIFFS OFFICE	JUL 25, 2011	SEP 12, 2014	
		705853	CITY MOTOR CO INC	APR 30, 2014	JUL 01, 2017	JUN 23, 2014
		705558	CITY SHOP COMPLEX	MAY 06, 2013	AUG 11, 2016	
		702558	FEDERAL AVIATION ADMIN AIRWAY TERMINAL	NOV 09, 2011	MAR 26, 2015	
		713710	FEDERAL AVIATION ADMIN ARSR 4	JUL 25, 2012	DEC 07, 2015	
		705851	GAS N SHOP	FEB 24, 2012	MAR 27, 2015	
		700081	GENERAL DISTRIBUTING CO INC	MAR 28, 2014	AUG 05, 2017	
700680	GREAT FALLS FIRE STATION 1 GREAT FALLS	MAY 06, 2013	SEP 18, 2016			
5614148	GREAT FALLS FLYING J	APR 05, 2013	APR 09, 2016			
710676	GREAT FALLS INTERNATIONAL AIRPORT FUEL FARM 1	APR 23, 2013	OCT 11, 2016			

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
<u>CASCADE</u>	<u>GREAT FALLS</u>	702087	GREAT FALLS SINCLAIR	SEP 07, 2011	FEB 26, 2015	
		705346	GREAT FALLS TRANSIT DISTRICT	FEB 06, 2013	JUN 02, 2016	
		703973	H&R INC #5	FEB 17, 2012	MAR 27, 2015	
		706402	HALL TRANSIT CO	NOV 08, 2011	JAN 28, 2015	
		5613975	HOLIDAY #724	JAN 09, 2013	MAR 30, 2016	
		5613970	HOLIDAY #730	JAN 09, 2013	MAR 30, 2016	
		713729	HOLIDAY STATION STORE 59	SEP 07, 2011	DEC 04, 2014	
		709914	HOLIDAY STATIONSTORE 10	JUL 19, 2011	DEC 04, 2014	
		708069	HOLIDAY STATIONSTORE 273	SEP 07, 2011	DEC 04, 2014	
		700097	JOYCE STORE 2	JAN 12, 2012	MAR 13, 2015	
		701418	KEITHS COUNTY STORE	JUL 22, 2011	DEC 02, 2014	
		704508	KERNAGHANS SERVICE 8TH AVE N	MAY 08, 2013	OCT 26, 2016	
		704509	KERNAGHANS SERVICE 9TH AVE N	JUN 21, 2011	SEP 03, 2014	
		712790	MCLAUGHLIN RESEARCH INSTITUTE	MAR 28, 2013	JUL 16, 2016	
		704047	MDOT 31 0701 GREAT FALLS	DEC 13, 2011	MAR 25, 2015	
		711234	MEADOWLARK COUNTRY CLUB	DEC 28, 2012	MAR 01, 2016	
		703920	MINI MART 765	JUL 26, 2013	AUG 13, 2016	
		705775	MINI MART 766	JUL 26, 2013	AUG 13, 2016	
		705776	MINI MART 767	JUL 26, 2013	AUG 06, 2016	
		705777	MINI MART 768	JUL 26, 2013	AUG 06, 2016	
		702294	MONTANA AIR NATIONAL GUARD UST	NOV 06, 2013	MAR 11, 2017	
		700004	MOUNTAIN VIEW COOP GREAT FALLS	JUL 11, 2013	AUG 04, 2016	
		700092	NOONS 571	JUL 08, 2013	NOV 20, 2016	
		700090	NOON'S 572	DEC 05, 2013	MAR 14, 2017	JUN 22, 2014
		700082	NOONS 574	MAY 14, 2012	MAY 29, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
CASCADE	GREAT FALLS	701845	PHILLIPS 66 GREAT FALLS TERMINAL	APR 08, 2013	JUN 09, 2016	
			PHILLIPS 66 GREAT FALLS TERMINAL	MAR 04, 2013	INACTIVE	
		701189	RAINBOW SHOP	FEB 13, 2014	AUG 05, 2014	
		712300	RENTAL CAR SERVICE BUILDING	APR 23, 2013	JUL 20, 2016	
		5614065	SAMS CLUB 6379	APR 25, 2011	OCT 16, 2014	
		6015217	SMITH'S 166 FUEL CENTER	MAR 28, 2013	APR 16, 2016	
		713632	SUN VALLEY RECREATION INC	MAY 03, 2012	INACTIVE	
		708480	THE STORE GREAT FALLS	MAR 01, 2012	MAR 24, 2015	
		704511	TOLAN DISTRIBUTING INC	MAY 28, 2014	SEP 15, 2017	
		708700	TOWN PUMP INC GREAT FALLS 1	APR 05, 2013	AUG 13, 2016	
		708701	TOWN PUMP INC GREAT FALLS 2	APR 05, 2013	AUG 13, 2016	
		5614016	TOWN PUMP INC GREAT FALLS 3	APR 05, 2013	AUG 13, 2016	
		703217	TOWN PUMP INC GREAT FALLS 4	APR 05, 2013	AUG 13, 2016	
		703463	TOWN PUMP INC GREAT FALLS 5	APR 05, 2013	AUG 13, 2016	
		704945	ZIP TRIP 44	MAR 14, 2014	SEP 03, 2017	
		701057	ZIP TRIP 45	OCT 15, 2012	MAR 30, 2016	
CASCADE	MALMSTROM AFB	6015199	AAFES SHOPPING CENTER BLDG 1340	OCT 26, 2012	JAN 02, 2016	
		710733	MALMSTROM AFB BLDG 1480 1482	AUG 29, 2012	DEC 16, 2015	
		709866	MALMSTROM AFB BLDG 1831	AUG 28, 2012	DEC 16, 2015	
		710726	MALMSTROM AFB BLDG 295	AUG 28, 2012	INACTIVE	
		708954	MALMSTROM AFB BLDG 500	AUG 28, 2012	DEC 16, 2015	
		708942	MALMSTROM AFB BLDG 821 10 COAL HEAT PLANT	AUG 28, 2012	DEC 16, 2015	
CASCADE	MALMSTROM AFB	709867	MALMSTROM AFB BLDG 1832	Nov 27, 2012	INACTIVE	
		707044	MALMSTROM AFB THREE BAY HANGAR	AUG 28, 2012	INACTIVE	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
CASCADE	<u>MALMSTROM AFB</u>	5614116	MILITARY VEHICLE REFUELING SITE BLDG 448	AUG 28, 2012	DEC 16, 2015	
CASCADE	<u>MONARCH</u>	701874	CUBS DEN	FEB 14, 2013	MAR 20, 2016	
		708979	MALMSTROM AFB A 5	SEP 29, 2011	APR 06, 2015	
		708980	MALMSTROM AFB A 6	DEC 13, 2011	APR 06, 2015	
		708981	MALMSTROM AFB A 7	SEP 29, 2011	APR 06, 2015	
		708982	MALMSTROM AFB A 8	SEP 29, 2011	APR 06, 2015	
CASCADE	<u>NEIHART</u>	709274	BOBS BAR UST	NOV 08, 2011	MAY 16, 2015	
CASCADE	<u>SAND COULEE</u>	711037	CENTERVILLE ELEMENTARY SCHOOL	MAR 28, 2014	APR 03, 2017	
CASCADE	<u>SIMMS</u>	701612	CURTISS SERVICE CENTER	APR 24, 2014	JUL 30, 2017	
		2509041	MALMSTROM AFB G 01	JUN 28, 2013	JUL 12, 2016	
		2509051	MALMSTROM AFB G 11	JUN 27, 2013	JUL 12, 2016	
		709042	MALMSTROM AFB G 2	JUN 27, 2013	JUL 12, 2016	
		2509046	MALMSTROM AFB G 6	JUN 22, 2013	JUN 27, 2016	
		2509047	MALMSTROM AFB G 7	JUN 22, 2013	JUN 24, 2016	
		2509048	MALMSTROM AFB G 8	JUN 21, 2013	JUN 27, 2016	
		709058	MALMSTROM AFB H 7	SEP 28, 2011	MAR 09, 2015	
		2509059	MALMSTROM AFB H 8	SEP 28, 2011	MAR 09, 2015	
CASCADE	<u>STOCKETT</u>	708983	MALMSTROM AFB A 9	SEP 29, 2011	APR 06, 2015	
		709064	MALMSTROM AFB I 2	SEP 29, 2011	MAR 09, 2015	
CASCADE	<u>SUN RIVER</u>	709055	MALMSTROM AFB H 4	SEP 28, 2011	MAR 10, 2015	
		709056	MALMSTROM AFB H 5	SEP 27, 2011	MAR 10, 2015	
CASCADE	<u>ULM</u>	709073	MALMSTROM AFB I 11	SEP 27, 2011	MAR 11, 2015	
		709069	MALMSTROM AFB I 7	SEP 28, 2011	MAR 11, 2015	
		5613797	MOUNTAIN VIEW CO OP	JUL 22, 2011	Nov 14, 2014	
CASCADE	<u>VAUGHN</u>	5613783	GLACIER GATEWAY	MAR 20, 2012	APR 09, 2015	

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CASCADE	VAUGHN	5009054	MALMSTROM AFB H 3	JUN 18, 2014	OCT 06, 2014	
		709072	MALMSTROM AFB I 10	SEP 27, 2011	MAR 11, 2015	
		5009083	MALMSTROM AFB J 10	JUN 21, 2013	JUN 27, 2016	
		709081	MALMSTROM AFB J 8	JUN 20, 2013	JUN 27, 2016	
		709082	MALMSTROM AFB J 9	JUN 21, 2013	JUN 27, 2016	
		705008	VALLEY COUNTRY STORE INC	MAY 08, 2013	JUN 30, 2016	
CHOUTEAU	BIG SANDY	800855	EZZIES WHOLESALE BIG SANDY	MAR 20, 2013	JUL 09, 2016	
		5614150	MOUNTAIN VIEW COOP BIG SANDY	JAN 02, 2014	APR 27, 2017	
CHOUTEAU	CARTER	809076	MALMSTROM AFB J 3	JUN 19, 2013	JUN 27, 2016	
		809078	MALMSTROM AFB J 5	JUN 19, 2013	JUN 27, 2016	
		803976	SCHULER LANDS EAST FARM	Nov 13, 2012	Nov 21, 2015	
CHOUTEAU	FORT BENTON	805930	COUNTY COURTHOUSE & JAIL	APR 03, 2014	SEP 09, 2017	JUL 22, 2014
		5613981	JOYCE FUEL & FEEDS FORT BENTON	AUG 10, 2011	JAN 14, 2015	
		800093	JOYCE STORE 1	OCT 24, 2013	Nov 20, 2016	
		800005	MOUNTAIN VIEW COOP FORT BENTON	FEB 14, 2014	JUN 19, 2017	
CHOUTEAU	GERALDINE	806615	CENTRAL MONTANA COOP GERALDINE	APR 22, 2013	JUL 08, 2016	
CHOUTEAU	HIGHWOOD	812320	HIGHWOOD SERVICE CENTER UST	Nov 08, 2012	Nov 25, 2015	
CHOUTEAU	LOMA	801445	PA'S MART	MAY 29, 2012	INACTIVE	
CHOUTEAU	RURAL LOCATION	809077	MALMSTROM AFB J 4	JUN 19, 2013	JUN 27, 2016	
		809079	MALMSTROM AFB J 6	JUN 20, 2013	JUN 27, 2016	
		809080	MALMSTROM AFB J 7	JUN 20, 2013	JUN 27, 2016	
CUSTER	MILES CITY	905859	B & C OIL	JUN 11, 2013	NOV 15, 2016	
		903211	CENEX HARVEST STATES & BULK PLANT	Nov 07, 2012	FEB 11, 2016	

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CUSTER	MILES CITY	900624	CONOCO QUIK STOP INC	DEC 07, 2011	FEB 13, 2015	
		907083	FRANK'S SHORT STOP II	MAR 17, 2014	JUN 08, 2017	JUN 23, 2014
		913574	HOLY ROSARY HOSPITAL WILSON ST	DEC 17, 2012	FEB 10, 2016	
		901058	M & H GAS MILES CITY	APR 03, 2012	JUN 23, 2015	
		908778	QWEST MILES CITY CENTRAL OFFICE	FEB 15, 2012	MAR 05, 2015	
		904443	THE SHORT STOP STORE	MAR 18, 2014	JUN 19, 2017	
		907081	TOWN PUMP OF MILES CITY	MAR 07, 2013	APR 27, 2016	
		907784	VA MEDICAL CENTER MILES CITY	JUL 09, 2013	AUG 02, 2016	
		908212	ZIP TRIP 59	APR 17, 2012	OCT 09, 2015	
DANIELS	FLAXVILLE	1001331	GRAIN GROWERS OIL CO FLAXVILLE	OCT 24, 2012	FEB 23, 2016	
DANIELS	SCOBEY	1001223	CROMWELLS CONVENIENCE & PETROLEUM	JUN 07, 2013	JUN 15, 2016	
		1003710	GRAIN GROWERS OIL CO PUMP 24	OCT 24, 2012	FEB 23, 2016	
		1013610	NEMONT COMMUNICATIONS INC	SEP 26, 2012	FEB 23, 2016	
DAWSON	BLOOMFIELD	1104222	FARMERS UNION OIL CO BLOOMFIELD	MAR 08, 2012	JUN 16, 2015	
DAWSON	GLENDIVE	1103214	BERGS TIRE INC	APR 11, 2013	JUL 20, 2016	
		1109528	BN GLENDIVE FUELING FACILITY	Nov 20, 2013	DEC 04, 2016	
		5613872	CROSSROADS CONOCO	MAR 08, 2012	MAR 14, 2015	
		1102455	DAWSON COMMUNITY AIRPORT	APR 18, 2012	SEP 29, 2015	
		1100033	EAST END CONOCO GLENDIVE	JAN 04, 2012	MAR 14, 2015	
		1109400	GLENDIVE COMBUSTION TURBINE	AUG 16, 2012	Nov 17, 2015	
		1109735	GLENDIVE MEDICAL CENTER	OCT 19, 2011	DEC 19, 2014	
		1108061	HOLIDAY STATIONSTORE 271	APR 11, 2013	JUL 12, 2016	
1107770	JOYS GLENDIVE SERVICE INC	JUN 14, 2013	INACTIVE			

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<u>DAWSON</u>	<u>GLENDIVE</u>	1107770	JOYS GLENDIVE SERVICE INC	APR 06, 2010	NOV 11, 2014	
		1105093	MINI MART 710 1105093	SEP 05, 2013	JAN 15, 2017	
		1106870	QWEST GLENDIVE CENTRAL OFFICE	DEC 07, 2011	MAR 10, 2015	
		1104213	T & E WHISTLE STOP INC	MAR 18, 2013	JUN 09, 2016	
		1105754	TRAIL STAR CAR AND TRUCK STOP	APR 18, 2012	SEP 29, 2015	
		1108908	WEST PARK CENEX	JUL 26, 2012	OCT 09, 2015	
		1108909	WESTGATE CENEX	JUL 26, 2012	OCT 31, 2015	
<u>DAWSON</u>	<u>RICHEY</u>	1105898	RICHEY	SEP 26, 2012	FEB 02, 2016	
<u>DEER LODGE</u>	<u>ANACONDA</u>	1201470	A & A TECHNICAL REPAIR INC	APR 09, 2013	INACTIVE	
		1207938	THRIFTWAY SUPER STOP 3	JUN 08, 2013	JUN 12, 2016	
		1200101	THRIFTWAY SUPER STOP 7	JUN 28, 2013	NOV 13, 2016	
		1209326	TOWN PUMP INC ANACONDA 1	MAY 25, 2012	MAY 31, 2015	
		1208668	TOWN PUMP INC ANACONDA 2	MAY 25, 2012	OCT 14, 2015	
<u>DEER LODGE</u>	<u>WARM SPRINGS</u>	1207585	XANTHOPOULOS BLDG	JUN 19, 2014	NOV 26, 2014	
<u>FALLON</u>	<u>BAKER</u>	1310696	FALLON COUNTY AIRPORT	SEP 13, 2012	FEB 09, 2016	
		6015072	FALLON COUNTY MEDICAL COMPLEX	APR 11, 2011	JUL 13, 2014	
		1301687	FALLON COUNTY RD DEPT	SEP 13, 2012	FEB 10, 2016	
		1309960	FARMERS UNION OIL CO BULK PLANT BAKER	FEB 06, 2013	FEB 23, 2016	
		1300685	J & A MINI STORE	DEC 26, 2011	MAR 25, 2015	
		1300227	MUFFY'S	JAN 04, 2013	MAY 11, 2016	
		1307740	PRAIRIE FUELS	JUN 04, 2012	OCT 01, 2015	
		1308221	UNIVERSAL TIRE & ALIGNMENT	FEB 04, 2013	FEB 10, 2016	
<u>FERGUS</u>	<u>DENTON</u>	1401360	CENTRAL MONTANA COOP DENTON	JUN 02, 2014	AUG 27, 2014	

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FERGUS	DENTON	1409010	MALMSTROM AFB D 03	MAY 28, 2013	SEP 09, 2016	
		1409014	MALMSTROM AFB D 07	APR 04, 2014	JUL 08, 2017	
		1409008	MALMSTROM AFB D 1	AUG 07, 2013	AUG 15, 2016	
		1409017	MALMSTROM AFB D 10	OCT 20, 2011	APR 06, 2015	
		1409018	MALMSTROM AFB D 11	SEP 29, 2011	APR 06, 2015	
		1409009	MALMSTROM AFB D 2	APR 03, 2014	AUG 25, 2017	
		1409012	MALMSTROM AFB D 5	OCT 06, 2011	APR 06, 2015	
		1409013	MALMSTROM AFB D 6	APR 03, 2014	JUL 08, 2017	
		1409015	MALMSTROM AFB D 8	APR 03, 2014	JUL 22, 2017	
		1409016	MALMSTROM AFB D 9	APR 04, 2014	AUG 05, 2017	
		1406219	WOODHALL DISTRIBUTING	JUN 02, 2014	AUG 22, 2014	
FERGUS	FORESTGROVE	1409121	MALMSTROM AFB N 4	AUG 05, 2013	AUG 14, 2016	
		1409122	MALMSTROM AFB N 5	AUG 05, 2013	AUG 14, 2016	
		1409123	MALMSTROM AFB N 6	AUG 05, 2013	AUG 14, 2016	
FERGUS	GARNEILL	1409105	MALMSTROM AFB L 10	JUL 24, 2013	JUL 31, 2016	
FERGUS	GRASS RANGE	1406338	LITTLE MONTANA TRUCK STOP	JUL 10, 2013	SEP 06, 2016	
		1409118	MALMSTROM AFB N 1	AUG 05, 2013	AUG 14, 2016	
		1409119	MALMSTROM AFB N 2	AUG 06, 2013	AUG 14, 2016	
		1409120	MALMSTROM AFB N 3	AUG 06, 2013	AUG 14, 2016	
FERGUS	HILGER	1409024	MALMSTROM AFB E 6	MAY 30, 2013	SEP 09, 2016	
		1409025	MALMSTROM AFB E 7	MAY 30, 2013	SEP 07, 2016	
		1409026	MALMSTROM AFB E 8	APR 29, 2014	JUL 27, 2017	
		1409027	MALMSTROM AFB E 9	MAY 28, 2013	SEP 07, 2016	
		1409108	MALMSTROM AFB M 2	JUL 10, 2013	JUL 24, 2016	
		1409109	MALMSTROM AFB M 3	JUL 10, 2013	JUL 24, 2016	
		1409136	MALMSTROM AFB O 8	JUL 25, 2013	JUL 31, 2016	

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<u>FERGUS</u>	<u>HILGER</u>	1409137	MALMSTROM AFB O 9	JUL 25, 2013	JUL 31, 2016	
<u>FERGUS</u>	<u>LEWISTOWN</u>	1401228	CENTRAL MONTANA MEDICAL CENTER	OCT 08, 2012	FEB 09, 2016	
		1401969	COUNTRY CORNER LEWISTOWN	DEC 12, 2011	FEB 28, 2015	
		1412547	DEPOT EXPRESS	Nov 18, 2013	DEC 20, 2016	DEC 06, 2013
		1410841	MALMSTROM AFB D 4	Nov 07, 2011	APR 06, 2015	
		1409110	MALMSTROM AFB M 4	JUL 11, 2013	JUL 24, 2016	
		1409111	MALMSTROM AFB M 5	JUL 11, 2013	JUL 24, 2016	
		1409127	MALMSTROM AFB N 10	AUG 07, 2013	AUG 14, 2016	
		1409128	MALMSTROM AFB N 11	AUG 07, 2013	AUG 14, 2016	
		1409124	MALMSTROM AFB N 7	AUG 06, 2013	AUG 14, 2016	
		1409125	MALMSTROM AFB N 8	AUG 06, 2013	AUG 15, 2016	
		1409126	MALMSTROM AFB N 9	AUG 06, 2013	AUG 14, 2016	
		1404062	MDOT 53 1409 LEWISTOWN AIRPORT RD	FEB 07, 2014	MAY 12, 2017	
		1405032	MONTANA MENTAL HEALTH NURSING CARE	JUN 18, 2014	JUL 01, 2017	JUL 01, 2014
		1408126	PJG MOTORSPORTS UST	JUN 06, 2012	INACTIVE	
		1405108	RINDAL OIL CO LEWISTOWN	Nov 08, 2012	FEB 04, 2016	
		1400095	RINDALS FORT LEWIS TRADING POST	MAR 06, 2013	JUN 16, 2016	
		1403118	RINDALS WEST END SERVICE	JUN 18, 2013	INACTIVE	
		1404561	SKYLINE AVIATION	FEB 26, 2013	APR 30, 2016	
		1408711	TOWN PUMP INC LEWISTOWN	APR 05, 2013	AUG 13, 2016	
<u>FERGUS</u>	<u>MOORE</u>	1402832	EDDIES CORNER INC	JAN 31, 2014	MAY 08, 2017	
		1409106	MALMSTROM AFB L 11	JUL 30, 2013	AUG 06, 2016	
		1409097	MALMSTROM AFB L 2	JUL 23, 2013	AUG 07, 2016	
		1409107	MALMSTROM AFB M 1	JUL 10, 2013	JUL 24, 2016	

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<u>FERGUS</u>	<u>MOORE</u>	1409117	MALMSTROM AFB M 11	JUL 24, 2013	JUL 31, 2016	
		1409112	MALMSTROM AFB M 6	JUL 11, 2013	JUL 24, 2016	
		1409113	MALMSTROM AFB M 7	JUL 12, 2013	JUL 24, 2016	
		5613901	MOORE FARMERS OIL CO 5613901	DEC 19, 2013	JAN 08, 2017	
<u>FERGUS</u>	<u>ROY</u>	1409129	MALMSTROM AFB O 1	JUL 25, 2013	JUL 31, 2016	
		1409131	MALMSTROM AFB O 3	JUL 23, 2013	JUL 31, 2016	
		1409133	MALMSTROM AFB O 5	JUL 23, 2013	JUL 31, 2016	
		1409135	MALMSTROM AFB O 7	JUL 24, 2013	JUL 31, 2016	
		1409138	MALMSTROM AFB O 10	AUG 07, 2013	AUG 14, 2016	
		1409139	MALMSTROM AFB O 11	AUG 07, 2013	AUG 14, 2016	
		1409130	MALMSTROM AFB O 2	JUL 24, 2013	JUL 31, 2016	
		1409132	MALMSTROM AFB O 4	JUL 23, 2013	JUL 31, 2016	
		1409134	MALMSTROM AFB O 6	JUL 22, 2013	JUL 31, 2016	
<u>FERGUS</u>	<u>WINIFRED</u>	1401292	CENTRAL MONTANA COOP WINIFRED	FEB 17, 2014	MAY 16, 2017	Nov 05, 2014
		1409019	MALMSTROM AFB E 1	AUG 05, 2013	AUG 13, 2016	
		1409028	MALMSTROM AFB E 10	JUN 06, 2013	SEP 07, 2016	
		1409029	MALMSTROM AFB E 11	MAY 29, 2013	SEP 07, 2016	
		1409020	MALMSTROM AFB E 2	MAY 28, 2013	SEP 07, 2016	
		1409021	MALMSTROM AFB E 3	MAY 31, 2013	SEP 07, 2016	
		1409022	MALMSTROM AFB E 4	MAY 29, 2013	SEP 07, 2016	
		1409023	MALMSTROM AFB E 5	MAY 31, 2013	SEP 10, 2016	
<u>FLATHEAD</u>	<u>BIGFORK</u>	5613885	BIGFORK STAGE STOP INC	OCT 21, 2013	DEC 06, 2016	
		1509801	CALUMET CARDLOCK	JAN 07, 2014	MAR 28, 2017	
		1513152	EAGLE BEND YACHT HARBOR	MAY 14, 2013	JUN 01, 2016	
		1507361	ECHO LAKE STORE	SEP 08, 2012	INACTIVE	

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<u>FLATHEAD</u>	<u>BIGFORK</u>	1507199	FERNDALE MARKET	MAY 06, 2014	AUG 08, 2017	
		1504551	FLATHEAD LAKE LODGE	JAN 10, 2013	INACTIVE	AUG 19, 2010
		1506086	KAY GB PROPERTIES LLC	DEC 07, 2011	INACTIVE	
		1503002	MARINA CAY RESORT	JUN 28, 2012	OCT 14, 2015	
		6015198	MONTANA RANCH LLC	MAR 19, 2012	MAR 23, 2015	
		1502482	YOUR TURN CONVENIENCE STOP	MAY 12, 2011	AUG 08, 2014	
<u>FLATHEAD</u>	<u>COLUMBIA FALLS</u>	1511333	ARENDS GAS AND CAST	APR 20, 2012	INACTIVE	AUG 16, 2012
		1512972	CITY SERVICE VALCON	JUN 06, 2014	OCT 02, 2017	
		1504003	COLUMBIA FALLS ALUMINUM CO LLC	Nov 28, 2012	MAY 14, 2016	
		1502820	JUNCTION GAS	Nov 19, 2013	DEC 24, 2016	
		1506839	MIKES OF COLUMBIA FALLS	MAY 20, 2014	JUL 31, 2017	
		1501675	NORTH FORK STORE STOP N SHOP	MAR 11, 2014	INACTIVE	OCT 01, 2014
		1508690	TOWN PUMP INC COLUMBIA FALLS 1	DEC 26, 2012	APR 21, 2016	
		5613825	TOWN PUMP INC COLUMBIA FALLS 2	DEC 26, 2012	JAN 04, 2016	
<u>FLATHEAD</u>	<u>CORAM</u>	1510895	GLACIER CENTER	MAY 28, 2014	JUN 03, 2017	JUN 03, 2014
<u>FLATHEAD</u>	<u>HUNGRY HORSE</u>	1507506	BOBS GENERAL STORE	MAR 16, 2012	MAR 24, 2015	
		1509708	CENEX ZIP TRIP #71	MAY 08, 2014	JUL 31, 2017	
<u>FLATHEAD</u>	<u>KALISPELL</u>	1500113	APPLEWAY CONOCO	MAR 10, 2014	APR 10, 2017	
		1513487	BLUE WATER MARKET & DELI	Nov 19, 2013	DEC 06, 2016	
		1513730	BRIANS C STORE	OCT 12, 2011	JAN 14, 2015	
		1509820	BRIANS INC	MAY 28, 2014	JUN 28, 2017	
		1509705	CHS - CENTRAL	DEC 05, 2011	MAR 09, 2015	
		1505069	CHS - WEST	OCT 18, 2011	JAN 14, 2015	
		5613824	CITY SERVICE BULK PLANT	SEP 04, 2013	DEC 24, 2016	

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<u>FLATHEAD</u>	<u>KALISPELL</u>	1501680	CITY SERVICE VALCON LLC	SEP 04, 2013	Nov 01, 2016	
		1504894	CLASSICAL GAS CHICKEN NOODLE	OCT 30, 2012	INACTIVE	
		1501677	CONOCO CAR CARE CENTER	OCT 12, 2011	DEC 12, 2014	
		6015012	COSTCO WHOLESALE	JUN 09, 2014	Nov 12, 2017	
		1503172	DIAMOND AIRE LLC LEASEE	OCT 23, 2013	DEC 20, 2016	
		5614014	EAGLE FUELS LLC	Nov 18, 2013	DEC 31, 2016	
		1505344	EVANS FARMS	SEP 28, 2012	FEB 12, 2016	
		1500108	EVERGREEN GAS & DELI	OCT 25, 2011	DEC 02, 2014	
		1509279	FLATHEAD COUNTY JUSTICE CENTER	OCT 09, 2013	MAR 16, 2017	
		1506286	FLATHEAD COUNTY ROAD DEPT	JUL 18, 2013	Nov 18, 2016	
		5614041	FLATHEAD COUNTY SOLID WASTE DIST	JUL 18, 2013	DEC 26, 2016	
		1500044	FLATHEAD ELECTRIC COOP KALISPELL	APR 08, 2014	AUG 08, 2017	
		5614072	HEALTH CENTER NORTHWEST	DEC 03, 2013	APR 04, 2017	
		5613985	HOLIDAY #722	Nov 15, 2012	MAR 30, 2016	
		1500800	KALISPELL REGIONAL MEDICAL CENTER	DEC 03, 2013	MAR 28, 2017	
		1502014	KALS FOOD STORES #101	JAN 10, 2013	FEB 13, 2016	
		1500110	KAL'S FOOD STORES #102	OCT 11, 2012	MAR 23, 2016	
		1506101	KELLY RAES INC	SEP 04, 2013	OCT 26, 2016	
		1508357	LANES FOOD AND FUEL	JUN 12, 2014	AUG 20, 2017	
		1508733	MDOT KALISPELL	JUN 26, 2013	OCT 26, 2016	
		1502330	MICHAELS EXXON	DEC 05, 2011	MAR 31, 2015	
		1509707	MICHEALS EAST	MAY 27, 2014	SEP 04, 2017	
		1511166	RED EAGLE AVIATION INC	Nov 28, 2011	MAR 24, 2015	
		1504359	RMC KALISPELL SHOP	APR 15, 2014	SEP 03, 2017	

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<u>FLATHEAD</u>	<u>KALISPELL</u>	5614062	SMITHS FUEL CENTER 172	JUN 09, 2014	NOV 04, 2014	
		1508709	TOWN PUMP INC KALISPELL 1	DEC 26, 2012	APR 21, 2016	
		1513764	TOWN PUMP INC KALISPELL 2	DEC 26, 2012	APR 21, 2016	
		1513732	TOWN PUMP INC KALISPELL 3	DEC 26, 2012	MAY 07, 2016	
		1513765	TOWN PUMP INC KALISPELL 5	DEC 26, 2012	JAN 07, 2016	
		1504535	UNITED PARCEL SERVICE KALISPELL	APR 17, 2013	OCT 11, 2016	
		1513287	WHITE OAK MARKET INC	MAY 16, 2011	OCT 17, 2014	
		1500115	WOODLAND QUIKSTOP	JUL 18, 2013	DEC 06, 2016	
		1505801	WOODYS COUNTRY STORE INC	JAN 04, 2012	MAR 17, 2015	
		1503915	ZIP TRIP 39	OCT 11, 2012	MAR 30, 2016	
		1502331	ZIP TRIP 40	JAN 09, 2014	MAR 14, 2017	
		1507432	ZIP TRIP 41	JUL 16, 2013	NOV 09, 2016	
<u>FLATHEAD</u>	<u>LAKESIDE</u>	1503618	ARSR GATR BLDG	OCT 18, 2011	FEB 19, 2015	
		5614069	DR VAN KIRKE NELSON	NOV 15, 2011	FEB 19, 2015	
		1510513	JOE BLOGZ	JAN 03, 2013	FEB 20, 2016	
<u>FLATHEAD</u>	<u>MARION</u>	5614102	CABIN CREEK LANDING LLC	MAR 21, 2014	APR 04, 2017	
		5613803	CANI INC	SEP 19, 2013	NOV 06, 2016	
		1510015	MOOSE CROSSING INC	MAY 15, 2013	OCT 26, 2016	
<u>FLATHEAD</u>	<u>OLNEY</u>	1502973	GLACIER GOLD LLC	JUN 19, 2012	INACTIVE	
		5613849	OLNEY STORE	JUL 02, 2013	SEP 17, 2016	
<u>FLATHEAD</u>	<u>POLEBRIDGE</u>	1512800	HOME RANCH STORE	AUG 30, 2012	INACTIVE	
<u>FLATHEAD</u>	<u>WEST GLACIER</u>	1510685	GLACIER HIGHLAND RESORT	MAY 29, 2014	SEP 17, 2017	
		1509491	GLACIER PARK HDQTRS GAS PUMPS	MAY 29, 2014	AUG 02, 2017	
		1503288	WEST GLACIER MERCANTILE INC	AUG 08, 2011	DEC 02, 2014	
<u>FLATHEAD</u>	<u>WHITEFISH</u>	1510944	ALPINE VILLAGE MARKET	SEP 26, 2011	DEC 31, 2014	

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<u>FLATHEAD</u>	<u>WHITEFISH</u>	1505579	BIG MOUNTAIN SKI RESORT SHOP	AUG 27, 2013	OCT 22, 2016	
		1504903	CENEX ZIP TRIP #69	OCT 21, 2013	DEC 27, 2016	
		1507766	MIDWAY MINI MART	MAR 20, 2014	AUG 07, 2017	
		1513571	OLD NORTH VALLEY HOSPITAL	JUN 28, 2012	INACTIVE	
		6015151	SAFEWAY FUEL STATION #2106	JUL 16, 2013	DEC 28, 2016	
		1510105	TOWN PUMP INC WHITEFISH 2	DEC 26, 2012	APR 21, 2016	
		1500112	WESTSIDE EXXON	AUG 30, 2012	SEP 06, 2015	
		1512719	WHITEFISH LAKE LODGE WHITEFISH LAKE LODGE	Nov 18, 2013 OCT 18, 2010	INACTIVE SEP 29, 2014	
<u>GALLATIN</u>	<u>BELGRADE</u>	5614162	BELGRADE KARDLOCK	DEC 06, 2011	MAR 16, 2015	
		1605753	FLYING J INC BELGRADE	Nov 14, 2011	DEC 17, 2014	
		6015152	GALLATIN FIELD AIRPORT	JUN 24, 2013	JUL 03, 2016	
		1612952	GALLATIN FIELD CARDLOCK	JUN 27, 2013	JUL 22, 2016	
		5613996	QWEST COMMUNICATIONS	FEB 10, 2012	MAR 14, 2015	
		1612101	ROCKY MOUNTAIN SUPPLY INC BELGRADE	Nov 15, 2011	FEB 26, 2015	
		1613625	TOWN PUMP INC BELGRADE	MAY 25, 2012	OCT 27, 2015	
		6015008	TOWN PUMP INC BELGRADE 2	MAY 25, 2012	MAY 31, 2015	
		1607788	TOWN PUMP INC BELGRADE 3	MAY 25, 2012	MAY 31, 2015	
1604440	YELLOWSTONE JET CENTER LLC	JUL 26, 2012	AUG 04, 2015			
<u>GALLATIN</u>	<u>BIG SKY</u>	1603801	BIG SKY CONOCO	SEP 18, 2013	OCT 24, 2016	
		1613672	TOM GERRARD	Nov 01, 2013	DEC 06, 2016	
		6015020	WARREN MILLER LODGE	APR 27, 2012	MAY 18, 2015	
		6015032	WATERMARK HOME	SEP 03, 2013	JAN 11, 2017	
<u>GALLATIN</u>	<u>BOZEMAN</u>	1613115	BLUE BASKET # 4	MAR 21, 2013	JUN 30, 2016	
		1603430	BOZEMAN AUDI	JUL 23, 2012	INACTIVE	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
GALLATIN	BOZEMAN	1609771	BOZEMAN DEACONESS HOSPITAL	FEB 13, 2014	APR 05, 2017	AUG 18, 2014
		1608191	BOZEMAN KARDLOCK	DEC 26, 2013	JAN 15, 2017	
		1601793	BRIDGER BOWL INC	MAY 31, 2012	OCT 01, 2015	
		1606922	CASEYS CORNER #1	JUN 24, 2013	JUL 22, 2016	
		1608188	CASEYS CORNER #2	OCT 09, 2013	DEC 31, 2016	
		1608190	CASEYS CORNER #3	OCT 09, 2013	DEC 31, 2016	
		1613775	CASEYS CORNER #5	Nov 11, 2013	FEB 19, 2017	
		1600472	COLLEGE EXXON SERVICE STATION	DEC 26, 2012	FEB 25, 2016	
		6015075	COSTCO WHOLESALE GASOLINE BOZEMAN	DEC 19, 2013	APR 30, 2017	
		1608730	EXXON MOBIL BOZEMAN PRODUCTS TERMINAL	JAN 07, 2013	MAY 27, 2016	
		1601254	GRANTREE CONOCO	SEP 26, 2013	DEC 24, 2016	
		5613937	HOLIDAY STATIONSTORE 305	SEP 10, 2013	DEC 20, 2016	
		1609672	KAGY KORNER INC	APR 08, 2014	JUL 15, 2017	JUL 01, 2014
		1604052	MDOT BOZEMAN	OCT 09, 2013	FEB 19, 2017	
		1605778	MINI MART 728 UST	JUL 29, 2013	SEP 13, 2016	
		1603913	MINI MART 729	JUL 29, 2013	DEC 26, 2016	
		1610193	PANDA C STORE	FEB 17, 2014	JUL 31, 2017	
		1601844	PHILLIPS 66 BOZEMAN TERMINAL	MAY 13, 2011	OCT 31, 2014	
			PHILLIPS 66 BOZEMAN TERMINAL	APR 30, 2014	INACTIVE	
		5613960	SIME CONSTRUCTION	FEB 25, 2013	JUN 29, 2016	
		6015234	SMITHS #170 FUEL CENTER	MAR 24, 2014	JUN 16, 2017	
		1607197	STRAIGHTAWAY MOTORS	MAY 04, 2012	MAY 04, 2015	
		1603432	THRIFTWAY SUPER STOP 10	JUN 03, 2013	JUN 12, 2016	
		1603800	THRIFTWAY SUPER STOP 11	JUN 03, 2013	JUN 12, 2016	
		1605064	THRIFTWAY SUPER STOP 8	JUN 03, 2013	Nov 13, 2016	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
GALLATIN	BOZEMAN	6015205	TOWN PUMP BOZEMAN 7	APR 29, 2013	JUL 16, 2016	
		1608674	TOWN PUMP INC BOZEMAN 1	MAY 25, 2012	OCT 27, 2015	
		1608675	TOWN PUMP INC BOZEMAN 2	MAY 25, 2012	MAY 31, 2015	
		6015119	TOWN PUMP INC BOZEMAN 5	MAY 25, 2012	OCT 27, 2015	
		1601257	TREASURE STATE OIL CO INC	DEC 06, 2011	MAR 11, 2015	
		1600758	WILLIAMS PUMP & PAK INC	JUL 26, 2011	NOV 06, 2014	
		1600543	WILLIE J FIGGINS	AUG 28, 2012	AUG 30, 2015	
		1606596	ZIP TRIP 46	DEC 11, 2012	MAY 26, 2016	
GALLATIN	GALLATIN GATEWAY	1606923	CASEYS CORNER #6	JUL 28, 2011	SEP 10, 2014	
		1609998	GATEWAY EXXON MARKET	FEB 17, 2012	FEB 20, 2015	
GALLATIN	MANHATTAN	1601367	DANHOF CHEVROLET INC	MAY 03, 2012	SEP 22, 2015	
		5613969	HARLOWS SCHOOL BUS SVC	APR 11, 2014	INACTIVE	
		1610184	SCHUTTERS SEED FARM INC	FEB 02, 2012	MAR 26, 2015	
		1603431	THRIFTWAY SUPER STOP 12 (ME & JAN'S MINI MART III)	JUN 04, 2013	JUN 12, 2016	
GALLATIN	THREE FORKS	1600049	HOLCIM USA INC	JAN 22, 2013	JUN 01, 2016	
		1600668	THE CASHDOLLAR	NOV 16, 2011	INACTIVE	
		1600987	THRIFTWAY CONOCO 15	JUN 04, 2013	JUN 12, 2016	
GALLATIN	WEST YELLOWSTONE	1600055	CORNER CENEX	MAY 13, 2014	SEP 05, 2017	AUG 26, 2014
		1606367	DELAWARE NORTH PARKS SERVICES AT YELLOWSTONE LLC	AUG 01, 2013	OCT 01, 2016	
		1613528	DNC PARKS & RESORTS OF WEST YELLOWSTONE	JUL 12, 2012	AUG 22, 2015	
		1608571	EAGLE SERVICE UST	OCT 06, 2011	APR 08, 2015	
		1608570	EAGLE STORE UST	OCT 06, 2011	APR 08, 2015	
		1610356	ECONO MART	OCT 06, 2011	MAR 03, 2015	

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GALLATIN	WEST YELLOWSTON E	1604501	JERRYS ENTERPRISES INC	MAY 12, 2014	AUG 02, 2017	
		1610793	KIRKWOOD RANCH MOTEL TRAILER PARK	SEP 14, 2011	JAN 09, 2015	
		1612923	LIONSHEAD RESORT	JUN 20, 2012	INACTIVE	
		1604057	MDOT WEST YELLOWSTONE	OCT 06, 2011	MAR 25, 2015	
		1611619	RENDEZVOUS SNOWMOBILE RENTALS	DEC 04, 2012	APR 05, 2016	
		1604500	RIVERSIDE STATION	MAY 12, 2014	AUG 02, 2017	
		1610357	THREE BEAR LODGE INC	MAY 12, 2014	JUL 03, 2017	
		1609852	TRAVELERS SERVICE CENTER	JUL 01, 2014	AUG 06, 2014	
		1604445	TWO TOP SNOWMOBILE RENTAL	OCT 06, 2011	FEB 27, 2015	
		1603734	WESTGATE STATION	Nov 15, 2011	JAN 14, 2015	
		1610358	YELLOWSTONE ARCTIC YAMAHA ELECTRIC ST	AUG 08, 2012	OCT 14, 2015	
		1611066	YELLOWSTONE HOLIDAY RESORT	JAN 17, 2013	MAR 09, 2016	
GARFIELD	JORDAN	1705702	FARMERS UNION OIL CO JORDAN	MAY 10, 2011	AUG 19, 2014	
		1710707	FELLMANS HARDWARE INC	OCT 17, 2013	NOV 07, 2016	
GLACIER	BABB	1803871	THRONSONS STORE	JUN 12, 2014	SEP 03, 2014	
GLACIER	BROWNING	1813768	GLACIER WAY CONVENIENCE STORE	DEC 09, 2011	DEC 20, 2014	
		1805813	GLACIER WAY C-STORE #2	MAR 07, 2012	MAR 13, 2015	
		1806436	PARK CAFE AND GROCERY	MAY 15, 2012	JUN 11, 2015	
		1803868	SCHOOL DIST 9 MAINTENANCE COMPLEX	JUL 03, 2013	SEP 23, 2016	
		1812747	SCHOOL DIST 9 TRANSPORTATION DEPT	JUL 03, 2013	SEP 23, 2016	
		1808677	TOWN PUMP INC BROWNING 2	DEC 01, 2012	APR 01, 2016	
GLACIER	CUT BANK	1804137	BEN TAYLOR INC UST	APR 24, 2014	MAY 30, 2017	

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GLACIER	CUT BANK	1800137	CUT BANK MUNICIPAL AIRPORT	AUG 20, 2013	JAN 31, 2017	AUG 17, 2014
		1800321	KENNYS SUPER SERVICE	JUL 06, 2011	NOV 04, 2014	
		5613775	SIMONS BULK PLANT CUT BANK SATELLITE	APR 03, 2014	JUL 30, 2017	
		1803417	TOWN PUMP INC CUT BANK 2	DEC 01, 2012	APR 01, 2016	
		6015144	TOWN PUMP OF CUT BANK #3	DEC 01, 2012	DEC 11, 2015	
GLACIER	EAST GLACIER PARK	5613933	BEAR TRACK TRAVEL CENTER	APR 24, 2013	JUN 30, 2016	
		1803870	SEARS MOTEL & GIFT SHOP	MAY 15, 2012	JUN 03, 2015	
GLACIER	SAINT MARY	1802745	SAINT MARY RANGER STATION	AUG 28, 2013	DEC 22, 2016	
		1801907	ST MARY LODGE	JUN 12, 2014	OCT 20, 2014	
GOLDEN VALLE	LAVINA	1913681	FARMERS UNION TRADING CO - LAVINA	SEP 19, 2013	OCT 24, 2016	
GOLDEN VALLE	RYEGATE	1907975	RYEGATE PUBLIC SCHOOLS DIST 1	FEB 15, 2013	JUN 04, 2016	
		1913735	SUPER D GROCERY	DEC 04, 2012	DEC 10, 2015	
GRANITE	CLINTON	2007441	CHALET BEARMOUTH	MAR 16, 2013	INACTIVE	
GRANITE	DRUMMOND	2003192	FICS KWIK SIX	AUG 21, 2013	OCT 14, 2016	
		2003611	MOUNTAIN WEST CO OP	NOV 13, 2013	DEC 05, 2016	
		5613926	MOUNTAIN WEST CO OP DRUMMOND	DEC 06, 2011	INACTIVE	
GRANITE	PHILIPSBURG	5613983	PINTLER PETROLEUM INC	JUN 01, 2011	OCT 07, 2014	
		2005771	SUNSHINE STATION 417	NOV 16, 2011	FEB 11, 2015	
HILL	GILDFORD	2105421	FARMERS UNION OIL CO GILDFORD	SEP 09, 2013	OCT 11, 2016	APR 14, 2014
HILL	HAVRE	2109548	BN HAVRE WWTP	JUN 17, 2014	AUG 26, 2014	
		2112763	EMPORIUM FOOD & FUEL	MAR 20, 2013	JUN 30, 2016	
		2107467	EZZIES CENEX CARDTROL	SEP 08, 2011	JAN 07, 2015	
		2112751	EZZIES WHOLESALE HAVRE	MAR 20, 2013	JUL 09, 2016	

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<u>HILL</u>	<u>HAVRE</u>	2108068	HOLIDAY STATIONSTORE 272	SEP 06, 2011	DEC 04, 2014	
		2100088	SHORT STOP HAVRE	JAN 09, 2013	INACTIVE	
		2102166	STROMBERGS SINCLAIR	AUG 28, 2013	DEC 13, 2016	
		2108705	TOWN PUMP INC HAVRE	DEC 01, 2012	APR 01, 2016	
		2100089	ZIP TRIP 48	MAY 02, 2012	JUN 27, 2015	
		2100103	ZIP TRIP 49	OCT 18, 2013	DEC 04, 2016	
<u>HILL</u>	<u>HINGHAM</u>	2100783	HINGHAM MOTORS	APR 09, 2014	MAY 14, 2017	
<u>HILL</u>	<u>INVERNESS</u>	2107327	FRASER OIL INC INVERNESS	OCT 20, 2011	MAR 27, 2015	
<u>HILL</u>	<u>KREMLIN</u>	2110030	FARMERS UNION OIL CO KREMLIN	SEP 09, 2013	OCT 11, 2016	APR 14, 2014
<u>HILL</u>	<u>RUDYARD</u>	2103509	FARMERS UNION OIL CO RUDYARD	JUL 18, 2013	SEP 28, 2016	
		2102475	TONERS TIRE RAMA	AUG 06, 2013	SEP 24, 2016	
<u>JEFFERSON</u>	<u>BOULDER</u>	2212378	HARLOWS SCHOOL BUS SERVICE INC BOULDER	JUN 20, 2012	INACTIVE	
		2208673	TOWN PUMP INC BOULDER	MAR 25, 2013	JUN 29, 2016	
<u>JEFFERSON</u>	<u>CARDWELL</u>	2213424	CARDWELL STORE LLC	APR 15, 2014	SEP 03, 2017	
<u>JEFFERSON</u>	<u>CLANCY</u>	2202928	ASH GROVE CEMENT WEST INC	JUN 14, 2012	DEC 08, 2015	
		2202898	CLANCY STORE UST	OCT 10, 2012	INACTIVE	
		2201822	MONTANA CITY STORE LLC	FEB 21, 2013	JUN 01, 2016	
<u>JEFFERSON</u>	<u>WHITEHALL</u>	2200980	THE CORNER STORE WHITEHALL	JUN 25, 2013	OCT 09, 2016	
		2203645	TOWN PUMP INC WHITEHALL	MAY 25, 2012	OCT 14, 2015	
<u>JUDITH BASIN</u>	<u>GEYSER</u>	2303795	GEYSER SCHOOL DIST 58	Nov 07, 2011	MAR 26, 2015	
		2308977	MALMSTROM AFB A 3	OCT 04, 2011	APR 06, 2015	
		2308986	MALMSTROM AFB B 1	JUN 28, 2013	JUL 12, 2016	
		2308995	MALMSTROM AFB B 10	Nov 15, 2011	APR 06, 2015	
		2308996	MALMSTROM AFB B 11	OCT 04, 2011	APR 06, 2015	
		2308992	MALMSTROM AFB B 7	OCT 04, 2011	APR 06, 2015	

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<u>JUDITH BASIN</u>	<u>GEYSER</u>	2308993	MALMSTROM AFB B 8	APR 29, 2014	JUL 27, 2017	
		2308994	MALMSTROM AFB B 9	NOV 15, 2011	APR 06, 2015	
<u>JUDITH BASIN</u>	<u>HOBSON</u>	2305904	HOBSON SCHOOL DIST 25	JUL 13, 2012	AUG 22, 2015	
		2309104	MALMSTROM AFB L 9	JUL 24, 2013	JUL 31, 2016	
		2309114	MALMSTROM AFB M 8	JUL 12, 2013	JUL 24, 2016	
		2306450	WOODHALL DISTRIBUTING	MAR 24, 2014	JUL 10, 2017	FEB 28, 2015
<u>JUDITH BASIN</u>	<u>MOCCASIN</u>	2309000	MALMSTROM AFB C 4	MAR 31, 2014	JUL 08, 2017	
		2309001	MALMSTROM AFB C 5	APR 01, 2014	JUL 22, 2017	
		2309002	MALMSTROM AFB C 6	APR 02, 2014	JUL 08, 2017	
		2309003	MALMSTROM AFB C 7	APR 02, 2014	JUL 08, 2017	
		2309116	MALMSTROM AFB M 10	AUG 02, 2013	AUG 06, 2016	
		2309115	MALMSTROM AFB M 9	JUL 12, 2013	JUL 24, 2016	
<u>JUDITH BASIN</u>	<u>RAYNESFORD</u>	2303301	KIBBEY KORNER TRUCK STOP	JUL 11, 2013	AUG 04, 2016	
		2308974	MALMSTROM AFB A 1	JUN 28, 2013	JUL 12, 2016	
		2008978	MALMSTROM AFB A 4	SEP 29, 2011	APR 06, 2015	
<u>JUDITH BASIN</u>	<u>STANFORD</u>	2301526	BY WAY SERVICE STATION	SEP 15, 2011	OCT 23, 2014	
		2308987	MALMSTROM AFB B 2	OCT 05, 2011	APR 06, 2015	
		1408988	MALMSTROM AFB B 3	OCT 05, 2011	APR 06, 2015	
		1408989	MALMSTROM AFB B 4	OCT 05, 2011	APR 06, 2015	
		2608990	MALMSTROM AFB B 5	OCT 05, 2011	APR 06, 2015	
		2308991	MALMSTROM AFB B 6	OCT 04, 2011	APR 06, 2015	
		2308997	MALMSTROM AFB C 1	NOV 19, 2013	MAR 01, 2017	
		2309006	MALMSTROM AFB C 10	APR 01, 2014	JUL 08, 2017	
		2309007	MALMSTROM AFB C 11	NOV 12, 2011	APR 06, 2015	
		2308998	MALMSTROM AFB C 2	MAR 31, 2014	JUL 08, 2017	
		2308999	MALMSTROM AFB C 3	MAR 31, 2014	JUL 08, 2017	

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JUDITH BASIN	STANFORD	2309004	MALMSTROM AFB C 8	APR 01, 2014	JUL 08, 2017	
		2309005	MALMSTROM AFB C 9	APR 01, 2014	JUL 08, 2017	
		2301938	STANFORD SCHOOL DIST 12	AUG 21, 2013	OCT 11, 2016	
		2303303	WOODHALL DISTRIBUTING	MAY 13, 2013	AUG 04, 2016	
LAKE	ARLEE	2406788	WILSON FOODS	JAN 17, 2012	MAR 21, 2015	
LAKE	BIG ARM	2412285	BIG ARM GENERAL STORE	JUN 28, 2012	INACTIVE	
LAKE	BIGFORK	2406085	PAPA'S WOODSBAY MARKET	FEB 09, 2012	MAR 28, 2015	
		5614137	ROE HATLEN	MAY 08, 2014	JUL 01, 2017	
		2405644	SWAN LAKE STAGE STOP INC	OCT 08, 2013	INACTIVE	
LAKE	CHARLO	2404615	COULTER AUTOMOTIVE INC	JUL 26, 2013	OCT 05, 2016	
		2406382	MOIESE MERCANTILE	JUL 29, 2013	DEC 17, 2016	
LAKE	PABLO	2407562	JOES JIFFY STOP	JUN 21, 2012	OCT 01, 2015	
		2404823	PABLO ELEMENTARY SCHOOL	APR 08, 2011	SEP 25, 2014	
		2411124	QUICKSILVER EXPRESS	OCT 11, 2011	OCT 25, 2014	
LAKE	POLSON	2402867	CHERRY VALLEY SCHOOL	OCT 13, 2011	FEB 19, 2015	
		2407247	JETTE STORE	AUG 02, 2011	DEC 02, 2014	
		2404560	MOUNTAIN WEST CO OP POLSON	JUN 16, 2014	DEC 02, 2014	
		2405957	PIER 93	APR 26, 2013	JUN 30, 2016	
		2405770	POLSON BAY GROCERY 425	MAR 19, 2014	AUG 09, 2017	
		2411824	POLSON COUNTRY CLUB	JUL 17, 2013	NOV 08, 2016	
		6015097	SAFEWAY FUEL STATION 1646	DEC 01, 2011	MAR 28, 2015	
		2408717	TOWN PUMP INC POLSON	JAN 29, 2013	MAY 14, 2016	
LAKE	RAVALLI	2400507	U OF M FLATHEAD LAKE BIOLOGICAL STATION	SEP 07, 2011	JAN 14, 2015	
		2409997	RAVALLI STORE	SEP 14, 2012	INACTIVE	
LAKE	ROLLINS	2412730	POINTS NORTH TRADING CO	FEB 18, 2013	JUL 22, 2016	

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<u>LAKE</u>	<u>RONAN</u>	2405517	ARNIES GAS AND TIRE CENTER INC	JUN 12, 2014	<u>AUG 15, 2014</u>	<u>SEP 30, 2014</u>
		2405768	DYNO MART	JUN 12, 2014	<u>SEP 09, 2014</u>	
		2407437	JOHNS FUEL FARM INC	JAN 03, 2013	APR 26, 2016	
		2404530	MOUNTAIN WEST CO OP RONAN	FEB 28, 2014	JUL 01, 2017	
		2404649	RONAN AIRPORT	DEC 27, 2012	APR 26, 2016	
		2408718	TOWN PUMP INC RONAN	JAN 29, 2013	MAY 14, 2016	
<u>LAKE</u>	<u>SAINT IGNATIUS</u>	2405769	ALLARDS GENERAL STORE	OCT 11, 2011	MAR 13, 2015	
		2403762	SAINT IGNATIUS SCHOOL	OCT 13, 2011	FEB 26, 2015	
		2410647	STUARTS SERVICE CENTER INC	OCT 13, 2011	JAN 22, 2015	
<u>LEWIS AND CLA</u>	<u>AUGUSTA</u>	2502114	AUGUSTA SERVICE STATION LLP	JUN 13, 2014	<u>AUG 22, 2014</u>	
		5009030	MALMSTROM AFB F 1	JUN 28, 2013	JUL 12, 2016	
		2509034	MALMSTROM AFB F 5	AUG 29, 2011	DEC 19, 2014	
		2509035	MALMSTROM AFB F 6	AUG 29, 2011	DEC 19, 2014	
		2509036	MALMSTROM AFB F 7	AUG 29, 2011	MAR 08, 2015	
		2509050	MALMSTROM AFB G 10	JUN 21, 2013	JUN 27, 2016	
		2509049	MALMSTROM AFB G 9	JUN 21, 2013	JUN 27, 2016	
<u>LEWIS AND CLA</u>	<u>EAST HELENA</u>	2503122	CANYON FERRY MINI BASKET	JAN 22, 2013	MAR 30, 2016	
		2508697	TOWN PUMP INC EAST HELENA	MAR 25, 2013	JUN 29, 2016	
		5613915	TOWN PUMP OF EAST HELENA #2	MAR 25, 2013	JUN 29, 2016	
<u>LEWIS AND CLA</u>	<u>FORT HARRISON</u>	2505908	VETERANS HEALTH ADMINISTRATION	JUL 03, 2012	FEB 03, 2015	
<u>LEWIS AND CLA</u>	<u>HELENA</u>	5613821	ARMY AVIATION SUPPORT FACILITY	APR 02, 2013	SEP 20, 2016	
		2501273	ASSOCIATED FOOD STORES INC HELENA	SEP 25, 2013	NOV 16, 2016	
		2507404	BOBS VALLEY SERVICE INC UST	FEB 02, 2012	MAR 26, 2015	
		2500945	COMBINED CRIMINAL JUSTICE FACILITY	JUL 11, 2013	OCT 31, 2016	

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LEWIS AND CLA	HELENA	6015051	COSTCO GASOLINE HELENA 67	AUG 29, 2011	Nov 13, 2014	
		5613828	DAVES EXPRESS LUBE	FEB 28, 2013	JUL 27, 2016	
		5613934	EASTSIDE FUEL STOP	DEC 28, 2011	FEB 20, 2015	
		2500642	EXEC AIR MONTANA INC 1	JUN 04, 2013	OCT 23, 2016	
		2502123	EXEC AIR MONTANA INC 2	JUN 04, 2013	JUN 12, 2016	
		2508728	EXXON MARKETING HELENA TERMINAL	JAN 08, 2013	MAY 25, 2016	
		2511291	FEDERAL RESERVE BANK HELENA	JUL 21, 2011	JAN 09, 2015	
		2501314	FRIENDLYS SINCLAIR	MAY 28, 2014	JUL 26, 2014	
		2503466	GABES CONVENIENCE STORE	MAR 30, 2012	JUN 11, 2015	
		2506619	GATES OF THE MOUNTAINS INC	MAR 25, 2013	APR 30, 2016	
		2505688	GREEN MEADOW MARKET	JUL 26, 2013	AUG 13, 2016	
		2508775	HELENA MAIN CENTRAL OFFICE	JUN 10, 2014	OCT 18, 2014	
		2501183	HELENA SERVICE CENTER	MAR 14, 2014	AUG 12, 2017	DEC 31, 2014
		5613956	HOLIDAY #723	JAN 31, 2013	MAR 30, 2016	
		2508067	HOLIDAY STATIONSTORE 270	JUN 10, 2014	SEP 09, 2014	
		2505099	JERRYS HIWAY SERVICE	SEP 12, 2013	INACTIVE	
		2504966	JOLLY OS GAS N GO	MAR 07, 2013	INACTIVE	
		2501091	KIMS MARINA & RESORT	MAR 13, 2014	MAY 10, 2017	
		2513657	LAKESIDE GENERAL STORE	FEB 02, 2012	MAR 30, 2015	
		2512834	LAST CHANCE RENTAL & LEASING LLP	MAY 10, 2011	AUG 19, 2014	
		2506849	MDOT HELENA HEADQUARTERS	JUL 11, 2011	NOV 19, 2014	
		5613831	MERGENTHALER TRANSFER & STORAGE CARTER DR	NOV 02, 2011	MAR 19, 2015	
		2508659	MONROE'S HIGH COUNTRY TRAVEL PLAZA	JAN 17, 2014	MAR 15, 2017	AUG 12, 2014
		2501846	PHILLIPS 66 HELENA TERMINAL	FEB 08, 2013	MAY 28, 2016	

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<u>LEWIS AND CLA</u>	<u>HELENA</u>	5614000	SAFEWAY GASOLINE HELENA	AUG 26, 2013	JAN 29, 2017	
		2513763	SLEEPING GIANT CONVENIENCE STORE	AUG 01, 2013	AUG 13, 2016	
		2507353	SOUTHS COUNTRY STORE	AUG 24, 2013	SEP 23, 2016	
		5614011	SPRINT HELENA POP	MAR 17, 2014	AUG 08, 2017	
		2507931	THRIFTWAY SUPER STOP 9	JUN 05, 2013	JUN 12, 2016	
		2507848	TIMS EXXON	MAY 14, 2012	AUG 27, 2015	
		6015210	TOWN PUMP INC HELENA #3	JAN 07, 2013	MAR 18, 2016	
		2508706	TOWN PUMP INC HELENA 1	MAR 25, 2013	JUN 29, 2016	
		2508707	TOWN PUMP INC HELENA 2	MAR 25, 2013	JUN 29, 2016	
		5613846	TOWN PUMP INC HELENA 4	MAR 25, 2013	JUN 29, 2016	
		6015029	TOWN PUMP INC HELENA 5	MAR 25, 2013	JUN 19, 2016	
		5613818	TOWN PUMP INC HELENA 6	MAR 25, 2013	JUN 29, 2016	
		2504538	UNITED PARCEL SERVICE HELENA	JAN 31, 2013	JUN 01, 2016	
		2512917	WATKINS & SHEPARD TRUCKING HELENA	JUL 02, 2014	JUL 18, 2014	
		2512353	ZIP TRIP 42	NOV 03, 2011	MAR 02, 2015	
		2505774	ZIP TRIP 43	NOV 03, 2011	MAR 13, 2015	
		<u>LEWIS AND CLA</u>	<u>LINCOLN</u>	2503995	MOUNTAIN VIEW COOP LINCOLN	JUN 15, 2011
<u>LEWIS AND CLA</u>	<u>WOLF CREEK</u>	2505921	BOAT LOFT	DEC 29, 2011	JAN 08, 2015	
		2504132	CANYON STORE EXXON	JAN 24, 2012	MAR 27, 2015	
<u>LIBERTY</u>	<u>CHESTER</u>	2602182	AG AIR INC	SEP 24, 2013	SEP 24, 2016	
		2613532	CHESTER SUPERMARKET	MAR 02, 2012	MAR 13, 2015	
		2613006	FRASER OIL INC CHESTER	OCT 20, 2011	MAR 17, 2015	
		2606061	ROOSEVELT SERVICE INC	AUG 06, 2013	SEP 29, 2016	
		2603877	TIBER MARINA TIBER MARINA	MAY 29, 2012 JUL 11, 2013	INACTIVE SEP 29, 2016	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
LINCOLN	EUREKA	2702343	BIG SKY EXXON	DEC 13, 2011	MAR 21, 2015	
		2707846	DUKES BORDER MART	AUG 08, 2012	INACTIVE	
		2705303	KSANKA MOTEL & MINI MART	APR 13, 2011	SEP 25, 2014	
		2712713	RANCH HAND INC	JAN 08, 2013	MAR 19, 2016	
		2708699	TOWN PUMP INC EUREKA	DEC 20, 2012	JAN 02, 2016	
LINCOLN	FORTINE	2703824	CRYSTAL LAKES RESORT INC	JAN 08, 2013	APR 02, 2016	
		2713725	FORTINE MERCANTILE US 93	DEC 13, 2011	MAR 26, 2015	
LINCOLN	LIBBY	2708831	AITKENS QUIK STOP INC	DEC 13, 2012	MAR 02, 2016	
		2710863	AITKENS QUIK STOP LIBBY	DEC 15, 2011	MAR 31, 2015	
		2705434	ASA WOOD SCHOOL	NOV 11, 2011	MAR 04, 2015	
		2705998	HAPPY'S ROADHOUSE INN	JAN 21, 2014	MAR 18, 2017	
		2707523	HARLOWS SCHOOL BUS SERVICE INC LIBBY	AUG 04, 2011	DEC 17, 2014	
		2707386	LIBBY CENTRAL OFFICE 9080 BO1	APR 26, 2011	JUL 31, 2014	
		2705437	LIBBY HIGH SCHOOL DIST 4	NOV 11, 2011	MAR 04, 2015	
		2710660	MACS PLACE	MAY 15, 2013	OCT 11, 2016	
		2705435	MCGRADE SCHOOL UST	NOV 11, 2011	MAR 04, 2015	
		2710130	MOORE OIL INC KARDGUARD	SEP 13, 2013	DEC 21, 2016	
		2710131	MOORE OIL INC KEYLOCK	SEP 13, 2013	NOV 12, 2016	
		2711334	MT DEPT OF NATURAL RESOURCES & CONSERVATION	DEC 15, 2011	MAR 27, 2015	
		2705436	PLUMMER ELEMENTARY SCHOOL	NOV 11, 2011	FEB 19, 2015	
		2701240	SAVE RITE SOUTH	SEP 12, 2013	OCT 17, 2016	
		2701239	SAVE RITE WEST	SEP 12, 2013	OCT 17, 2016	
		2703164	SEWER PLANT	NOV 09, 2011	MAR 12, 2015	
2701695	ST JOHNS LUTHERAN HOSPITAL	APR 26, 2011	SEP 25, 2014			
2707289	ST JOSEPH PARISH	AUG 07, 2012	DEC 11, 2015			

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
LINCOLN	LIBBY	5614121	TOWN PUMP INC LIBBY 2	DEC 20, 2012	MAR 05, 2016	
LINCOLN	TROY	2703253	CENEX/TROY MINI MART	JUN 18, 2013	SEP 11, 2016	
		2706716	LINCOLN COUNTY SHOP TROY	FEB 26, 2013	JUL 02, 2016	
		2708722	TOWN PUMP INC TROY	DEC 20, 2012	APR 01, 2016	
		2708082	TROY CENTRAL OFFICE 9140 B01	JUN 18, 2013	JUN 01, 2016	
		2700764	TROY ELEMENTARY SCHOOL	OCT 17, 2012	MAR 02, 2016	
		2700763	TROY HIGH SCHOOL MISSOULA AVE	OCT 17, 2012	MAR 02, 2016	
MADISON	ALDER	2804167	ALDER MARKET LLC	SEP 08, 2011	OCT 31, 2014	
MADISON	ENNIS	5613826	ROCKY MOUNTAIN SUPPLY INC ENNIS	AUG 09, 2011	Nov 29, 2014	
		2808698	TOWN PUMP INC ENNIS	MAY 25, 2012	OCT 27, 2015	
MADISON	NORRIS	5614138	MCLEOD MERCANTILE SW CORNER	DEC 12, 2012	FEB 28, 2016	
MADISON	SHERIDAN	6015002	A M WELLES	Nov 04, 2011	MAR 15, 2015	
		2802043	MCLEOD MERCANTILE 2802043	AUG 01, 2013	Nov 08, 2016	
MADISON	TWIN BRIDGES	2807478	BOS CHEVRON AND TIRE SERVICE	SEP 10, 2013	Nov 08, 2016	
		2810708	THREE RIVERS QUICK STOP	MAR 13, 2013	JUN 09, 2016	
MADISON	VIRGINIA CITY	2800401	COURTHOUSE & THOMPSON HICKMAN LIBRARY	JUN 03, 2013	JUN 21, 2016	
MCCONE	CIRCLE	2900041	CARLSEN SINCLAIR & SERVICE LLC	DEC 27, 2012	MAR 30, 2016	
		2900042	CIRCLE COUNTRY MARKET	DEC 27, 2012	MAR 30, 2016	
		2903433	CIRCLE EXXON	JAN 03, 2014	AUG 11, 2014	
			CIRCLE EXXON	MAY 31, 2012	INACTIVE	
		2900874	CIRCLE PUBLIC SCHOOL DIST 1	APR 10, 2013	JUN 04, 2016	
		6015206	FARMERS UNION OIL C-STORE	DEC 27, 2012	APR 09, 2016	
		2903684	HALES DISTRIBUTING 103 MAIN ST	OCT 19, 2011	JAN 08, 2015	
MCCONE	FORT PECK	2911049	ROCK CREEK MARINA	OCT 26, 2012	Nov 11, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
<u>MCCONE</u>	<u>VIDA</u>	5614042	AGLAND COOP	JUL 31, 2012	AUG 07, 2015	
<u>MEAGHER</u>	<u>WHITE SULPHUR SPRINGS</u>	3007694	BERG GARAGE INC	Nov 25, 2013	DEC 19, 2016	
		3008724	TOWN PUMP INC WHITE SULPHUR SPRINGS MAIN RD	APR 05, 2013	AUG 13, 2016	
		3000478	VAN OIL CO 12 W MAIN ST	SEP 11, 2012	FEB 17, 2016	
		3004720	WHITE SULPHUR SPRINGS SCHOOL DIST 8	Nov 03, 2011	DEC 16, 2014	
<u>MINERAL</u>	<u>ALBERTON</u>	5613785	MOUNTAIN WEST CO OP ALBERTON	Nov 26, 2012	APR 30, 2016	
<u>MINERAL</u>	<u>HAUGAN</u>	3113289	SILVER EXPRESS EXXON	MAY 16, 2013	AUG 28, 2016	
<u>MINERAL</u>	<u>SAINT REGIS</u>	3105827	SAINT REGIS EXXON	MAR 26, 2014	JUN 03, 2017	
		3107690	SAINT REGIS TRAVEL CENTER	MAR 26, 2014	MAR 28, 2017	JUL 03, 2014
		3107503	STANGS INC	MAY 23, 2013	SEP 07, 2016	
<u>MINERAL</u>	<u>SALTESE</u>	3107747	TAFT SUBSTATION	JUN 19, 2013	AUG 18, 2016	
<u>MINERAL</u>	<u>SUPERIOR</u>	3107433	DURANGOS INC	FEB 17, 2012	APR 26, 2015	
		3102302	MINERAL COUNTY COURTHOUSE UST	APR 16, 2012	JUL 25, 2015	
		3108916	MOUNTAIN WEST CO OP SUPERIOR	MAR 08, 2013	APR 30, 2016	
		3112870	S & S FOODS INC 3112870	JUL 22, 2013	SEP 25, 2016	
		3108719	TOWN PUMP INC SUPERIOR	JAN 29, 2013	MAY 14, 2016	
<u>MISSOULA</u>	<u>BONNER</u>	3212400	CULLY'S	OCT 20, 2009	INACTIVE	
			CULLY'S	DEC 10, 2013	APR 19, 2017	
<u>MISSOULA</u>	<u>CLINTON</u>	3201572	BEARMOUTH EXPRESS	FEB 25, 2014	MAY 16, 2017	
		5614040	CLINTON MARKET US 10 E	Nov 07, 2012	APR 09, 2016	
		3211093	ROCK CREEK LODGE	Nov 01, 2011	JAN 08, 2015	
		3204899	TURAH STORE & CAMPGROUND	SEP 09, 2013	Nov 01, 2016	
<u>MISSOULA</u>	<u>CONDON</u>	3201619	MISSION MOUNTAINS MERCANTILE	JUL 12, 2011	SEP 10, 2014	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
MISSOULA	FRENCHTOWN	3205767	BRONCS GROCERIES INC	OCT 28, 2011	MAR 03, 2015	
		3211177	FRENCHIES	SEP 05, 2013	NOV 01, 2016	
MISSOULA	GREENOUGH	3207114	STONEYS KWIK STOP LLC	AUG 13, 2013	DEC 05, 2016	
MISSOULA	LOLO	5613795	LOLO SUPERSTOP	SEP 27, 2013	OCT 03, 2016	
		3209414	TOWN PUMP INC LOLO 1	JAN 29, 2013	MAY 14, 2016	
		3201639	TOWN PUMP INC LOLO 2	JAN 29, 2013	MAY 14, 2016	
		3211303	TRAVELS REST COUNTRY STORE	OCT 04, 2012	DEC 12, 2015	
MISSOULA	MILLTOWN	3213629	TOWN PUMP INC BONNER-MILLTOWN	JAN 29, 2013	MAY 14, 2016	
MISSOULA	MISSOULA	5614133	AIRWAY FLEET FUEL	AUG 29, 2013	FEB 18, 2017	
		3209872	ALLIED WASTE SERVICES OF NORTH AMERICA LLC	JUN 18, 2014	AUG 30, 2014	
		3211904	BEACH TRANSPORTATION CO	DEC 03, 2013	DEC 21, 2016	
		3210469	BOURQUINS SERVICE STATION	OCT 27, 2011	INACTIVE	
		3211740	COMMUNITY MEDICAL CENTER	JAN 10, 2012	MAR 08, 2015	
		5613977	COSTCO WHOLESALE FUELING FACILITY	FEB 12, 2013	FEB 15, 2016	
		3203610	DEANOS TRAVEL PLAZA 14	NOV 22, 2013	DEC 21, 2016	
		6015010	DEANOS TRAVEL PLAZA II	DEC 08, 2011	APR 27, 2015	
		6015231	DECKER TRUCK LINE INC		SEP 01, 2014	
		3210552	DEMAROIS, INC	APR 03, 2013	JUN 07, 2016	
		5613914	FAST TRIP CONOCO	JUN 19, 2013	JUL 02, 2016	
		3202295	FINEST OIL CO MISSOULA NORTHGATE	APR 07, 2011	AUG 09, 2014	
		3210284	FINEST OIL EASTGATE	AUG 28, 2013	SEP 17, 2016	
		3210053	GARYS CONOCO SERVICE	OCT 11, 2011	JAN 22, 2015	
		3202179	GILLYS GAS & GROCERY	AUG 22, 2013	AUG 28, 2016	
3207431	GREAT WESTERN PETROLEUM	MAY 08, 2012	OCT 30, 2015			

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
MISSOULA	MISSOULA	3200505	HEATING PLANT	DEC 11, 2013	FEB 22, 2017	
		3200144	HELLGATE CONOCO SERVICE CENTER	JAN 31, 2014	JUN 14, 2017	
		3200211	HELLGATE TRADING POST INC	OCT 22, 2013	DEC 07, 2016	
		3208072	HOLIDAY STATIONSTORE 278	JUL 31, 2013	NOV 21, 2016	
		3209733	HOLIDAY STATIONSTORE 282	JUN 11, 2014	AUG 17, 2014	
		3209694	HOLIDAY STATIONSTORE 283	NOV 18, 2011	FEB 13, 2015	
		3205760	JAYS FOOD STORE	APR 10, 2014	AUG 02, 2017	
		3205761	JAYS FOOD STORE CARDLOCK	JAN 09, 2014	INACTIVE	
		3209690	JAYS MART INC	APR 10, 2014	AUG 02, 2017	JUL 24, 2014
		5614056	KARL TYLER CHEVROLET INC N RESERVE	APR 29, 2014	SEP 10, 2017	
		3206680	KWIK STOP SINCLAIR	MAY 19, 2014	JUL 31, 2014	
		5614004	LITHIA AUTO CENTER	SEP 09, 2013	INACTIVE	
		3209304	MDOT 11 3211 MISSOULA W BROADWAY	JUN 21, 2012	OCT 01, 2015	
		3207606	MISSOULA AIRPORT WASHINGTON HANGER	JUL 12, 2011	DEC 13, 2014	
		3201182	MISSOULA SERVICE CENTER	APR 16, 2014	JUN 13, 2017	
		3202822	MISSOULA TRAVEL CENTER	MAY 26, 2011	OCT 31, 2014	
		3204427	MISSOULA URBAN TRANSPORTATION	DEC 11, 2013	JUN 05, 2017	
		3211226	MONTANA RAIL LINK INC RAILYARD MISSOULA	NOV 01, 2011	MAR 27, 2015	
		3202437	MOUNTAIN WEST CO OP MISSOULA RESERVE ST	JUN 13, 2014	DEC 26, 2016	JUN 20, 2014
		3200146	MURALTS TRUCK PLAZA	OCT 27, 2011	JAN 14, 2015	
		3205763	NOONS 426	SEP 26, 2013	DEC 10, 2016	
		3203614	NOONS 457	JAN 09, 2013	MAR 30, 2016	
		3208863	NOONS 470	DEC 06, 2012	FEB 09, 2016	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
MISSOULA	MISSOULA	3204620	OLES COUNTRY STORE 11	DEC 15, 2012	MAR 05, 2016	
		3203190	OLES COUNTRY STORE 12 & DIXIES DINER	NOV 14, 2013	FEB 09, 2017	
		3205216	OLES COUNTRY STORE INC 2	NOV 14, 2013	MAR 14, 2017	
		3213405	PROVIDENCE CENTER	MAR 25, 2012	APR 03, 2015	
		3213472	PS MINI MART	AUG 04, 2011	JAN 06, 2015	
		3209919	RANGITSCH BROTHERS 2001 WEST BROADWAY	AUG 09, 2011	OCT 29, 2014	
		3209840	RAYSE IN GAS AND WASH	OCT 27, 2011	NOV 19, 2014	
		6015098	SAFeway FUEL STATION 2619	APR 03, 2012	JUN 11, 2015	
		5614025	SAFeway GASOLINE MISSOULA	AUG 22, 2013	JAN 04, 2017	
		3213711	SILVER SLIPPER	NOV 07, 2012	INACTIVE	
		3213428	SORENSEN TRANSPORT	SEP 14, 2013	SEP 17, 2016	
		3205764	SOUTH AVE MARKET 2	NOV 14, 2013	FEB 19, 2017	
		3208862	SOUTHGATE MARKET	DEC 15, 2011	MAR 13, 2015	
		5614010	SPRINT MISSOULA POP	FEB 18, 2014	AUG 12, 2017	
		3204266	ST PATRICKS HOSPITAL	MAR 25, 2012	MAY 29, 2015	
		3206523	TABISH BROTHERS DISTRIBUTORS INC	JUN 21, 2011	DEC 17, 2014	
		3208475	THE OLDE DAIRY	MAY 21, 2014	SEP 03, 2017	
		3213336	TOWN PUMP INC MISSOULA 1	JAN 29, 2013	AUG 02, 2016	
		3208715	TOWN PUMP INC MISSOULA 2	JAN 29, 2013	MAY 14, 2016	
		3213172	TOWN PUMP INC MISSOULA 3	JAN 29, 2013	MAY 14, 2016	
		5613823	TOWN PUMP INC MISSOULA 8	MAY 30, 2012	OCT 01, 2015	
		6015158	TOWN PUMP MISSOULA #7	FEB 14, 2013	FEB 21, 2016	
		3204536	UNITED PARCEL SERVICE MISSOULA	APR 18, 2013	OCT 11, 2016	
		3200920	WATKINS & SHEPARD TRUCKING MISSOULA	APR 10, 2014	JUN 06, 2017	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
MISSOULA	MISSOULA	3201348	WESTERN TRANSPORT	APR 10, 2013	JUN 09, 2016	
		3213674	WESTFIELD MISSOULA	JUL 16, 2011	JUL 22, 2014	
		3200053	WIMETT TRUCKING	MAR 08, 2012	MAR 24, 2015	
		3209730	ZIP TRIP 31	JUL 17, 2013	Nov 05, 2016	
		3203912	ZIP TRIP 32	OCT 22, 2013	FEB 04, 2017	
		3207244	ZOOTOWN SUPER STOP	DEC 06, 2011	MAR 13, 2015	
MISSOULA	SEELEY LAKE	3205837	LINDEYS LANDING WEST SPB	JUL 19, 2011	OCT 17, 2014	
		6015146	ROVEROS	DEC 10, 2013	JAN 28, 2017	
		3209288	SEELEY LAKE CONVENIENCE STORE	JAN 10, 2012	MAR 13, 2015	
MUSSELSHELL	MELSTONE	3301481	JAKES GARAGE	JAN 04, 2013	MAR 30, 2016	
MUSSELSHELL	ROUNDUP	3305030	CONOCO CONVENIENCE CENTER	SEP 06, 2013	DEC 14, 2016	
		3306612	EXPRESS CENTER CONVENIENCE STORE	DEC 12, 2011	FEB 07, 2015	
		3302079	WELLS FARGO BANK ROUNDUP	JUL 31, 2013	DEC 28, 2016	
PARK	CLYDE PARK	3407600	DALES FUEL INC	MAY 06, 2013	JUN 15, 2016	
		3412515	SHIELDS VALLEY HIGH SCHOOL	MAR 29, 2013	SEP 24, 2016	
PARK	COOKE CITY	3401584	COOKE CITY EXXON	JUN 03, 2013	SEP 17, 2016	
		3410046	COOKE CITY SINCLAIR AND	JUN 03, 2013	SEP 17, 2016	
		3408869	NORTHEAST ENTRANCE GAS PUMPS	MAY 21, 2013	SEP 26, 2016	
PARK	EMIGRANT	3410959	B BUNK INC	JAN 06, 2012	MAR 26, 2015	
		3410989	CAPSTONE SHELTER	OCT 25, 2013	INACTIVE	
		3410934	COMMUNITY CONSERVATION ASSOCIATION	OCT 07, 2013	DEC 11, 2016	
		3410930	COMMUNITY CONTINUITY INC	JAN 24, 2012	MAR 31, 2015	
		3410931	COMMUNITY RESTORATION INC	JAN 24, 2012	MAR 31, 2015	
		5614035	DENNIS CURTIN	Nov 06, 2013	DEC 31, 2016	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
PARK	EMIGRANT	3410978	EARTH HOME PROPERTIES LLC	JUL 16, 2013	INACTIVE	
		3406713	EMIGRANT GENERAL STORE	MAY 16, 2013	JUL 08, 2016	
		3413180	HELMET OF SALVATION SHELTER UST	MAR 15, 2014	JUN 30, 2017	
		3410965	LIFESAVERS INC	APR 17, 2013	INACTIVE	MAR 20, 2012
		3410960	MARKS ARK INC	DEC 29, 2011	JAN 06, 2015	
PARK	GARDINER	3408873	GARDINER LAUNDRY	APR 16, 2013	JUL 28, 2016	
		3409287	GARDINER SCHOOL DIST 4	NOV 10, 2011	JAN 02, 2015	
		3408868	GARDINER SERVICE CENTER	APR 16, 2013	JUL 28, 2016	
		3406531	KREMERS CENEX	OCT 25, 2011	MAR 03, 2015	
		3403402	RANCH OFFICE	JUN 13, 2011	SEP 03, 2014	
		3402285	TOWN STATION	JUL 16, 2013	DEC 21, 2016	
PARK	LIVINGSTON	3409906	CASEYS CORNER #4	JUN 27, 2013	JUL 22, 2016	
		3410573	CITY COUNTY COMPLEX	AUG 07, 2013	OCT 01, 2016	
		3409286	FITNESS & RCENTER	JUL 19, 2012	INACTIVE	
		3409965	LIVINGSTON HEALTH CARE	AUG 20, 2013	Nov 15, 2016	
		3408071	OLD HOLIDAY GAS STATION	JUN 05, 2012	INACTIVE	
		3408777	QWEST LIVINGSTON CENTRAL OFFICE	DEC 08, 2011	MAR 20, 2015	
		3413736	TJS GAS N CONVENIENCE	JUL 01, 2014	SEP 03, 2014	
		3408713	TOWN PUMP INC LIVINGSTON 2	NOV 28, 2012	APR 02, 2016	
		3413409	TOWN PUMP INC LIVINGSTON 3	OCT 16, 2012	APR 02, 2016	
		3411200	YELLOWSTONE TRUCK STOP LIVINGSTON	DEC 12, 2013	MAR 25, 2017	
		3411741	ZIP TRIP 47	OCT 25, 2011	MAR 09, 2015	
PARK	WILSALL	3406686	PARK FARMERS COOP	APR 17, 2013	MAY 24, 2016	
PETROLEUM	WINNETT	5613897	B & D SERVICE HWY 244	OCT 30, 2012	JAN 26, 2016	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
PHILLIPS	MALTA	3610706	EQUITY COOP ASSOCIATION MALTA	MAY 07, 2013	OCT 30, 2016	
		6015156	EZZIES BULK STORAGE	FEB 20, 2014	APR 20, 2017	
		3611372	EZZIES WHOLESALE US 2 E	JUL 19, 2013	SEP 15, 2016	
		3602371	LITTLE OTTS INC	AUG 23, 2013	OCT 31, 2016	
		3602359	PACKYS	FEB 21, 2013	INACTIVE	
		5614104	PHILLIPS COUNTY MEDICAL CENTER	JUN 12, 2013	OCT 05, 2016	
		3606668	WESTSIDE SELF SERVICE INC	JUN 24, 2013	JUL 09, 2016	
PHILLIPS	WHITEWATER	3604082	FARMERS UNION OIL CO WHITEWATER	DEC 05, 2011	FEB 11, 2015	
PHILLIPS	ZORTMAN	3611549	ZORTMAN GARAGE & MOTEL	OCT 15, 2013	Nov 27, 2016	
PONDERA	BRADY	3704241	MOUNTAIN VIEW COOP BRADY	JUL 02, 2013	AUG 04, 2016	
		3702704	ULRICH	MAR 18, 2014	INACTIVE	
PONDERA	CONRAD	3701649	MOUNTAIN VIEW COOP CONRAD	AUG 02, 2013	INACTIVE	
			MOUNTAIN VIEW COOP CONRAD	DEC 27, 2013	MAR 08, 2017	
		3706114	TOMS SUPER SERVICE	MAY 20, 2013	JUL 20, 2016	
		3708692	TOWN PUMP INC CONRAD	DEC 01, 2012	APR 01, 2016	
PONDERA	HEART BUTTE	3709353	HEART BUTTE SCHOOL DIST 1	Nov 21, 2013	DEC 28, 2016	
PONDERA	VALIER	5614043	CFN CARDLOCK	JAN 25, 2012	MAR 25, 2015	
		3703112	ONE STOP CENEX	DEC 09, 2011	DEC 17, 2014	
POWDER RIVER	BIDDLE	3801493	CROSS RANCH MERC	MAY 20, 2014	Aug 10, 2014	
POWDER RIVER	BROADUS	3803951	ALDERMAN OIL CO	JUN 21, 2011	Nov 06, 2014	
		3800548	COUNTY SHOP MAINTENANCE YARD	AUG 31, 2011	Nov 26, 2014	
		3800126	THE CORNER STORE	MAY 20, 2014	Nov 06, 2014	
POWELL	DEER LODGE	3913744	BROKEN CIRCLE RANCH CO INC	MAR 01, 2012	MAR 26, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
POWELL	DEER LODGE	3910909	HAPPY ENDINGS 418	MAR 01, 2011	INACTIVE	
		3907856	190 AUTO TRUCK PLAZA	AUG 21, 2013	DEC 26, 2016	
		3904312	MAIN STREET SERVICE INC	SEP 06, 2013	NOV 13, 2016	
		3908694	TOWN PUMP INC DEER LODGE	MAY 25, 2012	OCT 14, 2015	
POWELL	ELLISTON	3905196	ELLISTON STORE	AUG 10, 2011	DEC 27, 2014	
POWELL	GARRISON	3903405	GARRISON MERCANTILE & POST OFFICE INC	OCT 29, 2012	INACTIVE	FEB 15, 2013
POWELL	OVANDO	3902276	BLACKFOOT COMMERCIAL CO LLC	OCT 28, 2013	NOV 30, 2016	
PRAIRIE	TERRY	4006798	4 CORNERS	MAY 02, 2014	JUL 29, 2017	
		4006797	FARMERS UNION OIL CO TERRY	JAN 03, 2014	MAR 14, 2017	
		5614149	MTD PETROLEUM SERVICE LLC	JAN 17, 2012	FEB 24, 2015	
RAVALLI	CORVALLIS	4102402	THE MERC FRESH MARKET INC	OCT 09, 2012	FEB 17, 2016	
RAVALLI	DARBY	4100853	DARBY LUMBER	APR 09, 2013	INACTIVE	
		4100028	MR TS FOOD AND FUEL	JAN 14, 2014	MAY 16, 2017	
		4110908	OLES COUNTRY STORE 6	JAN 30, 2012	INACTIVE	
		5614029	PEOPLES MARKET	AUG 29, 2013	DEC 26, 2016	
RAVALLI	FLORENCE	4111356	DYNA MART LLP	NOV 14, 2013	INACTIVE	
		4112720	TOWN PUMP INC FLORENCE	JAN 29, 2013	MAY 27, 2016	
RAVALLI	HAMILTON	4105798	ANGLERS ROOST LLP	AUG 13, 2012	INACTIVE	
		4104846	DAVISON'S EXXON SERVICE	APR 10, 2012	AUG 06, 2015	
		5613874	LONE PINE INC	NOV 19, 2012	FEB 17, 2016	
		4113769	QUALITY USED CARS	MAY 03, 2012	INACTIVE	
		4106546	RAVALLI COUNTY ROAD DEPT HAMILTON	JAN 17, 2013	INACTIVE	
			RAVALLI COUNTY ROAD DEPT HAMILTON	JUL 10, 2013	AUG 05, 2016	
	4113588	RIVERSIDE CONOCO	OCT 25, 2011	MAR 25, 2015		

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
RAVALLI	HAMILTON	4109670	TOWN PUMP INC HAMILTON 1	JAN 29, 2013	MAY 27, 2016	
		4100145	TOWN PUMP INC HAMILTON 2	JAN 29, 2013	MAY 27, 2016	
RAVALLI	STEVENSVILLE	4111429	CJ'S DEN	OCT 09, 2012	INACTIVE	
		4110286	EASTSIDE COUNTRY STORE & DELI	APR 29, 2014	SEP 25, 2017	Nov 16, 2014
		4110330	MOUNTAIN WEST CO OP STEVENSVILLE	JUN 17, 2014	MAR 31, 2015	
		4113686	OLE'S COUNTRY STORE 15	FEB 17, 2014	APR 08, 2017	
		4100170	THREE MILE TRADING CO	OCT 09, 2012	FEB 09, 2016	
RAVALLI	SULA	4111692	LOST TRAIL POWDER MOUNTAIN	SEP 09, 2011	OCT 03, 2014	
		4110411	SULA COUNTRY STORE LLC	MAY 21, 2013	OCT 29, 2016	
RAVALLI	VICTOR	6015155	TOWN PUMP OF WOODSIDE	JAN 29, 2013	JAN 31, 2016	
		4113288	VICTOR SINCLAIR	AUG 20, 2013	INACTIVE	
			VICTOR SINCLAIR	JAN 27, 2014	MAY 06, 2017	
RICHLAND	FAIRVIEW	4203363	HORIZON RESOURCES FAIRVIEW STORE	MAR 28, 2014	JUL 24, 2017	
		4203914	LOAF & JUG 714	DEC 02, 2013	FEB 25, 2017	
RICHLAND	LAMBERT	4200317	NORTANA GRAIN CO	JAN 14, 2013	MAR 04, 2016	
RICHLAND	SAVAGE	4203815	VALLEY FUEL SUPPLY	JAN 03, 2012	MAR 14, 2015	
RICHLAND	SIDNEY	4203364	CENEX HARVEST STATES	NOV 08, 2012	FEB 11, 2016	
		4200001	LOWER YELLOWSTONE RURAL ELECTRIC ASSOCIATION INC	APR 19, 2012	SEP 29, 2015	
		4203224	METZ FUEL & SERVICE	MAY 21, 2012	SEP 29, 2015	
		5614071	MILLERS CORNER	MAR 19, 2014	APR 14, 2017	JUL 13, 2014
		4205084	MINI MART 712	SEP 05, 2013	JAN 15, 2017	
		4204444	SIDNEY AIRPORT SERVICE	FEB 07, 2013	FEB 12, 2016	
		4202184	SIDNEY CARDTROL	JAN 03, 2014	APR 30, 2017	
	4206159	SIDNEY HEALTH CENTER	APR 19, 2012	SEP 14, 2015		

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
RICHLAND	SIDNEY	4209718	SUPERPUMPER #23 SIDNEY	AUG 28, 2013	DEC 31, 2016	
		4200183	SWELEY OIL INC BULK PLANT	OCT 26, 2012	FEB 18, 2016	
ROOSEVELT	BAINVILLE	4313761	THE WELCOME STOP	JUN 12, 2013	JUL 27, 2016	
ROOSEVELT	BROCKTON	4302099	B & S QUICK STOP	Nov 09, 2011	MAR 13, 2015	
		4313651	CENEX HARVEST STATES BROCKTON ELEVATOR	Nov 26, 2012	FEB 17, 2016	
ROOSEVELT	CULBERTSON	4303015	MISSOURI RIVER LOGISTICS	JAN 02, 2014	INACTIVE	
		4300030	OELKERS SERVICE CENTER	AUG 29, 2011	OCT 18, 2014	
		4307758	TRIPLE M SINCLAIR	DEC 26, 2012	MAY 12, 2016	
		4301991	VAL AM STOP N SHOP	JAN 03, 2012	FEB 11, 2015	
ROOSEVELT	FROID	4304415	FARMERS UNION OIL CO FROID	DEC 06, 2012	FEB 19, 2016	
ROOSEVELT	POPLAR	4301508	BUTCHS EXXON SERVICE	FEB 20, 2013	INACTIVE	JUN 03, 2013
		4310278	FARMERS UNION OIL CO POPLAR	JAN 30, 2013	MAR 03, 2016	
		6015207	FORT PECK DETENTION CENTER		Nov 30, 2014	
ROOSEVELT	WOLF POINT	4306866	FARMERS UNION OIL CO WESTSIDE STATION	JAN 29, 2013	MAR 04, 2016	
		4310279	FARMERS UNION OIL CO WOLF POINT	JAN 29, 2013	MAR 30, 2016	
		4300843	L M CLAYTON AIRPORT	FEB 20, 2013	JUL 12, 2016	
		4308725	TOWN PUMP INC WOLF POINT	MAR 07, 2013	APR 27, 2016	
ROSEBUD	ASHLAND	4413200	CHEYENNE DEPOT 2	MAR 12, 2012	INACTIVE	JUN 23, 2012
		4400701	ST LABRE INDIAN SCHOOL UST	SEP 03, 2013	DEC 28, 2016	
		4401892	WESTERN PUMP	AUG 31, 2011	DEC 31, 2014	
ROSEBUD	COLSTRIP	4401432	COLSTRIP 500 KV SUBSTATION	APR 18, 2013	JUL 12, 2016	
		4406584	COLSTRIP STEAM ELECTRIC STATION UNITS 3 & 4	AUG 13, 2012	INACTIVE	
		4408921	COLSTRIP STEAM ELECTRIC STATION WILLOW AVE	MAY 09, 2014	AUG 22, 2017	

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<u>ROSEBUD</u>	<u>COLSTRIP</u>	4408689	TOWN PUMP INC COLSTRIP	MAR 07, 2013	APR 27, 2016	
<u>ROSEBUD</u>	<u>FORSYTH</u>	4401244	FORSYTH WATERING HOLE	Nov 30, 2012	DEC 13, 2015	
		4410824	HOME OIL CO	SEP 06, 2013	NOV 07, 2016	
		4406209	PRINCE INC FORSYTH	Nov 21, 2011	FEB 12, 2015	
		4401288	ROSEBUD COUNTY ROAD DEPT	Nov 21, 2011	JAN 14, 2015	
		4405262	ROSEBUD HEALTH CARE CENTER	APR 12, 2013	APR 20, 2016	
		4409356	TOWN PUMP INC FORSYTH	MAR 07, 2013	APR 27, 2016	
<u>SANDERS</u>	<u>HERON</u>	4510136	THE HERON STORE AND CAFÉ	MAR 15, 2013	INACTIVE	
<u>SANDERS</u>	<u>HOT SPRINGS</u>	4512871	CORNERSTONE CONVENIENCE LLC	JUN 16, 2014	AUG 13, 2017	
		4504109	SPRING STREET EXXON	AUG 21, 2012	INACTIVE	
<u>SANDERS</u>	<u>LONEPINE</u>	4512786	LONEPINE COUNTRY STORE	MAR 01, 2011	INACTIVE	
			LONEPINE COUNTRY STORE	MAY 22, 2013	AUG 07, 2016	
<u>SANDERS</u>	<u>NOXON</u>	5613810	AITKENS QUIK STOP INC NOXON	MAR 18, 2014	APR 11, 2017	MAR 21, 2015
		4503331	BULL RIVER COUNTRY STORE	DEC 06, 2013	INACTIVE	
<u>SANDERS</u>	<u>PLAINS</u>	4501147	COLYER OIL CO E RAILROAD	APR 22, 2013	JUN 30, 2016	
		4501093	PLAINS SCHOOL DIST 1	APR 11, 2012	SEP 03, 2015	
		4503803	PLAINS SERVICE CENTER INC	DEC 09, 2011	MAR 21, 2015	
		4508716	TOWN PUMP INC PLAINS	DEC 20, 2012	AUG 24, 2016	
<u>SANDERS</u>	<u>THOMPSON FALLS</u>	4508537	ELEMENTARY SCHOOL	Nov 04, 2011	JAN 21, 2015	
		5614114	MOODYS MARKET HARVEST FOODS	JAN 31, 2013	MAR 02, 2016	
		4513460	RONS EXPRESS PAY	JUN 10, 2014	OCT 17, 2017	
		4502633	THOMPSON FALLS FEED AND FUEL LLC	JUN 14, 2011	DEC 02, 2014	
		4508720	TOWN PUMP INC THOMPSON FALLS	DEC 20, 2012	APR 01, 2016	

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SANDERS	TROUT CREEK	5614146	AITKENS QUIK STOP INC TROUT CREEK	FEB 26, 2014	APR 28, 2017	
		4513738	HENRYS HIDEAWAY	FEB 05, 2014	INACTIVE	MAY 08, 2014
		4510228	TROUT CREEK LOCAL STORE INC	JUN 10, 2014	AUG 07, 2017	SEP 15, 2014
SHERIDAN	DAGMAR	4600762	PRAIRIE STATES COOP TERMINAL	OCT 17, 2013	OCT 16, 2016	
SHERIDAN	MEDICINE LAKE	4601127	LAKE PIT STOP	FEB 07, 2013	MAR 30, 2016	
		4601122	MEDICINE LAKE SCHOOL DIST 7	JAN 16, 2014	JAN 21, 2017	
SHERIDAN	PLENTYWOOD	4601524	AUTO TECH SERVICES	JAN 31, 2013	JUN 08, 2016	
		4606801	FARMERS UNION OIL CO PLENTYWOOD	AUG 09, 2012	AUG 23, 2015	
		4605200	KUM AND GO STORE 808	Nov 01, 2011	MAR 21, 2015	
		4612667	MNLC INC CAN AM STORES	AUG 01, 2012	Nov 13, 2015	
		4610679	MONTANA PIONEER MANOR INC	JAN 31, 2013	JUN 04, 2016	
		4606278	SHERIDAN COUNTY	JAN 02, 2014	JUN 18, 2017	
		4606279	SHERIDAN COUNTY SHOP	JAN 02, 2014	FEB 19, 2017	
		4600795	SHERIDAN MEMORIAL HOSPITAL	JAN 16, 2014	JUN 03, 2017	JUL 22, 2014
4612330	SHERWOOD AIRPORT	JAN 02, 2014	MAR 10, 2017			
SHERIDAN	RESERVE	4602103	JACKS SERVICE	JAN 16, 2014	JAN 21, 2017	
SILVER BOW	ANACONDA	5613976	FAIRMONT RV PARK AND CAMPGROUND LLC	SEP 20, 2013	NOV 01, 2016	
SILVER BOW	BUTTE	4701980	BUTTE SCHOOL DIST 1 BUS BARN	DEC 09, 2013	JAN 31, 2017	
		4708477	BUTTE SILVER BOW MAINTENANCE CENTER	APR 09, 2013	JUN 09, 2016	
		4705148	CENEX ZIP TRIP #72	JUL 25, 2011	DEC 26, 2014	
		4700386	CENEX ZIP TRIP #73	Nov 05, 2013	Nov 13, 2016	
		5614119	DETENTION CENTER	MAR 18, 2014	MAY 27, 2017	
6015178	FED EX DISTRIBUTION	FEB 07, 2012	APR 12, 2015			

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SILVER BOW	BUTTE	4705359	HOLLOW CONSTRUCTION	OCT 26, 2011	JAN 30, 2015	
		4702689	LAVELLE EQUIPMENT REPAIR	JAN 12, 2012	INACTIVE	
		4705202	LISACS SOUTHSIDE EXXON	MAY 12, 2014	AUG 19, 2017	AUG 18, 2014
		4701062	MDOT BUTTE DISTRICT HEADQUARTERS	FEB 26, 2013	JUL 14, 2016	
		4713549	MONTANA RESOURCES INC	Nov 01, 2011	MAR 05, 2015	
		4713531	MORRIS CARD LOCK	SEP 03, 2013	DEC 05, 2016	
		4701705	MOUNT MORIAH CEMETERY ASSOCIATION	JUL 23, 2013	OCT 09, 2016	
		5614033	NORTHWEST PETROLEUM FACILITY	MAY 25, 2012	OCT 14, 2015	
		5614034	QWEST BUTTE MAIN CENTRAL OFFICE	DEC 31, 2013	APR 18, 2017	OCT 31, 2014
		4709893	ROCKER FLYING J	JUL 30, 2012	OCT 13, 2015	
		4701835	SHEAS AUTO REPAIR	FEB 10, 2014	APR 20, 2017	
			SHEAS AUTO REPAIR	JUL 12, 2013	INACTIVE	
		4713157	SILVER BOW COUNTY PUBLIC WORKS	APR 09, 2013	JUN 09, 2016	
		4706924	ST JAMES HEALTHCARE INC	SEP 10, 2013	DEC 05, 2016	
		4705772	SUNKEN TREASURE	MAY 16, 2014	AUG 02, 2017	SEP 01, 2014
		6015058	THREE BEARS ALASKA	AUG 08, 2013	JAN 09, 2017	
		4710657	THRIFTWAY #16	JUN 27, 2013	JUL 10, 2016	
		4707932	THRIFTWAY SUPER STOP 1	JUN 06, 2013	Nov 13, 2016	
		4707935	THRIFTWAY SUPER STOP 2	JUN 07, 2013	JUN 12, 2016	
		4707934	THRIFTWAY SUPER STOP 4	JUN 06, 2013	JUN 20, 2016	
		4700942	THRIFTWAY SUPER STOP 5	JUN 06, 2013	JUN 12, 2016	
		4707936	THRIFTWAY SUPER STOP 6	JUN 07, 2013	Nov 13, 2016	
		4708679	TOWN PUMP INC BUTTE 1	MAY 25, 2012	MAY 31, 2015	
		4708687	TOWN PUMP INC BUTTE 10	MAY 25, 2012	OCT 14, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
SILVER BOW	BUTTE	4708680	TOWN PUMP INC BUTTE 2	MAY 25, 2012	OCT 14, 2015	
		4708682	TOWN PUMP INC BUTTE 3	MAY 25, 2012	OCT 14, 2015	
		5613911	TOWN PUMP INC BUTTE 4	MAY 25, 2012	OCT 14, 2015	
		4708686	TOWN PUMP INC BUTTE 8	MAY 25, 2012	OCT 14, 2015	
		4713173	TOWN PUMP INC ROCKER	MAY 25, 2012	MAY 31, 2015	
SILVER BOW	MELROSE	4707486	MELROSE BAR SERVICE STATION POST OFFICE	JAN 09, 2012	MAR 03, 2015	
STILLWATER	COLUMBUS	4803409	FARMERS UNION TRADING CO	JUL 15, 2013	OCT 31, 2016	
		4807859	GITS CONOCO	JUL 15, 2013	OCT 26, 2016	
		4808691	TOWN PUMP INC COLUMBUS UST	Nov 02, 2012	Nov 18, 2015	
STILLWATER	FISHTAIL	5613917	FISHTAIL BASIN RANCH	DEC 13, 2011	JAN 28, 2015	
		4803599	MDOT ROW FISHTAIL GENERAL STORE FHWA	DEC 17, 2012	MAR 07, 2016	
		4809647	NYE TRADING POST	DEC 17, 2012	MAR 05, 2016	
		5613932	ROCKIN J	JUN 16, 2014	JUL 15, 2017	
STILLWATER	PARK CITY	4806610	KWIK STOP INC	OCT 16, 2012	MAR 17, 2016	
		4808910	ZIP TRIP 50	AUG 21, 2011	FEB 24, 2015	
STILLWATER	REED POINT	4801521	REED POINT C-STORE	JUN 10, 2014	SEP 04, 2014	
SWEET GRASS	BIG TIMBER	4909311	BIG TIMBER TOWN PUMP AND CASINO	Nov 02, 2012	Nov 08, 2015	
		4906069	SWEET GRASS CENEX	DEC 06, 2011	MAR 19, 2015	
		4902680	THE FORT	OCT 26, 2011	MAR 19, 2015	
		4913756	TOWN PUMP INC BIG TIMBER 1ST AVE	Nov 28, 2012	DEC 05, 2015	
TETON	CHOTEAU	5614147	BREEN OIL CARD LOCK S	MAR 13, 2014	APR 27, 2017	
		5004209	CHOTEAU QUIK STOP	Nov 09, 2011	INACTIVE	
		5007565	DESHS TIRE AND AUTO LLC	OCT 17, 2012	INACTIVE	
		5003593	KELLYS SERVICE	OCT 16, 2013	OCT 19, 2016	

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TETON	CHOTEAU	5613816	MAIN STREET EXPRESS LLP	SEP 12, 2013	NOV 21, 2016	
		5009039	MALMSTROM AFB F 10	AUG 26, 2011	MAR 08, 2015	
		5009040	MALMSTROM AFB F 11	AUG 30, 2011	MAR 08, 2015	
		5009031	MALMSTROM AFB F 2	AUG 29, 2011	MAR 08, 2015	
		5009032	MALMSTROM AFB F 3	AUG 29, 2011	MAR 08, 2015	
		5009038	MALMSTROM AFB F 9	SEP 29, 2011	MAR 08, 2015	
		5009061	MALMSTROM AFB H 10	AUG 30, 2011	MAR 10, 2015	
		5009062	MALMSTROM AFB H 11	AUG 30, 2011	MAR 10, 2015	
TETON	DUTTON	5003600	DUTTON SCHOOL DIST 28	MAR 18, 2014	AUG 27, 2017	
		5009053	MALMSTROM AFB H 02	DEC 05, 2011	MAR 10, 2015	
		5009074	MALMSTROM AFB J 1	JUL 24, 2013	AUG 06, 2016	
		5009084	MALMSTROM AFB J 11	JUN 21, 2013	JUN 27, 2016	
		5009075	MALMSTROM AFB J 2	JUN 18, 2013	JUN 27, 2016	
		6015071	MOUNTAIN VIEW CO OP	JAN 30, 2014	MAY 07, 2017	
		5003701	MOUNTAIN VIEW COOP DUTTON	JUL 18, 2013	SEP 05, 2016	
TETON	FAIRFIELD	5007428	GREENFIELDS IRRIGATION DISTRICT UST	FEB 13, 2014	AUG 05, 2017	
		5009033	MALMSTROM AFB F 4	DEC 06, 2011	MAR 10, 2015	
		5009052	MALMSTROM AFB H 1	JUN 18, 2014	OCT 06, 2014	
		5009060	MALMSTROM AFB H 9	AUG 30, 2011	MAR 10, 2015	
		5003596	MOUNTAIN VIEW COOP FAIRFIELD	JUL 10, 2013	SEP 27, 2016	
		5011700	MOUNTAIN VIEW COOP THE STORE	JAN 05, 2012	MAR 13, 2015	
TETON	RURAL LOCATION	5009037	MALMSTROM AFB F 8	AUG 29, 2011	MAR 08, 2015	
TOOLE	GALATA	5102311	FRASER OIL INC GALATA	OCT 20, 2011	MAR 17, 2015	
TOOLE	SHELBY	5106113	MAIN STREET EXXON	OCT 18, 2011	JAN 08, 2015	
		5100104	NOON'S 573	SEP 12, 2013	SEP 29, 2016	MAR 23, 2014

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TOOLE	SHELBY	5108629	SIMONS PETROLEUM INC 5108629	JUL 13, 2011	NOV 27, 2014	
		5109749	TOWN PUMP INC SHELBY	DEC 01, 2012	APR 01, 2016	
TOOLE	SUNBURST	5102025	TAYLORS BULK PLANT	APR 24, 2013	JUN 22, 2016	
TOOLE	SWEET GRASS	5101377	DUTY FREE AMERICA'S	NOV 09, 2011	MAR 28, 2015	
		5112405	MARS GAS & GROCERY	MAR 26, 2012	MAR 27, 2015	
TREASURE	HYSHAM	5201905	FARMERS UNION OIL CO HYSHAM	DEC 07, 2011	FEB 27, 2015	
		5206316	FRIENDLY CORNER	JUL 26, 2012	SEP 29, 2015	
VALLEY	FORT PECK	5304612	US ARMY CORPS OF ENGINEERS FORT PECK	JUL 30, 2012	AUG 28, 2015	
VALLEY	GLASGOW	5305709	EZZIE'S MIDTOWN	JAN 01, 2014	APR 04, 2017	
		5310475	EZZIES WHOLESALE GLASGOW	NOV 23, 2011	MAR 24, 2015	
		5303160	FARMERS UNION OIL DBA AGLAND COOP	JAN 21, 2013	JAN 30, 2016	
		5305192	FRANCES MAHON DEACONESS HOSPITAL	JUN 23, 2014	NOV 06, 2014	
		5303271	GLASGOW INTERNATIONAL AIRPORT	JAN 22, 2013	MAR 30, 2016	
		5309712	HOLIDAY STATIONSTORE 281	JUL 28, 2011	OCT 01, 2014	
		5308383	LAKERIDGE MOTEL & TACKLE INC	JAN 21, 2013	MAY 04, 2016	
		5307787	TRAILSIDE GENERAL STORE GLASGOW	MAY 02, 2012	INACTIVE	
VALLEY	NASHUA	5310461	FARMERS UNION OIL CO NASHUA	JUL 31, 2012	AUG 07, 2015	
		5304078	MISSOURI RIVER OUTPOST	JUL 17, 2012	INACTIVE	
VALLEY	OPHEIM	5307814	PRO COOP OPHEIM	NOV 23, 2011	FEB 12, 2015	
VALLEY	SAINT MARIE	5312774	MT AVIATION RESEARCH BLDG CO BLDG 649A	JAN 22, 2013	JUN 08, 2016	
WHEATLAND	HARLOWTON	5404934	ENGINEERS DEPOT	JUL 13, 2012	OCT 31, 2015	
		5409085	MALMSTROM AFB K 1	AUG 19, 2013	AUG 21, 2016	
		5409094	MALMSTROM AFB K 10	JUL 26, 2013	JUL 31, 2016	

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<u>WHEATLAND</u>	<u>HARLOWTON</u>	5409095	MALMSTROM AFB K 11	JUL 26, 2013	JUL 31, 2016	
		5409086	MALMSTROM AFB K 2	AUG 19, 2013	AUG 21, 2016	
		5409087	MALMSTROM AFB K 3	JUL 24, 2013	JUL 31, 2016	
		5409088	MALMSTROM AFB K 4	JUL 25, 2013	JUL 31, 2016	
		5409090	MALMSTROM AFB K 6	JUL 25, 2013	JUL 31, 2016	
		5409092	MALMSTROM AFB K 8	JUL 26, 2013	JUL 31, 2016	
		5409093	MALMSTROM AFB K 9	JUL 26, 2013	JUL 31, 2016	
		5411975	RAYS SPORT & WESTERN WEAR	JAN 06, 2012	FEB 24, 2015	
<u>WHEATLAND</u>	<u>JUDITH GAP</u>	5407616	JUDITH GAP OIL	FEB 18, 2013	MAY 08, 2016	
		1409096	MALMSTROM AFB L 1	JUL 22, 2013	JUL 31, 2016	
		5409098	MALMSTROM AFB L 3	JUL 23, 2013	AUG 07, 2016	
		5409099	MALMSTROM AFB L 4	JUL 23, 2013	AUG 07, 2016	
		5409100	MALMSTROM AFB L 5	JUL 22, 2013	AUG 07, 2016	
		5409101	MALMSTROM AFB L 6	JUL 22, 2013	AUG 07, 2016	
		5409102	MALMSTROM AFB L 7	JUL 22, 2013	AUG 07, 2016	
		5409103	MALMSTROM AFB L 8	JUL 24, 2013	AUG 07, 2016	
<u>WHEATLAND</u>	<u>SHAWMUT</u>	5409089	MALMSTROM AFB K 5	JUL 25, 2013	JUL 31, 2016	
		5409091	MALMSTROM AFB K 7	JUL 26, 2013	JUL 31, 2016	
<u>WIBAUX</u>	<u>WIBAUX</u>	5513559	AMSLER C STORE	APR 17, 2014	AUG 22, 2017	
		5503348	WIBAUX COOP OIL CO	JUN 11, 2013	OCT 23, 2016	
		5502446	WIBAUX COUNTY UST	JUN 11, 2013	OCT 15, 2016	
<u>YELLOWSTONE</u>	<u>BALLANTINE</u>	5606325	TIGER TOWN	APR 04, 2014	JUL 10, 2017	SEP 30, 2014
<u>YELLOWSTONE</u>	<u>BILLINGS</u>	5605750	24TH STREET CENEX	DEC 04, 2012	FEB 05, 2016	
		5610797	3 GS CONVENIENCE CENTER 27TH ST	OCT 28, 2011	JAN 07, 2015	
		5600063	3 GS CONVENIENCE CENTER 3	OCT 27, 2011	JAN 08, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
YELLOWSTONE	BILLINGS	5604957	3 GS CONVENIENCE CENTER E WICKS LANE	OCT 27, 2011	JAN 08, 2015	
		5604946	3 GS CONVENIENCE CENTER STATE AVE	JUL 22, 2013	NOV 05, 2016	
		5605748	3 GS CONVENIENCE STORE	DEC 16, 2011	JAN 06, 2015	
		5605087	3 G'S CONVENIENCE STORE	SEP 16, 2013	JAN 10, 2017	
		5605086	3 G'S CONVENIENCE STORE	NOV 16, 2013	DEC 31, 2016	
		5605087	3 G'S CONVENIENCE STORE	NOV 04, 2009	INACTIVE	
		5614127	AIR TRAFFIC CONTROL TOWER	FEB 12, 2014	APR 18, 2017	
		5600123	ARCHIE COCHRANE MOTORS	NOV 17, 2011	MAR 26, 2015	
		5602823	ASSOCIATED FOOD STORES INC BILLINGS	MAR 08, 2013	JUL 12, 2016	
		5605758	AT & T COMMUNICATIONS BILLINGS	DEC 07, 2012	MAR 09, 2016	
		5614077	BILLINGS DIGITAL AIRPORT SURVEILLANCE RADAR	DEC 28, 2011	MAR 26, 2015	
		5609740	BILLINGS FIRE STATION 2	DEC 07, 2011	FEB 20, 2015	
		5609741	BILLINGS FIRE STATION 3	DEC 07, 2011	FEB 20, 2015	
		5609742	BILLINGS FIRE STATION 5	DEC 07, 2011	FEB 20, 2015	
		5609743	BILLINGS FIRE STATION 6	DEC 07, 2011	FEB 20, 2015	
		5613781	BILLINGS GEYSER PARK LLC	MAR 14, 2014	MAY 22, 2017	
		5600909	BILLINGS LOGAN INTERNATIONAL AIRPORT UST	JUN 07, 2013	SEP 04, 2016	
		5609747	BILLINGS METROPOLITAN TRANSIT	JUL 20, 2012	DEC 18, 2015	
		5614118	BILLINGS OPERATION CENTER	OCT 16, 2013	DEC 10, 2016	
		5609744	BILLINGS REGIONAL LANDFILL	JUN 01, 2012	SEP 04, 2015	
		5614045	BILLINGS SENIOR HIGH SCHOOL	OCT 30, 2012	MAR 14, 2016	
		5601188	BILLINGS SERVICE CENTER	SEP 20, 2011	DEC 09, 2014	
		5606593	BLUE BASKET #2	FEB 21, 2014	APR 25, 2017	
		5604774	BOB SMITH LINCOLN MERCURY	NOV 30, 2011	FEB 12, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
YELLOWSTONE	BILLINGS	5608671	BROADWATER QUICK STOP	JUL 13, 2011	DEC 16, 2014	
		5605085	CASEY'S CORNER #10	FEB 08, 2013	INACTIVE	OCT 07, 2013
		5606595	CASEYS CORNER #7	Nov 10, 2011	NOV 29, 2014	
		5606594	CASEYS CORNER STORE #8	DEC 08, 2011	FEB 28, 2015	
		5605088	CONO MART SUPER STORE 10	SEP 19, 2011	MAR 03, 2015	
		5606948	CONO MART SUPER STORE 6	DEC 01, 2011	JAN 28, 2015	
		5600503	CONOMART SUPERSTORE 4	AUG 06, 2013	SEP 28, 2016	
		5613808	CONOMART SUPERSTORE 7	JUL 26, 2013	DEC 31, 2016	
		5613953	COSTCO WHOLESALE GASOLINE 69	FEB 05, 2013	APR 01, 2016	
		5602067	DEACONESS BILLINGS CLINIC 9TH AVE	APR 26, 2012	SEP 29, 2015	
		5610075	DEEDLES	DEC 31, 2013	MAR 15, 2017	JUL 20, 2014
		5605755	DONS CAR WASH	DEC 02, 2011	MAY 14, 2015	
		5606956	DONS CAR WASH 1ST AVE	DEC 02, 2011	FEB 10, 2015	
		5605492	DONS CAR WASH CENTRAL AVE	DEC 20, 2011	FEB 10, 2015	
		5605491	DONS CAR WASH GRAND AVE	DEC 05, 2011	FEB 10, 2015	
		6015096	DONS EXPRESS CENTER	Nov 30, 2011	JAN 10, 2015	
		5606967	DOWNTOWN CONOCO	DEC 01, 2011	JAN 28, 2015	
		5611335	EXXON MARKETING BILLINGS TERMINAL	JAN 14, 2013	MAY 12, 2016	
		5605072	EXXON RAS 6 3590	APR 05, 2011	SEP 25, 2014	
		6015181	FED EX FREIGHT	JAN 23, 2012	MAR 17, 2015	
		5613707	FED EX GROUND PACKAGE SYSTEM INC	Nov 07, 2011	MAR 17, 2015	
		5613766	FIRST INTERSTATE BANK UST	JAN 16, 2013	JUN 01, 2016	
		5604467	FIRST STUDENT INC	JUN 04, 2013	OCT 20, 2016	
		5600062	FIVE CORNERS QUIK STOP	AUG 23, 2013	Nov 07, 2016	DEC 31, 2013

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
YELLOWSTONE	BILLINGS	5612585	FLYING J INC BILLINGS	JAN 30, 2014	DEC 05, 2015	
		5606132	FOOD SERVICES OF AMERICA BILLINGS	Nov 01, 2013	DEC 14, 2016	
		5610866	GAS N GO	OCT 28, 2013	JAN 04, 2017	
		5606962	GM PETROLEUM DIST INC	JAN 12, 2012	MAR 14, 2015	
		5601290	GM PETROLEUM DIST INC CARDTROL SITE 3	JUL 08, 2013	AUG 16, 2016	
		5608324	GM PETROLEUM DIST INC KARDLOCK SITE II	JUL 26, 2013	DEC 24, 2016	
		5606960	HEIGHTS CONOCO 13 UST	JUL 18, 2013	DEC 12, 2016	
		5608312	HILANDS GOLF CLUB INC MAINTENANCE FACILITY	Nov 28, 2011	MAR 03, 2015	
		5614090	HOLIDAY #731	AUG 31, 2012	OCT 01, 2015	
		5614103	HOLIDAY INN BILLINGS	JAN 16, 2013	JUN 22, 2016	
		5613994	HOLIDAY STATIONSTORE 108	DEC 03, 2013	FEB 04, 2017	
		5608058	HOLIDAY STATIONSTORE 266	JUL 11, 2013	Nov 20, 2016	
		5608062	HOLIDAY STATIONSTORE 274	AUG 23, 2013	OCT 29, 2016	
		5608063	HOLIDAY STATIONSTORE 275	JUN 03, 2014	Nov 06, 2017	
		5609695	HOLIDAY STATIONSTORE 280	AUG 16, 2011	Nov 29, 2014	
		5609752	HOLIDAY STATIONSTORE 284	MAR 03, 2014	MAY 30, 2017	
		5609753	HOLIDAY STATIONSTORE 285	AUG 19, 2011	JAN 22, 2015	
		5609754	HOLIDAY STATIONSTORE 286	OCT 28, 2013	INACTIVE	
		6015065	HOLIDAY STATIONSTORE 385	FEB 21, 2014	MAY 20, 2017	
		5613723	HOLIDAY STATIONSTORE 87	JUL 11, 2013	Nov 20, 2016	
		5606598	HOOGIES TRUCK WASH INC	OCT 25, 2013	INACTIVE	
		5614001	JTL GROUP INC UST	SEP 24, 2013	OCT 23, 2016	
		5614070	LEWIS AND CLARK MIDDLE SCHOOL	Nov 22, 2013	MAR 30, 2017	
		5605074	LOCKWOOD INTERSTATE EXXON	JAN 04, 2012	FEB 07, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
<u>YELLOWSTONE</u>	<u>BILLINGS</u>	5607797	LYNCH FLYING SERVICE	OCT 05, 2012	DEC 17, 2015	
		6015100	LYNCH FLYING SERVICE INC	AUG 10, 2011	OCT 15, 2014	
		5608286	MARKET BASKET STORE	MAR 08, 2013	JUL 28, 2016	
		6015027	MCDONALD LIGHTHOUSE	APR 04, 2012	SEP 06, 2015	
		5605090	MCFINY'S	MAR 08, 2013	JUN 14, 2016	
		5605749	MCFINY'S 3	SEP 12, 2011	JAN 06, 2015	
		5609501	MDOT BILLINGS SITE	JAN 13, 2014	APR 25, 2017	
		5604464	MEADOW GOLD DAIRIES INC BILLINGS	APR 26, 2012	OCT 01, 2015	
		5605077	MERIDIAN AUTOMOTIVE SERVICE INC	Nov 01, 2012	INACTIVE	
		5614075	MIDWEST MOTOR EXPRESS INC	NOV 04, 2011	FEB 03, 2015	
		5609271	MONAD DANIELS CARDLOCK 4	JAN 17, 2013	APR 20, 2016	
		5600904	MSU FACILITY SERVICES BLDG	APR 17, 2012	AUG 21, 2015	
		5601757	MT STATE WOMENS PRISON	JAN 12, 2012	APR 04, 2015	
		5604965	PACIFIC SUPPLY	MAR 14, 2014	MAY 14, 2017	
		5608323	PEPSI COLA BOTTLING CO BILLINGS	OCT 01, 2012	DEC 04, 2015	
		5604414	POLY CONOCO	APR 18, 2013	JUL 14, 2016	
		5609746	PUBLIC UTILITIES DEPT	APR 26, 2012	OCT 29, 2015	
		5608762	QWEST BILLINGS WEST CENTRAL OFFICE	AUG 20, 2012	NOV 13, 2015	
		5606953	REDDI ELECTRIC INC	MAR 29, 2012	SEP 16, 2015	
		6015179	RENTAL CAR WASH	JAN 12, 2012	MAR 24, 2015	
		5600066	RIMROCK SUBARU INC	MAR 25, 2013	JUN 07, 2016	
		6015138	SAM'S CLUB	APR 25, 2013	JUN 17, 2016	
		5606609	SHORT STOP	AUG 28, 2013	OCT 26, 2016	MAR 26, 2014
		5610585	SKYVIEW HIGH SCHOOL DIST 2	JAN 16, 2013	JUN 22, 2016	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
YELLOWSTONE	BILLINGS	5604954	SOCO EXPRESS	FEB 12, 2014	MAR 18, 2017	
		5604951	SOCO EXPRESS 10	FEB 27, 2012	INACTIVE	
		5604956	SOCO EXPRESS 15TH & BROADWATER	JAN 16, 2012	FEB 19, 2015	
		5604955	SOUTH 27TH EXPRESS CENTER	JAN 03, 2013	INACTIVE	
		5604839	STOCKTON OIL CO 4TH AVE N	Nov 26, 2013	DEC 03, 2016	
		5606097	SUPER VALU INC BILLINGS	MAR 19, 2013	AUG 28, 2016	
		5613884	THE WAVE CAR WASH	SEP 04, 2013	SEP 13, 2016	
		5613731	TOWN AND COUNTRY HILL TOP	OCT 30, 2013	DEC 12, 2016	
		5613741	TOWN PUMP BILLINGS #8	DEC 22, 2011	FEB 07, 2015	
		5600767	TOWN PUMP INC BILLINGS 1	OCT 16, 2012	OCT 19, 2015	
		6015023	TOWN PUMP INC BILLINGS 3	OCT 16, 2012	APR 02, 2016	
		6015104	TOWN PUMP INC BILLINGS 4	Nov 27, 2012	APR 02, 2016	
		5606963	TRADING POST CONOCO	OCT 14, 2013	Nov 30, 2016	
		5604542	UNITED PARCEL SERVICE BILLINGS	FEB 18, 2013	MAR 22, 2016	
		5601340	USF REDDAWAY UST	MAR 20, 2013	MAY 30, 2016	
		5613992	WELLS FARGO BANK OPERATIONS CENTER	JUN 23, 2011	AUG 19, 2014	
		5607756	WILSON DUNHAM SERVICE INC	APR 10, 2014	JUN 03, 2017	
		5603658	YELLOWSTONE COUNTY PUBLIC WORKS DEPT	JUL 30, 2012	SEP 29, 2015	
		5600050	ZIP TRIP 51	MAR 28, 2012	JUL 14, 2015	
		5608903	ZIP TRIP 52	MAY 22, 2014	INACTIVE	
			ZIP TRIP 52	MAR 13, 2014	MAY 21, 2017	
		5613245	ZIP TRIP 53	FEB 27, 2012	JUL 14, 2015	
		5608208	ZIP TRIP 54	AUG 21, 2011	SEP 06, 2014	
		5608904	ZIP TRIP 55	FEB 28, 2012	JUL 11, 2015	
		5601664	ZIP TRIP 56	FEB 27, 2012	JUL 09, 2015	

COUNTY	CITY	FAC ID	FACILITY NAME	LAST INSPECTION DATE	OPERATING PERMIT RENEWAL DATE	CORRECTIVE ACTION DUE DATE
YELLOWSTONE	BILLINGS	5601665	ZIP TRIP 57	FEB 28, 2012	JUL 11, 2015	
		5608209	ZIP TRIP 58	OCT 26, 2011	MAR 17, 2015	
YELLOWSTONE	BROADVIEW	5601431	BROADVIEW 500 KV SUBSTATION	JUL 12, 2013	Nov 07, 2016	
		5602373	BROADVIEW SERVICE STATION	OCT 14, 2011	FEB 24, 2015	
YELLOWSTONE	CUSTER	5605291	CUSTER STATION	JAN 03, 2013	APR 30, 2016	
YELLOWSTONE	HUNTLEY	5600627	EXPRESS WAY	AUG 25, 2011	DEC 16, 2014	
YELLOWSTONE	LAUREL	5606966	CONOMART SUPERSTORE 2	JAN 16, 2013	MAR 17, 2016	
		5606965	CONOMART SUPERSTORE 3	JAN 16, 2013	JUN 02, 2016	
		5605083	FASTLANE C STORES	MAR 31, 2011	SEP 25, 2014	
		5608161	LAUREL CENEX C STORE	SEP 26, 2013	DEC 27, 2016	
		5601069	LAUREL SERVICE CENTER INC UST	JUL 29, 2011	AUG 20, 2014	
		5613474	NORTHERN SKIES AVIATION	SEP 24, 2012	JAN 27, 2016	
		5600626	PELICAN TRUCK PLAZA INC	OCT 30, 2013	DEC 31, 2016	
		6015061	RICCIS EXPRESS	AUG 09, 2013	Nov 02, 2016	OCT 19, 2013
		5604497	TOWN & COUNTRY SUPPLY LAUREL ASSN	SEP 19, 2013	DEC 14, 2016	
		5608710	TOWN PUMP INC LAUREL	Nov 02, 2012	APR 29, 2016	
YELLOWSTONE	WORDEN	5602326	VALLEY FARMERS SUPPLY	SEP 16, 2011	FEB 27, 2015	

**Code:** CMCG**Name:** CMC Asbestos Gallatin Gateway**Alternate Name(s):**

I. Information

View the Site Summary Report**Description:** All Other Nonmetallic Mineral Mining**Operation:** Operated from 1927 to 1978**Regulatory Status:** ACTIVE**Current Lead Program:** CECRA**CALA Petition Date:** N/A**CALA Stipulated Agreement Date:** N/A**File Guide (if available):** <http://deq.mt.gov/StateSuperfund/FileGuides.mcp>**Site Response Section (SRS) webpage**

II. Location

State: MT **County:** Gallatin **City:** Gallatin Gateway**Location:** ¼ mile N of on Highway 191 - 76570 Gallatin Road**Township:** 3S **Range:** 4E **Section:** 11**Latitude:** 45.596940 **Longitude:** -111.196110

III. Historical Program Information

Program	Program Date	Listed	Delisted	State Rank	Referred
CECRA	09/14/1990	09/21/1990	12/21/1996	NFA	

IV. Contaminant Information

Contaminant Impact	Contaminant	Receptor	Distance	Area Impacted	Remark	Institutional Controls												
Ore	Asbestos	Residence	250'	1.5 ac	The ore pile was removed in 1992.	<table border="1"> <thead> <tr> <th colspan="2">Covenant</th> </tr> </thead> <tbody> <tr> <td>Type:</td> <td>Covenant</td> </tr> <tr> <td>Coverage:</td> <td>Portion of site - see Attached map</td> </tr> <tr> <td>Start Date:</td> <td>11/20/1995 12:00:00 AM</td> </tr> <tr> <td>End Date:</td> <td></td> </tr> <tr> <td>Comment:</td> <td>requires wetting during excavation/construction</td> </tr> </tbody> </table>	Covenant		Type:	Covenant	Coverage:	Portion of site - see Attached map	Start Date:	11/20/1995 12:00:00 AM	End Date:		Comment:	requires wetting during excavation/construction
Covenant																		
Type:	Covenant																	
Coverage:	Portion of site - see Attached map																	
Start Date:	11/20/1995 12:00:00 AM																	
End Date:																		
Comment:	requires wetting during excavation/construction																	

The ore pile

Tailings	Asbestos	Nearby residences	500'	0	was removed in 1992; however, it is unknown how far contaminants have spread.
----------	----------	-------------------	------	---	---

Covenant

Type: Covenant

Coverage: Portion of site - Exhibit A map of covenant

Start Date: 11/20/1995 12:00:00 AM

End Date:

Comment: Restriction states dust suppression will be conducted should future construction activity occur.

1330 cubic yards of soil was removed in 1992 clearing a 100' X 100' area. Contaminated soil remains on-site.

Soils	Asbestos	Residences	250'	1.5 ac
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V. Action Information

Action	Start Date	End Date	Program	Report Date	Description
Site Assessment Activities	09/21/1990	09/21/1990	CECRA	09/21/1990	CECRA
Interim Action	10/01/1990	11/28/1990	CECRA	11/28/1990	Emergency actions
Site Assessment Activities	10/17/1990	11/28/1990	CECRA	11/28/1990	CECRA
Site Assessment Activities	11/28/1990	08/28/1991	CECRA	05/12/1992	Voluntary
Site Assessment Activities	08/28/1991	08/28/1991	CECRA		
Remedial Action	05/01/1992	10/28/1992	CECRA	05/17/1993	Voluntary
Remedial Action	10/19/1992	11/30/1992	CECRA		Remedial action
Interim Action	11/25/1992	12/13/1992	CECRA	05/12/1993	
Remedial Investigation	02/01/1994	06/10/1994	CECRA		Voluntary

VI. Voluntary Cleanup and Redevelopment Act (VCRA)

VCP Project	VCP Submittal Date	VCP Component	Plan Status	VCP Approval Date	VCP Comment
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Report Description

Data for each report is taken from databases maintained and updated by the Site Response Section in the Hazardous Waste Site Cleanup Bureau of DEQ's Remediation Division and should only be used for planning purposes and the geographic locations should be verified. More detailed, hardcopy information and reports are available from the DEQ libraries and may be viewed or obtained during regular business hours. Data found in these reports is updated the SRS database daily. A commonly used acronym list can be found on DEQ's webpage at the following address:

<http://deq.mt.gov/StateSuperfund/PDFs/AcronymMasterListForWebsite.pdf>

I. Information

- *Code* – A unique code assigned to each site.
- *Name* – The current name of the site.
- *View the Site Summary Report* – Click on the link to view a brief summary of the site.
- *Description* – The industry type as defined in the NAICS classification system for manufacturing establishments.
- *Operation* – A description of the operation and/or the dates of operation, if known.
- *Regulatory Status* – Describes if a site is listed or if it has been delisted.
- *Current Lead Program* – Describes which program is the lead regulating entity.
- *CALA Petition Date* – Date when an entity petitions for allocation under the Controlled Allocation of Liability Act.
- *CALA Stipulated Agreement Date* – Date when DEQ approved the signed stipulated agreement.
- *File Guide* – A link to the webpage where one can view a list of documents on file in the DEQ Site Response Section files, if a file guide is available. Not all sites have file guides.
- *Site Response Section Webpage* – A link to the section's webpage.

II. Location

- *State, County, City, Approximate Address/ Location, Township, Range, Section, Latitude and Longitude of the site.*

III. Historic Program Information

- *Program* – A list of the regulatory programs/authorities involved with the site
 - *ACGWPA* – Agricultural Chemical Ground Water Protection Act
 - *AMA* – Abandoned Mines Section of DEQ's Mine Waste Cleanup Bureau
 - *Brown* – Small Business Liability Relief and Brownfields Revitalization Act (Brownfields)
 - *CECRA* – Comprehensive Environmental Cleanup and Responsibility Act (State Superfund)
 - *CERCLA* – Comprehensive Environmental Response, Compensation, and Liability Act (Federal Superfund)
 - *ENF* – DEQ's Enforcement Division
 - *FED* – Federal Government
 - *HWA* – Hazardous Waste Act
 - *LUST* – Leaking Underground Storage Tank
 - *MMRA* – Metal Mine Reclamation Act
 - *SWMA* – Solid Waste Management Act
 - *UST* – Underground Storage Tank
 - *VCRA* – Voluntary Cleanup and Redevelopment Act (part of CECRA)
 - *VOL* – Voluntary Cleanup (outside of VCRA authority)
 - *WQA* – Water Quality Act
 - *WQB* – Water Quality Bureau
- *Program Date* – The date the program began addressing the site
- *Listed* – Date the site was listed under this program
- *Delisted* – Date the site was delisted under this program
- *State Rank* – The Site Response Section's rank for the site
 - *X* – Maximum Priority
 - *H* – High Priority
 - *M* – Medium Priority
 - *L* – Low Priority
 - *NFA* – No Further Action
 - *REF* – Referred to another program
 - *O* – Operation and maintenance
- *Referred* – Date the site was referred to another program

IV. Contaminant Information

- *Contaminant Impact* – The media that has been impacted.
- *Contaminant* – The contaminant(s) impacting the media.
- *Receptor* – A description of any receptors that could be impacted by the contamination.

- *Distance* – Distance from contaminant to the receptor.
- *Area Impacted* – The area impacted by contamination.
- *Remark* – Further description of the nature of the contamination.
- *Institutional Controls* – Whether there are institutional controls in place to limit contaminant exposure.

V. Action Information

- *Action* – The type of action performed.
- *Start & End Date* – When the action was started and completed.
- *Program* – The lead regulatory program regulating the action.
- *Report Date* – If a report was generated based upon this action, when was it finalized.
- *Description* – A more detailed description of the action performed.

VI. Voluntary Cleanup and Redevelopment Act (VCRA)

- *VCP Project* – The name of the Voluntary Cleanup Plan and/or site.
- *VCP Approval Date* – The date when the VCP was approved.
- *VCP Component* – Whether the VCP submittal was an Environmental Assessment (EA) or a Remediation Proposal (RP) VCP.
- *VCP Submittal Date* – When the VCPs were submitted.
- *VCP Plan Status* – A description if the submittal was complete, incomplete, or withdrawn.
- *VCP Comment* – Further description of VCP comments.

**For more information, please contact the DEQ Site Response Section at 406-841-5060.

INNOVATIVE ENGINEERING
12140 GOOCH HILL
GALLATIN GATEWAY, MT 59730
406-763-4185

February 28, 2013

Chris Boe, Water Quality Specialist
MDEQ, Water Protection Bureau
Ground Water Discharge Permit Section
P.O. Box 200901
Helena, MT 59620

COPY

RE: Gallatin Gateway County Water & Sewer District
Groundwater Discharge Permit Application
Gallatin County, Montana

Dear Chris:

Enclosed is a groundwater discharge permit application for the Gallatin Gateway County Water and Sewer District. The District is seeking a permit to inject 40,000 gpd of treated wastewater into the ground near Gallatin Gateway.

Also enclosed are a design report, Forms 1 and GW-1 and supporting documentation. The forms are included as appendices in the design report. Some initial review fees have been paid and there are more review fees likely due. Kurt Thomson at Stahly Engineering is the project manager for this project and will be in touch with you regarding the application fee balance.

Please review the application materials and if you have any questions, call me.

Sincerely,

Terry Threlkeld, PE
Principal Engineer

Enc: Design Report, Form 1, Form GW-1

Copy: File, Stahly Engineering

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- Table 6 – Well TW-5 Construction Summary
- Table 7 – Water Sampling Results
- Table 8 – Nitrate Sensitivity
- Table 9 – Phosphorus Breakthrough

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- Appendix B – Test Pit Logs
- Appendix C – Perc Test Results
- Appendix D – Monitoring Well Logs
- Appendix E – Pump Test Results for TW-2
- Appendix F – Pump Test Results for TW-3
- Appendix G – Groundwater Gradient Calculations
- Appendix H – Level 2 Performance History
- Appendix I – Form 1
- Appendix J – Form GW-1

Gallatin Gateway Community Wastewater System

Preliminary Design Report

February 28, 2013

Compiled By Innovative Engineering

Background

Gallatin Gateway is an unincorporated community within Gallatin County and was originally platted as a community called "Salesville" five years before Montana became a state.

No central water or sewer facilities currently exist and each lot must provide for its own water and sewer needs, typically in the form of a well and onsite wastewater system. The original town site of Gallatin Gateway created lots averaging 7,000 square feet, and modern sanitation rules require public or shared systems for new construction on lots of that size. Many of the community's wastewater systems are very old and often pre-date Gallatin County's permit system. Few meet current design criteria, including the minimum separation required between a well and septic system. Currently, Gallatin County's Board of Health has been willing to issue variances for existing systems that are in a failure mode, but have not been willing to permit new construction or expansion of nonconforming systems. As a result, community and economic growth is almost entirely contingent on construction of a public wastewater system. Both the Gallatin Local Water Quality District and Gallatin City-County Environmental Health Department favor the construction of a new public wastewater system because of concern over public health and safety in the Gallatin Gateway area from the close proximity of on-site wastewater systems and drinking water wells.

In February 2009, the Gallatin Gateway County Water & Sewer District (District) was formed. The District is a legal subdivision of County Government, with the power to assess fees for services with respect to water and sewer. It was necessary to form the District in order for the project to qualify for funding from TSEP, DNRC, RD and CDBG.

The District hired an engineering firm to complete a Preliminary Engineering Report (PER). During the course of completing the PER, a vigorous alternative screening process considered numerous alternatives aimed at resolving the problems faced by the community of Gallatin Gateway to ensure that the best possible solution was not overlooked. After an initial evaluation, it was determined that several of the potential alternatives were not viable options for Gallatin Gateway and were eliminated from further review. Climate and project feasibility were the primary reasons for the initial eliminations. Alternatives that were considered for a more detailed review include:

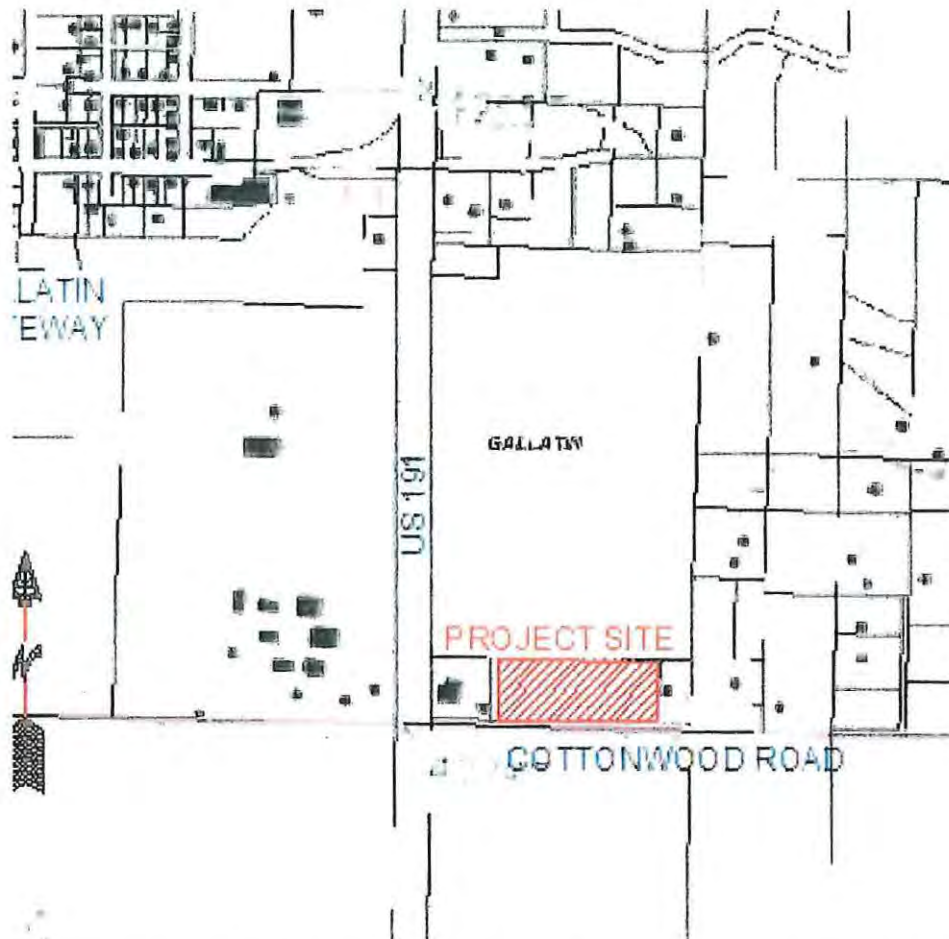
- No Action Alternative
- Connection to Utility Solutions Wastewater Treatment Plant
- Storage and Irrigation (Low Rate Land Application)
- Septic Tank / Level II Treatment / Pressure Dosed Drainfield
- Biological Nutrient Removal (BNR) Mechanical Treatment Plant

The septic tank/Level II treatment alternative emerged as the preferred alternative, mostly because of lower O&M costs.

The District hired a second engineering firm to complete the design of the system including the acquisition of a site for the treatment and disposal of wastewater. Approximately 16 different sites have been evaluated and eliminated because of impacts to downgradient wells, unfavorable environmental conditions, landowners unwilling to sell, or being too far from the collection system.

Figure 1 shown below exhibits the general area of the proposed wastewater system superimposed on the USGS Quad map.

Figure 1 – Project Location



The current proposed treatment and disposal site is described as Tract 1B1 of Minor Subdivision 309A located on Cottonwood Road in Gallatin Gateway. Figure 2 below shows the project site, including monitoring wells.

**BUFFALO STATION
PROPOSED DISPOSAL SITE**

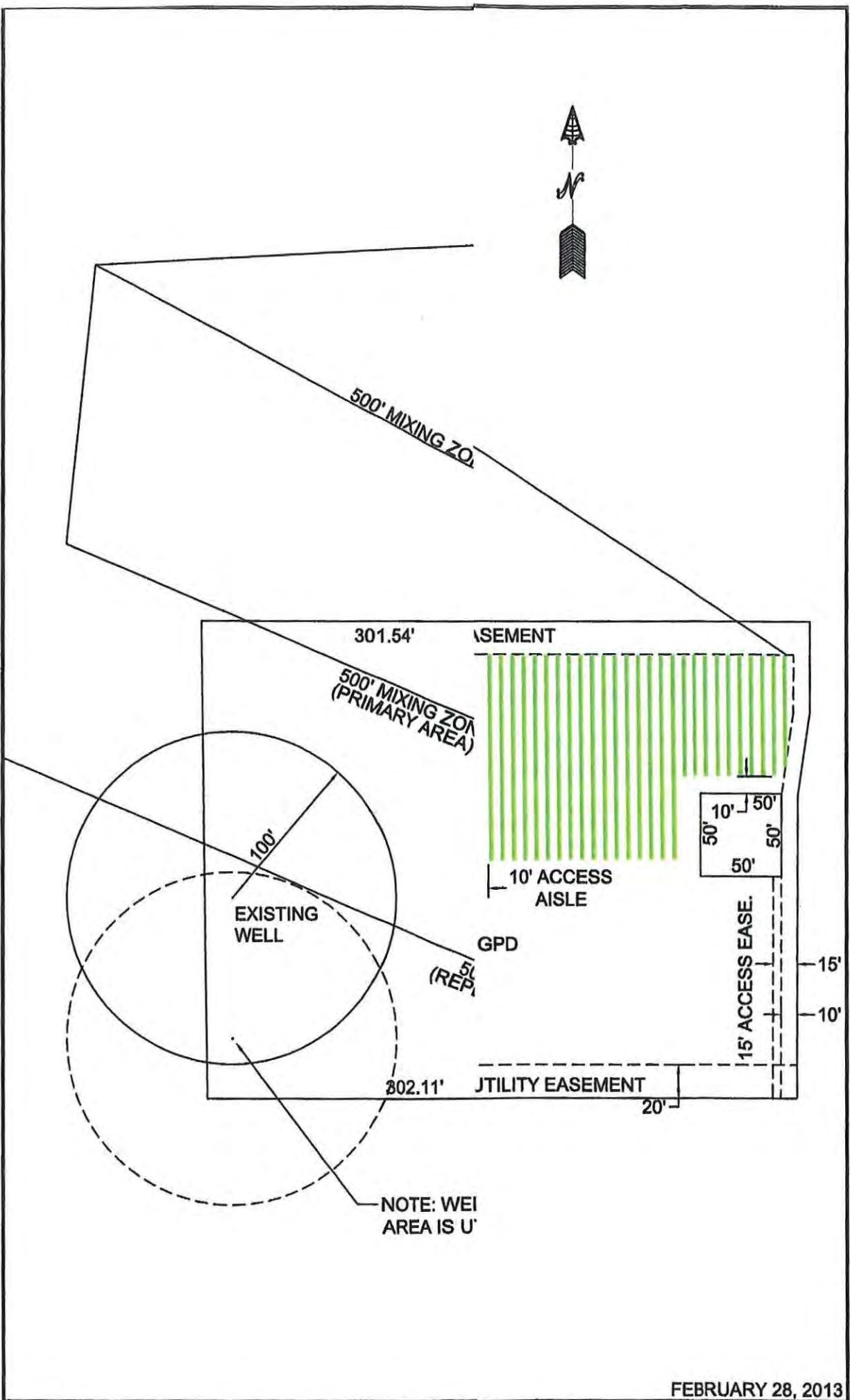
**INNOVATIVE
ENGINEERING**
12140 GOOCH HILL ROAD
GALLATIN GATEWAY, MT
406-763-4185

**GALLATIN GATEWAY WSD
GALLATIN GATEWAY, MT**

1 OF 1

11-13

BUFFALOSTATION.DWG



FEBRUARY 28, 2013

Tract 1B1 is a 5.03 acre parcel currently used for a drainfield serving Tract 1A of Minor Subdivision 309. The boundary of Tract 1B1 will be further modified through common boundary relocation as shown on the site plan and sold to the Gallatin Gateway County Water and Sewer District. The Gallatin Gateway WSD has completed the land purchase negotiation process and has a tentative agreement for purchase of the site. Part of the due diligence for both sides is to submit for, and be issued a groundwater discharge permit as part of the contingency before the purchase is consummated.

Several engineering studies have been completed on the adjacent site to the north (Gateway Village) and contain information applicable to this site, including an analysis by Morrison & Maierle in 2005 and a detailed hydrologic study by Nicklin Earth & Water in 2006. The Nicklin study involved construction of four monitoring/exploration wells and analysis of the groundwater aquifers underlying the Gateway Village parcel. The data and information derived in that plan are referenced throughout this report.

Design Flows

The PER estimated the maximum daily flows from existing facilities to be served by the new wastewater system will be 26,000 gallons per day (gpd) based on the estimated population of the District. State design standards require a minimum wastewater flow of 100 gallons per day per capita (gpcd) unless flow monitoring demonstrates otherwise. In this case, the 100 gpcd guideline was used to calculate the residential flows. The non-residential and commercial flows were calculated by utilizing the DEQ-4 Tables 5-1 and 5-2 for uses such as gas station, bar, restaurant, fire station, post office, etc. The flow generated from the school was determined from an independent study conducted by Gaston Engineering, Inc. In order to utilize flow information strictly from a quantity (gallons) perspective; all the flows were converted to Equivalent Dwelling Units (EDU). An EDU is equal to 250 gpd.

There are an estimated 67 existing houses, six sources of nonresidential flows, and eight sources of commercial wastewater flows. Table 1 below shows the estimated present day and design flows:

Type	Number	EDU's	Existing Flow (gpd)	Design Flow (gpd)
Residential	67	67	16,750	31,500
Non-residential	6	17.6	4,390	7,500
Commercial	8	22.3	5,580	11,000
Total		106.9	26,720	50,000
Design Flow				50,000

The existing nonresidential and commercial flows are shown below in Table 2:

Table 2 - Existing Sources of Commercial & Nonresidential Flows	
Facility	Estimated Maximum Flow (gpd)
Fire Station	300
School	3,000
Post Office	40
Church	250
Community Center	300
The Fort (multi-family)	500
Gateway Market	1,000
Ice Age Performance	60
Big Timber Works	240
Stacey's	500
Amend Construction	40
Post Office Pizza	300
Renneberg Hardwoods	40
Gallatin Gateway Inn	3,400
Total	9,970

The 67 residences are estimated to produce 250 gpd per house, or 16,750 gpd. These flows, combined with 4,390 gpd from nonresidential sources and 5,580 gpd from commercial sources yields a present day flow of 26,720 gpd.

The PER assumed a population growth similar to what had been observed for Gallatin County, and with input from the WSD Board of Directors, estimated that flows could increase to 50,000 gpd at the end of a 20 year planning period. Unfortunately, the cost of providing treatment for a 50,000 gpd system was beyond what was deemed affordable for the District at the present. The project has been split into two phases, with the Phase I design flow of 30,000 gpd just slightly more than the present day flow estimate of 27,000 gpd. It is anticipated that some of the future growth will come from outside the District, and impact/hookup fees will help finance Phase II of the project.

The Groundwater Discharge Permit application and all calculations and analysis reflect a design flow of 40,000 gpd, which is the maximum likely capacity for the parcel being contemplated for purchase.

Primary Treatment

DEQ-4 requires primary treatment to be provided at a rate of 2.25 times the design flow, or 112,500 gallons of capacity to treat to 20 year design flow of 50,000 gpd. A septic tank, or combination of septic tanks, with a nominal capacity of at least 112,500 gallons will provide the required primary treatment volume required. The septic tank will be equipped with an effluent filter.

Secondary Treatment

A secondary treatment facility will follow the septic tank and will consist of a Level 2 system. DEQ describes a Level 2 treatment as a wastewater treatment process that removes at least 60% of total nitrogen as measured from the raw sewage load to the system or discharges a total nitrogen effluent concentration of 24 mg/L or less. For a system to gain the Level 2 designation, it must undergo a very vigorous testing and sampling regime before DEQ will allow the systems to be permitted and installed in Montana.

Level 2 designated systems are designed specifically to remove nutrients from wastewater effluent, especially nitrogen. There are several different systems approved for installation in Montana, including the Advantex system manufactured by Orenco.

Most Level 2 systems consist of a primary treatment chamber (septic tank) where solids settle out and fats, oils and grease rise to the surface of the chamber as a floating scum layer. Effluent is then typically aerated and most nitrogen species are converted to ammonia and then to nitrates. After aeration, effluent is exposed to anoxic conditions encouraging a proliferation of microorganisms that convert nitrates to nitrogen gas, which is discharged to the atmosphere. The denitrifying microbes can be found in tanks (suspended growth) and also in the filter media (fixed film). Denitrification is probably the most difficult part of the treatment process because it is extremely sensitive to low temperatures (below 50 degrees F). The remaining nitrates are discharged in the effluent, usually through percolation through soils to groundwater, where it is diluted.

Recirculating sand filters, intermittent sand filters and sand mounds were the first wastewater treatment systems given the Level 2 designation in Montana, and further research has shown that a single pass through a sand medium will not typically remove 60 percent of the nitrogen in wastewater. Intermittent sand filters and sand mounds are no longer considered approved Level 2 treatment systems.

The Advantex packed bed textile filter systems were one of the first non-granular Level 2 systems to be approved in Montana. These systems utilize a media bed of woven (fuzzy) fabric that provides the surface area necessary for an adequate microbe population to be established. These microbes are typically "fixed film" microbes because they are physically attached to a treatment medium. Other systems rely on "suspended growth" microbe populations where the local microbes are suspended in a wastewater medium. The recirculation tank for the Advantex system provides the necessary anoxic environment to cultivate populations of the suspended growth microbes.

Level 2 treatment systems offer much better effluent quality than conventional septic systems, yet require far less O&M than a conventional mechanical treatment plant which often requires a full time operator.

The Advantex system was chosen over other Level 2 systems because of the system performance data available, longevity of the manufacturer and local supplier, and readily available design information. The treatment system is a textile based packed bed filter and the associated porosity, attached growth surface area, and water-holding capacity contribute to the textile media's treatment performance.

Packed bed textile based filter beds offer the following advantages when used for wastewater treatment:

- Quick startup
- Efficient performance with highly variable wastewater strengths and flows, including occasional hydraulic and biologic overloads
- No release of untreated sewage if a malfunction occurs
- Consistent trouble-free operation; low maintenance (e.g. annual service call recommended; on-site routine service time 1 hour ±)
- Ease of maintenance (components should be easily accessible and serviceable)
- Low energy consumption
- Adequate storage during power outages (normally 24 hours or more at typical flows)
- Recoverable and expandable
- Reliability of treatment and consistent effluent quality
- Easy removal and cleaning of media in case of upset (compared with having to remove huge chunks of perhaps frozen sand media in a recirculating sand filter)

The Level 2 treatment systems offer a low O&M alternative for wastewater treatment systems where biological nutrient removal processes are required and the capital and operating cost of a full scale mechanical treatment plant is not viable.

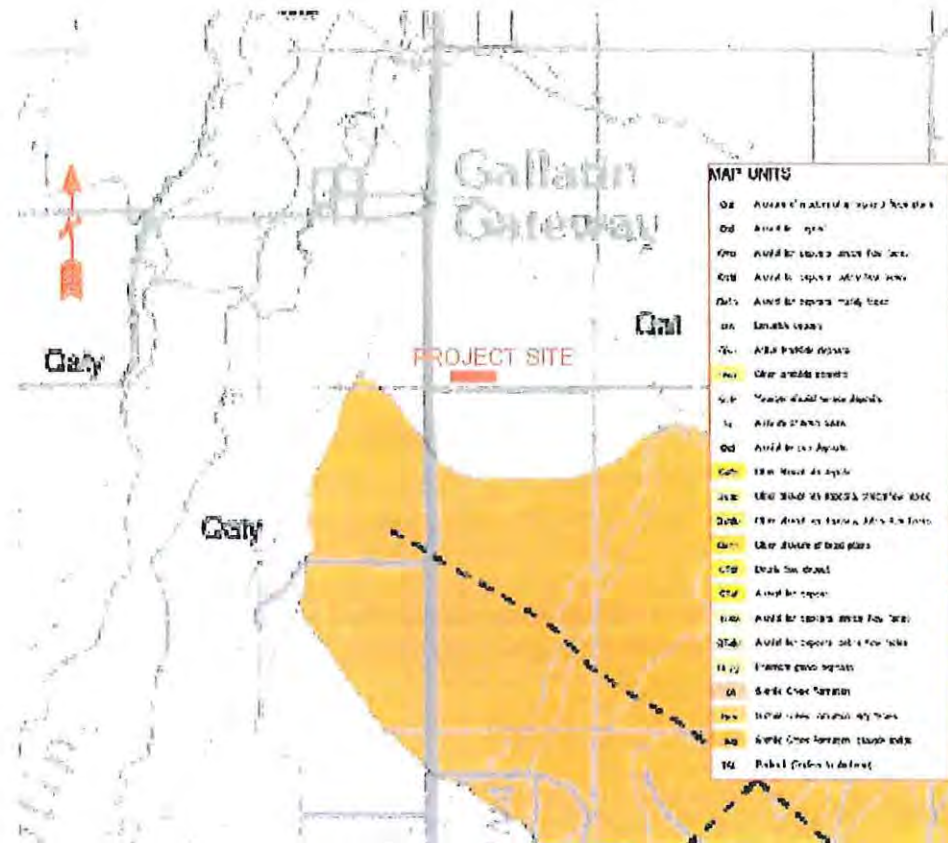
Soils

Figure 3 provides a surface geologic map of the site vicinity. The surficial geology at the disposal site is Quaternary terrace alluvial deposits, which are essentially derived from out-wash deposits and channel deposits from the Gallatin River. Another key geologic feature is the Tertiary deposits which are seen at the surface to the southeast of the proposed disposal site. They also subcrop (lie beneath) the Quaternary terrace deposits at the disposal site. The Tertiary deposits are valley-fill deposits which consist of moderately indurated to well-indurated tuffaceous sand and siltstone. In effect, these are generally finer-grained materials when compared to the alluvial deposits.

Soils in the area of the proposed community drainfield are described as Hyalite Beaverton silt loams. The soil profile generally shows a layer of silty loam from 12 to 18 inches thick over sandy gravels. Water tables in the area are generally from 35 to 45 feet below the ground surface. The NRCS soils maps and soil descriptions are shown in Appendix A.

Three test pits were excavated in the area immediately to the north of the proposed primary drainfield. Each test pit exhibited similar results with a 12 -18" loamy silt layer overlying sands and gravels down to a depth of at least eight feet. The results of the test pits are included in Appendix B.

Figure 3 – Geologic Map



Three sets of percolation tests were also completed in the area to the north of the drainfield. The percolation tests showed a percolation rate of between six and ten minutes per inch, which correspond to an effluent application rate of 0.6 gpd/sf of drainfield area. The results of the perc tests are shown in Appendix C.

A 50,000 gpd community drainfield will require 83,333 sf of drainfield area. Because the proposed treatment system is Level II, the required drainfield area is only half of what is typically required by a conventional drainfield, or 41,667 sf. The drainfield will be pressure dosed, with three foot wide trenches. Approximately 13,890 feet of laterals will be needed.

The proposed disposal site will have the capacity to dispose of just over 40,000 gpd after observing setbacks from property lines, treatment tanks, etc.

A preliminary drainfield alignment 124.5 feet wide and 665 feet long will provide the necessary infiltration area required. The drainfield will be split into four zones, each zone consisting of 22 laterals 124.5 feet in length or a comparable configuration. Each zone will have a ten foot buffer on all four sides to provide vehicle access for maintenance.

Nondegradation

Michael Nicklin had four wells constructed on the site just north of the proposed disposal site during the course of his study. His main objective was to determine what kind of flows wells in the alluvium and tertiary could sustain, but he was also requested to explore the shallowest groundwater aquifer and determine the groundwater gradient and conductivity values for future nondegradation calculations. Test well 1, TW-1, was drilled into relative deep sections of the Tertiary to determine if the Tertiary could serve as the primary source of water supply. Because TW-1 is a deep well in a different aquifer, it is ignored in this discussion.

TW-2 at the north end of the adjacent property was drilled to serve as a non-degradation test well for shallow ground water properties. TW-2 penetrates alluvial deposits of sand, gravel and clay. TW-2 penetrated 33 feet of sand and gravel before encountering a layer of clay or silt, according to the well log. Once the drill rig penetrated the silt layer at 48 feet, water was encountered, and the water level rose to just over 37 feet, indicating the aquifer was under some pressure, and is likely confined. Mr. Nicklin conferred with Eric Regensburger of MDEQ after the drilling to discuss the confined/unconfined condition. It was Mr. Regensburger's opinion that because the aquifer was shallow and in alluvial material, MDEQ would not consider the aquifer as confined. Mr. Nicklin also classified the confining material as clay, whereas the well driller called the confining material silt. The well logs for all test wells are located in Appendix D.

Mr. Nicklin also completed a pump test on TW-2 to discern the aquifer's properties for future nondegradation purposes (pump test data in Appendix E).

During the pumping test, In-Situ™ pressure transducers were employed. These transducers allow for data to be automatically collected regular intervals during a pumping test. Data that were collected were evaluated using AQTESOLV™ which is a program used to test a variety of theoretical models. Appendix A provides a summary of the observation data and interpretative evaluations of the pumping test that was performed. The non-degradation test well, TW-2, was analyzed using graphical procedures and the transmissivity was estimated to be approximately 9,121 ft²/d.

TW-2 has a total well depth of 58 feet and was completed approximately ten feet into the water bearing formation. The well construction is summarized below in Table 3.

Top (feet)	Bottom (feet)	Description
0	5	Silty clayey gravel
5	10	Sand & gravel
10	15	Sand & gravel with high clay fraction
15	20	Sand & gravel
20	30	Sand & gravel with clay
30	35	Clayey gravel
35	40	Clay
40	48	Gravel with clay (first water at 48')
48	55	Coarse gravel, little sand
55	58	Coarse gravel (clean)

Steel Casing 6 in i.d. from 2 feet above grade to 58 feet

No Screen, Open Hole at 58 Feet

Elevation, Land Surface 4976.54 feet

Depth to Water (from TOC): 39.54 feet

Casing Stickup from Ground Surface 2.18 feet

Depth to well water level from land surface. 37.36 feet

Mr. Nicklin calculated the transmissivity at 9,212 ft²/day based on the Cooper and Jacob method. The resulting conductivity (k) was calculated at 608 feet per day.

TW-3 and TW-4 were also drilled to test the water bearing properties of the Quaternary alluvial deposits. Wells TW2, TW3 and TW4 were also used for groundwater sampling to determine groundwater elevations, gradient direction, and background water quality. The respective locations of these test wells were shown previously on Figure 2.

Well TW-3 is within the proposed drainfield site and was completed at a deeper depth than TW-2 as shown below by Table 4:

Top (feet)	Bottom (feet)	Description
0	5	Coarse sand & gravel
10	20	Coarse sand & gravel, more sand
20	40	Medium grained sand with gravel
40	60	Sand & gravel (first water at 40')
60	70	Coarse gravel
70	85	Coarse sand & gravel
85	90	Coarse gravel
90	113	Coarse sand & gravel
113	115	Claystone (tertiary)

Steel Casing 6 in i.d. -2 to 103 feet
 Manufactured screen, 0.020 slot 103 to 113 feet
 Elevation, Land Surface 4976.08 feet
 Depth to Water (from TOC): 40.11 feet
 Casing Stickup from Ground Surface 1.98 feet
 Depth to well water level from land surface. 38.13 feet

This well is unconfined with an estimated transmissivity of 2,800 ft²/day per the Nicklin test pumping results as shown in Appendix F. The aquifer thickness was estimated at 60 feet and the resulting transmissivity estimated as 47 feet per day.

Well TW-4 was completed to the west of the proposed wastewater disposal site. This well is considered unconfined and was used for groundwater gradient calculations. No pump tests were completed in this well and the completion data is shown below:

Top (feet)	Bottom (feet)	Description
0	1	Silty sand
1	22	Sand & coarse gravel
22	30	Silty clayey gravel
35	40	Coarse gravel
40	48	Coarse sand & gravel
48	55	Gravel with silt
55	60	Coarse, uniform gravel
60	70	Sand & gravel
70	85	Gravel
85	90	Coarse sand & gravel
90		Claystone (tertiary)

Steel Casing 6 in i.d. 90 feet
 Well Mechanically Slotted 70 to 90 feet
 Elevation, Land Surface 4985.81
 Depth to Water (from TOC): 44.6 feet
 Casing Stickup from Ground Surface 1.4 feet
 Depth to well water level from land surface. 43.2 feet

TW-5 is a monitoring well constructed just upgradient of the proposed wastewater disposal area. It was completed to a depth of 60 feet and penetrated a layer of clay from 33 to 48 feet with the first water observed at 49 feet. The aquifer was locally confined, and once the clay layer was penetrated, the static water level rose to 39 feet. No pump tests were performed on TW-5 and its sole purpose was to

determine background water quality. The well log to TW-5 is located in Appendix A. The well completion data for TW-5 is shown below in Table 6.

Top (feet)	Bottom (feet)	Description
0	3	Topsoil
3	33	Coarse gravel & sand
33	48	Clayey silt
48	58	Coarse gravel & sand

This well was completed with five feet of solid pipe at the bottom of the hole, 15 feet of screen, and the remainder solid pipe. All piping is two inch schedule 40 and the well is sand packed from the bottom to the just past the top of the screen, then bentonite packed from the top of the sand pack to the ground surface.

Nicklin calculated the direction of ground-water flow and also the hydraulic gradient (slope) of the ground-water at the project as North 66° West. Ground water flows from southeast to northwest through the property and is fairly constant throughout the year. The gradient has been re-calculated several times and is always within a few degrees of North 66° West. Gradient calculations are shown in Appendix G.

Nicklin also calculated the groundwater gradient as 0.013 ft/ft. Independent calculations indicate the gradient on October 12, 2006 was about 0.010 ft/ft. Similar calculations show the gradient as 0.015 ft/ft on March 30, 2011 and as 0.012 ft/ft on July 15, 2012. An average gradient is 0.012 ft/ft, very close to what Nicklin calculated. The gradients are shown on the figures included in Appendix G.

There have been numerous sets of water samples taken from the various monitoring wells on site.

The sample results are shown in Table 7 below.

Table 7 - Water sampling Results

	Well	Date	Depth to Groundwater (feet)	Fecal Bac-T mpn/100 ml	Ph s.u.	Conductivity umhos/cm	TDS mg/L	Chloride mg/L	Organic C. mg/L	TKN mg/L	Nitrate mg/L	Total N mg/L	Total P mg/L
1	TW-5	9/30/2012	41.67	0	7.3	434	262	2	1.1	2.00	1.82	3.82	0.130
2	TW-5	10/29/2012	42.75	0	7.2	397	232	3	0.9	0.00	1.83	1.83	0.163
3	TW-4	3/30/2011	37.45	<1	8.7	163	74	3	0.8	3.40	0.40	3.80	0.000
4	TW-4	6/30/2011	35.03	<1	8.2	357	224	3	0.7	1.70	0.98	2.68	0.110
5	TW-4	9/28/2011	36.12	Absent	7.6	436	289	3	0.9	1.93	0.40	2.33	0.059
6	TW-4	12/27/2011	37.17	Absent	7.4	406	215	3	0.8	0.00	0.15	0.15	0.035
7	TW-3	6/30/2011	40.05	<1	8.2	368	238	2	0.9	1.40	1.95	3.35	0.130
8	TW-3	9/28/2011	39.63	Absent	7.6	406	254	3	0.9	1.96	0.40	2.36	0.079
9	TW-3	12/27/2011	40.27	Absent	7.5	431	248		1.1	0.00	1.93	1.93	0.079
10	TW-2	3/30/2011	36.94	<1	7.6	395	234	2	0.8	1.40	0.95	2.35	0.030
11	TW-2	6/30/2011	35.32	<1	8.2	386	222	2	0.8	2.00	0.76	2.76	0.050
12	TW-2	9/28/2011	36.04	Absent	7.7	393	249	2	0.6	0.58	0.40	0.98	0.030
13	TW-2	12/27/2011	36.78	Absent	7.5	404	227	2	0.8	0.00	0.88	0.88	0.027
Average					7.75	382.77	228.31	2.50	0.85	1.26	0.99	2.25	0.071

Analysis

A conservative assumption is that all background nitrogen will be converted to nitrate. A second conservative assumption is that the highest observed value of total nitrogen will be utilized for the background value for the nondegradation calculations. The design background nitrate concentration is 3.82 mg/L.

The observed value of conductivity on the adjacent Gateway Village site varied from 608 feet per day at TW-2 to 47 feet per day at TW-3. The TW-2 well represents the shallower portion of the aquifer while TW-3 represents a slightly deeper portion of the aquifer. An average of these two values is 327 feet/day, which will be used as the design value of k.

The average groundwater gradient was previously calculated at 0.012 ft/ft

The Baumann Schafer analysis, using a flow of 40,000 gpd, conductivity of 327 feet/day, gradient of 0.012 ft/ft, drainfield width of 420 feet and length of 265 feet, and effective drainfield width of 496 feet perpendicular to groundwater flow yields a predicted downgradient nitrate concentration of 7.25 mg/L for a typical nondegradation analysis. A value of zero was entered for the area precipitation in order to be consistent with the Department's evaluation for groundwater discharge permit criteria.

Table 8 below shows the nitrate sensitivity analysis.

**TABLE 8 - MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
NITRATE SENSITIVITY ANALYSIS
Model Updated 01/24/96**

SITE NAME: Gallatin Gateway County Water & Sewer District Effluent Disposal Site
COUNTY: Gallatin
LOT #: Tract 1B1 of Minor Subdivision 309A
NOTES: 40,000 gpd flow - Primary Drainfield

<u>VARIABLES</u>	<u>DESCRIPTION</u>	<u>VALUE</u>	<u>UNITS</u>
K	Hydraulic Conductivity	327.0	ft/day
I	Hydraulic Gradient	0.012	ft/ft
D	Depth of Aquifer (usually constant)	15.0	ft
L	Mixing Zone Length (see ARM 17.30.517(1)(d)(viii))	500	ft
Y	Width of Drainfield Perpendicular to Ground Water Flow	470	ft
Ng	Background Nitrate (as Nitrogen)	3.82	mg/L
Nr	Nitrate (as Nitrogen) in Precipitation (usually constant)	1.0	mg/L
Ne	Nitrates in Effluent (50 for conventional; 24 for level II)	24	mg/L
#I	Number of Single Family Homes on the Drainfield	200.0	
QI	Quantity of Effluent per Single Family Home (constant)	26.70	ft ³ /day
P	Precipitation	0.0	in/year
V	Percent of Precipitation Recharging Ground Water (usually constant)	0.20	

EQUATIONS

W	Width of Mixing Zone Perpendicular to Ground Water Flow $= (0.175)(L)+(Y)$	557.50	ft
Am	Cross Sectional Area of Aquifer Mixing Zone = (D)(W)	8362.50	ft ²
As	Surface Area of Mixing Zone = (L)(W)	278750.00	ft ²
Qg	Ground Water Flow Rate = (K)(I)(Am)	32814.45	ft ³ /day
Qr	Recharge Flow Rate = (As)(P/12/365)(V)	0.00	ft ³ /day
Qe	Effluent Flow Rate = (#I)(QI)	5340.00	ft ³ /day

SOLUTION

Nt	Nitrate (as Nitrogen) Concentration at End of Mixing Zone $= ((Ng)(Qg)+(Nr)(Qr)+(Ne)(Qe)) / ((Qg)+(Qr)+(Qe))$	6.64	mg/L
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The nearest surface water that could receive groundwater is an un-named irrigation ditch approximately 2500 feet to the west. Assuming at least 35 feet from the bottom of the drainfield laterals to the highest seasonal groundwater, there would be at least 58 years until phosphorus breakthrough occurred.

Table 9 below show the phosphorus breakthrough calculation.

**TABLE 9 - MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
PHOSPHOROUS BREAKTHROUGH ANALYSIS**

<u>SITE NAME:</u>	Gallatin Gateway County Water & Sewer District Effluent Disposal Site		
<u>COUNTY:</u>	Gallatin		
<u>LOT #:</u>	Tract 1B1 of Minor Subdivision 309 A		
<u>NOTES:</u>	40,000 gpd		
<u>VARIABLES</u>	<u>DESCRIPTION</u>	<u>VALUE</u>	<u>UNITS</u>
Lg	Length of Primary Drainfield as Measured Perpendicular to Ground Water Flow	470.0	ft
L	Length of Primary Drainfield's Long Axis	665.0	ft
W	Width of Primary Drainfield's Short Axis	124.5	ft
B	Depth to Limiting Layer from Bottom of Drainfield Laterals*	35.0	ft
D	Distance from Drainfield to Surface Water	2500.0	ft
T	Phosphorous Mixing Depth in Ground Water (0.5 ft for coarse soils, 1.0 ft for fine soils)**	0.5	ft
Ne			
Sw	Soil Weight (usually constant)	100.0	lb/ft ³
Pa	Phosphorous Adsorption Capacity of Soil (usually constant)	200.0	ppm
#l	Number of Single Family Homes on the Drainfield	200.0	
<u>CONSTANTS</u>			
PI	Phosphorous Load per Single Family Home (constant)	6.44	lbs/yr
X	Conversion Factor for ppm to percentage (constant)	1.0E+06	
<u>EQUATIONS</u>			
Pt	Total Phosphorous Load = (PI)(#l)	1288.00	lbs/yr
W1	Soil Weight under Drainfield = (L)(W)(B)(Sw)	289773750.0	lbs
W2	Soil Weight from Drainfield to Surface Water = [(Lg)(D) + (0.0875)(D)(D)] (T)(Sw)	860993750.0	lbs
P	Total Phosphorous Adsorption by Soils = (W1 + W2)[(Pa)/(X)]	75173.5	lbs
<u>SOLUTION</u>			
BT	Breakthrough Time to Surface Water = P / Pt	58.4	years

Conclusion

Typical recent groundwater discharge permits issued in Gallatin County include permits for RAE WSD, River Rock WSD, Utility Solutions and Hebgen Lake Estates in Gallatin County. Each one of these permits has featured a maximum allowable nitrogen concentration of 10 mg/L.

The Gallatin Gateway County Water and Sewer District wastewater treatment and disposal system will feature Level II treatment of approximately 40,000 gpd of effluent per day when operating at full design capacity. The first phase of the system is proposed to collect and treat approximately 26,720 gpd of wastewater per day from existing facilities comprised of individual treatment systems. The first phase will have a 30,000 gpd capacity and Phase II will add an additional 10,000 gpd bring the total design flow to 40,000 gpd. This permit application is for a 40,000 gpd flow.

The proposed effluent mixing zone will be 500 feet long and will be entirely on property to be owned by the District and Highway 191 Right of Way. Based on an average conductivity of 327 feet per day and an average gradient of 0.12 ft/ft, about 32,814 cf feet of groundwater will flow through the mixing zone each day. Two years of groundwater sampling data from this area indicates the historical high nitrogen concentration observed was 3.82 mg/L, which is equal to 0.000238 lb./cf.

Recharge will be ignored but the wastewater treatment plant will add another 5,340 cf effluent at 24 mg/L (0.001498 lb./cf) or 8.0 pounds of nitrogen per day.

The mass loading from background nitrogen in the mixing zone is estimated at 8.17 pounds per day. Total nitrogen loading from background sources and the wastewater treatment plant, neglecting the effects of precipitation, is 16.17 pounds of nitrogen per day.

Available dilution water is 32,814 cf/day and the resulting predicted downgradient concentration of nitrogen is 0.000493 lb./cf or 7.91 mg/L.

We propose the following numeric effluent limits for the proposed Gallatin Gateway County Water and Sewer District Outfall as indicated in Table 10.

Table 10 – Numeric Effluent Limits for Outfall 001

Parameter	Effluent Limits
CBOD ₅	75% Removal
pH	6.0 – 9.0
Total Inorganic Nitrogen	16.17 lb./day
Effluent Flow Rate	40,000 gpd

Appendix A – NRCS Soils

Gallatin County Area, Montana

748A—Hyalite-Beaverton complex, 0 to 4 percent slopes

Map Unit Setting

Elevation: 4,350 to 6,150 feet
Mean annual precipitation: 15 to 19 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 110 days

Map Unit Composition

Hyalite and similar soils: 70 percent
Beaverton and similar soils: 20 percent
Minor components: 10 percent

Description of Hyalite

Setting

Landform: Alluvial fans, stream terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water
(Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: Low (about 4.4 inches)

Interpretive groups

Farmland classification: Farmland of local importance
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: Shallow to Gravel (SwGr) 15-19" p.z.
(R044XS354MT)

Typical profile

0 to 5 inches: Loam
5 to 9 inches: Clay loam
9 to 17 inches: Silty clay loam
17 to 26 inches: Very cobbly sandy clay loam
26 to 60 inches: Very cobbly loamy sand

Description of Beaverton

Setting

Landform: Alluvial fans, stream terraces

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water
(Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 3.7 inches)

Interpretive groups

Farmland classification: Farmland of local importance
Land capability classification (irrigated): 4s
Land capability (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: Shallow to Gravel (SwGr) 15-19" p.z.
(R044XS354MT)

Typical profile

0 to 5 inches: Cobbly loam
5 to 21 inches: Very gravelly clay loam
21 to 25 inches: Very cobbly coarse sandy loam
25 to 60 inches: Extremely cobbly loamy coarse sand

Minor Components

Turner

Percent of map unit: 5 percent
Landform: Stream terraces
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Silty (Si) 15-19" p.z. (R044XS355MT)

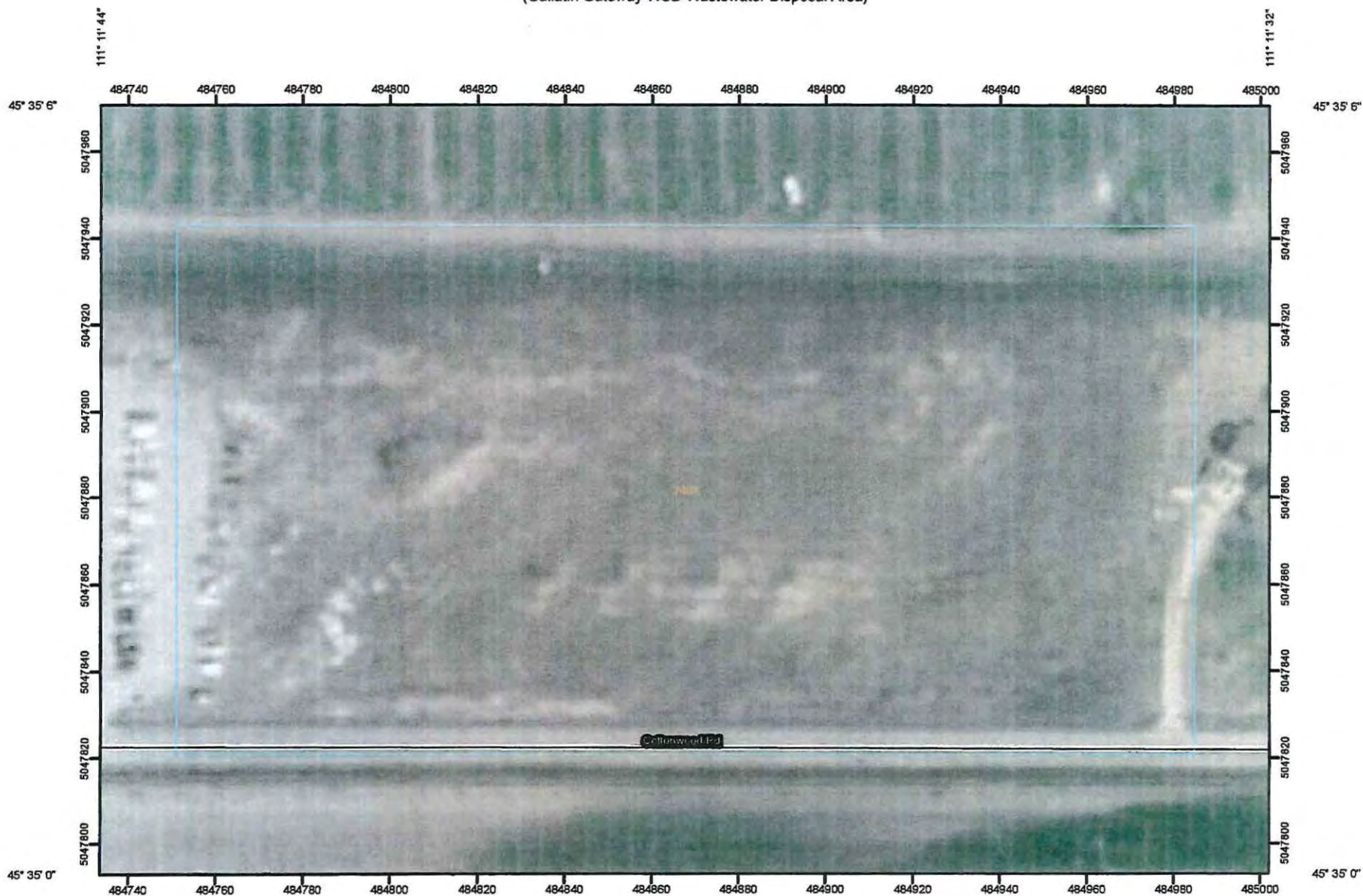
Hyalite

Percent of map unit: 5 percent
Landform: Alluvial fans, stream terraces
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Shallow to Gravel (SwGr) 15-19" p.z.
(R044XS354MT)

Data Source Information

Soil Survey Area: Gallatin County Area, Montana
Survey Area Data: Version 16, Apr 18, 2012

Soil Map—Gallatin County Area, Montana
(Gallatin Gateway WSD Wastewater Disposal Area)
















Map Scale: 1:1,270 if printed on A size (8.5" x 11") sheet



Soil Map—Gallatin County Area, Montana
(Gallatin Gateway WSD Wastewater Disposal Area)

MAP LEGEND

Area of Interest (AOI)	 Area of Interest (AOI)	 Very Stony Spot
Soils	 Soil Map Units	 Wet Spot
Special Point Features	 Blowout	 Other
	 Borrow Pit	Special Line Features
	 Clay Spot	 Gully
	 Closed Depression	 Short Steep Slope
	 Gravel Pit	 Other
	 Gravelly Spot	Political Features
	 Landfill	 Cities
	 Lava Flow	Water Features
	 Marsh or swamp	 Streams and Canals
	 Mine or Quarry	Transportation
	 Miscellaneous Water	 Rails
	 Perennial Water	 Interstate Highways
	 Rock Outcrop	 US Routes
	 Saline Spot	 Major Roads
	 Sandy Spot	 Local Roads
	 Severely Eroded Spot	
	 Sinkhole	
	 Slide or Slip	
	 Sodic Spot	
	 Spoil Area	
	 Stony Spot	

MAP INFORMATION

Map Scale: 1:1,270 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 12N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Gallatin County Area, Montana
Survey Area Data: Version 16, Apr 18, 2012

Date(s) aerial images were photographed: 8/15/2005

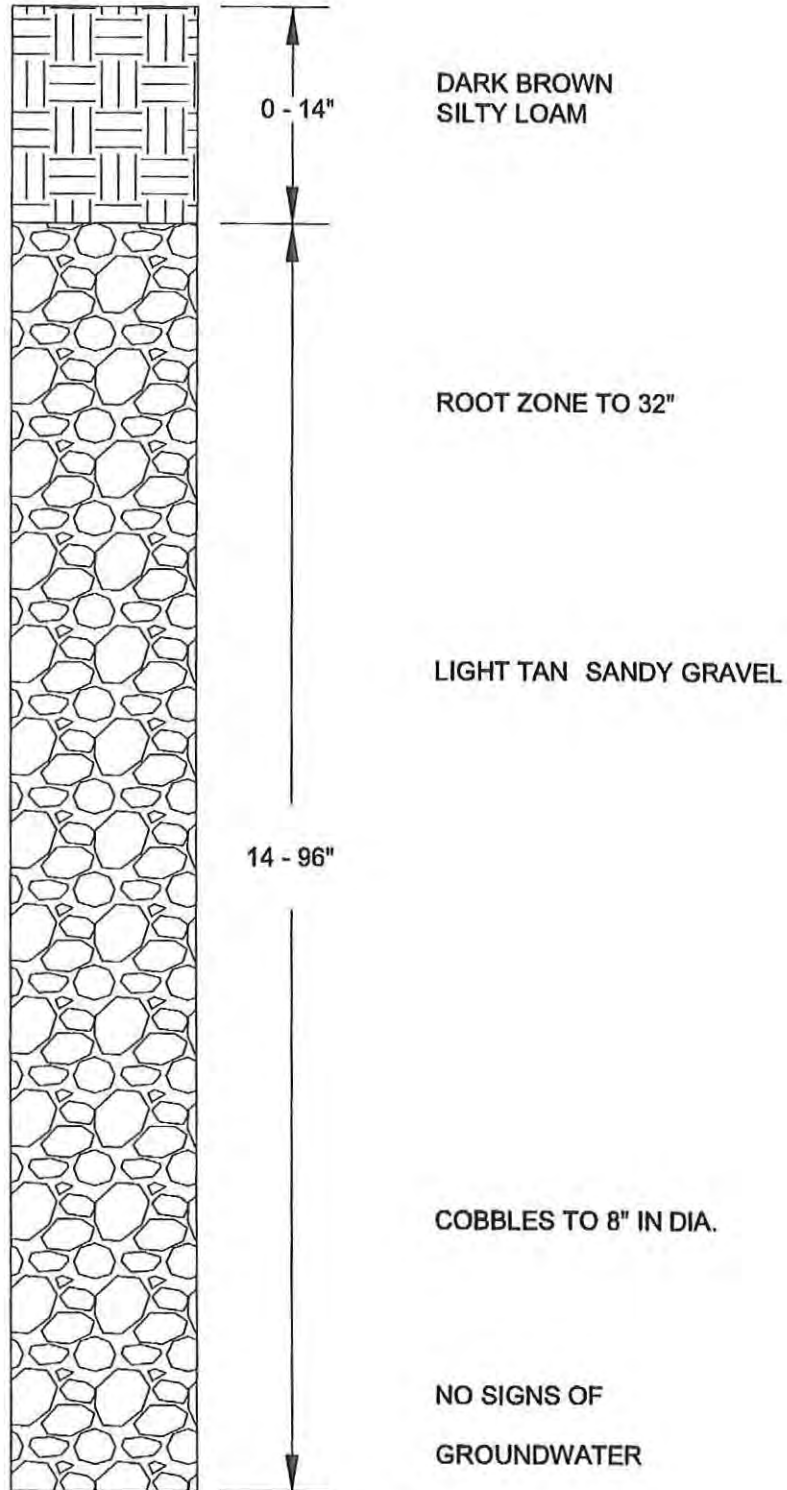
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Gallatin County Area, Montana (MT622)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
748A	Hyalite-Beaverton complex, 0 to 4 percent slopes	7.1	100.0%
Totals for Area of Interest		7.1	100.0%

Appendix B – Test Pit Logs

TEST PIT 1

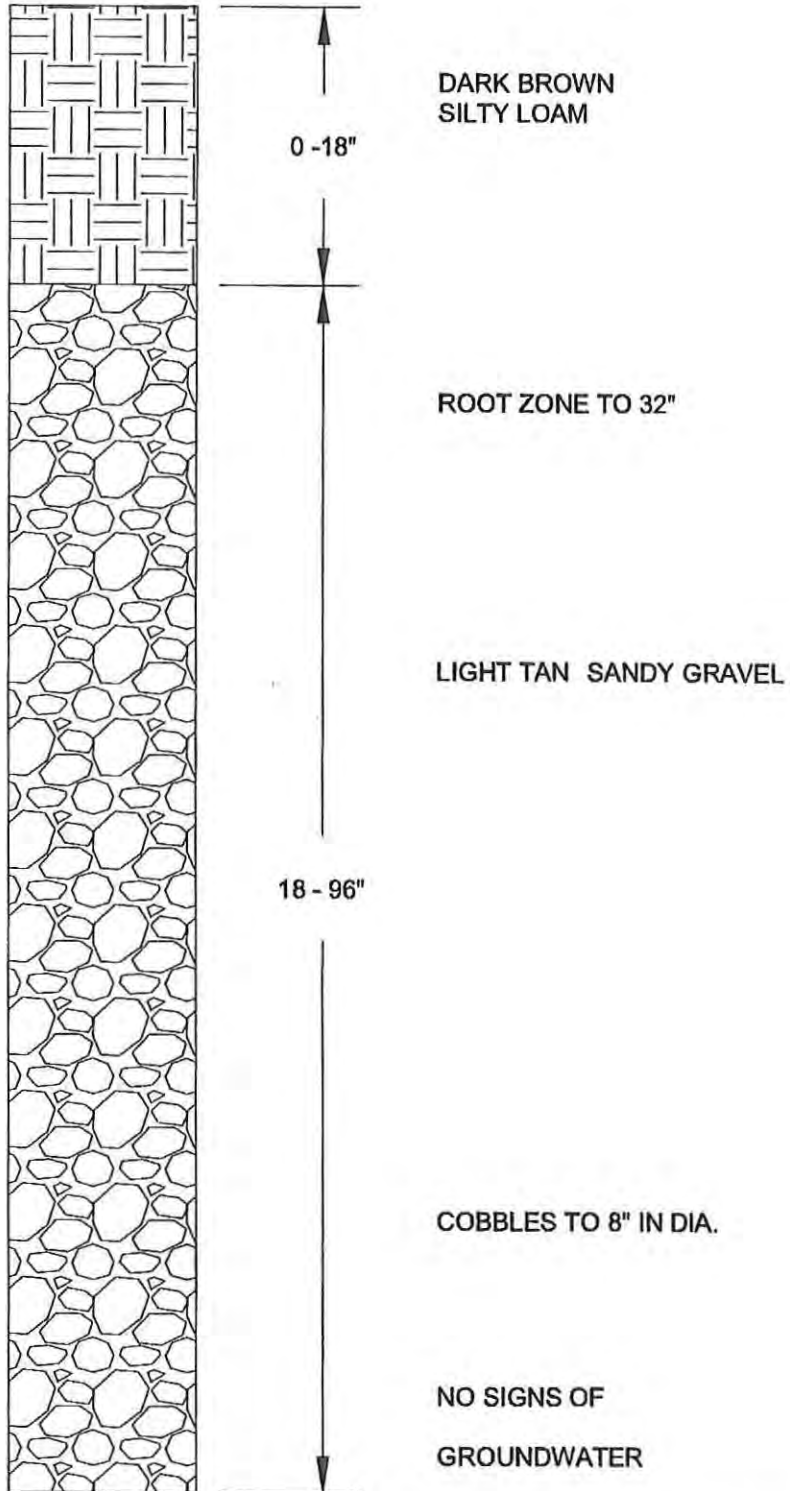


GALLATIN GATEWAY WSD
GALLATIN GATEWAY, MT

**INNOVATIVE
ENGINEERING**
12140 GOOCH HILL ROAD
GALLATIN GATEWAY, MT
406-763-4185

**TEST PIT LOG
LOSEFF SITE**

TEST PIT 2

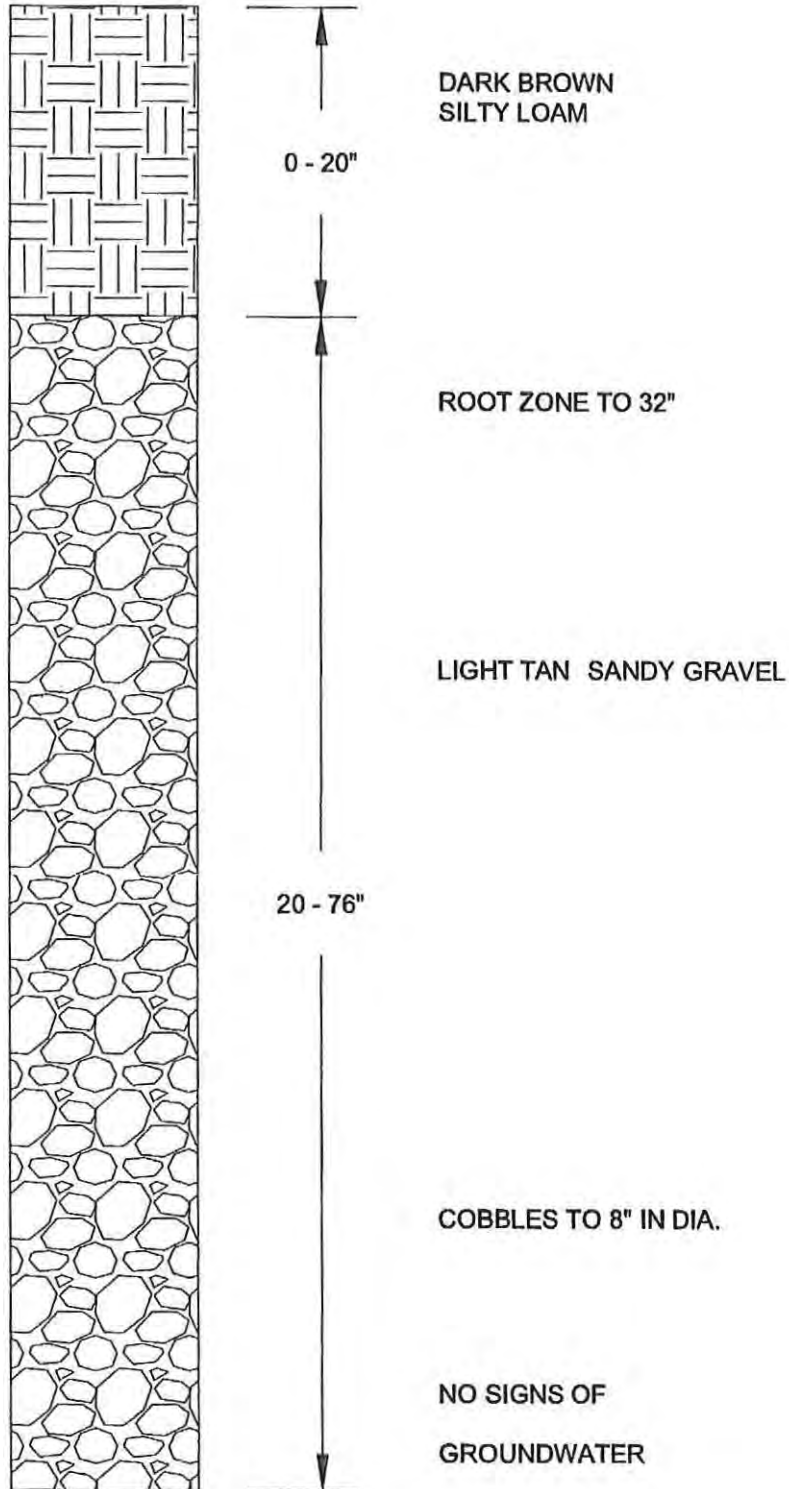


GALLATIN GATEWAY WSD
GALLATIN GATEWAY, MT

INNOVATIVE
ENGINEERING
12140 GOOCH HILL ROAD
GALLATIN GATEWAY, MT
406-763-4185

TEST PIT LOG
LOSEFF SITE

TEST PIT 3



GALLATIN GATEWAY WSD
GALLATIN GATEWAY, MT

INNOVATIVE
ENGINEERING
12140 GOOCH HILL ROAD
GALLATIN GATEWAY, MT
406-763-4185

TEST PIT LOG
LOSEFF SITE

Appendix C – Perc Test

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERCOLATION TEST FORM

Owner Name Gallatin Gateway WSD

Project Name Job 05-38

Lot or Tract Number Tract 2B COS 347C Test Number 1

Diameter of Test Hole 6 inches Depth of Test Hole 22"

Date and Time Soak Period Began 10/18/2012 16:00 Ended 10/19/2012 10:00

Date Test Began 10/19/2012

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point (inches)	Final Distance below reference point (inches)	Drop in water level (inches)	Percolation Rate (minutes/inch)
9:57:00 AM	10:10:00 AM	13.0	16	17 1/2	1 1/2	8.7
10:11:00 AM	10:24:00 AM	13.0	15	17	2	6.5
10:26:00 AM	10:40:00 AM	14.0	14 1/2	16 3/4	2 1/4	6.2
10:42:00 AM	10:52:00 AM	10.0	15	16 5/8	1 5/8	6.2
10:50:00 AM	10:59:00 AM	9.0	14	15 1/2	1 1/2	6.0
10:54:00 AM	11:04:00 AM	10.0	14 1/2	16 1/4	1 3/4	5.7

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

Terry Threlkeld
 Name (printed)

 Signature

10/19/2012
 Date

Innovative Engineering
 Company

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
PERCOLATION TEST FORM

Owner Name Gallatin Gateway WSD

Project Name Job 05-38

Lot or Tract Number Tract 2B COS 347C Test Number 2

Diameter of Test Hole 6 inches Depth of Test Hole 21"

Date and Time Soak Period Began 10/18/2012 16:00 Ended 10/19/2012 10:00

Date Test Began 10/19/2012

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point (inches)	Final Distance below reference point (inches)	Drop in water level (inches)	Percolation Rate (minutes/inch)
9:59:00 AM	10:13:00 AM	14.0	15 1/8	17	1 7/8	7.5
10:14:00 AM	10:27:00 AM	13.0	15 1/8	16 1/2	1 3/8	9.5
10:32:00 AM	10:43:00 AM	11.0	15 1/8	16 3/8	1 1/4	8.8
10:44:00 AM	10:55:00 AM	11.0	15	16 1/8	1 1/8	9.8
10:56:00 AM	11:07:00 AM	11.0	15 1/4	16 3/8	1 1/8	9.8
11:08:00 AM	11:19:00 AM	11.0	15 1/4	16 1/2	1 1/4	8.8
11:20:00 AM	11:30:00 AM	10.0	15 1/8	16 1/4	1 1/8	8.9

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

Terry Threlkeld
Name (printed)

Signature

10/19/2012
Date

Innovative Engineering
Company

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PERCOLATION TEST FORM

Owner Name Gallatin Gateway WSD

Project Name Job 05-38

Lot or Tract Number Tract 2B COS 347C Test Number 3

Diameter of Test Hole 6 inches Depth of Test Hole 20"

Date and Time Soak Period Began 10/18/2012 16:00 Ended 10/19/2012 10:00

Date Test Began 10/19/2012

Test Results

Start Time of Day	End Time of Day	Time Interval (minutes)	Initial Distance below reference point (inches)	Final Distance below reference point (inches)	Drop in water level (inches)	Percolation Rate (minutes/inch)
10:04:00 AM	10:17:00 AM	13.0	17	19	2	6.5
10:18:00 AM	10:30:00 AM	12.0	14 1/2	16 1/2	2	6.0
10:30:00 AM	10:46:00 AM	16.0	15	18 1/8	3 1/8	5.1
10:47:00 AM	10:57:00 AM	10.0	16 1/4	18	1 3/4	5.7
10:58:00 AM	11:09:00 AM	11.0	17	18 5/8	1 5/8	6.8
11:11:00 AM	11:22:00 AM	11.0	16 1/2	18 1/4	1 3/4	6.3
11:25:00 AM	11:32:00 AM	7.0	15 3/4	17	1 1/4	5.6

I certify that this percolation test was done in accordance with WQB-6, Appendix A.

Terry Threlkeld
Name (printed)

Signature

10/19/2012
Date

Innovative Engineering
Company

Appendix D – Well Logs

**Appendix E – Pump Test
Results for TW-2**

Non-degradation Pumping Test Evaluation
Gateway Village
by
Michael E. Nicklin, PhD, PE

A 24-hour pumping test was conducted at test well TW-2 commencing at 10:45:00 a.m. on October 14, 2006 with pumping ceasing at 11:05:00 a.m. on October 15, 2006. A recovery test followed which was ceased at 12:45:00 p.m. on October 16, 2006. Well installation and pumping test setup was conducted by O'Keefe Drilling of Butte, MT with the consultation of Nicklin Earth & Water, Inc. (NE&W). NE&W was also present during drilling. The location of this test well is shown in Figure 1.

A well log was developed by NE&W for TW-2 and is provided in Attachment 1. The boring did not yield water until a depth of 48 feet below ground surface (bgs) was reached. This depth coincides with the base of a low permeability clayey sequence [gravel with clay (or clay-bound gravel) and clay]. Upon penetration through the clayey sequence, the water level rose in the annulus of the well to a depth of approximately 37.4 feet bgs indicating that the aquifer is confined at the location of the test well. The well was drilled to a final depth of 58 feet thereby penetrating an effective water-bearing thickness of 10 feet (from 48 to 58 feet bgs). The actual thickness of the water-bearing sand and gravel is likely greater than 10 feet as drilling did not penetrate through this deposit.

The water was piped away from the test well location during the pumping test to minimize any potential for recharge reaching the underlying aquifer in the vicinity of the pumping test. Flows were measured by a five-gallon bucket and stop watch. Average five gallon bucket fill times during the pumping test were seven seconds which equates to about 42.9 gpm.

In-Situ Level Troll transducers were used to collect pumping test data at one minute intervals. Owing to the very high transmissivity of the test aquifer, drawdown was limited during the pumping test reaching a maximum value of 2.248 feet at 1,454 minutes into the pumping test. A reduced data set is presented in Table 2 (every minute from 1 to 30 minutes with data collected at 10 minute intervals shown thereafter). A complete data set of one-minute intervals for the duration of the pumping test is available upon request.

Figure 2 provides a pumping test drawdown summary for the pumping and recovery phases. Graphical procedures and the Cooper and Jacob (straight-line) method were used to quantify the transmissivity and hydraulic conductivity. Although 10 feet of saturated water bearing strata was penetrated, a thickness of 15 feet was assumed for estimating the hydraulic conductivity.

The calculated transmissivity ranges from 11,260 ft²/d (drawdown phase) to 9,121 ft²/d (residual drawdown phase). The estimated hydraulic conductivity as shown in Figure 3 is projected to range from 608 to 751 feet per day based upon the assumptions described heretofore. Use of the lower value of 608 feet per day is the more conservative value to use for purposes of non-degradation assessment.

Table 1
Pumping Test Observation Data

Time	Temp oC	Pressure psi	Depth from Top Pipe Plez., ft	Time min	Drawdown feet	t'	s-s'
2006-10-14 10:44:00:060	9.45	4.63	42.67				
2006-10-14 10:45:00:060	9.34	4.63	42.67				
2006-10-14 10:46:00:060	9.22	3.89	44.38	1	1.71		
2006-10-14 10:47:00:060	9.14	3.87	44.42	2	1.75		
2006-10-14 10:48:00:060	9.07	3.87	44.43	3	1.76		
2006-10-14 10:49:00:060	9.03	3.82	44.55	4	1.88		
2006-10-14 10:50:00:060	9.00	3.83	44.53	5	1.86		
2006-10-14 10:51:00:060	8.98	3.82	44.53	6	1.86		
2006-10-14 10:52:00:060	8.96	3.81	44.57	7	1.89		
2006-10-14 10:53:00:060	8.95	3.80	44.58	8	1.91		
2006-10-14 10:54:00:060	8.95	3.80	44.59	9	1.91		
2006-10-14 10:55:00:060	8.94	3.80	44.59	10	1.92		
2006-10-14 10:56:00:060	8.93	3.80	44.59	11	1.92		
2006-10-14 10:57:00:060	8.93	3.81	44.57	12	1.90		
2006-10-14 10:58:00:060	8.93	3.80	44.59	13	1.91		
2006-10-14 10:59:00:060	8.93	3.80	44.59	14	1.91		
2006-10-14 11:00:00:060	8.93	3.79	44.60	15	1.93		
2006-10-14 11:01:00:060	8.92	3.79	44.61	16	1.94		
2006-10-14 11:02:00:060	8.93	3.79	44.61	17	1.94		
2006-10-14 11:03:00:060	8.92	3.79	44.61	18	1.94		
2006-10-14 11:04:00:060	8.92	3.78	44.63	19	1.96		
2006-10-14 11:05:00:060	8.92	3.79	44.62	20	1.95		
2006-10-14 11:06:00:060	8.92	3.78	44.63	21	1.96		
2006-10-14 11:07:00:060	8.92	3.78	44.64	22	1.96		
2006-10-14 11:08:00:060	8.92	3.79	44.61	23	1.94		
2006-10-14 11:09:00:060	8.92	3.78	44.63	24	1.96		
2006-10-14 11:10:00:060	8.92	3.77	44.65	25	1.97		
2006-10-14 11:11:00:060	8.91	3.78	44.64	26	1.97		
2006-10-14 11:12:00:060	8.91	3.76	44.67	27	2.00		
2006-10-14 11:13:00:060	8.91	3.77	44.66	28	1.99		
2006-10-14 11:14:00:060	8.91	3.77	44.65	29	1.98		
2006-10-14 11:15:00:060	8.91	3.77	44.67	30	1.99		
2006-10-14 11:25:00:060	8.91	3.76	44.68	40	2.01		
2006-10-14 11:35:00:060	8.91	3.75	44.70	50	2.03		
2006-10-14 11:45:00:060	8.91	3.75	44.69	60	2.02		
2006-10-14 11:55:00:060	8.92	3.74	44.73	70	2.06		
2006-10-14 12:05:00:060	8.92	3.74	44.73	80	2.05		
2006-10-14 12:15:00:060	8.92	3.74	44.73	90	2.06		
2006-10-14 12:25:00:060	8.92	3.74	44.74	100	2.06		
2006-10-14 12:35:00:060	8.92	3.73	44.74	110	2.07		
2006-10-14 12:45:00:060	8.92	3.74	44.73	120	2.06		
2006-10-14 12:55:00:060	8.92	3.73	44.75	130	2.08		
2006-10-14 13:05:00:060	8.92	3.73	44.75	140	2.07		
2006-10-14 13:15:00:060	8.92	3.72	44.77	150	2.10		
2006-10-14 13:25:00:060	8.92	3.73	44.74	160	2.07		
2006-10-14 13:35:00:060	8.92	3.72	44.76	170	2.09		
2006-10-14 13:45:00:060	8.92	3.72	44.77	180	2.10		
2006-10-14 13:55:00:060	8.92	3.73	44.76	190	2.08		
2006-10-14 14:05:00:060	8.92	3.73	44.76	200	2.09		
2006-10-14 14:15:00:060	8.92	3.73	44.75	210	2.08		
2006-10-14 14:25:00:060	8.93	3.73	44.74	220	2.07		
2006-10-14 14:35:00:060	8.93	3.73	44.75	230	2.08		
2006-10-14 14:45:00:060	8.93	3.71	44.78	240	2.11		
2006-10-14 14:55:00:060	8.92	3.72	44.77	250	2.10		
2006-10-14 15:05:00:060	8.93	3.71	44.79	260	2.11		
2006-10-14 15:15:00:060	8.93	3.73	44.75	270	2.08		
2006-10-14 15:25:00:060	8.93	3.73	44.74	280	2.07		
2006-10-14 15:35:00:060	8.93	3.72	44.77	290	2.09		
2006-10-14 15:45:00:060	8.93	3.73	44.76	300	2.09		
2006-10-14 15:55:00:060	8.93	3.71	44.79	310	2.12		
2006-10-14 16:05:00:060	8.93	3.72	44.77	320	2.10		

Table 1
Pumping Test Observation Data

Time	Temp oC	Pressure psl	Depth from Top Pipe Piez., ft	Time min	Drawdown feet	t'	s- s'
2006-10-14 16:15:00:060	8.93	3.72	44.78	330	2.11		
2006-10-14 16:25:00:060	8.93	3.72	44.78	340	2.11		
2006-10-14 16:35:00:060	8.93	3.72	44.77	350	2.10		
2006-10-14 16:45:00:060	8.93	3.71	44.79	360	2.12		
2006-10-14 16:55:00:060	8.93	3.71	44.79	370	2.11		
2006-10-14 17:05:00:060	8.93	3.71	44.80	380	2.12		
2006-10-14 17:15:00:060	8.93	3.71	44.80	390	2.12		
2006-10-14 17:25:00:060	8.93	3.71	44.79	400	2.12		
2006-10-14 17:35:00:060	8.93	3.71	44.79	410	2.11		
2006-10-14 17:45:00:060	8.93	3.71	44.79	420	2.12		
2006-10-14 17:55:00:060	8.93	3.71	44.80	430	2.13		
2006-10-14 18:05:00:060	8.93	3.72	44.77	440	2.10		
2006-10-14 18:15:00:060	8.93	3.72	44.77	450	2.10		
2006-10-14 18:25:00:060	8.93	3.71	44.80	460	2.13		
2006-10-14 18:35:00:060	8.93	3.70	44.82	470	2.15		
2006-10-14 18:45:00:060	8.93	3.70	44.81	480	2.14		
2006-10-14 18:55:00:060	8.93	3.69	44.83	490	2.16		
2006-10-14 19:05:00:060	8.93	3.70	44.81	500	2.14		
2006-10-14 19:15:00:060	8.93	3.69	44.84	510	2.16		
2006-10-14 19:25:00:060	8.93	3.70	44.82	520	2.14		
2006-10-14 19:35:00:060	8.93	3.69	44.84	530	2.17		
2006-10-14 19:45:00:060	8.93	3.69	44.85	540	2.17		
2006-10-14 19:55:00:060	8.94	3.68	44.87	550	2.20		
2006-10-14 20:05:00:060	8.93	3.69	44.85	560	2.17		
2006-10-14 20:15:00:060	8.93	3.69	44.84	570	2.16		
2006-10-14 20:25:00:060	8.93	3.68	44.86	580	2.18		
2006-10-14 20:35:00:060	8.93	3.69	44.83	590	2.16		
2006-10-14 20:45:00:060	8.93	3.69	44.84	600	2.17		
2006-10-14 20:55:00:060	8.93	3.69	44.84	610	2.17		
2006-10-14 21:05:00:060	8.93	3.69	44.84	620	2.17		
2006-10-14 21:15:00:060	8.93	3.68	44.86	630	2.19		
2006-10-14 21:25:00:060	8.93	3.69	44.83	640	2.16		
2006-10-14 21:35:00:060	8.93	3.69	44.84	650	2.17		
2006-10-14 21:45:00:060	8.93	3.68	44.85	660	2.18		
2006-10-14 21:55:00:060	8.93	3.69	44.85	670	2.17		
2006-10-14 22:05:00:060	8.93	3.68	44.86	680	2.18		
2006-10-14 22:15:00:060	8.94	3.68	44.86	690	2.19		
2006-10-14 22:25:00:060	8.94	3.69	44.84	700	2.17		
2006-10-14 22:35:00:060	8.93	3.68	44.86	710	2.19		
2006-10-14 22:45:00:060	8.93	3.68	44.85	720	2.18		
2006-10-14 22:55:00:060	8.94	3.69	44.85	730	2.18		
2006-10-14 23:05:00:060	8.93	3.69	44.85	740	2.18		
2006-10-14 23:15:00:060	8.93	3.69	44.84	750	2.17		
2006-10-14 23:25:00:060	8.93	3.68	44.85	760	2.18		
2006-10-14 23:35:00:060	8.94	3.69	44.85	770	2.17		
2006-10-14 23:45:00:060	8.94	3.69	44.85	780	2.17		
2006-10-14 23:55:00:060	8.94	3.69	44.85	790	2.18		
2006-10-15 00:05:00:060	8.94	3.69	44.84	800	2.17		
2006-10-15 00:15:00:060	8.93	3.69	44.84	810	2.17		
2006-10-15 00:25:00:060	8.94	3.68	44.86	820	2.19		
2006-10-15 00:35:00:060	8.94	3.69	44.85	830	2.18		
2006-10-15 00:45:00:060	8.94	3.68	44.85	840	2.18		
2006-10-15 00:55:00:060	8.94	3.69	44.85	850	2.18		
2006-10-15 01:05:00:060	8.94	3.69	44.84	860	2.17		
2006-10-15 01:15:00:060	8.94	3.69	44.83	870	2.16		
2006-10-15 01:25:00:060	8.94	3.69	44.84	880	2.16		
2006-10-15 01:35:00:060	8.94	3.69	44.84	890	2.17		
2006-10-15 01:45:00:060	8.94	3.69	44.83	900	2.16		
2006-10-15 01:55:00:060	8.94	3.68	44.85	910	2.18		
2006-10-15 02:05:00:060	8.94	3.68	44.86	920	2.19		
2006-10-15 02:15:00:060	8.94	3.68	44.85	930	2.17		

Table 1
Pumping Test Observation Data

Time	Temp oC	Pressure psi	Depth from Top Pipe Piez., ft	Time min	Drawdown feet	t'	s- s'
2006-10-15 02:25:00:060	8.94	3.69	44.85	940	2.18		
2006-10-15 02:35:00:060	8.94	3.68	44.85	950	2.18		
2006-10-15 02:45:00:060	8.94	3.68	44.87	960	2.20		
2006-10-15 02:55:00:060	8.94	3.68	44.85	970	2.18		
2006-10-15 03:05:00:060	8.94	3.69	44.84	980	2.17		
2006-10-15 03:15:00:060	8.94	3.69	44.85	990	2.18		
2006-10-15 03:25:00:060	8.94	3.68	44.87	1000	2.19		
2006-10-15 03:35:00:060	8.94	3.69	44.85	1010	2.18		
2006-10-15 03:45:00:060	8.94	3.69	44.84	1020	2.17		
2006-10-15 03:55:00:060	8.94	3.68	44.86	1030	2.18		
2006-10-15 04:05:00:060	8.94	3.69	44.84	1040	2.17		
2006-10-15 04:15:00:060	8.94	3.69	44.84	1050	2.17		
2006-10-15 04:25:00:060	8.94	3.69	44.85	1060	2.18		
2006-10-15 04:35:00:060	8.94	3.69	44.84	1070	2.17		
2006-10-15 04:45:00:060	8.94	3.68	44.86	1080	2.19		
2006-10-15 04:55:00:060	8.94	3.70	44.83	1090	2.16		
2006-10-15 05:05:00:060	8.94	3.69	44.85	1100	2.17		
2006-10-15 05:15:00:060	8.94	3.69	44.84	1110	2.17		
2006-10-15 05:25:00:060	8.94	3.68	44.85	1120	2.18		
2006-10-15 05:35:00:060	8.94	3.68	44.86	1130	2.19		
2006-10-15 05:45:00:060	8.94	3.68	44.86	1140	2.18		
2006-10-15 05:55:00:060	8.94	3.68	44.86	1150	2.19		
2006-10-15 06:05:00:060	8.94	3.68	44.86	1160	2.19		
2006-10-15 06:15:00:060	8.94	3.68	44.86	1170	2.19		
2006-10-15 06:25:00:060	8.94	3.68	44.86	1180	2.19		
2006-10-15 06:35:00:060	8.94	3.67	44.88	1190	2.21		
2006-10-15 06:45:00:060	8.94	3.68	44.87	1200	2.20		
2006-10-15 06:55:00:060	8.94	3.68	44.88	1210	2.20		
2006-10-15 07:05:00:060	8.94	3.68	44.86	1220	2.19		
2006-10-15 07:15:00:060	8.94	3.67	44.88	1230	2.21		
2006-10-15 07:25:00:060	8.94	3.69	44.85	1240	2.18		
2006-10-15 07:35:00:060	8.94	3.67	44.88	1250	2.21		
2006-10-15 07:45:00:060	8.94	3.69	44.84	1260	2.17		
2006-10-15 07:55:00:060	8.94	3.68	44.87	1270	2.19		
2006-10-15 08:05:00:060	8.94	3.68	44.86	1280	2.19		
2006-10-15 08:15:00:060	8.94	3.68	44.86	1290	2.18		
2006-10-15 08:25:00:060	8.94	3.68	44.87	1300	2.20		
2006-10-15 08:35:00:060	8.94	3.68	44.85	1310	2.18		
2006-10-15 08:45:00:060	8.94	3.68	44.86	1320	2.19		
2006-10-15 08:55:00:060	8.95	3.68	44.86	1330	2.19		
2006-10-15 09:05:00:060	8.94	3.68	44.85	1340	2.18		
2006-10-15 09:15:00:060	8.94	3.68	44.87	1350	2.20		
2006-10-15 09:25:00:060	8.94	3.67	44.88	1360	2.21		
2006-10-15 09:35:00:060	8.94	3.67	44.90	1370	2.22		
2006-10-15 09:45:00:060	8.94	3.66	44.91	1380	2.24		
2006-10-15 09:55:00:060	8.95	3.67	44.89	1390	2.21		
2006-10-15 10:05:00:060	8.95	3.67	44.89	1400	2.22		
2006-10-15 10:15:00:060	8.94	3.68	44.87	1410	2.20		
2006-10-15 10:25:00:060	8.95	3.67	44.88	1420	2.21		
2006-10-15 10:35:00:060	8.95	3.66	44.90	1430	2.23		
2006-10-15 10:45:00:060	8.95	3.67	44.88	1440	2.21		
2006-10-15 10:55:00:060	8.95	3.67	44.89	1450	2.22		
2006-10-15 11:05:00:060	8.95	3.67	44.90	1460	2.22		
2006-10-15 11:05:00:060	8.95	3.67	44.90	1460	2.22	Start of recovery test	
2006-10-15 11:06:00:060	8.97	4.37	43.27	1461	0.60	1	1.61
2006-10-15 11:07:00:060	9.12	4.42	43.15	1462	0.47	2	1.73
2006-10-15 11:08:00:060	9.32	4.45	43.10	1463	0.42	3	1.78
2006-10-15 11:09:00:060	9.52	4.45	43.08	1464	0.40	4	1.80
2006-10-15 11:10:00:060	9.69	4.46	43.05	1465	0.38	5	1.82

Table 1
Pumping Test Observation Data

Time	Temp oC	Pressure psi	Depth from Top Pipe Piez., ft	Time min	Drawdown feet	t'	s- s'
2006-10-15 11:11:00:060	9.82	4.47	43.03	1466	0.36	6	1.85
2006-10-15 11:12:00:060	9.85	4.47	43.04	1467	0.37	7	1.84
2006-10-15 11:13:00:060	9.84	4.48	43.02	1468	0.34	8	1.86
2006-10-15 11:14:00:060	9.85	4.48	43.01	1469	0.33	9	1.87
2006-10-15 11:15:00:060	9.88	4.49	42.99	1470	0.32	10	1.89
2006-10-15 11:16:00:060	9.87	4.49	43.00	1471	0.33	11	1.87
2006-10-15 11:17:00:060	9.83	4.49	43.00	1472	0.32	12	1.88
2006-10-15 11:18:00:060	9.81	4.49	42.99	1473	0.32	13	1.89
2006-10-15 11:19:00:060	9.80	4.49	42.98	1474	0.31	14	1.90
2006-10-15 11:20:00:060	9.79	4.50	42.97	1475	0.30	15	1.91
2006-10-15 11:21:00:060	9.77	4.50	42.96	1476	0.29	16	1.92
2006-10-15 11:22:00:060	9.74	4.50	42.97	1477	0.30	17	1.91
2006-10-15 11:23:00:060	9.71	4.50	42.98	1478	0.30	18	1.90
2006-10-15 11:24:00:060	9.69	4.50	42.96	1479	0.29	19	1.92
2006-10-15 11:25:00:060	9.69	4.51	42.96	1480	0.28	20	1.92
2006-10-15 11:26:00:060	9.68	4.51	42.95	1481	0.28	21	1.92
2006-10-15 11:27:00:060	9.67	4.51	42.95	1482	0.28	22	1.92
2006-10-15 11:28:00:060	9.66	4.51	42.95	1483	0.28	23	1.93
2006-10-15 11:29:00:060	9.65	4.51	42.95	1484	0.28	24	1.93
2006-10-15 11:30:00:060	9.62	4.51	42.95	1485	0.28	25	1.93
2006-10-15 11:31:00:060	9.60	4.51	42.94	1486	0.27	26	1.94
2006-10-15 11:32:00:060	9.58	4.51	42.94	1487	0.27	27	1.93
2006-10-15 11:33:00:060	9.56	4.51	42.94	1488	0.27	28	1.94
2006-10-15 11:34:00:060	9.56	4.51	42.94	1489	0.27	29	1.94
2006-10-15 11:35:00:060	9.54	4.51	42.94	1490	0.27	30	1.94
2006-10-15 11:45:00:060	9.44	4.53	42.91	1500	0.24	40	1.97
2006-10-15 11:55:00:060	9.37	4.54	42.89	1510	0.22	50	1.99
2006-10-15 12:05:00:060	9.33	4.54	42.88	1520	0.21	60	2.00
2006-10-15 12:15:00:060	9.28	4.54	42.87	1530	0.20	70	2.01
2006-10-15 12:25:00:060	9.24	4.55	42.85	1540	0.18	80	2.03
2006-10-15 12:35:00:060	9.20	4.56	42.84	1550	0.17	90	2.04
2006-10-15 12:45:00:060	9.18	4.56	42.83	1560	0.16	100	2.05
2006-10-15 12:55:00:060	9.16	4.56	42.82	1570	0.15	110	2.06
2006-10-15 13:05:00:060	9.14	4.57	42.81	1580	0.13	120	2.08
2006-10-15 13:15:00:060	9.13	4.57	42.80	1590	0.13	130	2.08
2006-10-15 13:25:00:060	9.11	4.57	42.81	1600	0.14	140	2.07
2006-10-15 13:35:00:060	9.11	4.57	42.82	1610	0.15	150	2.07
2006-10-15 13:45:00:060	9.09	4.58	42.79	1620	0.12	160	2.09
2006-10-15 13:55:00:060	9.09	4.59	42.77	1630	0.10	170	2.11
2006-10-15 14:05:00:060	9.08	4.59	42.77	1640	0.10	180	2.11
2006-10-15 14:15:00:060	9.07	4.59	42.77	1650	0.10	190	2.11
2006-10-15 14:25:00:060	9.06	4.58	42.78	1660	0.11	200	2.11
2006-10-15 14:35:00:060	9.05	4.58	42.78	1670	0.11	210	2.11
2006-10-15 14:45:00:060	9.05	4.59	42.76	1680	0.09	220	2.12
2006-10-15 14:55:00:060	9.04	4.58	42.77	1690	0.10	230	2.11
2006-10-15 15:05:00:060	9.04	4.58	42.78	1700	0.10	240	2.11
2006-10-15 15:15:00:060	9.04	4.59	42.77	1710	0.10	250	2.12
2006-10-15 15:25:00:060	9.03	4.59	42.77	1720	0.10	260	2.11
2006-10-15 15:35:00:060	9.03	4.59	42.76	1730	0.09	270	2.12
2006-10-15 15:45:00:060	9.03	4.59	42.77	1740	0.10	280	2.12
2006-10-15 15:55:00:060	9.02	4.59	42.76	1750	0.09	290	2.13
2006-10-15 16:05:00:060	9.02	4.59	42.77	1760	0.10	300	2.12
2006-10-15 16:15:00:060	9.02	4.59	42.77	1770	0.10	310	2.12
2006-10-15 16:25:00:060	9.02	4.58	42.78	1780	0.10	320	2.11
2006-10-15 16:35:00:060	9.02	4.59	42.77	1790	0.10	330	2.12
2006-10-15 16:45:00:060	9.01	4.59	42.77	1800	0.09	340	2.12
2006-10-15 16:55:00:060	9.01	4.59	42.76	1810	0.09	350	2.13
2006-10-15 17:05:00:060	9.01	4.59	42.77	1820	0.09	360	2.12
2006-10-15 17:15:00:060	9.01	4.58	42.78	1830	0.10	370	2.11
2006-10-15 17:25:00:060	9.01	4.58	42.78	1840	0.11	380	2.11
2006-10-15 17:35:00:060	9.01	4.58	42.79	1850	0.11	390	2.10

Table 1
Pumping Test Observation Data

Time	Temp oC	Pressure psl	Depth from Top Pipe Plez., ft	Time min	Drawdown feet	t'	s- s'
2006-10-15 17:45:00:060	9.01	4.59	42.77	1860	0.10	400	2.12
2006-10-15 17:55:00:060	9.01	4.58	42.78	1870	0.10	410	2.12
2006-10-15 18:05:00:060	9.00	4.58	42.78	1880	0.11	420	2.11
2006-10-15 18:15:00:060	9.00	4.59	42.76	1890	0.09	430	2.13
2006-10-15 18:25:00:060	9.01	4.59	42.77	1900	0.10	440	2.12
2006-10-15 18:35:00:060	9.00	4.59	42.77	1910	0.09	450	2.13
2006-10-15 18:45:00:060	9.00	4.59	42.77	1920	0.09	460	2.13
2006-10-15 18:55:00:060	9.00	4.59	42.77	1930	0.10	470	2.12
2006-10-15 19:05:00:060	9.00	4.58	42.78	1940	0.11	480	2.11
2006-10-15 19:15:00:060	9.00	4.58	42.78	1950	0.10	490	2.12
2006-10-15 19:25:00:060	9.00	4.59	42.77	1960	0.10	500	2.12
2006-10-15 19:35:00:060	9.00	4.59	42.76	1970	0.09	510	2.13
2006-10-15 19:45:00:060	9.00	4.59	42.77	1980	0.10	520	2.12
2006-10-15 19:55:00:060	9.00	4.59	42.76	1990	0.09	530	2.13
2006-10-15 20:05:00:060	9.00	4.59	42.77	2000	0.10	540	2.12
2006-10-15 20:15:00:060	9.00	4.59	42.76	2010	0.09	550	2.13
2006-10-15 20:25:00:060	9.00	4.58	42.78	2020	0.11	560	2.12
2006-10-15 20:35:00:060	9.00	4.59	42.77	2030	0.10	570	2.12
2006-10-15 20:45:00:060	9.00	4.58	42.78	2040	0.10	580	2.12
2006-10-15 20:55:00:060	9.00	4.59	42.77	2050	0.10	590	2.13
2006-10-15 21:05:00:060	8.99	4.58	42.79	2060	0.12	600	2.11
2006-10-15 21:15:00:060	8.99	4.58	42.78	2070	0.11	610	2.11
2006-10-15 21:25:00:060	8.99	4.58	42.78	2080	0.11	620	2.11
2006-10-15 21:35:00:060	8.99	4.59	42.77	2090	0.10	630	2.13
2006-10-15 21:45:00:060	9.00	4.59	42.77	2100	0.10	640	2.13
2006-10-15 21:55:00:060	8.99	4.59	42.77	2110	0.10	650	2.13
2006-10-15 22:05:00:060	8.99	4.58	42.78	2120	0.11	660	2.12
2006-10-15 22:15:00:060	8.99	4.59	42.77	2130	0.10	670	2.13
2006-10-15 22:25:00:060	8.99	4.59	42.77	2140	0.10	680	2.13
2006-10-15 22:35:00:060	8.99	4.59	42.77	2150	0.10	690	2.13
2006-10-15 22:45:00:060	8.99	4.59	42.77	2160	0.10	700	2.13
2006-10-15 22:55:00:060	8.99	4.59	42.76	2170	0.09	710	2.14
2006-10-15 23:05:00:060	8.99	4.59	42.77	2180	0.10	720	2.13
2006-10-15 23:15:00:060	8.99	4.58	42.78	2190	0.10	730	2.13
2006-10-15 23:25:00:060	8.99	4.59	42.76	2200	0.09	740	2.14
2006-10-15 23:35:00:060	8.99	4.59	42.76	2210	0.09	750	2.14
2006-10-15 23:45:00:060	8.99	4.59	42.77	2220	0.09	760	2.14
2006-10-15 23:55:00:060	8.99	4.59	42.76	2230	0.09	770	2.14
2006-10-16 00:05:00:060	8.99	4.59	42.76	2240	0.09	780	2.14
2006-10-16 00:15:00:060	8.99	4.59	42.76	2250	0.08	790	2.15
2006-10-16 00:25:00:060	8.99	4.60	42.75	2260	0.08	800	2.15
2006-10-16 00:35:00:060	8.99	4.60	42.75	2270	0.07	810	2.16
2006-10-16 00:45:00:060	8.99	4.59	42.76	2280	0.09	820	2.15
2006-10-16 00:55:00:060	8.99	4.60	42.75	2290	0.08	830	2.16
2006-10-16 01:05:00:060	8.99	4.59	42.76	2300	0.09	840	2.15
2006-10-16 01:15:00:060	8.99	4.59	42.76	2310	0.09	850	2.14
2006-10-16 01:25:00:060	8.99	4.59	42.77	2320	0.10	860	2.13
2006-10-16 01:35:00:060	8.99	4.59	42.77	2330	0.10	870	2.13
2006-10-16 01:45:00:060	8.99	4.59	42.76	2340	0.09	880	2.14
2006-10-16 01:55:00:060	8.99	4.59	42.76	2350	0.09	890	2.14
2006-10-16 02:05:00:060	8.99	4.59	42.76	2360	0.09	900	2.14
2006-10-16 02:15:00:060	8.99	4.59	42.77	2370	0.10	910	2.14
2006-10-16 02:25:00:060	8.99	4.58	42.78	2380	0.10	920	2.13
2006-10-16 02:35:00:060	8.99	4.58	42.78	2390	0.11	930	2.12
2006-10-16 02:45:00:060	8.99	4.58	42.78	2400	0.11	940	2.13
2006-10-16 02:55:00:060	8.99	4.58	42.78	2410	0.11	950	2.12
2006-10-16 03:05:00:060	8.99	4.58	42.79	2420	0.11	960	2.12
2006-10-16 03:15:00:060	8.99	4.58	42.78	2430	0.11	970	2.12
2006-10-16 03:25:00:060	8.99	4.58	42.79	2440	0.12	980	2.12
2006-10-16 03:35:00:060	8.99	4.58	42.78	2450	0.10	990	2.13
2006-10-16 03:45:00:060	8.99	4.58	42.78	2460	0.11	1000	2.12

Table 1
Pumping Test Observation Data

Time	Temp oC	Pressure psi	Depth from Top Pipe Piez., ft	Time min	Drawdown feet	t'	s- s'
2006-10-16 03:55:00:060	8.99	4.59	42.77	2470	0.10	1010	2.14
2006-10-16 04:05:00:060	8.99	4.59	42.77	2480	0.10	1020	2.14
2006-10-16 04:15:00:060	8.99	4.59	42.77	2490	0.10	1030	2.14
2006-10-16 04:25:00:060	8.99	4.58	42.78	2500	0.11	1040	2.13
2006-10-16 04:35:00:060	8.99	4.58	42.79	2510	0.11	1050	2.12
2006-10-16 04:45:00:060	8.99	4.58	42.79	2520	0.12	1060	2.12
2006-10-16 04:55:00:060	8.99	4.58	42.79	2530	0.12	1070	2.12
2006-10-16 05:05:00:060	8.99	4.57	42.81	2540	0.13	1080	2.10
2006-10-16 05:15:00:060	8.99	4.57	42.80	2550	0.13	1090	2.11
2006-10-16 05:25:00:060	8.99	4.57	42.81	2560	0.14	1100	2.10
2006-10-16 05:35:00:060	8.99	4.57	42.80	2570	0.13	1110	2.11
2006-10-16 05:45:00:060	8.99	4.57	42.81	2580	0.14	1120	2.10
2006-10-16 05:55:00:060	8.99	4.57	42.82	2590	0.14	1130	2.09
2006-10-16 06:05:00:060	8.99	4.56	42.82	2600	0.15	1140	2.09
2006-10-16 06:15:00:060	8.99	4.56	42.82	2610	0.15	1150	2.09
2006-10-16 06:25:00:060	8.99	4.56	42.83	2620	0.15	1160	2.09
2006-10-16 06:35:00:060	8.99	4.56	42.83	2630	0.15	1170	2.09
2006-10-16 06:45:00:060	8.99	4.56	42.83	2640	0.16	1180	2.08
2006-10-16 06:55:00:060	8.99	4.56	42.84	2650	0.16	1190	2.08
2006-10-16 07:05:00:060	8.99	4.56	42.84	2660	0.16	1200	2.08
2006-10-16 07:15:00:060	8.99	4.55	42.84	2670	0.17	1210	2.07
2006-10-16 07:25:00:060	8.99	4.55	42.85	2680	0.17	1220	2.07
2006-10-16 07:35:00:060	8.99	4.55	42.85	2690	0.17	1230	2.07
2006-10-16 07:45:00:060	8.99	4.56	42.84	2700	0.16	1240	2.08
2006-10-16 07:55:00:060	8.99	4.55	42.85	2710	0.18	1250	2.07
2006-10-16 08:05:00:060	8.99	4.55	42.85	2720	0.17	1260	2.07
2006-10-16 08:15:00:060	8.99	4.55	42.85	2730	0.18	1270	2.06
2006-10-16 08:25:00:060	8.99	4.55	42.84	2740	0.17	1280	2.07
2006-10-16 08:35:00:060	8.99	4.56	42.83	2750	0.16	1290	2.08
2006-10-16 08:45:00:060	8.99	4.56	42.84	2760	0.16	1300	2.08
2006-10-16 08:55:00:060	8.99	4.55	42.84	2770	0.17	1310	2.07
2006-10-16 09:05:00:060	8.99	4.56	42.84	2780	0.16	1320	2.08
2006-10-16 09:15:00:060	8.99	4.55	42.85	2790	0.18	1330	2.07
2006-10-16 09:25:00:060	8.99	4.56	42.83	2800	0.16	1340	2.08
2006-10-16 09:35:00:060	8.99	4.55	42.88	2810	0.19	1350	2.06
2006-10-16 09:45:00:060	8.99	4.55	42.85	2820	0.18	1360	2.07
2006-10-16 09:55:00:060	8.99	4.56	42.84	2830	0.17	1370	2.08
2006-10-16 10:05:00:060	8.99	4.55	42.85	2840	0.18	1380	2.07
2006-10-16 10:15:00:060	8.99	4.55	42.85	2850	0.17	1390	2.07
2006-10-16 10:25:00:060	8.99	4.55	42.85	2860	0.18	1400	2.07
2006-10-16 10:35:00:060	8.99	4.55	42.85	2870	0.17	1410	2.07
2006-10-16 10:45:00:060	8.99	4.55	42.85	2880	0.18	1420	2.06
2006-10-16 10:55:00:060	8.99	4.55	42.85	2890	0.18	1430	2.07
2006-10-16 11:05:00:060	8.99	4.56	42.84	2900	0.17	1440	2.08
2006-10-16 11:15:00:060	8.99	4.55	42.85	2910	0.18	1450	2.07
2006-10-16 11:25:00:060	8.99	4.55	42.84	2920	0.17	1460	2.07
2006-10-16 11:35:00:060	8.99	4.55	42.85	2930	0.18	1470	2.07
2006-10-16 11:45:00:060	8.99	4.55	42.85	2940	0.18	1480	2.07
2006-10-16 11:55:00:060	8.99	4.55	42.85	2950	0.18	1490	2.07
2006-10-16 12:05:00:060	8.99	4.55	42.86	2960	0.19	1500	2.06
2006-10-16 12:15:00:060	8.99	4.55	42.86	2970	0.19	1510	2.06
2006-10-16 12:25:00:060	8.99	4.54	42.87	2980	0.20	1520	2.05
2006-10-16 12:35:00:060	8.99	4.55	42.86	2990	0.18	1530	2.06
2006-10-16 12:45:00:060	8.99	4.55	42.87	3000	0.19	1540	2.05

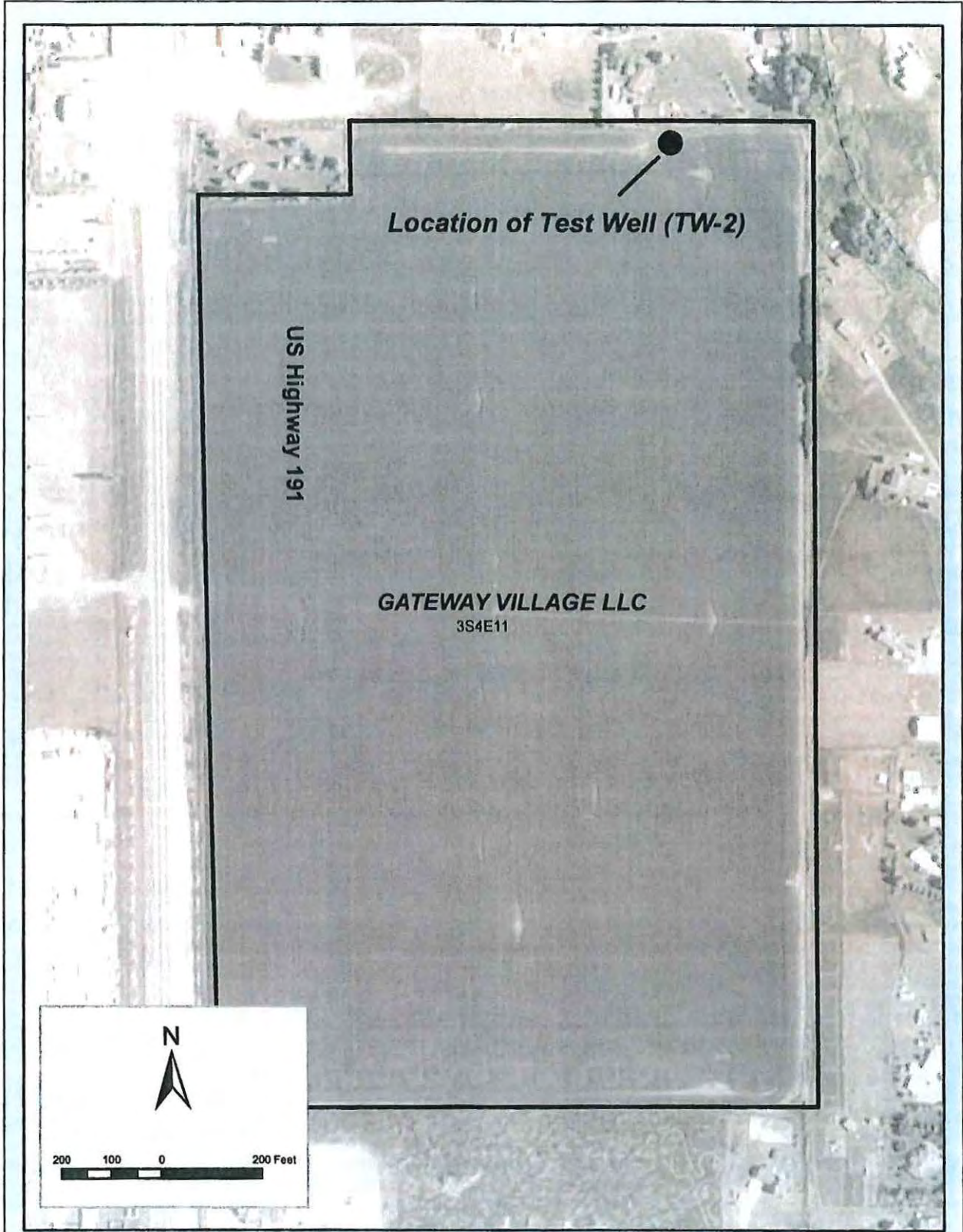
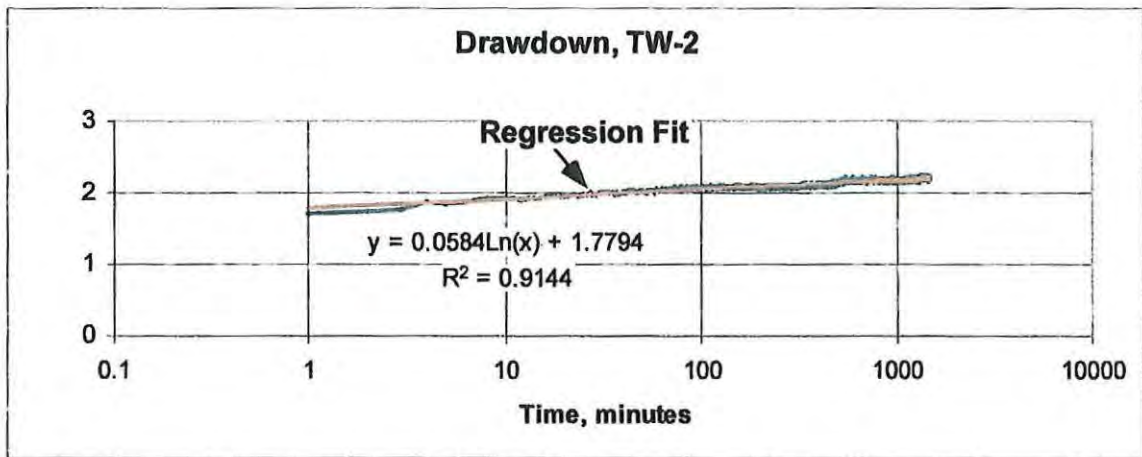
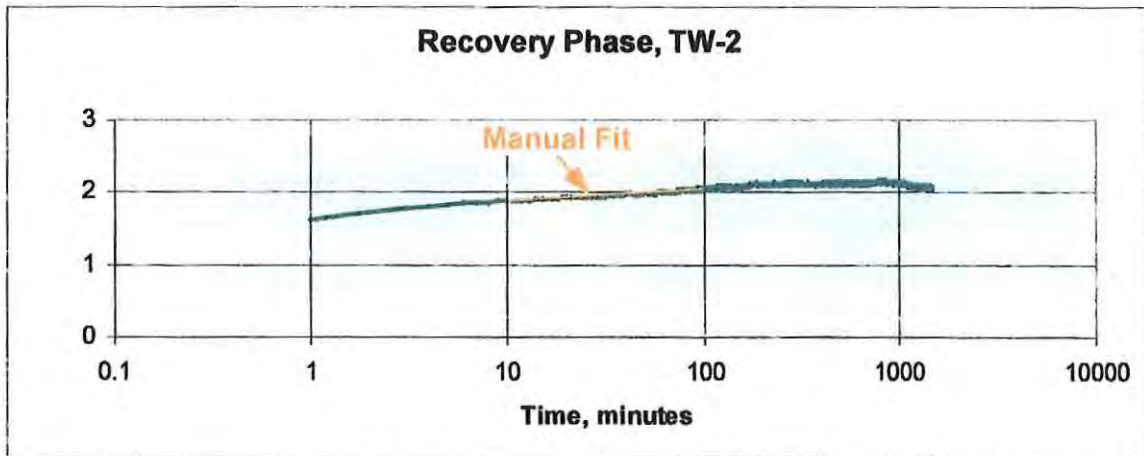


Figure 1 - Location of Test Well (TW-2)



Average discharge, gpm	42.9
Drawdown one log cycle - pumping	0.134 ft
Projected transmissivity	84,223 gpd/ft 11,260 ft ² /d
Hydraulic conductivity	751 ft/d



Drawdown one log cycle - recovery	0.166 ft
Projected transmissivity - recovery	68,227 gpd/ft 9,121 ft ² /d
Hydraulic conductivity	608 ft/d

Computations based upon Cooper and Jacob Method.

Date: November 26, 2012
 c:\gv\Figure 2
 Issued for Gateway Village



NICKLIN
 EARTH & WATER, INC.

Pumping Test Results
 Gateway Village Test Well #2

Figure 2

Attachment 1

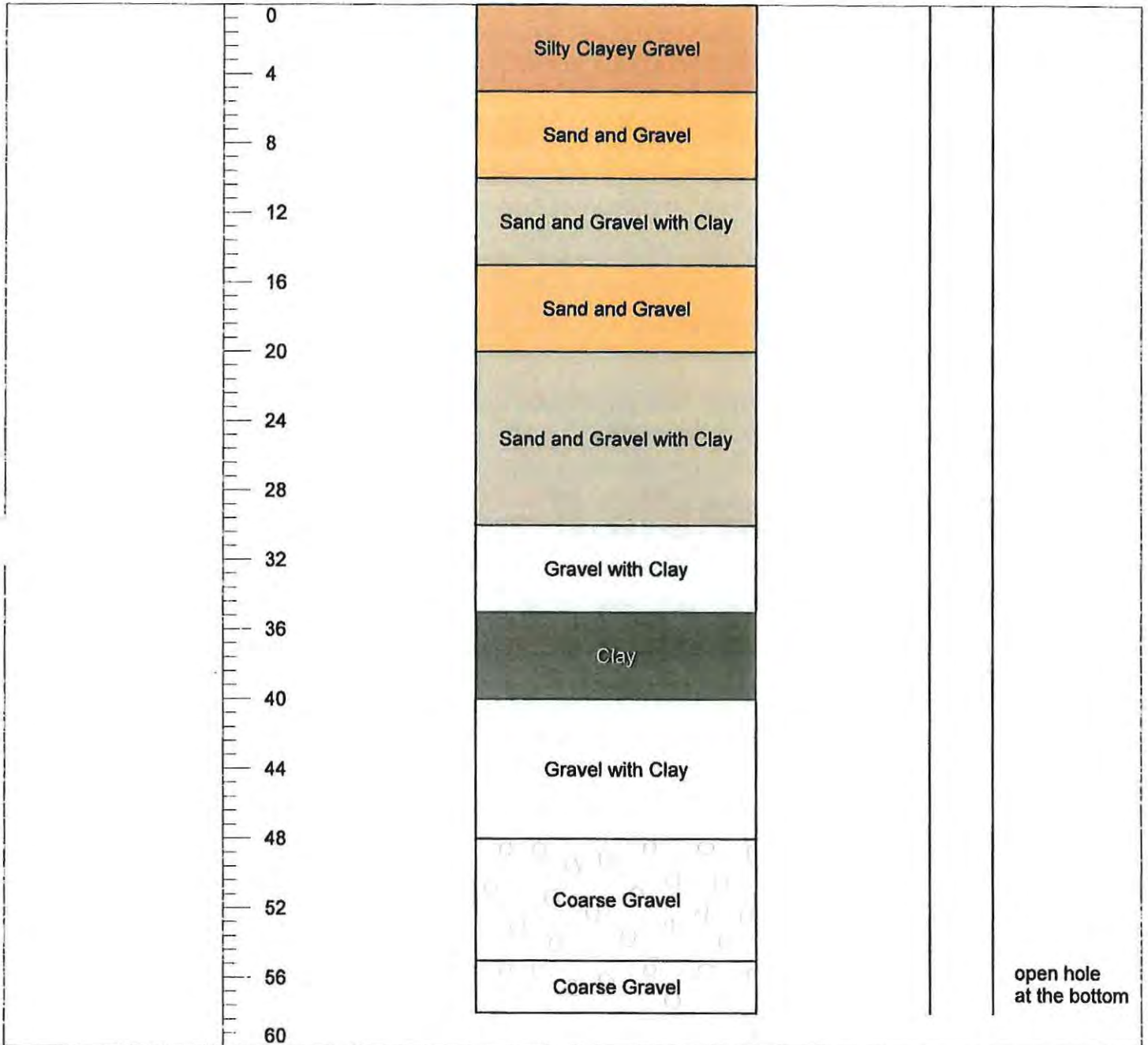
Well Log
Developed by Nicklin Earth & Water

Test Well #2

Well Completion Date: 09/27/2006
Elevation, Land Surface: 4976.54 feet
Depth to Water (from TOC): 39.54 feet
Casing Stickup from Ground Surface: 2.18 feet
Depth to well water level from land surface: 37.36 feet
Casing: 6" steel

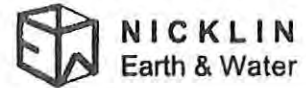
State Place Coordinates NAD83 (approximate)

Northing: 493,280 feet
Easting: 1,535,250 feet



**Appendix F – Pump Test
Results for TW-3**

Technical Memorandum



Aquifer Parameters Gateway Village Gallatin Gateway Gallatin County, Montana

Introduction

On behalf of Gateway Village, L.L.C., Nicklin Earth & Water (NE&W) conducted aquifer tests to evaluate water supply and treated wastewater discharge capacities.

This TM focuses on the evaluation of the pumping test data collected during the TW-3 pumping test. It also provides an assessment of the pumping test data collected at TW-1, which is the Tertiary supply well.

Objectives

- Evaluate pumping test data
- Develop representative aquifer parameters

Background

Gateway Village is a proposed development located just south of Gallatin Gateway in Gallatin County.

Four test wells were constructed on the property (See report Figure 2).

Pumping Test Data

A 24-hour constant rate pumping test was performed by at TW-3 in October 2006.

Well TW-3 was pumped at rate of 162 gpm.

Figure A-1 shows the plot of drawdown versus elapsed time for the pumping well.

The maximum drawdown observed was 28.32 feet. The well recovered in a very short time period.

Water level data were collected from two adjacent wells (Buffalo Station (BS) and TW-4). BS and TW-4 are located 266 and 662 feet respectively from TW-4.

Figure A-2 provides a plot of the drawdown versus elapsed time for the BS and TW-4 wells respectively. Review of Figure A-2 shows that TW-4 did not respond to pumping at TW-3. The maximum drawdown at Well BS was 0.51 feet.

Aquifer Parameters

The pumping test data were evaluated using the AQTESOLV® (by Hydrosolve, Inc.) aquifer test analysis software. AQTESOLV features a suite of analytical solutions, curve matching tools and report graphics. Well, aquifer and pumping information are entered and the drawdown over time data collected by the data loggers during the pumping tests are imported into the program. The program allows the user to analyze data by selecting from a range of analytical solutions, curve matching tools and report graphics. The user evaluates the data and selects a solution method for confined, leaky, unconfined and fractured aquifers. Aquifer properties are estimated using either visual (e.g., manual) or automatic curve matching.

Two analytical solutions were utilized for the TW-3 pumping test:

- 1) Unconfined Theis
NE&W generally prefers this method as it includes recovery data. Recovery data are not impacted by influences from the actual pumping including pumping inefficiencies and variations.

- 2) Unconfined Cooper Jacobs

Aquifer Parameters

AQTESOLV automatic curve fitting reports for the pumping tests at both wells are provided in Attachment A-A. The resultant aquifer properties are summarized on Table A-1. As shown on Table A-1, the representative transmissivity from the simulations is

about 2800 ft²/day. The evaluation did not result in a representative storage coefficient as a closer observation well is required to obtain reliable data. NE&W typically uses a storage coefficient of about 0.2 for long term pumping scenarios for alluvial aquifer systems such as the alluvium observed at Gateway Village.

Evaluation of the fits (Refer to Attachment A-A) between the pump test data and the solution curves for the three methods indicates only a fair fit of the pumping test data.

Yield

Aquifer testing showed the long term yield of TW-3 to be at least 162 gpm.

Long-Term Aquifer Response

The AQTESOLV forward solution module was used to estimate the potential long-term drawdown for pumping in the vicinity of TW-3. The simulation assumes a continuous aquifer demand of 104 gpm. The simulation report, presented in Attachment A-B, shows a maximum aquifer drawdown of about 0.4 feet at a distance of 0.5 miles from pumping well. Therefore any impact to adjacent wells is minimal. Please note that the evaluation of long-term impacts is conservative as it does not include precipitation recharge or inputs to the ground water via the discharge of treated wastewater. If those effects are considered, projected drawdown will be less.

Other Test Wells

Pumping tests were also performed at Test wells TW-1 (the Tertiary well) and at TW-2 (non-degradation test well). The Tertiary well produced an estimated transmissivity of 67 ft²/d. The maximum long-term production rate for this well is estimated at about 60 gpm. The non-degradation test well, TW-2, was analyzed using graphical procedures and the transmissivity was estimated to be approximately 10,000 ft²/d. Hence, based upon this test, the aquifer is highly transmissive at TW-2.

Limitations

Application of the AQTESOLV software to evaluate pumping test data has limitations that impact the reliability of results obtained. Key limitations include:

- 1) Complex site geology and hydrology
- 2) Practical limitations on quantity of data collected
- 3) Simplifying assumptions for solutions
- 4) Numerical regression limitations

Figure A-1
TW-3 Pumping Test Data

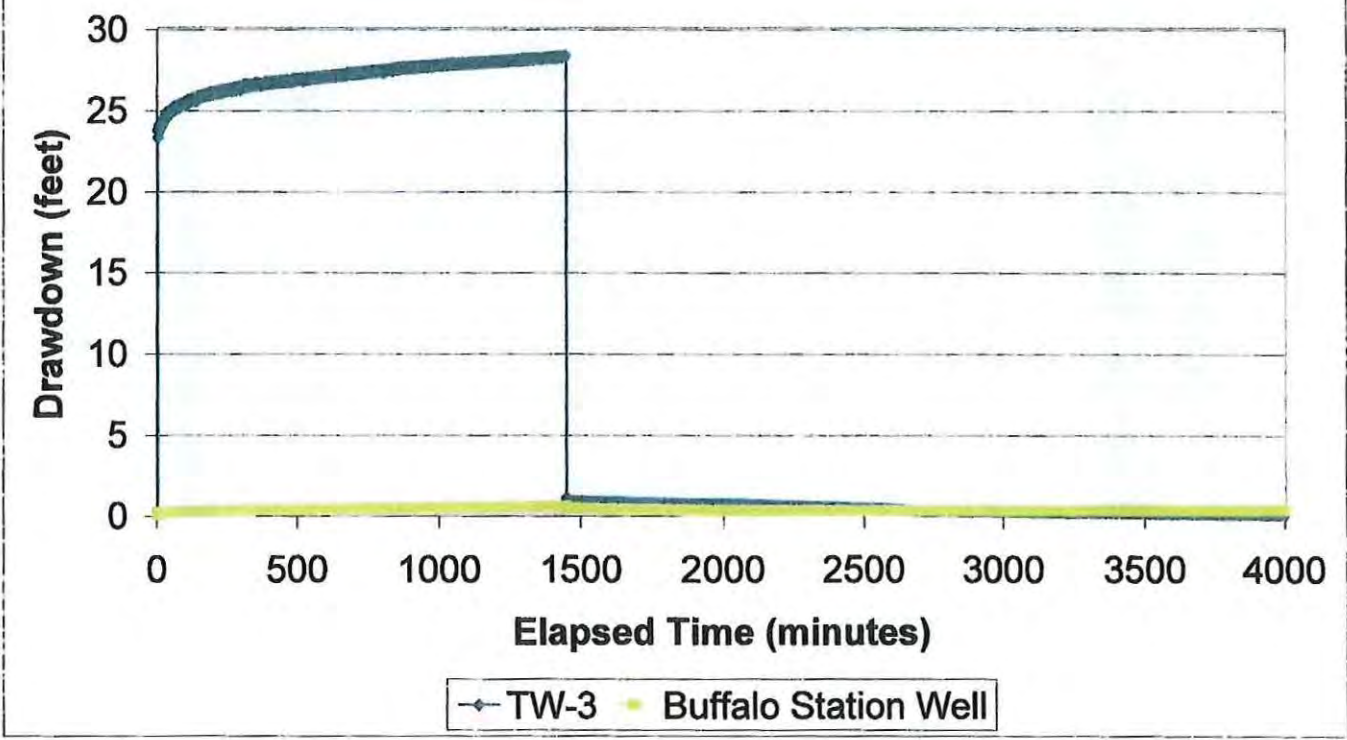
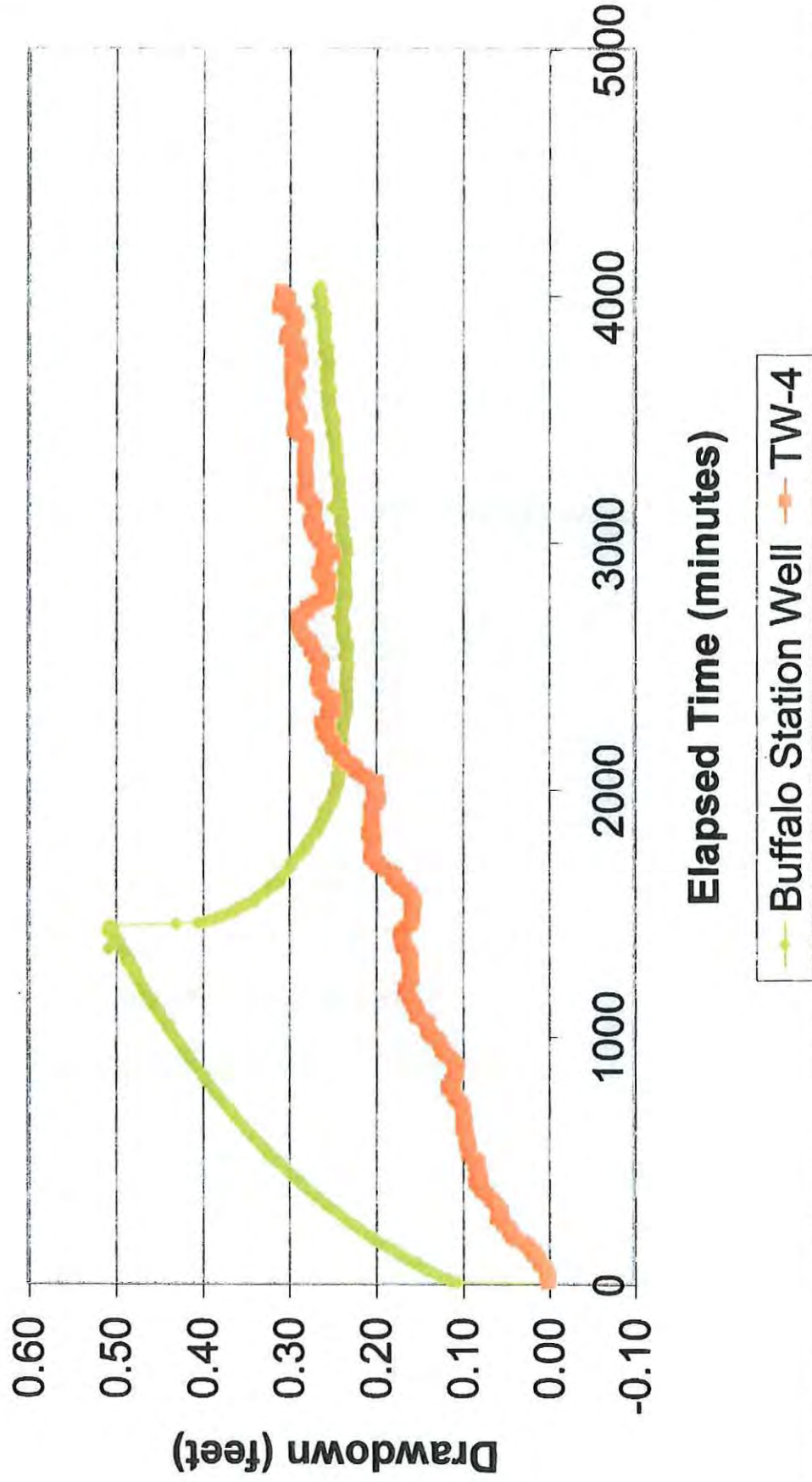
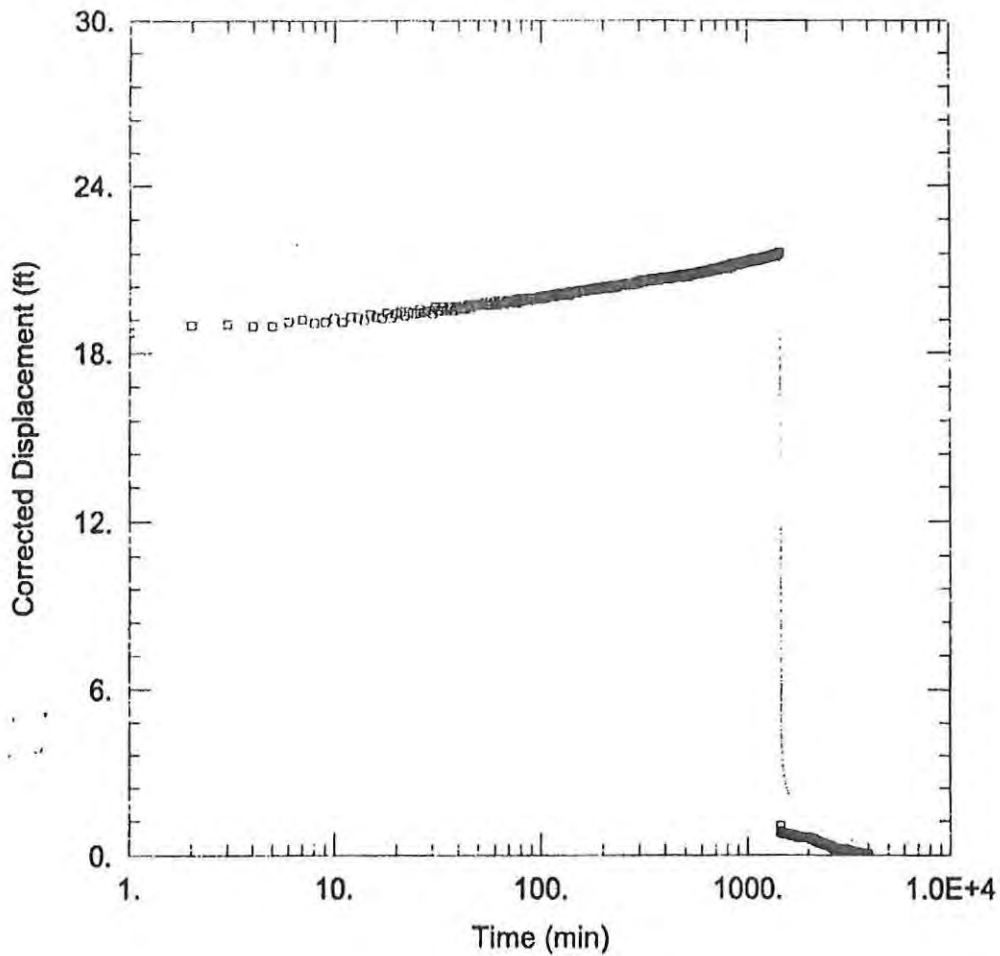


Figure A-2
Adjacent Well Data



Attachment A-A
AQTESOLV Graphical Reports

2.2



WELL TEST ANALYSIS

Data Set: I:\Gateway Village\tw3 pumping test\last files\tw 3 pw.aqt

Date: 10/30/06

Time: 13:49:20

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
PW 1	100	100	OW 1	100	100

SOLUTION

Aquifer Model: Unconfined

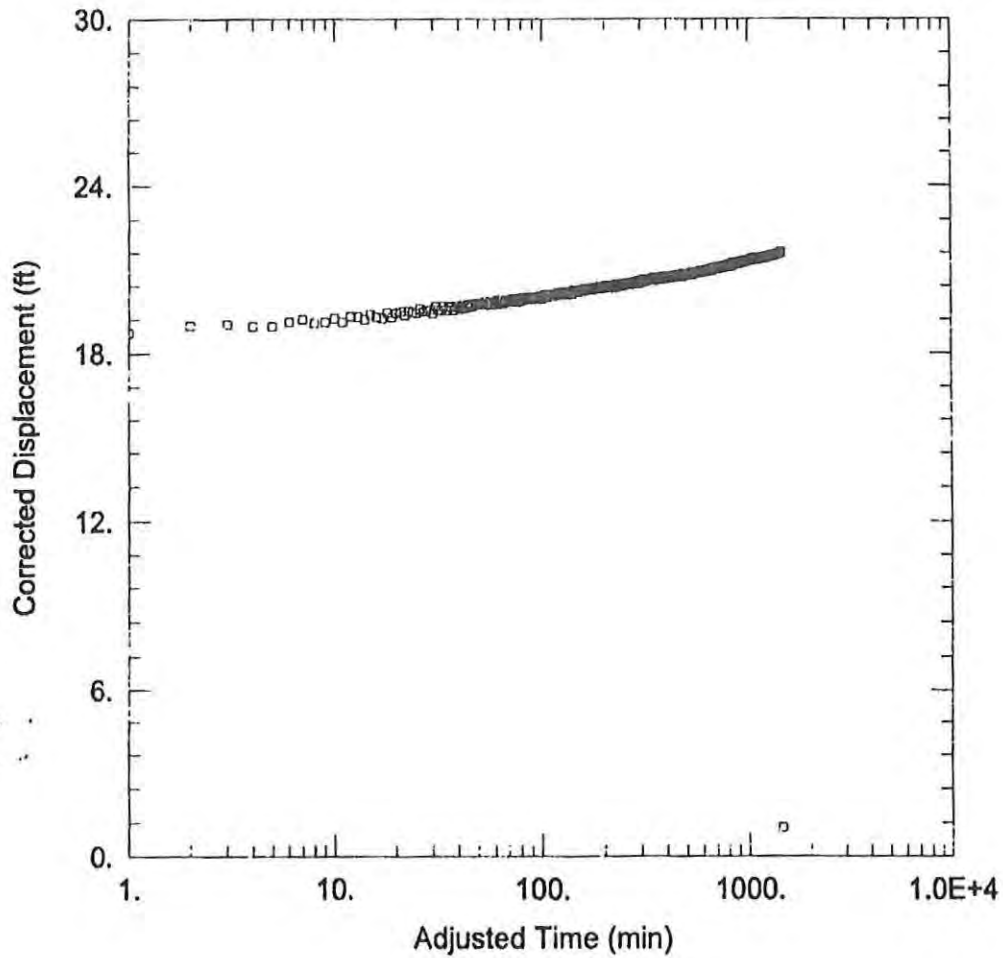
Solution Method: Theis

T = 2848.3 ft²/day

S = 3.988E-7

Kz/Kr = 0.1

b = 60. ft



WELL TEST ANALYSIS

Data Set: I:\Gateway Village\tw3 pumping test\ast files\tw 3 pw.aqt

Date: 10/30/06

Time: 13:50:28

AQUIFER DATA

Saturated Thickness: 60. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
PW 1	100	100	OW 1	100	100

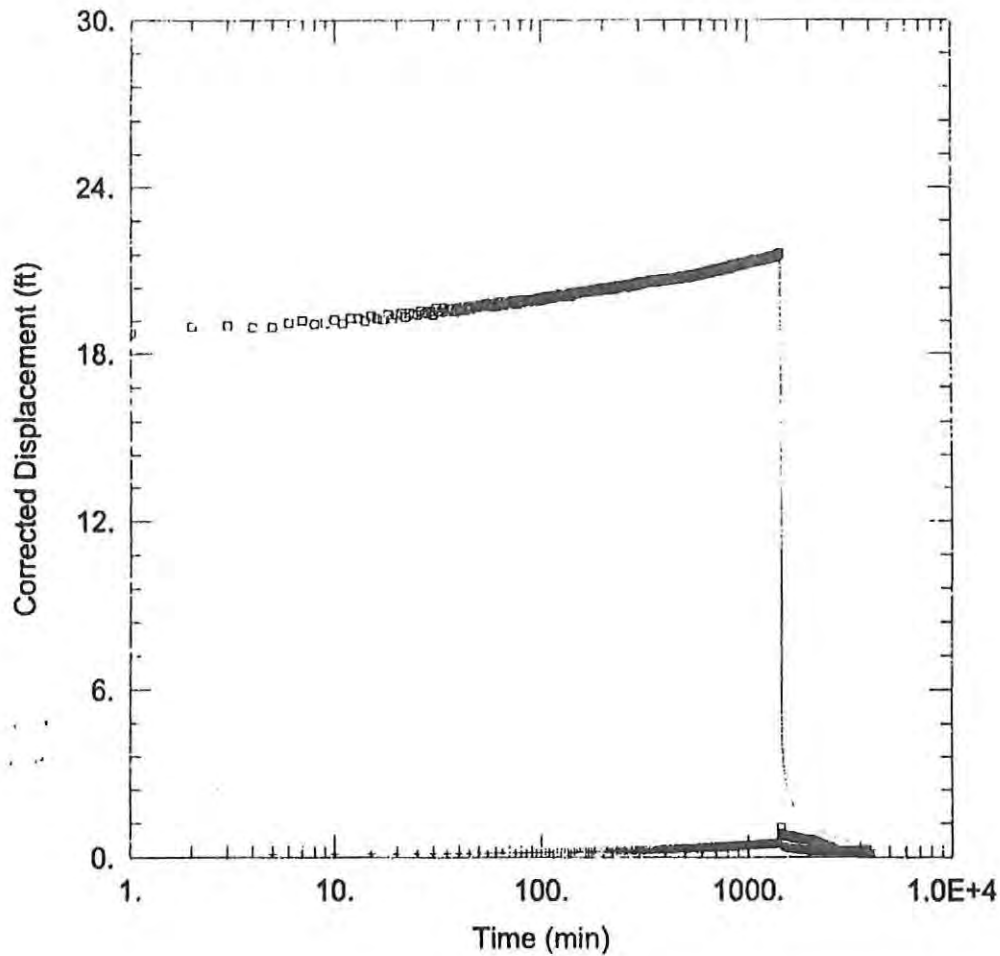
SOLUTION

Aquifer Model: Unconfined

Solution Method: Cooper-Jacob

T = 3048.1 ft²/day

S = 5.363E-8



WELL TEST ANALYSIS

Data Set: I:\Gateway Village\tw3 pumping test\last files\tw 3 pw ow.aqt

Date: 10/30/06

Time: 13:45:13

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
PW 1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ OW 1	0	0
+ OW 2	264	0

SOLUTION

Aquifer Model: Unconfined

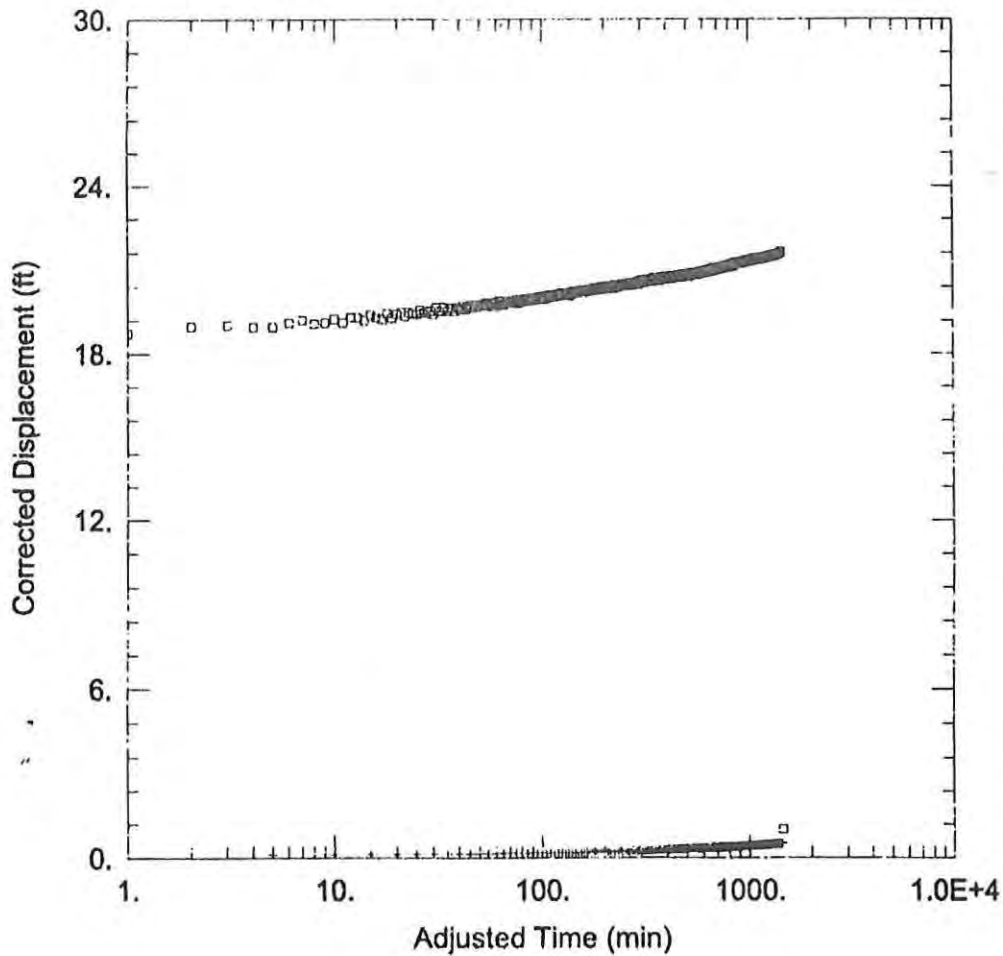
Solution Method: Theis

T = 2800. ft²/day

S = 3.988E-7

Kz/Kr = 0.1

b = 60. ft



WELL TEST ANALYSIS

Data Set: I:\Gateway Village\tw3 pumping test\last files\tw 3 pw ow.agt
 Date: 10/30/06 Time: 13:45:39

AQUIFER DATA

Saturated Thickness: 60. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells			Observation Wells		
Well Name	X (ft)	Y (ft)	Well Name	X (ft)	Y (ft)
PW 1	0	0	o OW 1	0	0
			+ OW 2	264	0

SOLUTION

Aquifer Model: Unconfined

Solution Method: Cooper-Jacob

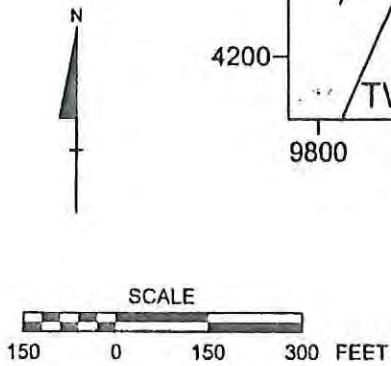
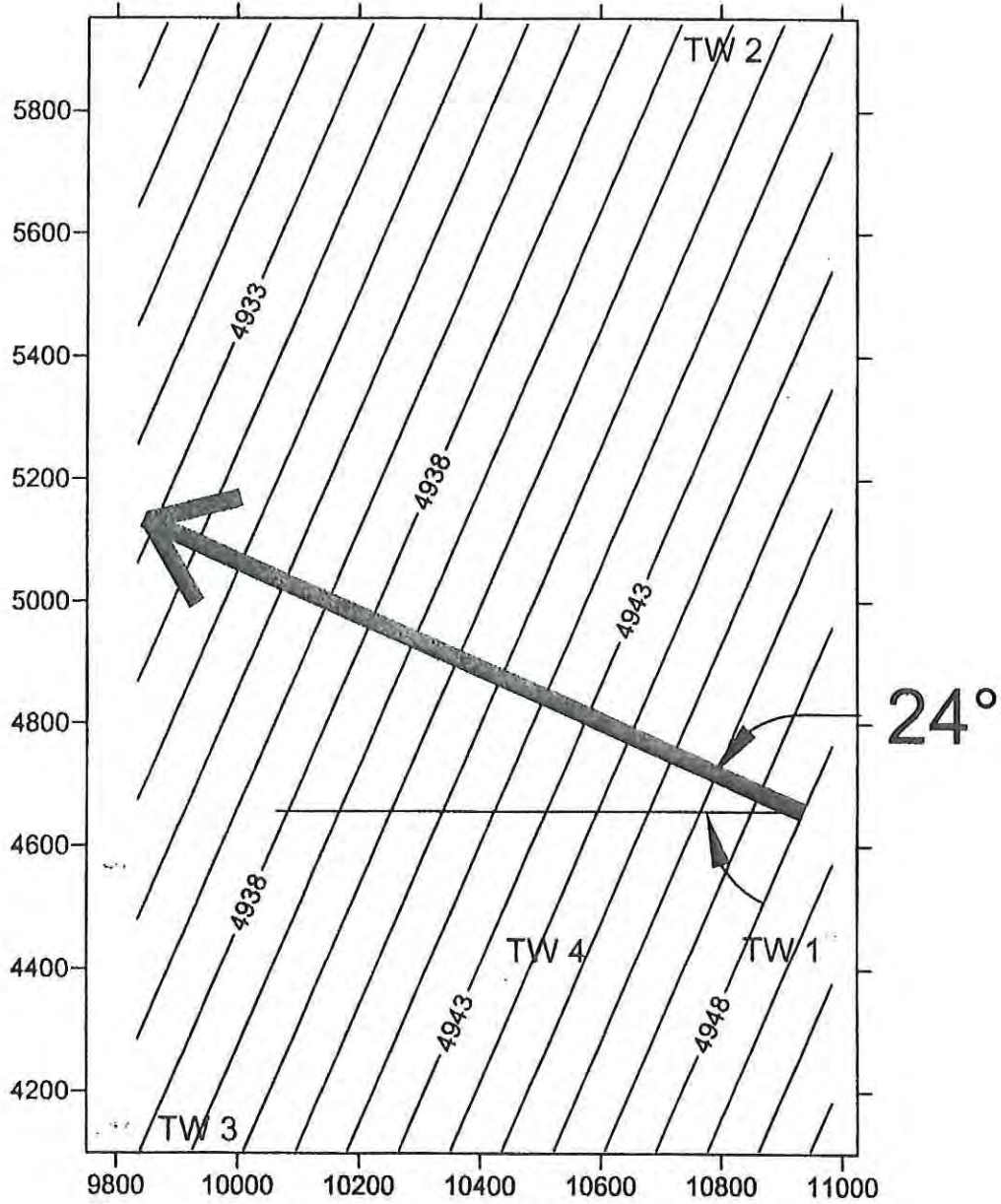
T = 2840. ft²/day

S = 3.988E-7

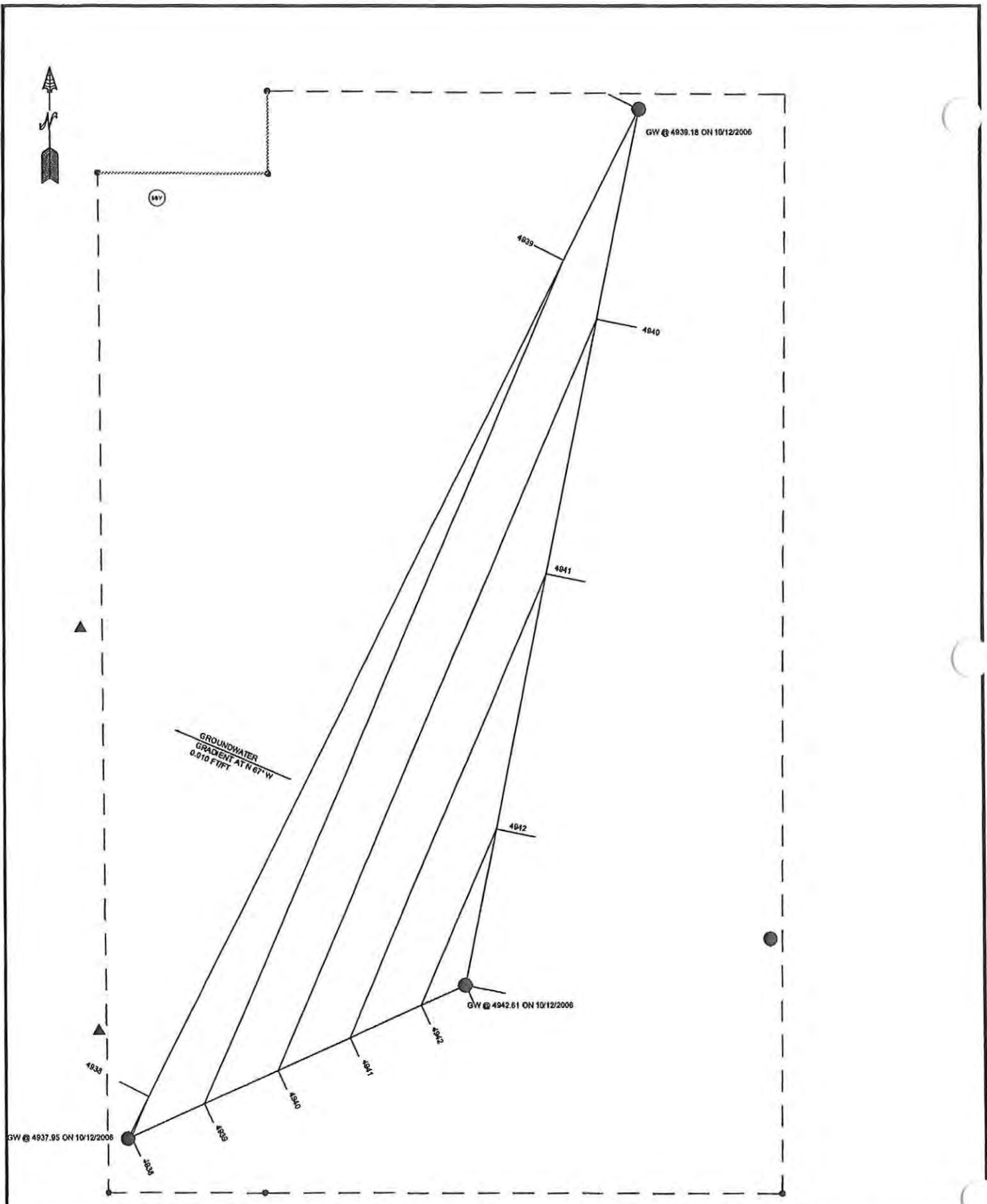
..
..

Appendix G – Groundwater Gradient

~ 24 degrees north of west
Gradient - 0.013 ft/ft



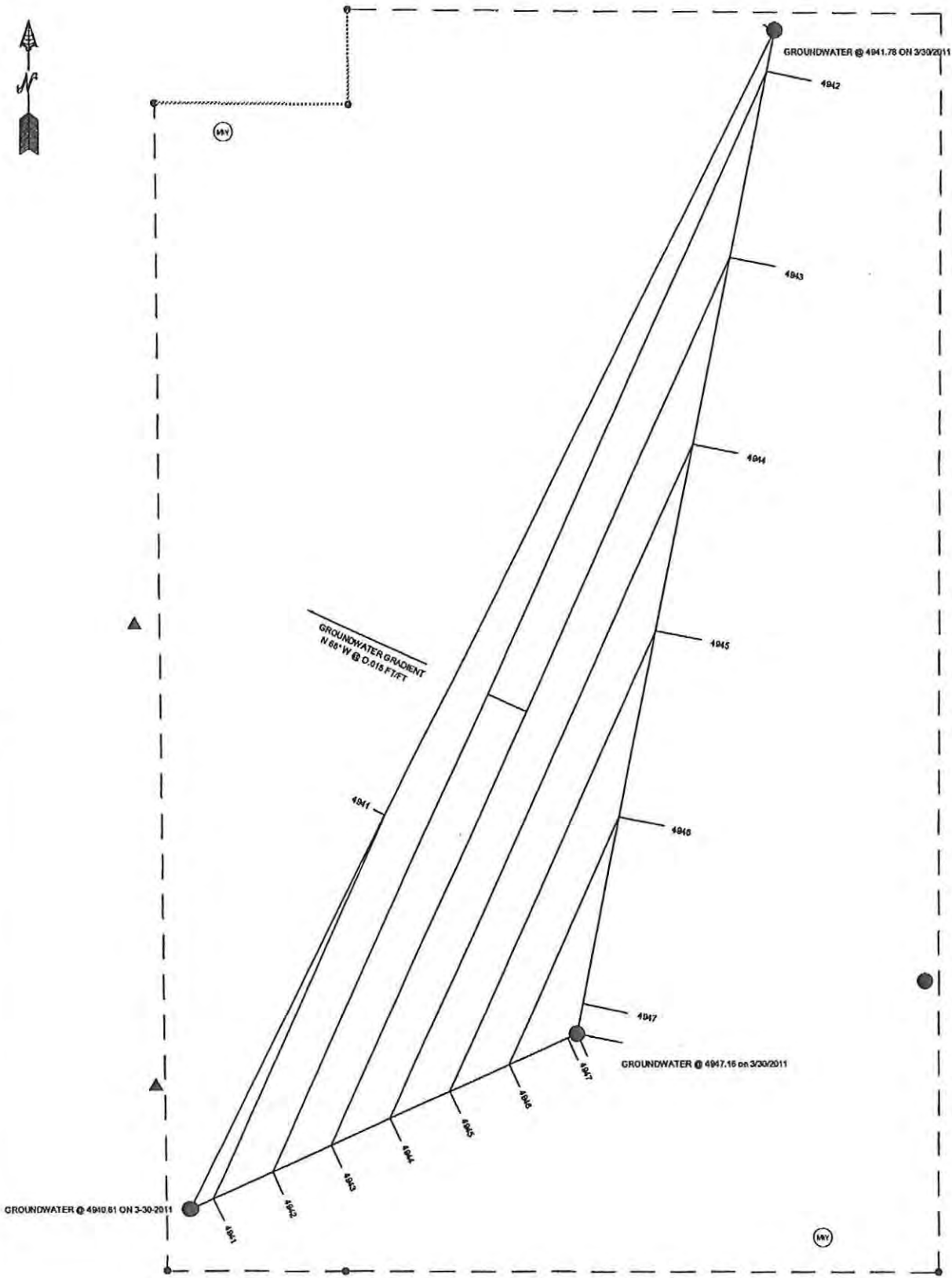
Notes:
Ground-water elevation data collected
on October 12, 2006.
Gradient and flow direction based on data
from TW 1, TW 2 and TW 3.



GALLATIN GATEWAY WSD
 GALLATIN GATEWAY, MT

**INNOVATIVE
 ENGINEERING**
 12140 GOOCH HILL ROAD
 GALLATIN GATEWAY, MT
 406-763-4185

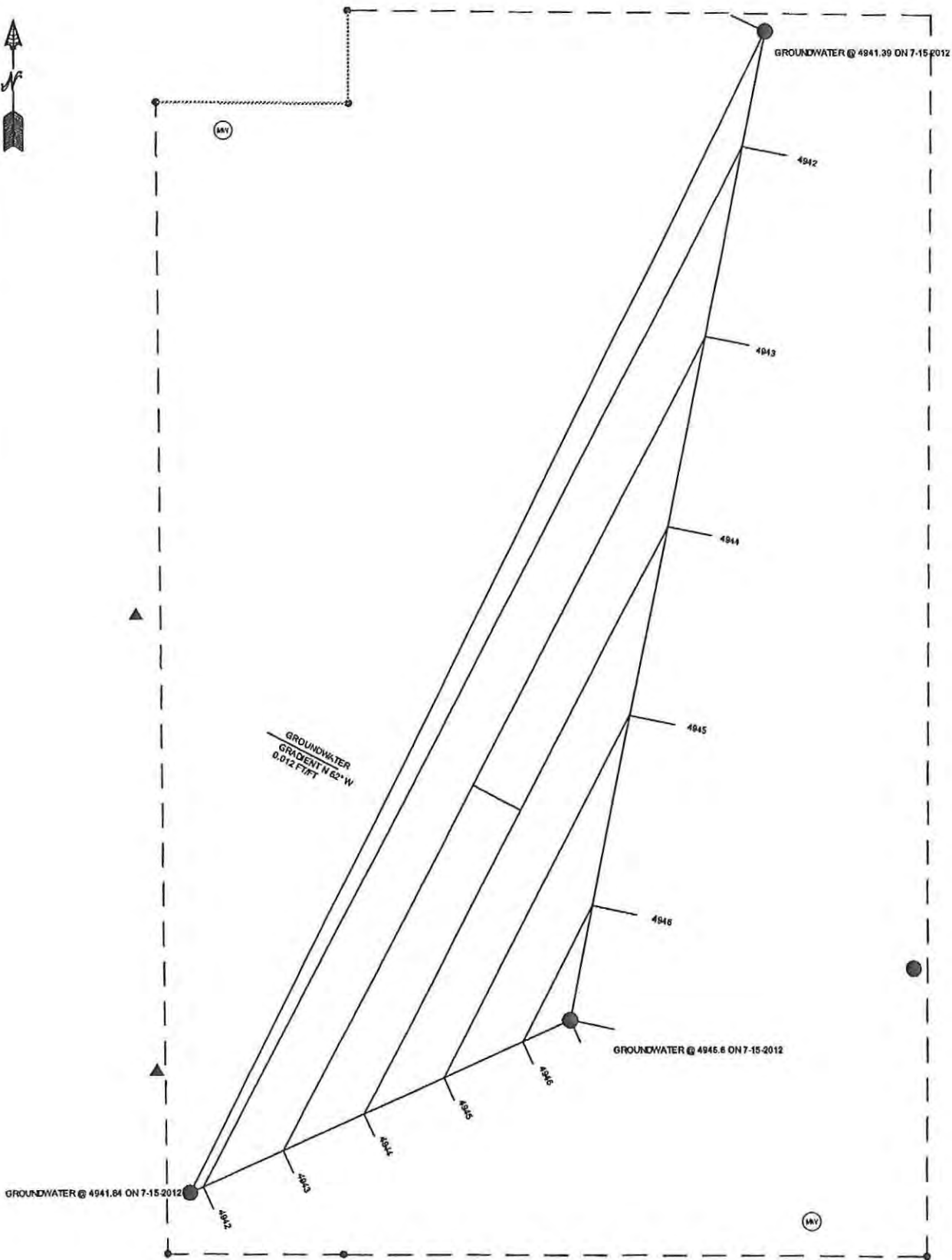
GROUNDWATER GRADIENT
OCTOBER 12, 2006



GALLATIN GATEWAY WSD
GALLATIN GATEWAY, MT

**INNOVATIVE
ENGINEERING**
12140 GOOCH HILL ROAD
GALLATIN GATEWAY, MT
406-763-4185

GROUNDWATER GRADIENT
MARCH 30, 2011



GALLATIN GATEWAY WSD
GALLATIN GATEWAY, MT

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GALLATIN GATEWAY, MT
406-763-4185

GROUNDWATER GRADIENT
JULY 15, 2012

**Appendix H – Level II
Performance History at Similar
Facilities**

AdvanTex® Performance Summary #1

General Reduction: CBOD₅, TSS, FC

AdvanTex® Treatment Systems — Manufactured by Orenco Systems®, Inc.

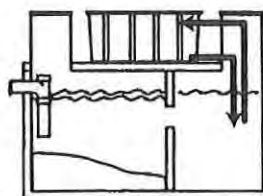
Since 2001, the performance of AdvanTex® Treatment Systems has been tested in a dozen different programs. Tests have been performed both in test centers and in the field. These include testing performed by outside companies or agencies (third-party); contract testing performed by Orenco distributors (second-party); and Orenco's own testing (first-party).

This performance summary documents the performance of AdvanTex Treatment Systems relative to reduction of BOD₅, TSS, and Fecal Coliform. The results show that AdvanTex systems easily meet advanced treatment standards for these parameters.

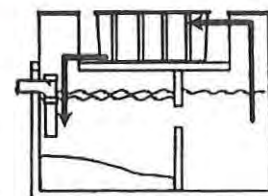
About System Configurations

As shown in the illustrations on the right, AdvanTex systems can be configured in different ways, depending on the degree of total nitrogen required. In Mode 1 (top left illus), filtrate from the AdvanTex pod is recirculated to the secondary chamber of the septic tank. In Mode 3 (top right illus), filtrate is recirculated to the primary chamber, where the environment favors further nitrogen reduction. See *AdvanTex Performance Summary — Nutrient Reduction* for TN, NH₃, and TP results (AHO-ATX-PERF-TN-1).

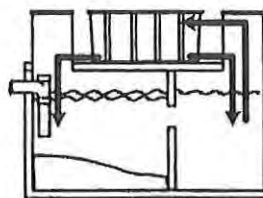
In the Combo Mode (center illus), filtrate from the AdvanTex pod is recirculated to both chambers. There is also a Mode 1 configuration (bottom illus) that uses a primary tank and a recirculation tank. In the primary tank, sludge and scum are separated from liquid effluent, which then flows into a separate recirculation tank, into which the AdvanTex filtrate is recirculated.



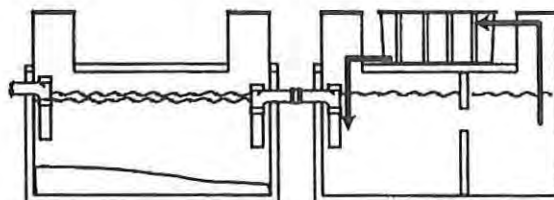
Mode 1



Mode 3



Combo Mode



Mode 1 with primary tank and recirculation tank

About the Results

The table below summarizes effluent testing results for CBOD₅, TSS, Turbidity, and Fecal Coliform, both from test center programs and field testing programs. The pages that follow provide more specific results of these testing programs. For ease of comparison, we have also included information about the circumstances of each test. If you have any questions regarding this summary, please contact Sam Carter, Government Relations Manager, Orenco Systems, Inc., (800) 536-4192, scarter@orencocom.

TEST CENTERS

AdvanTex Effluent Averages	CBOD ₅ (mg/L)	TSS (mg/L)	FC* (mpn/100ml)	FC / UV ^b (mpn/100ml)	Duration
NSF/ANSI Standard 40 Testing	5	4	-	-	6 months
NSF/ANSI Standard 40 Testing with UV Disinfection	4	6	1.35x10 ⁴	1.7	7 months
Rotorua District Council Approval Testing	2	3	1.2x10 ⁴	-	9 months
New Zealand OSET Testing Programme	3	4	-	-	10 months

FIELD TESTING

AdvanTex Effluent Averages (# of SFRs) ^c	CBOD ₅ (mg/L)	TSS (mg/L)	FC* (units vary)	FC / UV ^b	Duration
Roger Shafer, P.E., "Testing in Fractured Bedrock" (1)	5	6	4.5x10 ³	-	8 months
Virginia Approval Testing Program (18)	7	9	7.8x10 ²	-	18 months
Pennsylvania Testing Program (11)	6	10	9.5x10 ²	-	1-3 years
Skaneateles Demonstration Project (2)	4	3	3.5x10 ²	-	2 years
La Pine National Demonstration Project (3)	9	6	9.9x10 ³	-	2 years, 7 months
Green Hill Pond Watershed Demonstration Project (5)	8	5	1.9x10 ³	-	1 year, 4 months
North Carolina Approval Testing Program - (>50) ^d	7	6	-	-	4 years
Maryland Best Available Technology Field Testing Program (12) ^e	5	4	-	-	1 year

* FC sample taken following AdvanTex treatment. Fecal Coliform figured as a geometric mean

^b FC/UV = FC samples taken following ultraviolet disinfection unit

^c SFR = Single-family residences

^d Includes single-family residences and vacation rentals

^e Unit tested was an AdvanTex® AX20-RT Treatment System

TEST CENTERS

NSF/ANSI Standard 40 Testing

(Third-Party)

About the Testing: Orenco contracted with Novatec to test an AX20 Mode 1 system in support of its application for NSF approval. Novatec conducts official NSF/ANSI Standard 40 testing under contract to manufacturers at its facility in Squamish, British Columbia. Testing is done at a wastewater facility that serves a residential subdivision. Composite sampling was used throughout this evaluation.

Dates: May 2001-November 2001

Location: British Columbia

Average Daily Flow: 500 gpd

System Configuration: AX20 Mode 1 recirculating into the second compartment of a 1500-gallon tank

Processing Tank Influent

	BOD ₅ (mg/L)	TSS (mg/L)
Mean	162	291
Median	130	200
Number of Samples	102	108

AdvanTex Effluent

	CBOD ₅ (mg/L)	TSS (mg/L)	Turbidity (NTU)
Mean	5	4	4
Median	3	3	4
Number of Samples	109	109	117*
Percent Reduction	97%	99%	-

* Samples taken during stress periods

NSF/ANSI Standard 40 Testing with UV Disinfection

(Third-Party)

About the Testing: Orenco contracted with Novatec to test an AX20N Mode 1 system with UV disinfection to determine its capabilities for reducing fecal coliform. Novatec conducts official NSF/ANSI Standard 40 testing under contract to manufacturers at its facility in Squamish, British Columbia. Although the NSF/ANSI Standard 40 protocol does not require it, Orenco elected to sample for total nitrogen. Testing is done at a wastewater facility that serves a residential subdivision.

Dates: July 2006-December 2006

Location: British Columbia

Average Daily Flow: 500 gpd

System Configuration: AX20 Mode 1 recirculating into the second compartment of a 1500-gallon tank with UV disinfection

Processing Tank Influent

	BOD ₅ (mg/L)	TSS (mg/L)	FC (cfu/100 mL)
Mean	180	210	3.37x10 ⁶ *
Median	170	190	-
Number of Samples	136	136	80

* Calculated as a geometric mean

AdvanTex Effluent

	CBOD ₅ [*]	TSS [*]	FC ^{**}	FC/UV ^{***}	Turbidity ^{****}
Mean	4	6	1.35x10 ⁴	1.7	1.2
Median	3	4	-	-	0.9
Number of Samples	25	25	72	78	77
Percent Reduction	98%	97%	-	-	-

Rotorua District Council Approval Testing

(Third-Party)

About the Testing: Testing of residential wastewater treatment systems was initiated by the Rotorua District Council and Environment Bay of Plenty, the Regional Council. The purpose of the project was to compare systems so that manufacturers that meet their specifications can be preapproved. The one-year trial was focused particularly on nitrogen reduction, and includes "stress testing" and vacation simulation as well as monitoring of each system's power usage.

Dates: June 2005-August 2006

Location: New Zealand

Average Daily Flow: 265 gpd

System Configuration: Mode 3 recirculating into the primary compartment of a 1500-gallon processing tank.

Processing Tank Influent

	CBOD ₅ (mg/L)	TSS (mg/L)	FC (col/100 mL)
Mean	229	341	6.8x10 ⁶
Median	233	318	8.6x10 ⁶
Number of Samples	52	52	50

AdvanTex Effluent

	CBOD ₅ (mg/L)	TSS (mg/L)	FC (col/100 mL)
Mean	2	3	1.2x10 ⁴ **
Median	2	2	2.7x10 ⁴
Number of Samples	52	52	52
Percent Reduction	99%	99%	99.8%

* Calculated as a geometric mean

New Zealand On-Site Effluent Treatment National Testing Program

(Third-Party)

About the Testing: In 2009, New Zealand released a national standard and testing protocol for on-site effluent treatment. Tests of AdvanTex AX20 systems were carried out at the Rotorua Testing Facility, and measured CBOD₅, TSS, and Total Nitrogen reduction, as well as electrical power consumption.

Dates: November 2009-August 2010

Location: Rotorua Testing Facility, New Zealand

Average Daily Flow: 287 gpd

System Configuration: AX20 Mode 3.

Processing Tank Influent

	CBOD ₅ (mg/L)	TSS (mg/L)	Turbidity (NTU)
Mean	198	203	-
Median	192	208	-
Number of Samples	46	46	-

AdvanTex Effluent

	CBOD ₅ (mg/L)	TSS (mg/L)	Turbidity (NTU)
Mean	3	4	-
Median	2	3	-
Number of Samples	43	43	-
Percent Reduction	99%	98%	-

* mg/L

** FC sample taken following AdvanTex treatment. Fecal Coliform figured as a geometric mean

*** FC sample taken following UV unit. Fecal Coliform figured as a geometric mean

**** Turbidity (NTU)

FIELD TESTING

Roger Shafer, P.E., Testing in Fractured Bedrock*

(Second-Party)

About the Testing: This test involved one AdvanTex system at a single-family home.

Dates: Summer 2001, Winter 2002, Winter 2007/2008

Location: Colorado

Average Daily Flow: 209 gpd (April 2001 and August 2001)

System Configuration: This system consisted of two AX10s (which together have the same treatment capacity as an AX20), configured in Mode 3, recirculating to the primary compartment of a 1500-gallon processing tank.

Septic Tank Effluent**

	<i>BOD₅</i> (mg/L)	<i>TSS</i> (mg/L)	<i>FC</i> (col/100 mL)
Mean	154	96	>10,000
Number of Samples	5	5	5

AdvanTex Effluent

	<i>BOD₅</i> (mg/L)	<i>TSS</i> (mg/L)	<i>FC</i> (col/100 mL)
Mean	5	6	2.0x10 ³
Number of Samples	13	13	13
Percent Reduction	97%	94%	-

* Roger Shafer, "Use of a Recirculating Textile Filter followed by a Polishing Sand Filter for Onsite Wastewater Treatment in Colorado's Fractured Bedrock Environment," presented at the Colorado Professional Onsite Wastewater 2008 Education Conference.

**Five septic tank effluent samples were collected from the system between April and May 2001 using a 3/4-in. clear plastic tank sampler. Samples were collected from the outlet tee of the septic tank before installation of the AdvanTex system.

Virginia Approval Testing Program

(Third-Party)

About the Testing: Conducted by Mark Gross, P.E., Ph.D., of the University of Arkansas Department of Civil Engineering, this testing program involved AX20 systems installed at 18 single-family homes, which were sampled for 18 months.

Dates: October 2002-2006

Location: Virginia

Average Daily Flow: 90-308 gpd

System Configuration: AX20 Mode 1 (4 sites) recirculating into a recirculating tank located after a separate primary septic tank; AX20 Mode 3 (14 sites) recirculating into the primary compartment of a 1500-gallon processing tank.

Mode 3 Systems, AdvanTex Effluent

	<i>CBOD₅</i> *	<i>TSS</i> *	<i>Turbidity</i> (NTU)	<i>E. Coli</i> **
Mean	7	9	2	7.8x10 ^{2***}
Median	3	5	1	1.1x10 ³

* mg/L

** mpr/100ml

*** Calculated as a geometric mean

Pennsylvania Testing Program

(Third-Party)

About the Testing: This test was performed as required by the State of Pennsylvania under its Technology Verification Program. NSF International is the third party that was contracted with to oversee the testing. The test involved AX20 systems installed at 11 single-family homes.

Dates: September 2005-2008

Location: Pennsylvania

Average Daily Flow: 100-300 gpd

System Configuration: AX20 Combo Mode recirculating into the primary compartment and secondary compartment of a 1500-gallon processing tank.

Processing Tank Influent

	<i>CBOD₅</i> *	<i>TSS</i> *	<i>Turbidity</i> (NTU)	<i>FC</i> (col/100ml)
Mean	130	180	140	3.7x10 ⁴
Median	110	50	45	8.2x10 ⁴
No. of Samples	89	89	88	88

AdvanTex Effluent

	<i>CBOD₅</i> *	<i>TSS</i> *	<i>Turbidity</i> (NTU)	<i>FC</i> (col/100ml)
Mean	6	10	7	9.5x10 ²
Median	4	5	3	6.1x10 ²
Number of Samples	211	211	213	82
Percent Reduction	95%	94%	95%	97%

* mg/L

Skaneateles Demonstration Project

(Third-Party)

About the Testing: This testing was performed as part of the Skaneateles Demonstration Project. The purpose of this project was to evaluate the performance and management of innovative technologies on single-family residences. As part of the project, two AX20 systems were installed at a single-family residence and tested.

Dates: November 2004-November 2006

Location: New York

Average Daily Flow: 106 gpd

System Configuration: AX20 Mode 1 recirculating into the second compartment of a 1500-gallon processing tank.

Mode 1 Systems, AdvanTex Effluent

	<i>CBOD₅</i> *	<i>TSS</i> *	<i>Turbidity</i> (NTU)	<i>FC</i> (col/100ml)
Mean	4	3	1	3.5x10 ^{2**}
Median	2	2	1	9.2x10 ²
Number of Samples	18	18	18	18

* mg/L

** Calculated as a geometric mean

La Pine National Demonstration Project

(Third-Party and First-Party)

About the Testing: This project is a cooperative effort by the Deschutes County Environmental Health Division, the Oregon Department of Environmental Quality, and the U.S. Geological Survey. The purpose of the project is to evaluate innovative denitrification technologies in an area of the state where climate and soil conditions are unfavorable for denitrification and the risk of groundwater contamination is high. As part of the project, three AX20 systems were installed at single-family residences. In addition to the samples required for the project, some samples were collected by Orenco.

Dates: January 2002-July 2004

Location: Oregon

Average Daily Flow: 108-334 gpd

System Configuration: AX20 Mode 3 recirculating into the primary compartment of a 1500-gallon processing tank

Septic Tank Effluent*

	<i>BOD₅ (mg/L)</i>	<i>TSS (mg/L)</i>	<i>FC (col/100 mL)</i>
Mean	261	94	2.3 x 10 ^{5*}
Median	240	62	1.9 x 10 ⁵
Number of Samples	428	427	429

*Average of all other sites where septic tank effluent is being sampled

Mode 3 Systems, AdvanTex Effluent

	<i>BOD₅ (mg/L)</i>	<i>TSS (mg/L)</i>	<i>FC (mpn/100 mL)</i>
Mean	9	6*	9.9 x 10 ^{3**}
Median	5	3	8.8 x 10 ³
Number of Samples	92	94	67

* Calculated as a geometric mean

Green Hill Pond Watershed Demonstration Project

(Third-Party)

About the Testing: The University of Rhode Island Cooperative Extension On-Site Wastewater Training Center constructed and is testing several innovative septic systems, including five AdvanTex systems, in the Green Hill Pond Watershed. The Training Center is evaluating the systems' performance and using the installations to train installers, homeowners, designers, and regulators.

Dates: August 2003-December 2004

Location: Rhode Island

System Configuration: The project includes five AX20s at single-family homes, all configured as Mode 3, recirculating into the primary compartment of a 1500-gallon processing tank.

Mode 3 Systems, AdvanTex Effluent

	<i>CBOD₅ (mg/L)</i>	<i>TSS (mg/L)</i>	<i>FC (col/100 mL)</i>
Mean (all sites)	8	5	1.9x10 ^{3*}
Median	4	2	1.0x10 ³
Number of Samples	21	24	24

* Calculated as a geometric mean

North Carolina Approval Testing Program

(Second-Party)

About the Testing: This testing, conducted under state oversight, involves more than 50 AdvanTex systems at single-family homes and vacation rentals. The data include results from both AX20 and AX100 systems.

Dates: August 2003-present

Location: North Carolina

Average Daily Flow: 75-2200 gpd

System Configuration: AX20 Mode 1 and Mode 3 and AX100. Except for one system, all were configured as Mode 1 with recirculation into a recirculation tank located after a separate primary septic tank. A single system was configured as Mode 3 with a single processing tank.

AdvanTex Effluent

	<i>CBOD₅ (mg/L)</i>	<i>TSS (mg/L)</i>
Mean	7	6
Median	3	4
Number of Samples	200	198

Maryland Best Available Technology Field Verification

(Third-Party)

About the Testing: As part of Maryland's "Best Available Technology" program, field verification testing was performed on AdvanTex AX20-RT treatment systems to qualify them for the "Best Available Technology" designation. Twelve single-family residences were selected for AX20-RT installations and each system was sampled on a quarterly basis for one year.

Dates: August 2010-March 2012

Location: Maryland

Average Daily Flow: 100-400 gpd

System Configuration: AX20-RT Mode 3

Mode 3 AdvanTex Effluent

	<i>CBOD₅ (mg/L)</i>	<i>TSS (mg/L)</i>	<i>Turbidity (NTU)</i>
Mean	5	4	2
Median	4	2	2
Number of Samples	44	39	48

Outfall 001A, Firelight Meadows

	DMR Reporting Quarter	TSS (mg/L)	BOD (mg/L)	NO2+NO3 (ppm)	TKN (ppm)	TN (ppm)	TP (ppm)	Q (gpd)	N load (lbs/d)	P load (lbs/d)
Aug-09	3rd 2009	10	<6	19.30	4.00	23.30	5.10	4974	0.97	0.21
Nov-09	4th 2009	nd	6	16.50	2.30	18.80	5.30	4324	0.68	0.19
Mar-10	1st 2010	nd	9	3.71	11.70	15.40	5.60	8257	1.06	0.39
5/10/2010	2nd 2010	23	10	7.53	6.6	14.1	4.9	5084	0.6	0.21
9/10/2010	3rd 2010	5	nd	29.2	4	33	6.8	3723	1.02	0.21
12/10/2010	4th 2010	11	27	2.89	22	24.89	5.6	6547	1.36	0.31
3/2/2011	1st 2011	nd	20	3.86	20	23.86	5.5	9772	1.94	0.45
6/3/2011	2nd 2011	10	18	9.8	8.2	18	5.5	5382	0.81	0.25
9/7/2011	3rd 2011	nd	13	23.3	4.2	27.5	7.7	2913	0.67	0.19
11/17/2011	4th 2011	nd	<6	9.2	5.7	14.9	6.2	4609	0.57	0.24
3/14/2012	1st 2012	22	22	2.45	18	20.45	6.2	6500	1.11	0.34
5/11/2012	2nd 2012	14	21	3.74	6	9.74	3.6	5996	0.49	0.18
7/10/2012	3rd 2012	26	16	6.14	9	15.14	7.8	6869	0.87	0.45
System Averages		<11	<15	10.6	9.4	19.9	5.8	5765	0.93	0.28

Outfall 002B, Firelight Meadows

	DMR Reporting Quarter	TSS (mg/L)	BOD (mg/L)	NO2+NO3 (ppm)	TKN (ppm)	TN (ppm)	TP (ppm)	Q (gpd)	N load (lbs/d)	P load (lbs/d)
Aug-09	3rd 2009	nd	9	14.7	5.90	20.6	5.5	6387	1.1	0.29
Nov-09	4th 2009	nd	6	9.8	5.30	15	5.2	5860	0.73	0.25
Mar-10	1st 2010	16	24	1.34	20.30	21.6	5.8	9921	1.79	0.48
5/10/2010	2nd 2010	58	28	21.5	3.3	24.8	5	6617	1.37	0.28
9/10/2010	3rd 2010	11	<6	24.3	4	28.3	6.4	5957	1.41	0.32
12/10/2010	4th 2010	10	13	12	11.3	23.3	5.8	6905	1.34	0.33
3/2/2011	1st 2011	50	17	2.27	22	24.27	5.6	11138	2.25	0.52
6/3/2011	2nd 2011	47	52	14.6	6	21	5.7	6393	1.12	0.30
9/7/2011	3rd 2011	27	38	17	8.8	25.8	7.6	6601	1.42	0.42
11/17/2011	4th 2011	nd	7	11.7	6.3	18	6.8	5821	0.87	0.33
3/14/2012	1st 2012	34	41	0.07	25	25.07	6.4	8268	1.73	0.44
5/11/2012	2nd 2012	10	23	5.25	5.1	10.35	4.6	5916	0.51	0.23
7/10/2012	3rd 2012	23	33	0.05	18.00	18.05	7.40	8255	1.24	0.51
System Averages		<23	<23	10.4	10.9	21.2	6.0	7234	1.30	0.36

Outfall 003C, Firelight Meadows

	DMR Reporting Quarter	TSS (mg/L)	BOD (mg/L)	NO2+NO3 (ppm)	TKN (ppm)	TN (ppm)	TP (ppm)	Q (gpd)	N load (lbs/d)	P load (lbs/d)
11/18/08	4th 2008	nd	10	19	3.5	22.5	6.6	5102	0.96	0.28
3/2/09	1st 2009	nd	18	12	10	22	8.7	6380	1.17	0.46
6/24/09	2nd 2009	nd	26	15.9	5	21	4.4	6568	1.15	0.24
8/11/09	3rd 2009	nd	15	14.9	8.3	23.2	6.6	6359	1.23	0.35
11/4/09	4th 2009	nd	6	19.5	1.8	21.3	6	4912	0.87	0.25
3/3/10	1st 2010	nd	13	12.2	8.9	21.1	5.8	6828	1.20	0.33
5/10/10	2nd 2010	2	9	14.1	7.9	22	5	5751	1.06	0.24
8/10/10	3rd 2010	nd	5	8.37	6	14	6.19	5859	0.68	0.3
12/10/10	4th 2010	nd	14	15.9	9.3	25.2	7.2	6241	1.31	0.37
3/2/11	1st 2011	13	35	12.1	13.1	25.2	7.1	6782	1.43	0.40
6/3/11	2nd 2011	11	16	12.1	8	20.1	7.8	4953	0.83	0.32
9/7/2011	3rd 2011	nd	11	6.16	7.9	14.06	7.9	5080	0.60	0.33
11/17/2011	4th 2011	18	13	7	12	19	8.1	5741	0.91	0.39
3/14/2012	1st 2012	14	24	1.25	22.1	23.35	9	6991	1.36	0.52
5/11/2012	2nd 2012	nd	10	6.3	10.7	17	7.8	4728	0.67	0.31
7/10/2012	3rd 2012	nd	12	7	6.5	13.5	8	8040	0.91	0.54
System Averages		<10	14.8	11.5	8.8	20.3	7.0	6020	1.02	0.35

Appendix I – Form 1



WATER PROTECTION BUREAU

Agency Use

Permit No.:

Date Rec'd

Amt Rec'd

Check No.

Rec'd By

FORM 1 **GENERAL INFORMATION**
(See instructions before completing)

Section A – Montana Pollutant Discharge Elimination System

SPECIFIC QUESTIONS	MARK 'X'			SPECIFIC QUESTIONS	MARK 'X'		
	YES	NO	FORM ATTACHED		YES	NO	FORM ATTACHED
1. Is this facility a publicly owned treatment works which results in a discharge to state surface waters or waters of the U.S.? (FORM 2A)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	2. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to state surface waters or waters of the U.S.? (FORM 2B)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>
3. Is this a facility which currently results in a discharge of industrial wastewater to state surface water other than those described in 1 or 2 above? (FORM 2C)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	4. Is this a proposed facility (other than those described in 1 or 2 above) which will result in a discharge of industrial wastewater to state surface waters? (FORM 2D)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>
5. Does this facility discharge only non-process wastewater, not subject to federal effluent guidelines or new source performance standards to state surface waters? (FORM 2E)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	6. Does this facility discharge or propose to discharge storm water associated with industrial activity either alone or in combination with non-storm water discharges? (FORM 2F)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>

Montana Ground Water Pollution Control System (MGWPCS)

7. Does this facility discharge sewage to ground water through infiltration, percolation or other methods of subsurface disposal? (GW-1)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	8. Does this facility discharge industrial wastes, or other wastes, to ground water through infiltration, percolation, or other methods of subsurface disposal? (GW-2)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>
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Section B – Facility or Activity Information

Facility Name Gallatin Gateway County Water & Sewer District Wastewater Facility

Facility Location Tract 1B1 of Minor Subdivision 309A

City, State, Zip Gallatin Gateway, MT

Telephone Number (406) 580-1624 County: Gallatin

Township: 3 South Range: 4 East Section: 11 ; SE 1/4 SW 1/4 SE 1/4

Latitude: 45 degrees 35 minutes 7 seconds Longitude: -111 degrees 11 minutes 43 seconds

Is the facility located on Indian lands? YES NO

Section C – Facility Contact

Facility Contact Name/Title Ted Border, President

Mailing Address P.O. Box 383

City, State, Zip Gallatin Gateway, MT 59730

Telephone Number _____ Email tborder@gatewaywsd.com

Section D – Existing or Pending Permits, Certifications, or Approvals

MPDES Permit _____
 404 Permit (dredge & fill) _____
 UIC # _____
 MGWPCS # _____
 Plat Approval EQ # _____
 Other _____

Section E – Nature of Business (provide a brief description)

Community wastewater collection, treatment & disposal

SIC CODES (4-digit, in order of priority)

Code	A. First	Code	B. Second
1 8999		2	
Code	C. Third	Code	D. Fourth
3		4	

MAP: Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures (outfalls), each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area.

Section F – Applicant (Owner/Operator) Information

Applicant (Operator) Name Gallatin Gateway County Water & Sewer District
 Mailing Address P.O. Box 383
 City, State, Zip Gallatin Gateway, MT 59730
 Telephone Numbers _____

Is the 'Operator' listed above also the owner? YES NO

Status of Applicant (Check One)

Federal
 State
 Private
 Public
 Other (specify) _____

CERTIFICATION

Section G – Applicant Information: This application must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

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, it 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 violation.

<p>A. Name and Official Title (Type or Print)</p> <p>Ted Border, President</p>	<p>B. Phone No.</p>
<p>C. Signature</p>	<p>D. Date Signed</p>

Appendix J – Form GW- 1



WATER PROTECTION BUREAU

Agency Use
Permit No.:
Date Rec'd
Rec'd By

**FORM
GW-1**

**Ground Water Pollution Control System (MGWPCS)
Domestic Wastewater – Permit Application**

This form must be accompanied by DEQ Form 1. Form GW-1 is to be used for facilities that discharge or propose to discharge domestic sewage to state ground water and fulfills the requirements of ARM 17.30.1023(4). Please read the attached instructions before completing this application. Do not leave blank spaces; if a question is not applicable put an 'NA' in the space provided. You must print or type legibly; applications that are not legible will be returned.

Section A – Facility/Site Information *(Must be the same as Form 1)*

Facility Name Gallatin Gateway County Water & Sewer District Wastewater Facility

Facility Location Tract 1B1 of Minor Sub 309A, Cottonwood Road, Gallatin Gateway, Montana

Facility Contact / Title Ted Border, President

Mailing Address P.O. Box 383

City, State, Zip Gallatin Gateway, MT 59730

Telephone Number(s) _____

Vicinity Map:

The following information must be clearly labeled on a project vicinity map attached to this application. Please identify location and name of adjacent surface water, location and ownership of water supply wells, springs, and any ground water intake structures within 1 mile of the proposed or existing source(s).

Facility Site Plan:

Attach to this application a Facility Site Plan drawing(s) showing the topography of the area extending at least to the property lines of the facility. The map must show the outline of buildings, structures, parking areas, north arrow, scale and facilities directly pertinent to processes, structures and discharges to be covered by the permit that may be issued in response to this application. At minimum, the location of each of the existing and proposed structures must be clearly labeled on the map including but not limited to: wastewater collection and conveyance structures, wastewater treatment facilities, wastewater disposal structures/systems, and monitoring or supply well location(s). The required information must be clearly labeled on the Facility Site Plan. For facilities that cover larger land areas, specific portions of the Facility Plan may be included on separate drawing(s) at a smaller scale to provide necessary detail.

Section B – Application and Source Status *(Check all applicable boxes)*

Application Status	Source Status
<input checked="" type="checkbox"/> New, no existing GWPCS Permit	<input checked="" type="checkbox"/> New or Proposed
<input type="checkbox"/> Permit Renewal	<input type="checkbox"/> Existing Source
<input type="checkbox"/> Permit Modification	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Other: _____	_____

Section E – Treatment System Capacity

For *new* treatment works, provide hydraulic design capacity information; for *existing* systems, provide *both* design and measured information.

Parameter	Design Capacity	Measured Flow		
		Two Years Ago	Last Year	This Year
Average Daily Flow, gpd	30,000 gpd			
Maximum Daily Flow, gpd	40,000 gpd			

Flow Measurement Device(s): Flow Meter
 Manufacturer: Badger
 Type: Mag Meter

Section F - Treatment System Description

(Describe the treatment system(s) or best management practices (BMP's) used to reduce pollutants. Attach additional sheets if necessary.)

Gravity flow sewer to lift station, lift station to force main to septic tank, septic tank to Level II treatment and recirc tank, recirc tank to dose tank, dose tank to drainfield.

What levels of treatment are provided? Check all that apply.

- Conventional Level II Primary Other (i.e., experimental) _____
 Nutrient Reduction System

Indicate the method of treatment for wastewater:

- None Intermittent Sand Filter Recirculating Sand Filter Recirculating Trickling Filter
 Aerobic Sewage Treatment Unit Chemical Nutrient Reduction Passive Nutrient Reduction
 Other (specify) _____

Indicate the following removal rates (as actual or estimated):

- Design BOD₅ or CBOD₅ Removal 90 % Design TSS Removal 90 %
 Design Total Phosphorus Removal 0 % Design Total Nitrogen Removal 65 %
 Design Pathogen Removal 90 % Other _____

Yes No Has effluent testing information been collected for the wastewater treatment system proposed?

If yes, submit effluent testing data for all parameters listed in Section M.

Method(s) of disinfection used for the effluent: None

Line Drawing:

Attach a line drawing showing wastewater flow through the collection and treatment works. Indicate sources contributing wastewater to the system and treatment units. Construct a water balance on the line drawing showing design flow between treatment units, flow measurement location(s), sampling locations and outfalls. [See attached example]

Scheduled Improvements and Schedules of Implementation

Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality or design capacity of the treatment works.

Yes No Are planned improvements or implementation schedules required by local, state or federal agencies?

List the outfall number for each outfall that is affected by this implementation schedule: _____

Sections J, K, L, M must be completed for each outfall in Section C

Outfall #: _____

Section J – Disposal System

Indicate the method of wastewater disposal for this outfall. (Check one)

- Well injection
 Drainfield
 Rapid Infiltration
 Evapotranspiration
 Overland Flow
 Infiltration/Absorption Trenches
 Slow Infiltration
 Land Application (see form LA-1)
 Infiltration/Percolation
 Other(s) Explain: _____

Depth below ground surface 2 ft Distance above ground level _____ ft

Check all that may apply:

Is discharge: continuous
 intermittent
 seasonal

If seasonal indicate the month(s) the outfall discharges:

Jan
 Feb
 March
 April
 May
 June
 July
 Aug
 Sept
 Oct
 Nov
 Dec

Yes
 No
 Is the operator of the wastewater treatment system requesting a mixing zone pursuant to the Administrative Rule of Montana (ARM) Title 17, chapter 30, subchapter 5?

Standard Mixing Zone for Ground Water (ARM 17.30.517)

Source Specific Mixing Zone (ARM 17.30.518)

Yes
 No
 Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? If yes, provide the following information regarding the transporter and treatment works receiving the wastewater.

Transporter

Name _____
 Address _____
 Telephone _____

Treatment Works Facility

Name _____
 Address _____
 Telephone _____

Section K – Ground Water Characteristics (See Instructions)

Test	Units	Minimum Value	Maximum Value	Average Value	No. of Samples	Source of Data
Specific Conductivity	µS/cm	163	436	383	13	MW
Total Dissolved Solids (TDS)	mg/L	74	289	228	13	MW
pH	s.u.	7.3	8.7	7.75	13	MW
Chloride	mg/L	2	3	2.5	13	MW
Escherichia Coli*	No./100ml	0	<1	<1	13	MW
Kjeldahl Nitrogen, Total, as N	mg/L	0	3.4	1.64	13	MW
Nitrate + Nitrite, as N	mg/L	0.4	1.95	0.99	13	MW
Total Organic Carbon (TOC)	mg/L	0.6	1.1	0.85	13	MW
Other:						

*Fecal Coliform Bacteria will be accepted as substitute

Describe how the above estimates were obtained. Attach relevant supplemental information as necessary.

Periodic samples from the four monitoring wells - TW-2, TW-3, TW-4 and TW-5

Sections J, K, L, M must be completed for each outfall identified in Section C

Outfall #: _____

Section L – Local Hydrogeology and Mixing Zone Information

Depth to shallowest ground water 35 ft
 Depth to shallowest bedrock NA ft
 Depth to shallowest impermeable geologic strata (if known) NA ft
 Direction of ground water flow N 66 degrees west (azimuth or bearing)

Describe how these values were obtained. Attach relevant supplemental information as necessary:

The site has four monitoring wells. Any three wells can be used to develop a groundwater contour map. Each well has been surveyed with the top of the casing measured. See preliminary design report for additional details.

Name of all surface waters within 1 mile	Distance ¹	Direction ¹
Gallatin River	2800 feet	West
Wortman Creek	1400 feet	East
Un-named irrigation ditch	2500 feet	West
Cottonwood Creek	4300 feet	East

¹ From Source (outfall)

Standard Mixing Zone - (Required Information*)

Hydraulic Gradient * (I) 0.012 ft/ft
 Hydraulic Conductivity * (K) 327 ft/day
 Maximum width of source perpendicular to the direction of ground water flow * 470 ft
 Depth of Mixing Zone 15 ft
 Width of Mixing Zone 557.50 ft
 Length of Mixing Zone 500 ft
 Distance from source to facility property boundary 20 ft
 Volume of ground water in Mixing Zone 32,814.45 cubic ft/day

Describe how these values were obtained. Attach relevant supplemental information as necessary:

See preliminary design report

Source Specific Mixing Zone ARM 17.30.518

Source specific mixing zone is being requested, provide justification in accordance with ARM 17.30.518. Submit all supplemental data documenting how hydraulic gradient, background concentrations, effluent concentrations and hydraulic conductivity were determined. This includes but is not limited to well logs, aquifer test methods and calculations, potentiometric maps and hydrogeologic reports of studies conducted in the area

Sections J, K, L, M must be completed for each outfall identified in Section C

Outfall #: _____

Section M – Effluent Characteristics (See Instructions)

Parameter	Maximum ¹		Average		No. of Samples	Type ²	Source of Estin
	Concentration	Units	Concentration	Units			
Conventional Pollutants							
pH (Minimum), s.u.	8.5	s.u.					3
pH (Maximum), s.u.	7	s.u.					3
Total Suspended Solids (TSS)	20	mg/L	10	mg/L			3
Biochemical Oxygen Demand (BOD ₅)	40	mg/L	15	mg/L			3
Oil & Grease	25	mg/L	10	mg/L			2
Chlorine, Total Residual (TRC)	NA						2
Escherichia Coli ³	9.9x1000	#/100	1.0x1000	#/100			3
Ammonia, Total, as N	1.5	mg/L	1.0	mg/L			2
Kjeldahl Nitrogen, Total, as N	20	mg/L	10	mg/L			3
Nitrate + Nitrite, as N	20	mg/L	10	mg/L			3
Phosphorus, Total, as P	8	mg/L	6	mg/L			2
Total Dissolved Solids	700	mg/L	400	mg/L			2
Specific Conductivity	1200	us/com	700	us/cm			3
Chloride	5	mg/L	2	mg/L			2

Use this space (or a separate sheet) to provide information on other pollutants known to be present in the effluent:

¹ Except pH minimum – provide minimum value in the space indicated.

² Type: composite or grab samples

³ Fecal Coliform Bacteria will be accepted as a substitute

Section N - Alternative Water Supply and Alternate Disposal Methods

In the space provided below describe proposed measures to be taken to provide alternative water supplies, treatment and alternative disposal practices in the event any domestic, municipal, agricultural, or commercial/industrial well is adversely affected by the operation of the source.

Alternate disposal methods would be to enhance the level of treatment by adding a supplemental carbon source to the treatment process, thereby removing as much as 90 percent of the nitrogen in the effluent.

Any well adversely affected by operation of this facility could potentially be drilled deeper into a different aquifer.

The second alternative would be to connect to a different well or source of water supply.

The third alternative would be to drill a new well in an alternative location.

There are no central water facilities to connect to at this time.

Section O – Operation/Maintenance Performed by Contractor(s)

Yes No Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?

If yes, list the name, address, telephone number, and status of each contractor; describe the contractor's responsibilities.

Name _____

Mailing Address _____

Telephone Number _____

Responsibilities of Contractor _____

Section P – Land Ownership

New sources or new applicants must submit a list of surface owners and leasees of land within 1 mile of the proposed source, as required by ARM 17.30.1023(4)(d).

CERTIFICATION

Section Q – Applicant Information: This application must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

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, it 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 violation.

A. Applicant Name (Owner/Operator) *(Must be the same as Form 1)*
Gallatin Gateway County Water and Sewer District

B. Name and Official Title (Type or Print)
Ted Border, President

C. Phone No.

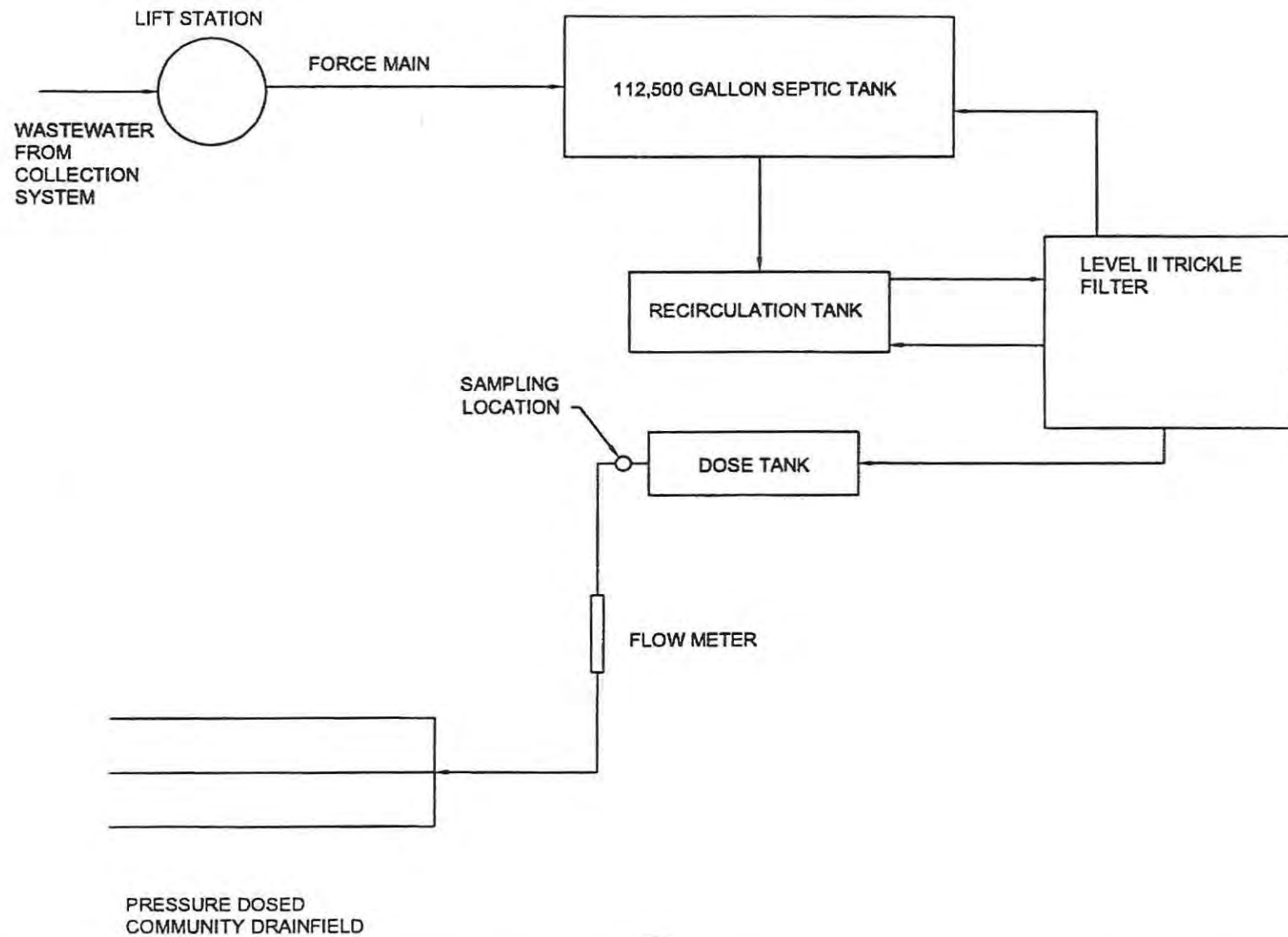
D. Signature

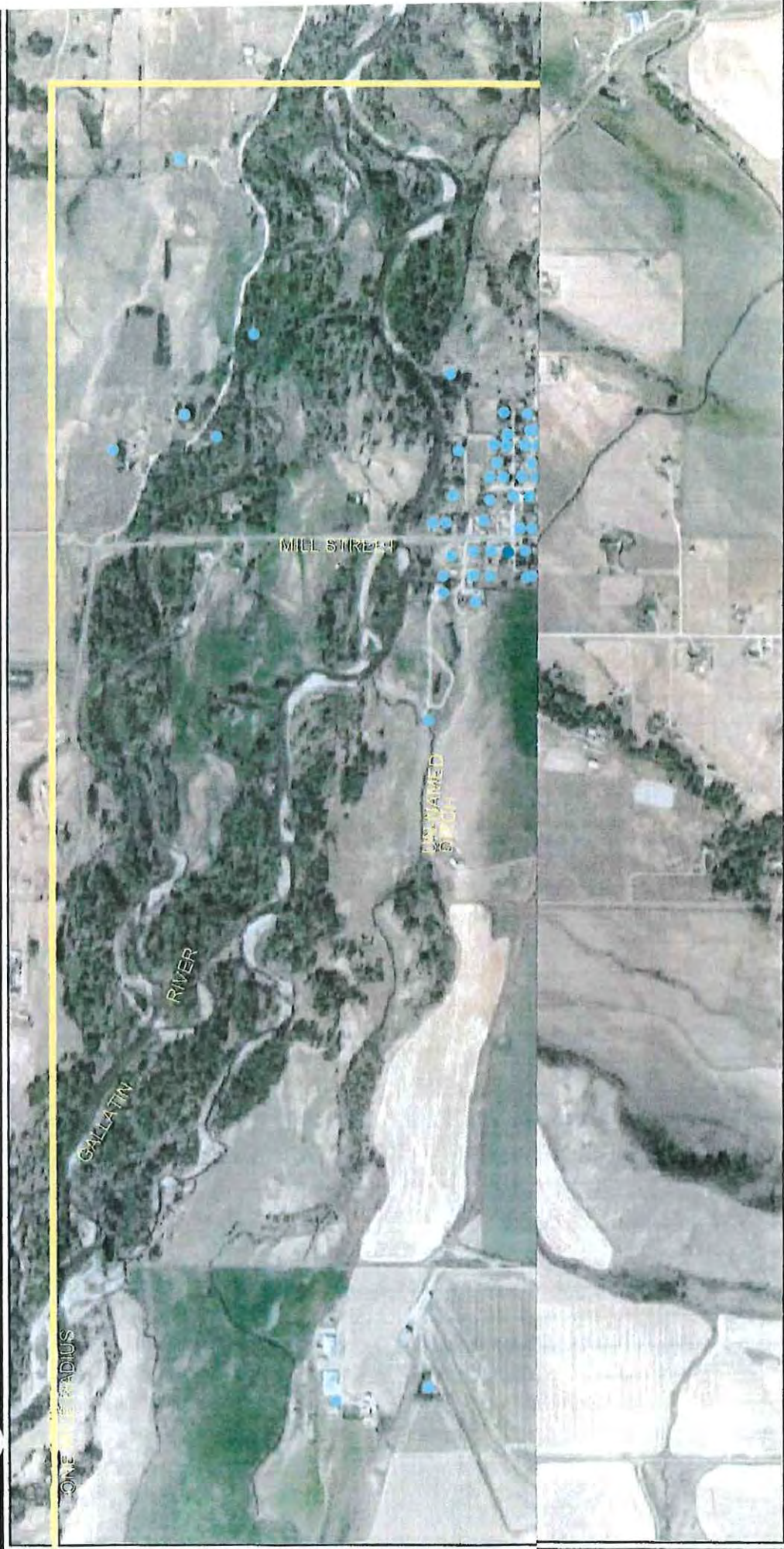
E. Date Signed

The Department will not process this application until all of the requested information is supplied, the application is complete, and the appropriate fees are paid. Return this application form [Form GW-1] along with DEQ Form 1 (and any supplemental information), and applicable fee to:

Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena MT 59620-0901

SCHEMATIC LINE DRAWING





LEGEND:

- WELL
- PUBLIC WELL



**PROPERTIES WITHIN ONE MILE
PROPOSED DISCHARGE SITE**

**INNOVATIVE
ENGINEERING**
12140 GOOCH HILL ROAD
GALLATIN GATEWAY, MT
406-763-4185

**GALLATIN GATEWAY WSD
GALLATIN GATEWAY, MT**

SCALE:
1 INCH = 1100 FEET

2-28-2013

**Gallatin Gateway County WSD
Property Ownership**

ADAMS MERLE D & TAINIS H					216 N CHURCH AVE	BOZEMAN	MT	597153706
ALLEN GWYN ROBIN					PO BOX 753	GALLATIN GTWY	MT	59730
AMEND JOHN ERIC					PO BOX 322	GALLATIN GTWY	MT	597300322
BANK OF NEW YORK MELLON TRUSTEE	CWABS INC				1 WALL ST	NEW YORK	NY	100052500
BARNES EARL H 1/3 INT	DEHAAN ALICE BARNES & 1/3 INT	HUFF SUSAN DIANE & BENF	LEMON CLARA L BARNES & 1/3 INT	BARNES MICHAEL J & BENF	PO BOX 171	GALLATIN GTWY	MT	597300171
BLEVINS RICHARD L & SUE A					PO BOX 59	GALLATIN GTWY	MT	597300059
BORDER THEODORE A					PO BOX 330	GALLATIN GTWY	MT	597300330
BORODINE ANNE E					PO BOX 346	GALLATIN GTWY	MT	597300346
BRIESE MELVIN C & DEBRA A					PO BOX 488	GALLATIN GTWY	MT	597300488
BROWN RICHARD W JR					76900 GALLATIN RD TRLR 6	BOZEMAN	MT	597189137
CARPENTER BRAD E &	BIEVER ELIZABETH				PO BOX 696	GALLATIN GTWY	MT	597300696
CHRISTIAN CH OF GAL GATEWAY					GENERAL DELIVERY	GALLATIN GTWY	MT	597309999
COLEMAN LAUREN					PO BOX 340	GALLATIN GTWY	MT	597300340
DANCING BEE LIMITED COMPANY					PO BOX 361	GALLATIN GTWY	MT	597300361
DAVIDSON DENNIS W & SHIRLEY					406 PEACE PIPE DR	BOZEMAN	MT	597151768
DOBBS WALLACE & THERESA REVOCABLE TRUST	DOBBS WALLACE MONROE	THERESA MARIE TRU			80455 GALLATIN RD	BOZEMAN	MT	597189173
DOHLE ALICE & STACY					PO BOX 482	GALLATIN GTWY	MT	597300482
ENGLER EDWIN JOHN					PO BOX 585	GALLATIN GTWY	MT	597300585
EVANS GOTT DARLENE K					PO BOX 44	GALLATIN GTWY	MT	597300044
FALLER MICHAEL P & SHANNON					2010 BITTERN DR	AMMON	ID	834086659
FLATEGRAFF BRADLEY A					PO BOX 476	GALLATIN GTWY	MT	597300476
GALLATIN FOOD SERVICE LLC	GALLATIN GATEWAY INN	WHITE CHARLES			PO BOX 557	GALLATIN GTWY	MT	597300557
GALLATIN GATEWAY RURAL FIRE DISTRICT					PO BOX 238	GALLATIN GTWY	MT	597300238
GALLATIN GATEWAY SCHOOL DIST NO 35					PO BOX 212	GALLATIN GTWY	MT	597300212
GATEWAY MARKET INC					PO BOX 100	GALLATIN GTWY	MT	597300100
GREER DW					PO BOX 192	GALLATIN GTWY	MT	597300192
GRIFFIN LESTER & CHERYL LIVING TRUST					164 CLOUDNINE LN	DILLON	MT	597257356
GRONWOLD RAY L & NANCY BEE					22 POPPY ST	CASPER	WY	826043814
HAI JAVAD LLC					PO BOX 186	BOZEMAN	MT	597710186
HARGROVE DONALD R & ELO BE M					37 BIG CHIEF TRL	BOZEMAN	MT	597189419
HARGROVE RUTH					PO BOX 425	GALLATIN GTWY	MT	597300425
HARGROVE RUTH D					PO BOX 163	VIRGINIA CITY	MT	597550163
HARRISON SAMUEL E & RONDA					PO BOX 83	GALLATIN GTWY	MT	597300083
HART LEE & SANDRA					73800 GALLATIN RD	GALLATIN GTWY	MT	597308520
HAWAII PINE LLC					PO BOX 4027	BOZEMAN	MT	597724027
JOHNSON DAVID & CAROL ANN					76370 GALLATIN RD	GALLATIN GTWY	MT	597308609
KURLANE SYDNEY					715 S 5TH AVE	BOZEMAN	MT	597154524
LAMAUX ROBERT L					PO BOX 22	GALLATIN GTWY	MT	597300022
LEMON CLARA LOU BARNES					PO BOX 23	GALLATIN GTWY	MT	597300023
LEMON CLARA LOU BARNES					PO BOX 23	GALLATIN GTWY	MT	597300023
LUCE GEORGE S JR & LENA V					1615 BLARNEY ST	BILLINGS	MT	591051817
LUCE GEORGE S JR & LENA V					1615 BLARNEY ST	BILLINGS	MT	591051817
MANNING DOUGLAS & NANCY ETZER					PO BOX 92	GALLATIN GTWY	MT	597300092

**Gallatin Gateway County WSD
Property Ownership**

MCREYNOLDS LINDA LOU					1755 MCREYNOLDS RD	BOZEMAN	MT	597187657
METZ JOHN W &	SCHWARTZ KAREN J				PO BOX 686	GALLATIN GTWY	MT	597300686
MEYERS SCOTT S REV TRUST DATED 2/2/1993	MEYERS SUSAN R TRUSTEE UND 1/2 INT	MEYERS SCOTT S TRUSTEE	MEYERS SUSAN R REV TRUST		504 N BAILEY AVE	FORT WORTH	TX	761071004
MUSIAL MICHAEL E JR					804 E SEBREE ST	DILLON	MT	597253151
NYGARD ROBERT WILLIAM					190 TWO BEAR WAY	GALLATIN GTWY	MT	597309728
NYGARD ROBERT WILLIAM					190 TWO BEAR WAY	GALLATIN GTWY	MT	597309728
PAYNE BERNICE L REVOC LIVING TRUST					PO BOX 264	GALLATIN GTWY	MT	597300264
PAYNE BERNICE L REVOC LIVING TRUST					PO BOX 264	GALLATIN GTWY	MT	597300264
PAYNE RUSSELL DEAN					PO BOX 34	GALLATIN GTWY	MT	597300034
PENZNER ANDREW J					186 MANWEL DIMECH ST #9	ST JULIANS ST J10	ST JULIANS	STJ1051
PEREZ LUCIE H & SARAH					800 TAMARACK DR	SAN RAFAEL	CA	949033718
PITTINGER DANIEL LEE & KATHERINE G					PO BOX 314	GALLATIN GTWY	MT	597300314
RENNEBERG HARDWOODS INC					PO BOX 188	MENAHGA	MN	564640188
ROBERTS JANNIE G &	GRAY PENNY L	ROBERTS ROBERTA J &			PO BOX 490	GALLATIN GTWY	MT	597300490
ROBERTS JANNIE GAILE					PO BOX 490	GALLATIN GTWY	MT	597300490
RODAS HEIDI A					PO BOX 50	GALLATIN GTWY	MT	597300050
SALESVILLE PROPERTIES LLC					PO BOX 35	GALLATIN GTWY	MT	597300035
SANDSTON STEPHANIE					215 MILL	GALLATIN GTWY	MT	597300527
SANDSTON STEPHANIE					215 MILL	GALLATIN GTWY	MT	597300527
SAVAGE BROOKE					PO BOX 672	GALLATIN GTWY	MT	597300672
SCOTT SAM M					PO BOX 92	BASIN	MT	596310092
SPRING VERA E					PO BOX 270	GALLATIN GTWY	MT	597300270
SPRING VERA E					PO BOX 270	GALLATIN GTWY	MT	597300270
STEIN PETER BALKE					PO BOX 608	GALLATIN GTWY	MT	597300608
STRANDBERG STEPHEN L					12310 SINGLETREE LN APT 230	EDEN PRAIRIE	MN	553447975
STURGIS TAMARA LEE					180 WILLIAMS RD E	GALLATIN GTWY	MT	597308557
SULLIVAN DAVID G REVOCABLE TRUST DATED 1	SULLIVAN DAVID G TRUSTEE				PO BOX 169	BELGRADE	MT	597140169
SULLIVAN DAVID G REVOCABLE TRUST DATED 1	SULLIVAN DAVID G TRUSTEE				PO BOX 169	BELGRADE	MT	597140169
TATE MEREDITH C					PO BOX 4027	BOZEMAN	MT	59772
TATE MEREDITH C					PO BOX 4027	BOZEMAN	MT	59772
TRIANGLE E HOLDINGS					PO BOX 585	GALLATIN GTWY	MT	597300585
TURNER ENTERPRISES INC					5048 GATEWAY SOUTH RD	GALLATIN GTWY	MT	597308560
TURPIN HELEN ZINNER					PO BOX 201	GALLATIN GTWY	MT	597300201
VARGO FRANCIS T					PO BOX 405	GALLATIN GTWY	MT	597300405
WAGNER DONALD & PATSY					PO BOX 373	GALLATIN GTWY	MT	597300373
WILLING WORKERS LADIES AID					PO BOX 329	GALLATIN GTWY	MT	597300329
WORTMAN EARL J					PO BOX 245	GALLATIN GTWY	MT	597300245

Gallatin Gateway WSD
Property List Outside District and Within One mile of Proposed Drainfield

Name	Address	City & Zip
S & C PROPERTIES	5304 MONFORTON SCHOOL RD	BOZEMAN, MT 59718-8131
BADEN JOHN A & 46.4063268 INT	PO BOX 247	GALLATIN GTWY, MT 59730-0247
BREUNER ANDREW JOHN & SUSAN BETH	16320 COTTONWOOD RD	BOZEMAN, MT 59718-8986
DL INVESTMENT GROUP LLC	75770 GALLATIN RD	GALLATIN GTWY, MT 59730-8526
GATEWAY VILLAGE LLC	201 S GRAND AVE	BOZEMAN, MT 59715-4617
PROFFITT FRANK & COLLEEN	17000 COTTONWOOD RD	BOZEMAN, MT 59718-7893
SCHWENDL EDE M	16973 COTTONWOOD RD	BOZEMAN, MT 59718-8078
NISBET ALEC JOHN & KATHERINE F	17011 COTTONWOOD RD	BOZEMAN, MT 59718-8987
TOPEL NANCY	159 GLACIER MTN LN	BOZEMAN, MT 59718
KAWASAKI JERRY R & JODEE L	PO BOX 38	GALLATIN GTWY, MT 59730-0038
PRESCOTT JEFFREY K & ANN E	PO BOX 653	GALLATIN GTWY, MT 59730-0653
MC REAL ESTATE HOLDINGS INC	PO BOX 250	MILES CITY, MT 59301-0250
AGUIRRE DORRONSORO ENEKO L &	PO BOX 6157	BOZEMAN, MT 59771-6157
HESS KEN A & LORI M	12260 GLACIER MOUNTAIN LN	BOZEMAN, MT 59718-9134
STRINGARI DANIEL L	PO BOX 425	HAMILTON, MT 59840-0425
KNAPP THOMAS E & GLENDA L	24 GLACIER MOUNTAIN LN	BOZEMAN, MT 59718-8987
HOUSTON RICHARD G	PO BOX 94	PINE RIVER, MN 56474-0094
SANDOVAL ANGEL	106 FLAGSTONE DR	BELGRADE, MT 59714-9642
PHILLIPS KURT E & NINA	PO BOX 375	GALLATIN GTWY, MT 59730-0375
SNELL RAYMOND & SHERYL	PO BOX 116	GALLATIN GTWY, MT 59730-0116
ZAIKO CHESTER A & KAREN L	PO BOX 99	GALLATIN GTWY, MT 59730-0099
JOSEPHSON THADDEUS	PO BOX 440	GALLATIN GTWY, MT 59730-0440
RABEL ADAM & KIMBERLY R	PO BOX 663	GALLATIN GTWY, MT 59730-0663
PEARY DAMON & JENNIFER	525 SOLITUDE LN	BOZEMAN, MT 59715-8429
GION DOUGLAS	711 N GRAND AVE	BOZEMAN, MT 59715-2806
CAMPBELL ANDREW C	PO BOX 156	GALLATIN GTWY, MT 59730-0156
PAULSON TROY & MEGAN	176 HOLLAND LANE	BOZEMAN, MT 59718-8298
TOWNE LEAH &	PO BOX 714	GALLATIN GTWY, MT 59730-0714
FOSTER SCOTT G	12052 LAW RD	BOZEMAN, MT 59718-8338
WHORRALL PATRICK & LISA	30 HOLLAND LN	BOZEMAN, MT 59718
BRIGHT KEITH J & KAY A	115 BUSHNELL RD	BOZEMAN, MT 59718-9197
DUDLEY TERI A	PO BOX 431	GALLATIN GTWY, MT 59730-0431
GRAFF ROBIN	258 ROXTON LN	BEAUMONT, TX 77707-2315
PAGE CHARLES C & NANCY N	5320 LOVE LN	BOZEMAN, MT 59718-9408
BIGGERSTAFF ROBERT D	PO BOX 160217	BIG SKY, MT 59716-0217
NOLAN PATRICK D REV TRUST	12400 GOOCH HILL RD	GALLATIN GTWY, MT 59730-9775
KESHISHIAN WILLIAM W & MOIRA H	648 BUSHNELL RD	BOZEMAN, MT 59718-7767
ESLINGER LARRY K & DEBORAH A	15330 SUNSHINE SPRINGS PL	GRASS VALLEY, CA 95945-9603
CASHELL II JAMES RAYMOND & DIANE MARIE	115 MELBOURNE LN	BOZEMAN, MT 59718-9198
STEWART GEORGE C & MARY ELLEN	PO BOX 25	GALLATIN GTWY, MT 59730-0025
FRANCIS CHRISTOPHER J & CHRISTIE L	PO BOX 15	GALLATIN GTWY, MT 59730-0015
REILLY MICHAEL D &	225 N BROADWAY AVE	BOZEMAN, MT 59715-3803
BROWN AMANDA JULORA	16385 COTTONWOOD RD	BOZEMAN, MT 59718-8986
DORSEY LARRY J	PO BOX 36	GALLATIN GTWY, MT 59730-0036
JOHNSON SARA LOUISA REV LIV TR	PO BOX 754	GALLATIN GTWY, MT 59730-0754



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

April 3, 2013

Ted Border, President
Gallatin Gateway County Water & Sewer District
PO Box 383
Gallatin Gateway, MT 59730

RE: Deficiency Notification - MGWPCS permit application for the Gallatin Gateway County Water & Sewer District, MTX000229.

Dear Mr. Border:

On March 20, 2013, the Department of Environmental Quality (DEQ) received required fees and began the application review process for Montana Ground Water Pollution Control System (MGWPCS) permit for Gallatin Gateway County Water & Sewer District. However, the application, received on March 6, 2013, and supplemental information is incomplete. Please address the application deficiencies as listed below:

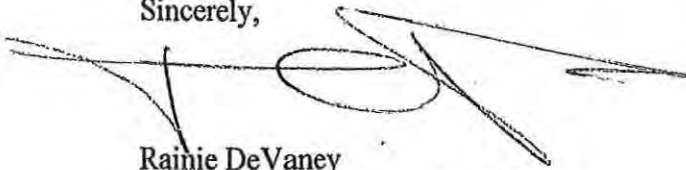
- **Drainfield:** The preliminary design report and figure 2 (Area Wells and WW systems) indicate the proposed Gallatin Gateway County Water & Sewer District (GGCWSD) drainfield will be constructed over an existing drainfield serving the business Buffalo Station. To complete the required significance determination DEQ needs more information regarding construction and design plans for the proposed GGCWSD drainfield. More specifically, DEQ needs detailed design and construction information concerning the portion of the proposed drainfield that covers the existing Buffalo Station drainfield. In addition, DEQ needs design details of Buffalo Station wastewater treatment system including, for example, drainfield dimensions (width, length, depth), years in use, and historic wastewater discharge.
- **Mixing zone:** The figure titled Buffalo Station Proposed Disposal Site in the preliminary design report shows an existing public supply well near the primary and replacement area mixing zone boundary. Administrative Rules of Montana (17.30.506 et seq.) protect existing beneficial uses from being impaired or threatened by proposed mixing zones. These rules specifically state mixing zones are not appropriate when adjacent to a drinking water well intake or the zone of influence around a drinking water well. Please provide additional information showing how the public drinking water well will be protected.
- **Form GW-1 Section D:** The permit application lists various businesses intending to connect to the proposed treatment system. Buffalo Station, however, is not listed. Please provide clarification regarding Buffalo Stations plans to abandon, continue to use current drainfield,

or connect to proposed wastewater treatment system. If Buffalo Station plans to connect to the Gallatin Gateway County Water & Sewer District treatment system please update Section D within Form GW-1.

- **Form GW-1 Section K:** The application lists four monitoring wells (TW-2, TW-3, TW-4 and TW-5) sampled to establish ambient receiving ground water quality data. Given the current location of the proposed drainfield none of the above listed monitoring wells are upgradient of the drainfield. Please clarify plans to establish a long-term upgradient sampling source.
- **Form GW-1 Section N:** Within the section you propose enhancing the nitrogen treatment process by adding a supplemental carbon source. If you plan to use a supplemental carbon source please list it under Section H, Chemical Additions and include all appropriate additional information.
- **Form 1 Section E:** Please review and verify the SIC codes used to described the proposed community waste water treatment system.

Please submit the requested information to DEQ in a timely manner so the application review process may continue. Thank you for your patience and cooperation during the permit process. If you have any additional questions, please call me at (406) 444-6769.

Sincerely,



Rainie DeVaney
Environmental Science Specialist
Water Protection Bureau
Email: rdevaney@mt.gov

cc: Kurt Thomson, Senior Project Manager
Stahly Engineering & Associate, Inc.
7585 Shedhorn Drive, Bozeman, MT 59718

Terry Threlkeld, Principal Engineer
Innovative Engineering
12140 Gooch Hill
Gallatin Gateway, MT 59730

File



April 24, 2013

RECEIVED

MAY 01 2013

Rainie DeVaney, Environmental Science Specialist
MDEQ, Water Protection Bureau
Ground Water Discharge Permit Section
P.O. Box 200901
Helena, MT 59620

DEQ/WPB
PERMITTING & COMPLIANCE DIV.

RE: Gallatin Gateway County Water & Sewer District
Groundwater Discharge Permit Application
Gallatin County, Montana

Dear Ms. DeVaney:

We received your letter dated April 3, 2013 requesting additional information for the Gallatin Gateway County Water and Sewer District groundwater discharge permit application. This letter is intended as a response to your request for additional information. Our responses are below in the same order as originally presented.

Comment 1: Drainfield - The preliminary design report and figure 2 (area wells and ww systems) indicate the proposed Gallatin Gateway County Water and Sewer District (GGCWSD) drainfield will be constructed over an existing drainfield serving the business Buffalo Station. To complete the required significance determination DEQ needs more information regarding the construction and design plans for the proposed GGCWSD drainfield. More specifically, DEQ needs detailed design and construction information concerning the portion of the proposed drainfield that covers the existing Buffalo Station drainfield. In addition, DEQ needs design details of Buffalo Station wastewater treatment system including, for example, drainfield dimensions (width, length, depth, years in use, and historic wastewater discharge. *Response: The Buffalo Station drainfield was constructed in 2001 to provide 10,000 gpd worth of treatment for a convenience store, gas station and bar. Future plans included an RV Park. In 2002 the property was divided into two lots and during the subdivision review process, it was discovered the projected future wastewater flows were estimated to be in excess of 5,000 gpd, but no groundwater discharge permit had been applied for and issued by DEQ. The developer made the choice at that time to limit his flows to 5,000 gpd to gain his DEQ approval for the subdivision, and subsequent daily flow monitoring revealed the flows typically run from 500 to 1,100 gpd. The current drainfield is 650 feet long by 38 feet wide and is a graveled pressure distribution system split into three zones. The average trench depth is 24 inches. The system has been in use for approximately 12 years. The old system will be replaced by the new system and the lateral trenches for the new system will run perpendicular to the old system. A portion of the existing Buffalo Station drainfield (sufficient to serve its current use) will be left in service during the construction of the Gateway system.*

Comment 2: Mixing zone - The figure titled Buffalo Station Proposed Disposal Site in the preliminary design report shows an existing public supply well near the primary and replacement area mixing zone boundary. Administrative rules of Montana (17.30.506 et seq.) protect existing beneficial uses from being impaired or threatened by proposed mixing zones. These rules specifically state mixing zones are not

MT X 000229

appropriate when adjacent to drinking water well intake or the zone of influence around a drinking water well. Please provide additional information showing how the public drinking water will be protected. *Response: The proposed new drainfield is in a similar location as the existing drainfield serving the Buffalo Station. Buffalo Station under previous ownership was taking water samples (Bacteria) on a monthly basis as well as annual nitrate samples. The water samples did not show any adverse impacts to the Buffalo Station water supply from the drainfield. There were no coliform bacteria in the water supply and nitrate levels were not elevated. It was clear the well was not impacted by the current drainfield.*

If the well is moved to the secondary location shown on the Proposed Disposal Site exhibit, the separation from the new well location to the closest point of the primary drainfield mixing zone is 235 feet, which should provide ample cross gradient separation.

Comment 3: Form GW-1 Section D: The permit application lists various businesses intending to connect to the proposed treatment system. Buffalo Station, however, is not listed. Please provide clarification regarding Buffalo Stations plans to abandon, continue to use current drainfield or connect to proposed wastewater treatment system. If Buffalo Station plans to connect to eth Gallatin Gateway County Water and Sewer District Treatment system please update Section D within Form GW-1. *Response: Buffalo Station will abandon its current wastewater system and will connect to the GGCWSD wastewater system. Section D of Form GW-1 has been updated and is included with this submittal.*

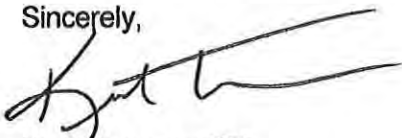
Comment 4: Form GW-1 Section K - The application lists four monitoring wells (TW-2, TW-3, TW-4 and TW-5) samples to establish ambient receiving groundwater quality data. Given the current location of eth proposed drainfield none of the above listed monitoring wells are upgradient of the drainfield. Please clarify plans to establish a long term upgradient sampling source. *Response: A fifth groundwater monitoring well will be constructed as part of the drainfield construction activities in the SE corner of the disposal site, which will serve as an upgradient monitoring well.*

Comment 5: Form GW-1 Section N: Within the section you propose enhancing the nitrogen treatment process by adding a supplemental carbon source. If you plan to use a supplemental carbon source please list it under Section H, Chemical Additions and include all appropriate additional information. *Response: Form GW-1 Section N asks for additional measures to be provided in case any wells are adversely impacted by the proposed drainfield. We do not plan nor are we proposing to use an additional carbon source unless area wells are adversely affected. No changes to Section N have been made.*

Comment 6: Please review and verify the SIC codes used to describe the proposed community wastewater treatment system. *Response: We have reviewed and verified the Standard Industrial Codes on the OSHA website and have found no additions or changes to the SIC list other than the addition of Buffalo Station.*

Please feel free to contact me if you have any questions.

Sincerely,



Kurt Thomson, PE
Project Manager

Section C – Outfall Location

For each outfall, provide the latitude and longitude, and method of wastewater disposal system. (See Section J)

Outfall Number (list)	Latitude			Longitude			Method of Disposal
	Deg	Min	Sec	Deg	Min	Sec	
001	45	35	07	-111	11	43	Community pressured dosed drainfield
002							

Section D – Collection System Information

Provide information on the collection system served by the wastewater treatment system.

Population Served 168 Households Served 67

Type of Collection System Gravity

Check all that apply and give the percentage of each contribution.

- Sanitary Sewer 100 %
 Storm Water _____ %
 Floor Drains _____ %
 Sump Collection System _____ %
 Other _____

Business/Commercial or Industrial Connections:

Yes No Are businesses or industrial facilities connected to the proposed treatment system?

If yes, number of industrial/business connections 14

Commercial or Industrial Operation(s) Contributing Flow

List name (if available) or Type of Operation	SIC Code	Average Daily Flow (include units)	Maximum Daily Flow (include units)	Average Annual % Contribution
Gateway Market	5541	500 gpd	1000 gpd	4
Big Timberworks	1521	200 gpd	240 gpd	1
Amend Construction	1521	30 gpd	40 gpd	0.1
Renneberg Hardwood	1521	30 gpd	40 gpd	0.1
Ice Age Performance	5571	50 gpd	60 gpd	0.1
Stacy's Bar & Steakhouse	5813	350 gpd	500 gpd	2
Post Office Pizza	5812	250 gpd	300 gpd	1
Gallatin Gateway Inn	7011	2500 gpd	3400 gpd	13
Gallatin Gateway Rural Fire District	9224	250 gpd	300 gpd	1
Post Office	4311	30 gpd	40 gpd	0.1
Community Center	9999	250 gpd	300 gpd	1
School	8211	2000 gpd	3000 gpd	12
Church	9999	50 gpd	250 gpd	1
Buffalo Station	5813	750 gpd	1100 gpd	3



June 24, 2013

Ms. Rainie DeVaney, Environmental Science Specialist
MDEQ, Water Protection Bureau
Ground Water Discharge Permit Section
P.O. Box 200901
Helena, MT 59620

RE: Gallatin Gateway County Water and Sewer District
Groundwater Discharge Permit Application Amendments

Ms. DeVaney:

This letter is being sent to request a modification to the Groundwater Discharge Permit Application that was submitted on February 23, 2013 for the Gallatin Gateway County Water and Sewer District.

It is requested that the permit be amended to allow for 50,000 gallons per day (gpd) of treated wastewater to be discharged into the ground near Gallatin Gateway. In support of this amendment, we have included a figure showing the site layout with updated dimensions to the drainfield, new non-degradation calculations, pump test results from June 7, 2013 on the test well that was drilled June, 5, 2013, and test pit and percolation test results from tests conducted the week of June 17th, 2013.

The information is for inclusion in the permit application to support the increased flow. Please let us know if any additional information is required for this amendment.

Of note, the original permit application was under letterhead of Innovative Engineering. Innovative Engineering is no longer involved with the project and all correspondence regarding this permit application and project should be directed to Kurt Thomson, PE with Stahly Engineering. Thank you.

Sincerely,

Kurt Thomson, PE
Senior Project Manager
Stahly Engineering & Associates, Inc.

District Authorization:

By: TED BORDER [Signature] PRES 6/26/13
Printed Signature Title Date

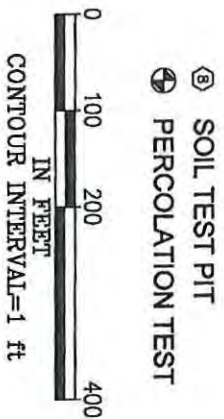
Enclosures

Cc: file

DRAINFIELD SIZING NOTES:
 DRAINFIELD FOOTPRINT - 724'x130' (398'w PERP TO GW)
 DRAINFIELD TRENCH BOTTOM AREA - 34,728 SF
 AVERAGE PERCOLATION RATE 4.4 MIN/IN
 DESIGN MAX DAY FLOW 50,000 GPD
 DESIGN APPLICATION RATE 1.44 GPD/SF

PROPOSED SEPTIC TANK AND LEVEL 2 TREATMENT SITE

PROPOSED REPLACEMENT AREA



STAHLY ENGINEERING & ASSOCIATES
 Professional Engineers
 & Surveyors

7585 Shedhorn Drive
 Bozeman, MT 59718
 Phone:(406)522-8528
 Fax:(406)522-8528
 E-MAIL secengnr@MT.net



3530 Centennial Dr.
 Helena, MT 59601
 Phone:(406)442-8594
 Fax:(406)442-8557
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UPDATED DRAINFIELD LAYOUT

**GALLATIN GATEWAY WWT IMPROVEMENTS
 GALLATIN GATEWAY WSD
 GALLATIN COUNTY, MT**

DESIGNED CDP
 DRAWN CDP
 CHECKED CDP
 DATE 6/24/2013

SHEET
FIGURE 1

Appendix E

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

NITRATE SENSITIVITY ANALYSIS

SITE NAME: GGWSD
COUNTY: Gallatin
LOT #: Tract 1B1 of Minor Sub 309A
NOTES: 50,000 Max Day Analysis

Analysis uses 23 mg/l NO3 in effluent as a permit limit. Anticipated NO3 concentrations are 20 mg/l.

<u>VARIABLES</u>	<u>DESCRIPTION</u>	<u>VALUE</u>	<u>UNITS</u>
K	Hydraulic Conductivity	326.00	ft/day
I	Hydraulic Gradient	0.0120	ft/ft
D	Mixing Zone Thickness (usually constant)	15.0	ft
L	Mixing Zone Length (see ARM 17.30.517(1)(d)(viii))	500	ft
Y	Width of Drainfield Perpendicular to Ground Water Flow	398.0	ft
Ng	Background Nitrate (as Nitrogen) Concentration	3.82	mg/L
Nr	Nitrate (as Nitrogen) Concentration in Precipitation (usually constant)	1.00	mg/L
Ne	Nitrate (as Nitrogen) Concentration in Effluent	23.00	mg/L
#I	Number of Single Family Homes on the Drainfield	250.0	
QI	Quantity of Effluent per Single Family Home	26.70	ft ³ /day
P	Precipitation	0.0	in/year
V	Percent of Precipitation Recharging Ground Water (usually constant)	0.2	

EQUATIONS

W	Width of Mixing Zone Perpendicular to Ground Water Flow = (0.175)(L)+(Y)	485.5	ft
Am	Cross Sectional Area of Aquifer Mixing Zone = (D)(W)	7282.5	ft ²
As	Surface Area of Mixing Zone = (L)(W)	242750	ft ²
Qg	Ground Water Flow Rate = (K)(I)(Am)	28489.14	ft ³ /day
Qr	Recharge Flow Rate = (As)(P/12/365)(V)	0	ft ³ /day
Qe	Effluent Flow Rate = (#I)(QI)	6675	ft ³ /day

SOLUTION

Nt	Nitrate (as Nitrogen) Concentration at End of Mixing Zone = ((Ng)(Qg)+(Nr)(Qr)+(Ne)(Qe)) / ((Qg)+(Qr)+(Qe))	7.46	mg/L
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BY: CDP
DATE: June 24, 2013

REV. 03/2005

Appendix M

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

PHOSPHOROUS BREAKTHROUGH ANALYSIS

SITE NAME: GGWSD
COUNTY: Gallatin
LOT #: Tract 1B1 of Minor Sub 309A
NOTES: 50,000 Max Day Analysis

<u>VARIABLES</u>	<u>DESCRIPTION</u>	<u>VALUE</u>	<u>UNITS</u>
Lg	Length of Primary Drainfield as Measured Perpendicular to Ground Water Flow	398.0	ft
L	Length of Primary Drainfield's Long Axis	724.0	ft
W	Width of Primary Drainfield's Short Axis	130.0	ft
B	Depth to Limiting Layer from Bottom of Drainfield Laterals*	35.0	ft
D	Distance from Drainfield to Surface Water	2500.0	ft
T	Phosphorous Mixing Depth in Ground Water (0.5 ft for coarse soils, 1.0 ft for fine soils)**	0.5	ft
Sw	Soil Weight (usually constant)	100.0	lb/ft ³
Pa	Phosphorous Adsorption Capacity of Soil (usually constant)	200.0	ppm
#l	Number of Single Family Homes on the Drainfield	250.0	
 <u>CONSTANTS</u>			
Pl	Phosphorous Load per Single Family Home (constant)	6.44	lbs/yr
X	Conversion Factor for ppm to percentage (constant)	1.0E+06	
 <u>EQUATIONS</u>			
Pt	Total Phosphorous Load = (Pl)(#l)	1610.00	lbs/yr
W1	Soil Weight under Drainfield = (L)(W)(B)(Sw)	329420000.0	lbs
W2	Soil Weight from Drainfield to Surface Water = [(Lg)(D) + (0.0875)(D)(D)] (T)(Sw)	77093750.0	lbs
P	Total Phosphorous Adsorption by Soils = (W1 + W2)[(Pa)/(X)]	81302.8	lbs
 <u>SOLUTION</u>			
BT	Breakthrough Time to Surface Water = P / Pt	50.5	years

BY: CDP
DATE: June 24, 2013

NOTES: * Depth to limiting layer is typically based on depth to water in a test pit or bottom of a dry test pit minus two feet to account for burial depth of standard drainfield laterals.
** Material type is usually based on test pit. A soil that can be described as loam (e.g. gravelly loam, sandy loam, etc.) or finer according to the USDA soil texture classification system is considered a "fine" soil.



Gallatin Gateway Water and Sewer District Vaughn Site Test Well Pumping Test Analysis

A pumping test was conducted on a new test well located at the Vaughn site for the purposes of determining aquifer properties beneath the proposed Gallatin Gateway disposal field. The test well was installed on June 5, 2013 in the center of the disposal site. A drilling log of the well is summarized in the table below.

Vaughn Site Test Well

Depth(bgs)	Formation	Notes
0-2	Topsoil	
2-35	Sand and Gravel	Dry material
35-40	Silty Clay	
40-52	Sand and Gravel	Orange colored discharge Drilling stopped and static water level measured at 50' bgs
52-65	Sand and Gravel	Drill rig producing 2-3 gpm

After drilling, a PVC Well screen (0.020" slot) was installed and the well casing was pulled back 15' to expose 15' of well screen. This resulted in a well that was cased from +2 to 50 feet with a screened interval in the uppermost zone of the aquifer from 50 to 65 feet.

A 5-hour pumping test was conducted on June 7, 2013. The pumping rate was set at 42 gpm and measured with a 2" turbine meter. The pumping rate was checked at 20 minute intervals and remained constant throughout the test. Water levels were measured in the pumping well with a pressure transducer at 1-minute intervals. Pumped water was discharged 100' down-gradient of the test well.

The drawdown during the 5-hour pump test was 1.51 feet indicating that the uppermost zone of the aquifer is very productive. Recovery of 1.3 feet of the drawdown occurred after only 2 minutes. The well was fully recovered after 5 hours.

A graph of the pumping test water levels and recovery water levels is shown in Figure 1. Complete pump test data is provided on separate data sheets. The data sheets include well information, a graph of pumping and recovery water levels, transmissivity calculations, and water level data. Transmissivity and hydraulic conductivity were determined by analyzing the pumping well drawdown data with the Cooper-Jacob straight-line solution to the Theis Equation (Driscoll, 1986).

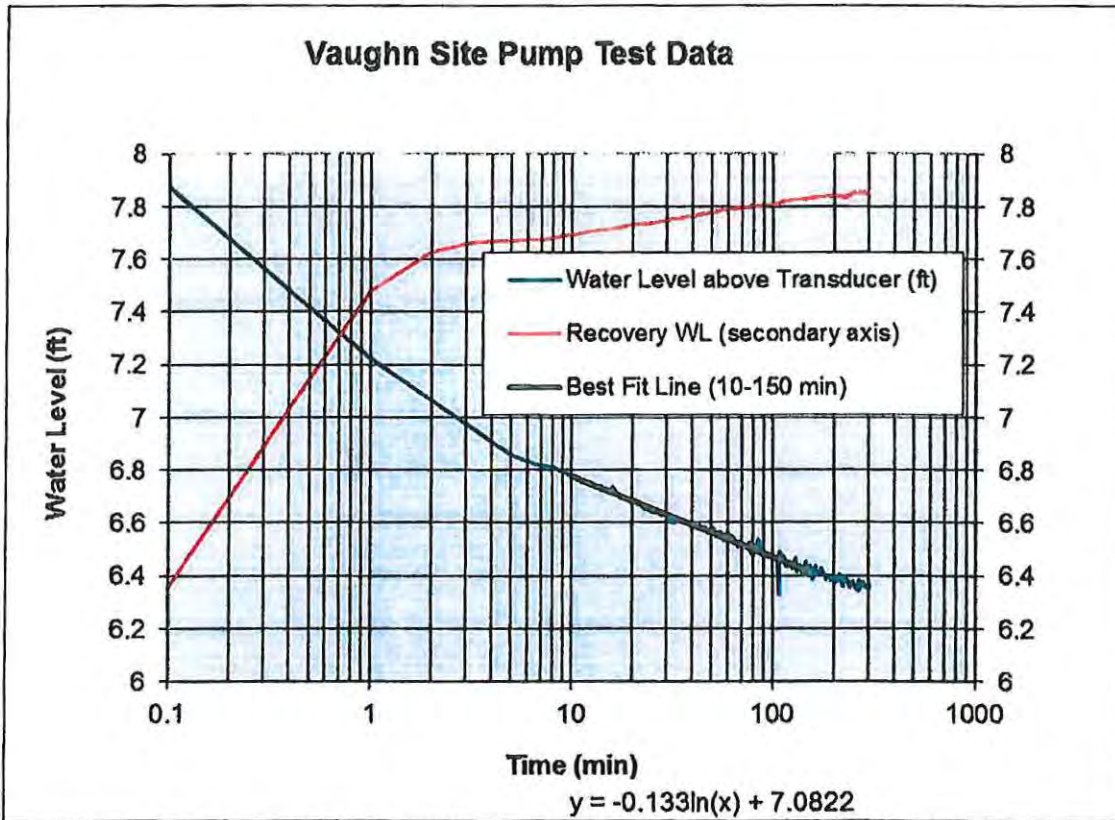


Figure 1. Pumping Water Level and Recovery Water Level

The Cooper-Jacob straight-line solution to the Theis Equation is:

$$T = (264 Q)/\Delta s$$

Where: T = transmissivity in gallons/day/ft²
 Q = pumping rate in gpm
 Δs = change in drawdown for 1 log cycle, in feet

Of particular importance with this method is that the Theis assumptions are satisfied and u is less than 0.01 to 0.05 (depending on the reference used). The value u is calculated as:

$$u = 1.87 r^2 S / Tt$$

Where: r = radial distance to monitoring well (0.25 ft)
 S = coefficient of storage (0.10)
 T = transmissivity in gallons/day/ft² (from solution above)
 t = time in days

Driscoll (1986) states data collected when time is small or radius is large will not create a linear log-time vs. drawdown curve because u is too large. The value of u is less than 0.0005 for any data point after 1 minute of pumping in the pumped well, validating the use of the Cooper-Jacob straight-line solution to the Theis Equation.

As shown in the log-time vs. water level graphs of the pumping water level and recovery water level, it is evident that the data does plot a straight line. The pumping test data showed a slightly decreased rate of drawdown for the last portion of the test. This decrease is attributed to effect of groundwater recharge due to the slight water table gradient. The best fit line from 10-150 minutes for the pumping well data was used to determine the Δs and resulting aquifer properties. Using the best fit line equation, Δs for one log cycle is 0.306'.

The recovery data also plots in a straight line after 5 minutes. The recovery data has a smaller Δs which would result in a higher transmissivity. However, the recovery data is likely influenced too much by the groundwater recharge due to the water table gradient. Thus, the recovery data was not used to determine aquifer properties.

Using the Cooper-Jacob straight-line solution to the Theis Equation, the following transmissivity is calculated:

$$T = (264 * 42) / 0.306$$
$$T = 36,235 \text{ gpd/ft}^2 \text{ or } 4,844 \text{ ft}^2/\text{day}$$

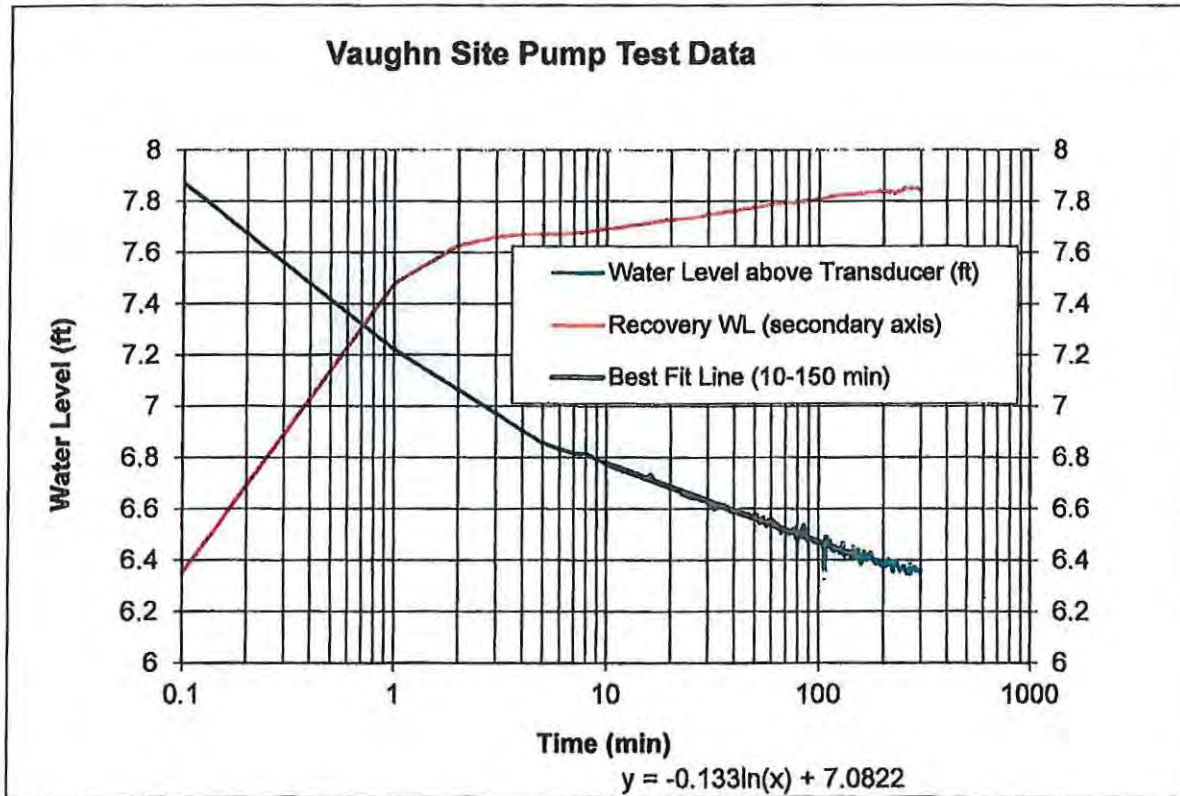
Hydraulic conductivity ($K = T/b$) can subsequently be found, where b is the thickness of the aquifer affected by the pumping test. The well was fully screened for the uppermost 15 feet of the aquifer from 50' to 65'. The bottom of the screen was capped so water was restricted to only entering the screen slots. The static water level was slightly below the top of the screen resulting in an aquifer thickness of 14.87 feet during the test.

$$K = 4,844 \text{ ft}^2/\text{day} / 14.87 \text{ ft}$$
$$K = 326 \text{ ft/day}$$

The test well fully penetrated the uppermost 15' of the aquifer but only partially penetrated the entire alluvial aquifer. Based on previous studies the bottom of the alluvial aquifer in this location is approximately 90' below ground. As a comparison, the pumping test data was analyzed as a partially penetrating well. The test data did not fit the typical family of type curves for partially penetrating wells. The type curves only fit the data set satisfactorily if the vertical conductivity was zeroed out, essentially limiting aquifer thickness to the screened interval. This result supports the hydraulic conductivity determination above.

Location: Vaughn Site Test Well
 Date: 6/7/2013 11:35 AM

Static Water Level 52.33 (btc) casing 22" above ground
 Total Depth 67.2 ft (btc)
 Pumping Rate 42 gpm (2" Neptune Flowmeter)
 Pump Depth 60.3 ft (btc)
 Transducer Depth 60.2 ft (btc)
 Screened Interval 52.2 to 67.2 ft (btc)
 Discharge Hose 100 ft



Transmissivity Calculations

Cooper-Jacob Modification of Theis Equation (straight line method)

Drawdown over one log cycle (delta s)

Q	gpm	42
delta s	ft	0.306 from trendline equation 10 to 150 min
T	gpd/ft	36235
	ft ² /day	4844
r	ft	0.25 6" well
S	n/a	0.1 Typical for unconfined gravel aquifer
t	min	1 Test data valid after this time
	days	0.00069
U	n/a	0.00046 < 0.01 so test data valid
Thickness	ft	14.87 Screened interval-screen capped on bottom
K	ft/day	326

Pump Test Data

Time	Pumping Water Level ft above XD	Recovery Water Level ft above XD
0.1	7.869	6.358
1	7.22	7.48
2	7.063	7.63
3	6.972	7.663
4	6.904	7.673
5	6.857	7.673
6	6.831	7.675
7	6.817	7.677
8	6.815	7.682
9	6.792	7.691
10	6.778	7.696
11	6.761	7.698
12	6.747	7.703
13	6.741	7.708
14	6.741	7.711
15	6.717	7.715
16	6.736	7.718
17	6.705	7.72
18	6.696	7.725
19	6.694	7.729
20	6.689	7.729
21	6.682	7.732
22	6.668	7.732
23	6.654	7.734
24	6.647	7.736
25	6.642	7.739
26	6.64	7.741
27	6.64	7.743
28	6.63	7.743
29	6.64	7.746
30	6.626	7.75
31	6.605	7.753
32	6.6	7.753
33	6.605	7.755
34	6.612	7.755
35	6.614	7.758
36	6.616	7.76
37	6.605	7.762
38	6.593	7.762
39	6.588	7.762
40	6.586	7.765
41	6.588	7.765
42	6.591	7.769
43	6.593	7.769
44	6.579	7.772
45	6.581	7.774
46	6.584	7.774

47	6.579	7.774
48	6.565	7.776
49	6.577	7.779
50	6.565	7.779
51	6.579	7.779
52	6.551	7.781
53	6.544	7.781
54	6.565	7.783
55	6.567	7.786
56	6.544	7.786
57	6.532	7.786
58	6.56	7.788
59	6.551	7.79
60	6.553	7.79
61	6.556	7.793
62	6.548	7.793
63	6.544	7.793
64	6.544	7.793
65	6.52	7.795
66	6.525	7.793
67	6.506	7.795
68	6.53	7.795
69	6.52	7.795
70	6.513	7.795
71	6.502	7.795
72	6.518	7.795
73	6.506	7.795
74	6.504	7.795
75	6.516	7.797
76	6.523	7.797
77	6.525	7.797
78	6.499	7.8
79	6.485	7.8
80	6.478	7.8
81	6.497	7.802
82	6.516	7.802
83	6.516	7.802
84	6.53	7.802
85	6.537	7.804
86	6.518	7.804
87	6.504	7.804
88	6.488	7.804
89	6.474	7.807
90	6.478	7.807
91	6.476	7.807
92	6.488	7.807
93	6.476	7.809
94	6.474	7.807
95	6.471	7.809
96	6.471	7.809
97	6.467	7.809
98	6.471	7.809

99	6.481	7.809
100	6.476	7.811
101	6.471	7.811
102	6.469	7.811
103	6.467	7.811
104	6.464	7.811
105	6.467	7.814
106	6.328	7.814
107	6.467	7.814
108	6.492	7.816
109	6.473	7.816
110	6.473	7.818
111	6.467	7.818
112	6.478	7.821
113	6.467	7.821
114	6.455	7.821
115	6.441	7.821
116	6.436	7.821
117	6.434	7.821
118	6.455	7.823
119	6.45	7.823
120	6.45	7.823
121	6.443	7.825
122	6.448	7.823
123	6.445	7.825
124	6.434	7.825
125	6.429	7.825
126	6.427	7.825
127	6.434	7.825
128	6.452	7.825
129	6.467	7.825
130	6.427	7.825
131	6.415	7.825
132	6.436	7.825
133	6.422	7.825
134	6.427	7.828
135	6.424	7.828
136	6.429	7.828
137	6.438	7.828
138	6.434	7.83
139	6.41	7.828
140	6.424	7.828
141	6.415	7.83
142	6.413	7.83
143	6.431	7.828
144	6.452	7.828
145	6.424	7.83
146	6.408	7.83
147	6.408	7.83
148	6.413	7.83
149	6.413	7.83
150	6.417	7.83

151	6.436	7.83
152	6.441	7.83
153	6.427	7.832
154	6.406	7.832
155	6.399	7.832
156	6.385	7.835
157	6.389	7.832
158	6.394	7.832
159	6.413	7.832
160	6.422	7.832
161	6.434	7.832
162	6.434	7.835
163	6.422	7.835
164	6.42	7.835
165	6.401	7.835
166	6.413	7.835
167	6.401	7.835
168	6.417	7.835
169	6.42	7.835
170	6.422	7.835
171	6.422	7.835
172	6.424	7.837
173	6.431	7.837
174	6.413	7.837
175	6.413	7.835
176	6.41	7.837
177	6.408	7.837
178	6.399	7.837
179	6.401	7.837
180	6.401	7.837
181	6.403	7.837
182	6.389	7.84
183	6.385	7.84
184	6.389	7.84
185	6.399	7.84
186	6.401	7.84
187	6.401	7.84
188	6.396	7.84
189	6.394	7.842
190	6.394	7.84
191	6.387	7.84
192	6.385	7.84
193	6.38	7.837
194	6.382	7.837
195	6.387	7.837
196	6.387	7.84
197	6.38	7.84
198	6.382	7.84
199	6.385	7.84
200	6.382	7.842
201	6.389	7.842
202	6.392	7.842

203	6.389	7.842
204	6.375	7.842
205	6.377	7.84
206	6.382	7.84
207	6.382	7.84
208	6.385	7.837
209	6.382	7.837
210	6.385	7.837
211	6.405	7.84
212	6.384	7.837
213	6.382	7.835
214	6.38	7.837
215	6.38	7.837
216	6.385	7.84
217	6.392	7.837
218	6.387	7.837
219	6.377	7.837
220	6.363	7.837
221	6.356	7.835
222	6.373	7.837
223	6.37	7.835
224	6.377	7.832
225	6.382	7.83
226	6.392	7.832
227	6.389	7.832
228	6.387	7.835
229	6.385	7.835
230	6.385	7.837
231	6.382	7.837
232	6.38	7.837
233	6.377	7.84
234	6.373	7.84
235	6.368	7.842
236	6.37	7.844
237	6.366	7.842
238	6.363	7.844
239	6.359	7.842
240	6.359	7.842
241	6.366	7.844
242	6.37	7.844
243	6.37	7.844
244	6.377	7.844
245	6.368	7.847
246	6.373	7.847
247	6.373	7.849
248	6.375	7.851
249	6.377	7.854
250	6.373	7.856
251	6.37	7.856
252	6.368	7.856
253	6.363	7.856
254	6.356	7.856

255	6.354	7.854
256	6.352	7.854
257	6.356	7.854
258	6.359	7.851
259	6.347	7.851
260	6.352	7.851
261	6.354	7.851
262	6.363	7.851
263	6.37	7.851
264	6.359	7.851
265	6.345	7.851
266	6.347	7.851
267	6.382	7.854
268	6.363	7.854
269	6.37	7.854
270	6.356	7.854
271	6.363	7.851
272	6.359	7.851
273	6.359	7.851
274	6.361	7.851
275	6.373	7.851
276	6.363	7.851
277	6.368	7.854
278	6.375	7.851
279	6.373	7.854
280	6.373	7.854
281	6.361	7.851
282	6.359	7.851
283	6.366	7.851
284	6.366	7.854
285	6.363	7.854
286	6.359	7.854
287	6.363	7.854
288	6.359	7.854
289	6.361	7.851
290	6.356	7.851
291	6.361	7.849
292	6.363	7.849
293	6.361	7.849
294	6.359	7.849
295	6.361	7.847
296	6.359	7.847
297	6.359	7.847
298	6.356	7.844
299	6.356	7.847
300	6.358	7.847

SOIL TEST PIT DATA

Client/Site: Gallatin Gateway WSD / Vaughn Site

Pit Identification: 1

Slope: 2%

Evaluated by: Cordell Pool

Vegetation: grass

Location: Primary drainfield

Current use: vacant

Elevation: approx. 5000'

Date: 6/17/13

High groundwater >120"

Horizon	Depth	Texture	Structure	Color	CF %	Mottling	Roots	CaCO ₃ Rxn
A	0-5"	Loam	Weak fine granular	10YR 3-2	5%	None	Yes	None
AB	5-16"	Gravelly Loamy Sand	Weak med granular	10YR 4-2	15%	None	Yes	Moderate
B _t	16-25"	Gravelly sandy clay loam	Weak med blocky	10YR 4-2	15%	None	Yes	None
C _{1k}	25-70"	Very cobbly loamy sand	Single grained	N/A	50%	None	To 42"	Strong
C _{2k}	70-120"	Very cobbly sand	Single grained	N/A	50%	None	None	Strong

Notes: 1.) A and AB horizons have been disturbed by nearby construction
 2.) CaCO₃ on rocks from C horizon down



SOIL TEST PIT DATA

Client/Site: Gallatin Gateway WSD / Vaughn Site

Pit Identification: 2

Slope: 2%

Evaluated by: Cordell Pool

Vegetation: grass

Location: Primary drianfield

Current use: vacant

Elevation: approx. 5000'

Date: 6/17/13

High groundwater >120"

Horizon	Depth	Texture	Structure	Color	CF %	Mottling	Roots	CaCO ₃ Rxn
A	0-7"	Loam	Med med granular	10YR 3-2	<5%	None	Yes	None
B _t	7-15"	Clay loam	Med med blocky	10YR 4-3	10%	None	Yes	None
BC _k	15-24"	Gravelly sandy Loam	Single grained	10YR 4-3	30%	None	Yes	Strong
C _{1k}	24-47"	Very gravelly loamy sand	Single grained	N/A	50%	None	To 38"	Strong
C _{2k}	47-120"	Very cobbly sand	Single grained	N/A	50%	None	None	Strong

- Notes:
- 1.) BC Horizon is a transition area between upper fine soils and lower sandy soils
 - 2.) CaCO₃ on rocks from C horizon down



SOIL TEST PIT DATA

Client/Site: Gallatin Gateway WSD / Vaughn Site

Pit Identification: 3

Slope: 2%

Evaluated by: Cordell Pool

Vegetation: grass

Location: Primary drainfield

Current use: vacant

Elevation: approx. 5000'

Date: 6/17/13

High groundwater >120"

Horizon	Depth	Texture	Structure	Color	CF %	Mottling	Roots	CaCO ₃ Rxn
A	0-7"	Loam	Med med granular	10YR 3-2	<5%	None	Yes	None
B _w	7-15"	Very fine sandy loam	Med med blocky	10YR 4-3	5%	None	Yes	None
BC _k	15-29"	Gravelly sandy loam	Single grained	N/A	30%	None	Yes	Strong
C ₁	29-120"	Very cobbly sand	Single grained	N/A	50%	None	To 33"	Strong

- Notes:
- 1.) BC Horizon is a transition area between upper fine soils and lower sandy soils
 - 2.) CaCO₃ on rocks from C horizon down



SOIL TEST PIT DATA

Client/Site: Gallatin Gateway WSD / Vaughn Site

Pit Identification: 4

Slope: 2%

Evaluated by: Cordell Pool

Vegetation: grass

Location: Primary drainfield

Current use: vacant

Elevation: approx. 5000'

Date: 6/17/13

High groundwater >120"

Horizon	Depth	Texture	Structure	Color	CF %	Mottling	Roots	CaCO ₃ Rxn
A	0-7"	Clay loam	Med coarse blocky	10YR 2-2	<5%	None	Yes	None
B _w	7-18"	Loam	Med med blocky	10YR 4-3	5%	None	Yes	None
BC _k	18-28"	Gravelly sandy loam	Single grained	10YR 4-3	25%	None	Yes	Strong
C _k	28-120"	Very cobbly sand	Single grained	N/A	50%	None	To 34"	Strong

- Notes:
- 1.) BC Horizon is a transition area between upper fine soils and lower sandy soils
 - 2.) CaCO₃ on rocks from C horizon down



SOIL TEST PIT DATA

Client/Site: Gallatin Gateway WSD/ Vaughn Site

Pit Identification: 5

Slope: 2%

Evaluated by: Cordell Pool

Vegetation: grass

Location: Replacement drainfield

Current use: vacant

Elevation: approx. 5000'

Date: 6/17/13

High groundwater >120"

Horizon	Depth	Texture	Structure	Color	CF %	Mottling	Roots	CaCO ₃ Rxn
A	0-9"	Loam	Med med granular	10YR 3-2	<5%	None	Yes	None
B _t	9-16"	Loam	Med med blocky	10YR 4-3	<5%	None	Yes	None
BC _k	16-24"	Gravelly sandy loam	Single grained	10YR 4-3	30%	None	Yes	Strong
C _k	24-122"	Very gravelly sand	Single grained	N/A	50%	None	To 43"	Strong

- Notes: 1.) BC Horizon is a transition area between upper fine soils and lower sandy soils
 2.) CaCO₃ on rocks from C horizon down



SOIL TEST PIT DATA

Client/Site: Gallatin Gateway WSD/ Vaughn Site

Pit Identification: 6

Slope: 2%

Evaluated by: Cordell Pool

Vegetation: grass

Location: Replacement drainfield

Current use: vacant

Elevation: approx. 5000'

Date: 6/17/13

High groundwater >120"

Horizon	Depth	Texture	Structure	Color	CF %	Mottling	Roots	CaCO ₃ Rxn
A	0-9"	Loam	Weak fine granular	10YR 3-2	5%	None	Yes	None
B _t	9-17"	Loam	Med med blocky	10YR 4-3	5%	None	Yes	None
BC _k	17-26"	Gravelly sandy loam	Single grained	10YR 4-3	30%	None	Yes	Strong
C _k	26-120"	Very cobbly and	Single grained	N/A	50%	None	To 42"	Strong

- Notes: 1.) BC Horizon is a transition area between upper fine soils and lower sandy soils
 2.) CaCO₃ on rocks from C horizon down



SOIL TEST PIT DATA

Client/Site: Gallatin Gateway WSD/ Vaughn Site

Pit Identification: 7

Slope: 2%

Evaluated by: Cordell Pool

Vegetation: grass

Location: Replacement drainfield

Current use: vacant

Elevation: approx. 5000'

Date: 6/17/13

High groundwater >120"

Horizon	Depth	Texture	Structure	Color	CF %	Mottling	Roots	CaCO ₃ Rxn
A	0-9"	Loam	Med med granular	10YR 3-2	<5%	None	Yes	None
B _t	9-17"	Loam	Med med blocky	10YR 4-3	<5%	None	Yes	None
BC _k	17-28"	Gravelly sandy loam	Single grained	10YR 4-3	25%	None	Yes	Strong
C _k	28-120"	Very cobbly sand	Single grained	N/A	50%	None	To 44"	Strong

- Notes:
- 1.) BC Horizon is a transition area between upper fine soils and lower sandy soils
 - 2.) CaCO₃ on rocks from C horizon down



SOIL TEST PIT DATA

Client/Site: Gallatin Gateway WSD/ Vaughn Site

Pit Identification: 8

Slope: 2%

Evaluated by: Cordell Pool

Vegetation: grass

Location: Replacement drainfield

Current use: vacant

Elevation: approx. 5000'

Date: 6/17/13

High groundwater >120"

Horizon	Depth	Texture	Structure	Color	CF %	Mottling	Roots	CaCO ₃ Rxn
A	0-8"	Loam	Med med granular	10YR 3-2	<5%	None	Yes	None
B _t	8-17"	Loam	Med med blocky	10YR 4-3	<5%	None	Yes	None
BC _k	17-25"	Gravelly sandy loam	Single grained	10YR 4-3	30%	None	Yes	Strong
C _k	25-120"	Very cobbly sand	Single grained	N/A	50%	None	To 36"	Strong

Notes

- 1.) BC Horizon is a transition area between upper fine soils and lower sandy soils
- 2.) CaCO₃ on rocks from C horizon down



Percolation Test Data

Owner Name Gallatin Gateway Sewer District
 Project Name Wastewater Improvements
 Lot or Tract Number Vaughn Site Test Number Pit 1
 Diameter of Test Hole 8-10" with 4" perf pipe Depth of Test Hole 24"
 Date and Time Soak Period Began 6/18/13, 1:40 PM Ended 3:40 PM
 Date Test Began 6/18/2013
 Distance of the reference point above the bottom of hole 18"

Start Time of Day	End Time of Day	Time Interval (Minutes)	Initial Distance Below Reference Point	Final Distance Below Reference Point	Drop in Water Level (inches)	Percolation Rate (minutes/inch)
3:40:00	3:50:00	10	10	12.50	2.50	4.00
3:50:30	4:00:30	10	10	12.50	2.50	4.00
4:01:00	4:11:00	10	10	12.00	2.00	5.00
4:11:30	4:21:30	10	10	12.00	2.00	5.00
4:22:00	4:32:00	10	10	12.00	2.00	5.00
4:32:30	4:42:30	10	10	12.00	2.00	5.00

Percolation Rate: 5.00 minutes/inch

I certify that the above percolation tests were performed in accordance MDEQ Circular DEQ 4

Cordell Pool
 Name of person conducting test

Percolation Test Data

Owner Name Gallatin Gateway Sewer District
 Project Name Wastewater Improvements
 Lot or Tract Number Vaughn Site Test Number Pit 2
 Diameter of Test Hole 8-10" with 4" perf pipe Depth of Test Hole 24"
 Date and Time Soak Period Began 6/18/13, 1:42 PM Ended 3:42 PM
 Date Test Began 6/18/2013
 Distance of the reference point above the bottom of hole 18"

Start Time of Day	End Time of Day	Time Interval (Minutes)	initial Distance Below Reference Point	Final Distance Below Reference Point	Drop in Water Level (inches)	Percolation Rate (minutes/inch)
3:42:00	3:52:00	10	10	11.75	1.75	5.71
3:52:30	4:02:30	10	10	12.00	2.00	5.00
4:03:00	4:13:00	10	10	11.50	1.50	6.67
4:13:30	4:23:30	10	10	11.50	1.50	6.67
4:24:00	4:34:00	10	10	11.75	1.75	5.71
4:34:30	4:44:30	10	10	11.75	1.75	5.71

Percolation Rate: 5.71 minutes/inch

I certify that the above percolation tests were performed in accordance MDEQ Circular DEQ 4

Cordell Pool
 Name of person conducting test

Percolation Test Data

Owner Name Gallatin Gateway Sewer District
 Project Name Wastewater Improvements
 Lot or Tract Number Vaughn Site Test Number Pit 3
 Diameter of Test Hole 8-10" with 4" perf pipe Depth of Test Hole 24"
 Date and Time Soak Period Began 6/20/13, 1:50 PM Ended 3:50 PM
 Date Test Began 6/20/2013
 Distance of the reference point above the bottom of hole 18"

Start Time of Day	End Time of Day	Time Interval (Minutes)	initial Distance Below Reference Point	Final Distance Below Reference Point	Drop in Water Level (inches)	Percolation Rate (minutes/inch)
3:50:00	4:00:00	10	10	12.75	2.75	3.64
4:00:30	4:10:30	10	10	12.50	2.50	4.00
4:11:00	4:21:00	10	10	12.50	2.50	4.00
4:21:30	4:31:30	10	10	12.25	2.25	4.44
4:32:00	4:42:00	10	10	12.00	2.00	5.00
4:42:30	4:52:30	10	10	12.25	2.25	4.44

Percolation Rate: 4.44 minutes/inch

I certify that the above percolation tests were performed in accordance MDEQ Circular DEQ 4

Cordell Pool
 Name of person conducting test

Percolation Test Data

Owner Name Gallatin Gateway Sewer District
 Project Name Wastewater Improvements
 Lot or Tract Number Vaughn Site Test Number Pit 4
 Diameter of Test Hole 8-10" with 4" perf pipe Depth of Test Hole 24"
 Date and Time Soak Period Began 6/18/13, 12:05 PM Ended 2:05 PM
 Date Test Began 6/18/2013
 Distance of the reference point above the bottom of hole 18"

Start Time of Day	End Time of Day	Time Interval (Minutes)	Initial Distance Below Reference Point	Final Distance Below Reference Point	Drop in Water Level (inches)	Percolation Rate (minutes/inch)
2:05:00	2:15:00	10	10	12.50	2.50	4.00
2:15:30	2:25:30	10	10	12.50	2.50	4.00
2:26:00	2:36:00	10	10	12.25	2.25	4.44
2:36:30	2:46:30	10	10	12.25	2.25	4.44
2:47:00	2:57:00	10	9.75	12.00	2.25	4.44
2:57:30	3:07:30	10	9.75	11.50	1.75	5.71

Percolation Rate: 5.71 minutes/inch

I certify that the above percolation tests were performed in accordance MDEQ Circular DEQ 4

Cordell Pool
 Name of person conducting test

Percolation Test Data

Owner Name Gallatin Gateway Sewer District
 Project Name Wastewater Improvements
 Lot or Tract Number Vaughn Site Test Number Pit 5
 Diameter of Test Hole 8-10" with 4" perf pipe Depth of Test Hole 24"
 Date and Time Soak Period Began 6/20/13, 8:50 AM Ended 10:50 AM
 Date Test Began 6/20/2013
 Distance of the reference point above the bottom of hole 18"

Start Time of Day	End Time of Day	Time Interval (Minutes)	initial Distance Below Reference Point	Final Distance Below Reference Point	Drop in Water Level (inches)	Percolation Rate (minutes/inch)
10:50:00	11:00:00	10	10	14.50	4.50	2.22
11:00:30	11:10:30	10	10	13.75	3.75	2.67
11:11:00	11:21:00	10	10	13.50	3.50	2.86
11:21:30	11:31:30	10	10	13.50	3.50	2.86
11:32:00	11:42:00	10	10	13.25	3.25	3.08
11:42:30	11:52:30	10	10	13.25	3.25	3.08

Percolation Rate: 3.08 minutes/inch

I certify that the above percolation tests were performed in accordance MDEQ Circular DEQ 4

Cordell Pool
 Name of person conducting test

Percolation Test Data

Owner Name Gallatin Gateway Sewer District
 Project Name Wastewater Improvements
 Lot or Tract Number Vaughn Site Test Number Pit 6
 Diameter of Test Hole 8-10" with 4" perf pipe Depth of Test Hole 24"
 Date and Time Soak Period Began 6/20/13, 8:45 AM Ended 10:45 AM
 Date Test Began 6/20/2013
 Distance of the reference point above the bottom of hole 18"

Start Time of Day	End Time of Day	Time Interval (Minutes)	Initial Distance Below Reference Point	Final Distance Below Reference Point	Drop in Water Level (inches)	Percolation Rate (minutes/inch)
10:45:00	10:55:00	10	10	13.75	3.75	2.67
10:55:30	11:05:30	10	10	13.00	3.00	3.33
11:06:00	11:16:00	10	10	12.75	2.75	3.64
11:16:30	11:26:30	10	10	12.75	2.75	3.64
11:27:00	11:37:00	10	10	12.50	2.50	4.00
11:37:30	11:47:30	10	10	12.50	2.50	4.00

Percolation Rate: 4.00 minutes/inch

I certify that the above percolation tests were performed in accordance MDEQ Circular DEQ 4

Cordell Pool
 Name of person conducting test

Percolation Test Data

Owner Name Gallatin Gateway Sewer District
 Project Name Wastewater Improvements
 Lot or Tract Number Vaughn Site Test Number Pit 7
 Diameter of Test Hole 8-10" with 4" perf pipe Depth of Test Hole 24"
 Date and Time Soak Period Began 6/20/13, 1:55 PM Ended 3:55 PM
 Date Test Began 6/20/2013
 Distance of the reference point above the bottom of hole 18"

Start Time of Day	End Time of Day	Time Interval (Minutes)	initial Distance Below Reference Point	Final Distance Below Reference Point	Drop in Water Level (inches)	Percolation Rate (minutes/inch)
3:55:00	4:05:00	10	10	12.75	2.75	3.64
4:05:30	4:15:30	10	10	12.50	2.50	4.00
4:16:00	4:26:00	10	10	12.50	2.50	4.00
4:26:30	4:36:30	10	10	12.25	2.25	4.44
4:37:00	4:47:00	10	10	12.25	2.25	4.44
4:47:30	4:57:30	10	10	12.25	2.25	4.44

Percolation Rate: 4.44 minutes/inch

I certify that the above percolation tests were performed in accordance MDEQ Circular DEQ 4

Cordell Pool
 Name of person conducting test

Percolation Test Data

Owner Name Gallatin Gateway Sewer District
 Project Name Wastewater Improvements
 Lot or Tract Number Vaughn Site Test Number Pit 8
 Diameter of Test Hole 8-10" with 4" perf pipe Depth of Test Hole 24"
 Date and Time Soak Period Began 6/20/13, 9:57 AM Ended 11:57 AM
 Date Test Began 6/20/2013
 Distance of the reference point above the bottom of hole 18"

Start Time of Day	End Time of Day	Time Interval (Minutes)	Initial Distance Below Reference Point	Final Distance Below Reference Point	Drop in Water Level (inches)	Percolation Rate (minutes/inch)
11:57:00	12:07:00	10	10	13.75	3.75	2.67
12:07:30	12:17:30	10	10	13.50	3.50	2.86
12:18:00	12:28:00	10	10	13.50	3.50	2.86
12:28:30	12:38:30	10	10	13.25	3.25	3.08
12:39:00	12:49:00	10	10	13.00	3.00	3.33
12:49:30	12:59:30	10	10	13.25	3.25	3.08

Percolation Rate: 3.08 minutes/inch

I certify that the above percolation tests were performed in accordance MDEQ Circular DEQ 4

Cordell Pool
 Name of person conducting test

**DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment**

**Permitting and Compliance Division
Water Protection Bureau**

Name of Project: Gallatin Gateway County Water & Sewer District

Type of Project: Discharge of wastewater into ground water under the Montana Ground Water Pollution Control System (MGWPCS) permit program

Location of Project: Southeast ¼ of Section 11, Township 3 South, Range 4 East, Gallatin County

City/Town: Gallatin Gateway

County: Gallatin

Description of Project: The following Environmental Assessment (EA) addresses a permit for the proposed Gallatin Gateway County Water & Sewer District Wastewater Treatment Facility. The proposed facility would treat domestic wastewater created by existing residential and non-residential sources. The proposed permit authorizes the permittee to discharge treated wastewater into Class I ground water through a subsurface drainfield at one discharge structure (Outfall 001).

Agency Action and Applicable Regulations: The proposed action is to issue an individual MGWPCS permit that contains effluent limits and effluent monitoring requirements. The permit is issued under the authority of the Montana Water Quality Act (75-5-101 et seq., MCA.), Montana Ground Water Pollution Control System (ARM 17.30.1001-1045), and Montana Numeric Water Quality Standards in the Department Circular DEQ-7 (October 2012).

Summary of Issues: The purpose of this action is to regulate the discharges of pollutants to state waters from the regulated facility. Issuance of an individual permit will require the applicant to implement, monitor, and manage practices to prevent pollution and the degradation of ground water.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur (explain under Potential Impacts).

N = Not present or No Impact will likely occur.

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?</p>	<p>[N] No significant impacts identified.</p>
<p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>[N] Ground water within the area is Class I ground water with a specific conductance less than or equal to 1,000 $\mu\text{S}/\text{cm}$. The Department authorized a standard mixing zone for nitrate from the outfall; however, as long as the permittee adheres to the effluent limits established within the permit, water quality standards outside of the mixing zone should be met. Monitoring and reporting of the effluent is required prior to discharge to ensure compliance with applicable standards and rules.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones?</p>	<p>[N] No significant impacts identified.</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?</p>	<p>[N] The Natural Heritage Database does not list any plant species of concern within the area of the facility.</p>
<p>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>[N] The Natural Heritage Database indicates three species designated as S2 (very limited or potentially declining numbers) in the vicinity of the facility: Grizzly Bear, Yellowstone Cutthroat Trout, and Westslope Cutthroat Trout. However, the area directly adjacent to the proposed facility does not appear to serve any of these populations.</p>
<p>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>[N] Regional studies suggest wetlands and riparian areas are at considerable risk near Gallatin Gateway, however, the proposed wastewater treatment facility does not immediately impact wetlands or riparian vegetation. Regarding threatened species, please refer to 4 and 5 (above).</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] None identified. The Montana State Historic Preservation Office (MSHPO) recommends that in the event that cultural materials are inadvertently discovered the permittee should contact the MSHPO office for investigation.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?</p>	<p>[N] No significant impacts have been identified.</p>
<p>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR, OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded power line or other energy source be needed?</p>	<p>[N] No significant impacts have been identified. The Department analysis indicates that water quality standards will not be exceeded outside of the standard mixing zone for the parameters expected in the effluent. The monitoring and reporting requirements of the effluent ensure the identification of significant variations in the wastewater.</p>
<p>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?</p>	<p>[N] No significant impacts identified.</p>

IMPACTS ON THE HUMAN ENVIRONMENT

<p>11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>[N]</p>
<p>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>[N] No significant impacts identified.</p>
<p>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>[N] No significant impacts identified.</p>
<p>14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p>[N] No significant tax revenue impacts identified.</p>
<p>15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?</p>	<p>[N] No, the proposed facility would serve existing homes, businesses, and community facilities.</p>
<p>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	<p>[N] None identified.</p>
<p>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?</p>	<p>[N] None identified.</p>

IMPACTS ON THE HUMAN ENVIRONMENT

<p>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p>[N] The proposed treatment facility would serve existing sources of domestic wastewater and potentially could serve a small increase in population.</p>
<p>19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?</p>	<p>[N] No significant impacts identified.</p>
<p>20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?</p>	<p>[N] No significant impacts identified.</p>
<p>21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</p>	<p>[N] No significant impacts identified.</p>
<p>22(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.</p>	<p>[N] No significant impacts identified.</p>
<p>22(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.</p>	<p>[N] No significant impacts identified.</p>
<p>22(c). PRIVATE PROPERTY IMPACTS: If the answer to 22(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.</p>	<p>[N] No significant impacts identified in 22(b).</p>

23. Description of and Impacts of other Alternatives Considered:

- A. No Action: Under the "No Action" alternative, the Department would not issue an individual ground water discharge permit under the Montana Ground Water Pollution Control System administrative rules. The proposed action will have environmental benefits compared to leaving the facility unpermitted.
- B. Approval with modification: The Department has not identified any necessary modifications to grant approval.

24. **Summary of Magnitude and Significance of Potential Impacts:** Impacts were assessed with the assumption that the facility will comply with the terms and conditions of the permit. Violations of the permit could lead to significant adverse impacts to state waters. Violations of the permit are not an effect of the agency action since the permit itself forbids such activities. However, the Department has taken steps to ensure that violations do not occur. The Department provides assistance to applicants in understanding and implementing the requirements of the permit. The Department also conducts periodic inspections of permitted facilities, and identifies potential problems with design or management practices. If violations of the permit do occur, the Department will take appropriate action under the water quality act (75-5-617, MCA). Enforcement sanctions for violations of the permit include injunctions, civil and administrative penalties, and cleanup orders.
25. **Cumulative Effects:** The issuance of this individual MGWPCS discharge permit would not have cumulative effects because the permit prohibits pollution and degradation of state waters.
26. **Preferred Action Alternative and Rationale:** The preferred action is to reissue the individual MGWPCS discharge permit. This action is preferred since the permit provides a regulatory mechanism for protecting ground water quality by applying effluent limits and monitoring requirements to the discharged wastewater.

Recommendation for Further Environmental Analysis:

EIS More Detailed EA No Further Analysis

Rationale for Recommendation: An EIS is not required under the Montana Environmental Policy Act because the project lacks significant adverse effects to the human and physical environment.

27. **Public Involvement:** A 30-day public comment period (MT-13-17) was held from July 8, 2013 through August 8, 2013. A public hearing has not been held. Public comment documents will be posted on the Department web page:
<http://deq.mt.gov/notices/WQnotices.mcp.x>. For copies of the draft EA or to submit comments, write or call the Montana Department of Environmental Quality c/o Barb Sharpe, P.O. Box 200901, Helena MT 59620-0901, telephone (406) 444-2838
28. **Persons and agencies consulted in the preparation of this analysis:**
Montana Natural Heritage Program
Montana Fish and Wildlife web site, animal species information web page
Natural Resource Information System, Montana State Library
Historical Preservation Society

U.S. Department of Agriculture, Natural Resources Conservation Service Soil
Survey

EA Checklist Prepared By:

Rainie DeVaney

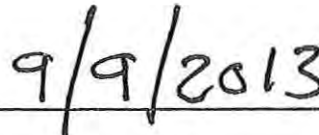
June 7, 2013

Approved By:

Bob Habeck, Chief
Water Protection Bureau
Permitting and Compliance Division

A handwritten signature in black ink that reads "Bob Habeck". The signature is written in a cursive style and is positioned above a horizontal line.

Signature

A handwritten date in black ink that reads "9/9/2013". The date is written in a cursive style and is positioned above a horizontal line.

Date



PUBLIC NOTICE NO. MT-13-17
July 8, 2013

PURPOSE OF PUBLIC NOTICE

The purpose of this notice is to state the Department's intention to issue a wastewater discharge permit to the facility listed in this notice. This permit is issued by the Department under the authority of 75-5-402, Montana Code Annotated (MCA) and the Administrative Rules of Montana 17.30.1001 et seq., Montana Ground Water Pollution Control System (MGWPCS). The Water Protection Bureau has prepared a draft permit for the facility listed below. Copies of the draft permit, statement of basis, and environmental assessment are available upon request from the Water Protection Bureau or on the Department's website www.deq.mt.gov

APPLICANT INFORMATION

APPLICANT: Gallatin Gateway County Water & Sewer District

FACILITY NAME: Gallatin Gateway County Water & Sewer District

FACILITY LOCATION: Tract 1B1 of Minor Subdivision 309A
Gallatin Gateway, Montana 59730
Section 11, Township 3 South, Range 4 East
Gallatin County

RECEIVING WATER: Outfall 001: Class I Ground Water

PERMIT NUMBER: MTX000229

The proposed Montana Ground Water Pollution Control System (MGWPCS) permit authorizes Gallatin Gateway County Water & Sewer District to discharge domestic wastewater from the proposed Gallatin Gateway wastewater treatment system to ground water.

The proposed wastewater treatment system would collect and treat domestic wastewater from existing residential and non-residential sources. The plans include primary treatment in one (1) septic tank followed by a recirculating trickling filter. The treated effluent would then be pressure-dosed into an adjacent subsurface drainfield.

The receiving water for the proposed discharge structure (Outfall 001) is shallow Class I ground water as defined in ARM 17.30.1006. The drainfield associated with Outfall 001 is located:

- Southeast ¼ of Section 11, Township 3 South, Range 4 East;
- 45° 35' 7" North Latitude and -111° 11' 43" West Longitude.

PUBLIC COMMENT

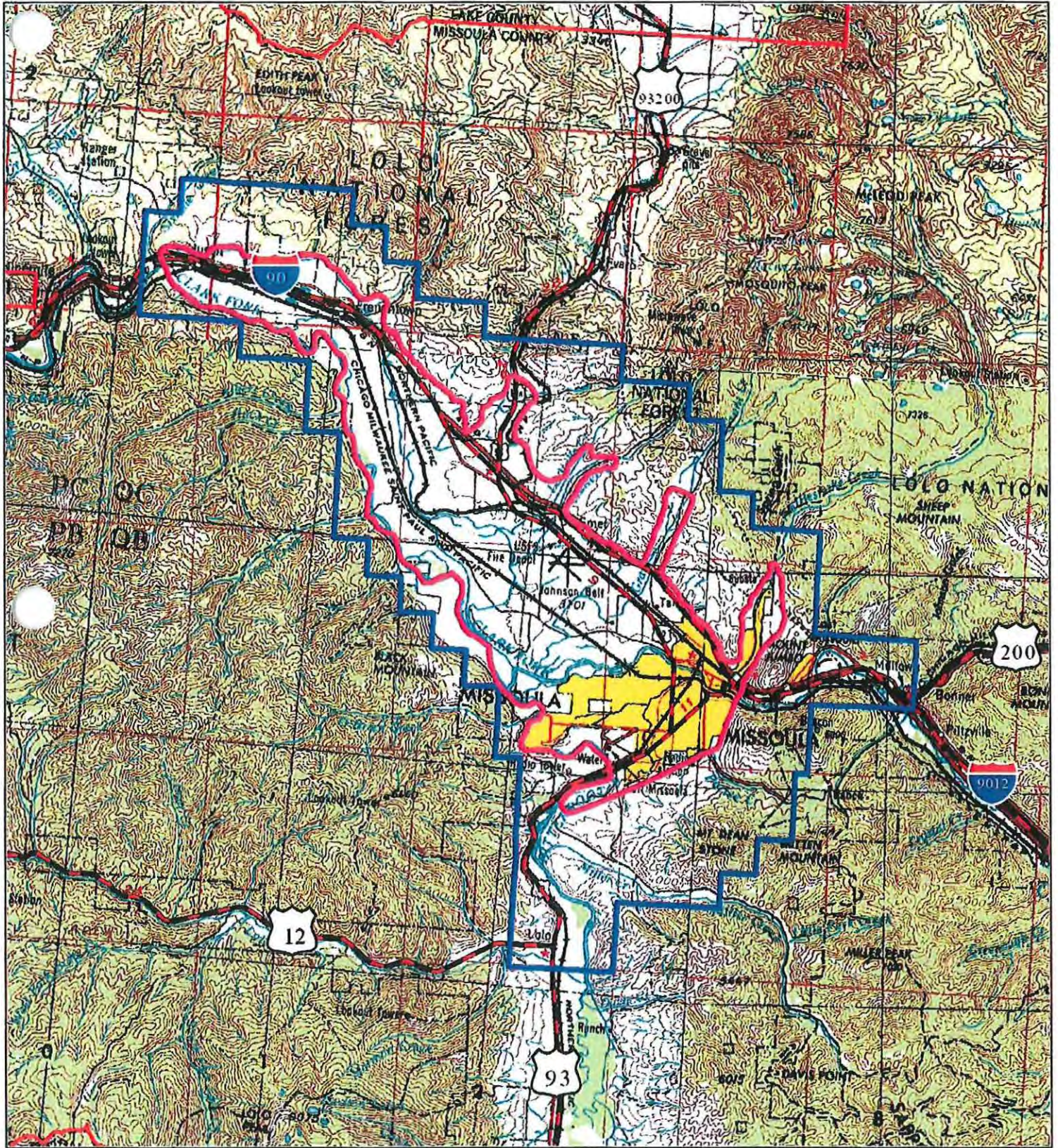
Public comments are invited ANYTIME PRIOR TO CLOSE OF BUSINESS August 8, 2013. Comments may be directed to the DEQ Permitting & Compliance Division, Water Protection Bureau, PO Box 200901, Helena, MT 59620. All comments received or postmarked PRIOR TO CLOSE OF BUSINESS August 8, 2013 will be considered in the formulation of final determinations to be imposed on the permit. If you wish to comment electronically, you may e-mail David Dunbar or Barb Sharpe at WPBPublicNotices@mt.gov.


During the public comment period provided by the notice, the Department will accept requests for a public hearing. A request for a public hearing must be in writing and must state the nature of the issue proposed to be raised in the hearing (ARM 17.30.1024).


The Department will respond to all substantive comments and issue a final decision within sixty days of this notice or as soon as possible thereafter. Additional information may be obtained upon request by calling (406) 444-3080 or by writing to the aforementioned address. The complete administrative record, including permit application and other pertinent information, is maintained at the Water Protection Bureau office in Helena and is available for review during business hours.


PUBLIC NOTICE NO. MT-13-17
July 8, 2013

Location Map
Missoula Valley Water Quality District
Missoula County, Montana



 EPA Designated Sole Source Aquifer Boundary

 Missoula Valley Water Quality District

 Missoula County



Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2014 Assessment Record: MT41H001_010.pdf Status: Unassigned

ASSESSMENT UNIT INFORMATION

Reporting Cycle: 2014
Assessment Unit: MT41H001_010
Waterbody Name: Gallatin River
Location Description: GALLATIN RIVER, Spanish Creek to mouth (Missouri River)

Water Type:	Size (Miles/Acres)	Use Class:
RIVER	48.12 MILES	B-1

Hydrologic Unit Code: 10020008
HUC Name: Gallatin
Watershed: Upper Missouri Tribs.
Basin: Upper Missouri
TMDL Planning Area: Lower Gallatin
Ecoregion: Middle Rockies
County: GALLATIN CO
Lat/Long AU Start (U/S): 45.493542 / -111.271486
Lat/Long AU End (D/S): 45.938768 / -111.493469

MONITORING INFORMATION

Date Assessment Started: 11/21/2003 **Assessed By:** Nixon, Alan
Next Scheduled Monitoring Date:

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Reporting Cycle: 2014

Assessment Record: MT41H001_010.pdf

Status: Unassigned

CITATIONS

Citation	Location	Biological Data	Habitat Data	Chemistry Data
Montana State Board of Health (1960), Water Pollution in the Missouri River Drainage in Montana, Progress Report No. 60-1	DEQ Metcalf Stacks	fecal coliforms; fish; macroinvertebrates; other bacteriological data	riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; major nutrients; quantitative physical data
U.S. Department of Health, Education and Welfare, Public Health Services (1962), Summary Report on Quality of Interstate Waters: Gallatin River (Wyoming-Montana)	DEQ Metcalf Stacks		Land use; riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; major nutrients; quantitative physical data
Keppner, Alfred P. ; Nielson, Gerald A. ; Wright, John C. (1971), Assessing Potential Impacts of Sewage From Recreational Development in a Semi-Primitive Watershed	DEQ Metcalf Stacks			major nutrients
Adamsen, Floyd James (1974), Phosphorus, Sediment, and Water Interactions in the Gallatin River of Southwestern Montana (Masters Thesis)	DEQ Metcalf Stacks		riparian &/or instream surveys & physical features	General; benthic sediment data; common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical data
Stuart, David Gordon ; Wright, John C. ; Schillinger, John Edward ; Bissonnette, Gary K. ; Jezeski, James J. (1974), Gallatin Basin Waste Allocation Study	DEQ Metcalf Stacks	algae; fecal coliforms; macroinvertebrates		major nutrients; quantitative physical data
Water and Environment Consultants, Inc (1977), Gallatin River Stability Evaluation	DEQ Metcalf Stacks			quantitative physical data
Matney, Claud E. ; Garvin, William H. (1978), Agricultural Water Quality in the Gallatin and Madison Drainages	DEQ Metcalf Stacks	fecal coliforms; fish	Land use; photo points; riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; major nutrients; metals;

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Citation	Location	Biological Data	Habitat Data	Chemistry Data
				quantitative physical data
Blue Ribbons of the Big Sky Country Areawide Planning Organization (1979), Final Report and Water Quality Management Plan	DEQ Metcalf Stacks	fecal coliforms; fish	Land use; riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical data
Montana Department of Fish and Game (1979), Instream Flow Evaluation for Selected Streams in the Upper Missouri River Basin	DEQ Metcalf Stacks	fish; macroinvertebrates; wildlife	riparian &/or instream surveys & physical features	quantitative physical data
Nelson, Fred (1980), Evaluation of Four Instream Flow Methods Applied to Four Trout Rivers in Southwest Montana, Contract No.14-16-0006-78-046	DEQ Metcalf Stacks	fish	photo points; riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; major nutrients; quantitative physical data
Nelson, Frederick Allen (1980), Supplement to Evaluation of Four Instream Flow Methods Applied to Four Trout Rivers in Southwest Montana, Contract No.14-16-0006-78-046	DEQ Metcalf Stacks	fish	riparian &/or instream surveys & physical features	quantitative physical data
Vincent, E. Richard ; Nelson, Fred ; Rehwinkel, Bruce J. (1982), Southwestern Fisheries Inventory: Inventory and Survey of the Waters of the Project Area (Gallatin and Madison Drainages) July 1, 1975 through June 30, 1982, F-9-R-24 through F-9-R-30 Job # I-a	DEQ Metcalf Stacks	fish		quantitative physical data
Vincent, E. Richard ; Nelson, Fred ; Rehwinkel, Bruce J. (1982), Southwestern Fisheries Inventory: Inventory and Survey of the Waters of the Project Area (Gallatin and Madison Drainages) July 1, 1975 through June 30, 1982, F-9-R-24 through F-9-R-	DEQ Metcalf Stacks	fish		quantitative physical data

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2014 Assessment Record: MT41H001_010.pdf Status: Unassigned

Citation	Location	Biological Data	Habitat Data	Chemistry Data
30 Job # I-a				
Montana Department of Fish, Wildlife, and Parks (1989), Application for Reservations of Water in the Missouri River Basin above Fort Peck Dam. Volume 2: Reservation Requests for Waters Above Canyon Ferry Dam	DEQ Metcalf Stacks	fish; macroinvertebrates; wildlife	Land use; riparian &/or instream surveys & physical features	benthic sediment data; quantitative physical data
Gustafson, Daniel (1990), Ecology of Aquatic Insects in the Gallatin River Drainage (Doctoral Dissertation)	DEQ Metcalf Stacks	macroinvertebrates		
Montana Department of Fish, Wildlife, and Parks (1991), Dewatered Streams List, 1991	DEQ Metcalf Stacks		riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; quantitative physical data
Kaya, Calvin M. (1992), Restoration of Fluvial Arctic Grayling to Montana Streams: Assessment of Reintroduction Potential of Streams in the Native Range, the Upper Missouri River Drainage above Great Falls (Masters Thesis)	DEQ Metcalf Stacks	fish	riparian &/or instream surveys & physical features	quantitative physical data
Kendy, Eloise ; Tresch, Ruth E. (1996), Geographic, Geologic, and Hydrologic Summaries of Intermontane Basins of the Northern Rocky Mountains, Montana, Water-Resources Investigations Report 96-4025	DEQ Metcalf Stacks	macroinvertebrates	Land use; riparian &/or instream surveys & physical features	benthic sediment data; bioaccumulation; quantitative physical data
Shields, Ronald R. ; White, Melvin K. ; Ladd, Patricia B. ; Chambers, Clarence L. ; Dodge, Kent A. (1998), Water Resources Data: Montana Water Year 1997, USGS Water-Data Report MT-97-1	DEQ Metcalf Stacks	fish		benthic sediment data; common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical

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Reporting Cycle: 2014 Assessment Record: MT41H001_010.pdf Status: Unassigned

Citation	Location	Biological Data	Habitat Data	Chemistry Data
				data
Gustafson, Daniel (1999), Personal Communication	Assessment Record	macroinvertebrates		
Montana Department of Fish, Wildlife, and Parks (1999), Montana Rivers Information System (MRIS)	Assessment Record	algae; fish; macroinvertebrates; wildlife	Land use; riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; quantitative physical data
(2001), DEQ Field Assessment Form	Assessment Record	algae; chlorophyll; fish	Land use; photo points; riparian &/or instream surveys & physical features	Rosgen type; benthic sediment data; common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical data
(2002), Assessment and Sampling Results: Gallatin Local Water Quality District	Assessment Record	chlorophyll	photo points; riparian &/or instream surveys & physical features	benthic sediment data; common ions, pH, conductivity, miscellaneous; major nutrients; metals
Bahls, Loren L. (2002), Support of Aquatic Life Uses in South Cottonwood Creek and the Lower Gallatin River Based on the Composition and Structure of the Benthic Algae Community	DEQ Metcalf Stacks	algae		
Bollman, Wease (2002), Aquatic Invertebrates and Habitat at a Fixed Station on the Gallatin River, Gallatin County, Montana: July 12, 2001	DEQ Metcalf Stacks	General; macroinvertebrates	General	
(2002), DEQ Field Assessment Form	Assessment Record	algae; chlorophyll; fish; macroinvertebrates	Land use; photo points; riparian &/or instream surveys & physical features	Rosgen type; benthic sediment data; common ions, pH, conductivity, miscellaneous; major

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Citation	Location	Biological Data	Habitat Data	Chemistry Data
				nutrients; metals; quantitative physical data
Bahls, Loren L. (2003), Biological Integrity of South Cottonwood Creek and the Lower Gallatin River Based on the Structure and Composition of the Benthic Algae Community	DEQ Metcalf Stacks	algae		
Bollman, Wease (2003), An Analysis of the Aquatic Invertebrates and Habitat of the Lower Gallatin River and South Cottonwood Creek Gallatin County, MT: September 2001 and September 2002	DEQ Metcalf Stacks	macroinvertebrates	riparian &/or instream surveys & physical features	
Bollman, Wease (2003), Aquatic Invertebrates and Habitat at a Fixed Station on the Gallatin River, Gallatin County, Montana : August 29, 2002, M05GALLR02 02-S158-M	DEQ Metcalf Stacks	macroinvertebrates		
Montana Department of Environmental Quality (2004), Statewide Monitoring 2001-2004 Data [Electronic Resource]	DEQ Metcalf Multimedia Case	chlorophyll; macroinvertebrates; other bacteriological data	photo points; riparian &/or instream surveys & physical features	General; common ions, pH, conductivity, miscellaneous
Montana State Library Natural Resource Information System ; Montana State University (2006), Montana View at http://montanaview.org/	DEQ Metcalf Multimedia Case	chlorophyll; fecal coliforms; macroinvertebrates; other bacteriological data	photo points; riparian &/or instream surveys & physical features	benthic sediment data; bioaccumulation; common ions, pH, conductivity, miscellaneous; imagery data; major nutrients; metals; organics; quantitative physical data

Comments:

DATA MATRIX

Biological Data

Comments:

Above Logan Bridge

Data Type	Comments	Catalog Number	Citation
chlorophyll	Statewide Monitoring, Gallatin River near Logan 7/12/2001: Chlorophyll a : 18.8 mg/sq m	Common.General.DR 8	(2001), DEQ Field Assessment Form
macroinvertebrates	Total Metric score: 6 out of 18 maximum points = 33 %. Impairment Classification: Moderate, Use Support: Partial-Support. Warm water and nutrient enrichment appeared to affect the taxonomic assemblage. Habitat have have been limited by embedded substrate. Low stonefly richness and abundance may have have been assoaiated with disturbances to reach-scale habitat features. The bioassessment score may underestimate the quality of the benthic fauna to some degree. In particular, the contribution of filter feeders seems appropriate for a riverine environment.	Upper Missouri.Gallatin.mb0 60	Bollman, Wease (2002), Aquatic Invertebrates and Habitat at a Fixed Station on the Gallatin River, Gallatin County, Montana: July 12, 2001
macroinvertebrates	Metric Score(average of 2 replicates): Percent of Maximum: 42, Impairment Classification: Slightly Impaired, Use Support: Partial Support. 2001 Scores: 44 & 39	Upper Missouri.Gallatin.mb0 50	Bollman, Wease (2003), An Analysis of the Aquatic Invertebrates and Habitat of the Lower Gallatin River and South Cottonwood Creek Gallatin County, MT: September 2001 and September 2002
macroinvertebrates	Total Metric score: 8 out of 18 maximum = 44 %. Impairment Classification: Moderate, Use Support: Partial-Support. Warm water temps are implied by the taxonomic composition of the benthic fauna. Instream habitats may suffer from sediment deposition, and reach-scale habitat features may be disrupted. The bioassessment method seems to have underestimated the quality of this riverine fauna, largely because of inappropriate scoring of the	Upper Missouri.Gallatin.mb0 60	Bollman, Wease (2003), Aquatic Invertebrates and Habitat at a Fixed Station on the Gallatin River, Gallatin County, Montana : August 29, 2002, M05GALLR02 02-S158-M

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Data Type	Comments	Catalog Number	Citation
	filter feeder and tolerant taxa metrics. Slight impairment may be the more appropriate diagnosis.		

Above Williams Bridge

Data Type	Comments	Catalog Number	Citation
macroinvertebrates	Metric Score(average of 2 replicates): Percent of Maximum: 67, Impairment Classification: Slightly Impaired, Use Support: Partial Support. At Williams Bridge, invertebrate assemblages appeared to indicate good water quality and minimal habitat disturbances. (2001 Composite score: 78, Slight Impairment, Full-Support)	Upper Missouri.Gallatin.mb050	Bollman, Wease (2003), An Analysis of the Aquatic Invertebrates and Habitat of the Lower Gallatin River and South Cottonwood Creek Gallatin County, MT: September 2001 and September 2002

Near Three Forks

Data Type	Comments	Catalog Number	Citation
chlorophyll	Statewide Monitoring, Gallatin River near Three Forks 8/29/02: Chlorophyll a : 77 mg/sq m	Common.General.DR8	(2001), DEQ Field Assessment Form

Below Axtel Bridge

Data Type	Comments	Catalog Number	Citation
macroinvertebrates	Metric Score(average of 2 replicates): Percent of Maximum: 64, Impairment Classification: Slightly Impaired, Use Support: Partial Support. (2001 score: 72, 61)	Upper Missouri.Gallatin.mb050	Bollman, Wease (2003), An Analysis of the Aquatic Invertebrates and Habitat of the Lower Gallatin River and South Cottonwood Creek Gallatin County, MT: September 2001 and September 2002

Above Shedd's Bridge

Data Type	Comments	Catalog Number	Citation
macroinvertebrates	Metric Score(average of 2 replicates): Percent of	Upper	Bollman, Wease (2003), An Analysis of the

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Data Type	Comments	Catalog Number	Citation
	Maximum: 62, Impairment Classification: Slightly Impaired, Use Support: Partial Support. Evidence of mild effects of fine sediment deposition may have been present in the composition of the assemblage collected at Shedd's Bridge. 2001 scores: 67 & 61.	Missouri.Gallatin.mb050	Aquatic Invertebrates and Habitat of the Lower Gallatin River and South Cottonwood Creek Gallatin County, MT: September 2001 and September 2002
Above Hwy 191 bridge , at the mouth of the Gallatin Canyon			
Data Type	Comments	Catalog Number	Citation
algae	" All Gallatin River sites supported diverse assemblages of mostly eutrophic diatoms and non-diatom algae that indicate a system rich in inorganic nutrients. Two sites-Shedd's Bridge and Central Park- had elevated numbers of teratological diatoms the indicate moderate impairment and partial support of A/L uses. The cause of these abnormal diatoms is unknown. All sites but the Logan site suffered from minor siltation." " ...nitrogen was likely the limiting nutrient at Williams Bridge and phosphorus is likely limiting at the other sites." .." Upwelling groundwater is likely the source of elevated phosphorus at Williams Bridge." " ..inorganic nutrients peaked at Williams Bridge, diatom data indicates that organic loading peaked at at Axtell Bridge." " Pollution index for all sites indicated excellent biological integrity, no impairment, and full-support of aquatic life uses." "Siltation index values were slightly elevated at all but one site, indicating minor impairment but full-support." " The disturbance index indicated a low level of physical, chemical and biological disturbance."	Upper Missouri.Gallatin.nu780	Bahls, Loren L. (2002), Support of Aquatic Life Uses in South Cottonwood Creek and the Lower Gallatin River Based on the Composition and Structure of the Benthic Algae Community
algae	"Diatom species richness and diversity indicated excellent biological integrity at all sites on the lower	Upper Missouri.Gallatin.nu0	Bahls, Loren L. (2003), Biological Integrity of South Cottonwood Creek and the Lower Gallatin

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Data Type	Comments	Catalog Number	Citation
	Gallatin River. Values for the Pollution Index indicated excellent bio. integrity at all sites except 10 and 13 (the lower 2 sites, Central Park and Logan, borderline minor impairment is indicated). The Siltation Index indicated Minor Impairment from sedimentation at all sites. Other than minor sedimentation and a few abnormal cells at all sites, and minor organic loading at sites 10 & 13, the diatoms indicate excellent water quality in the lower Gallatin River."	40	River Based on the Structure and Composition of the Benthic Algae Community
chlorophyll	Field Sampling Results: Gallatin Local Water Quality District, 2002: 2002 Reported values for Chlorophyll a on rock substrate were low at all sampling sites. In 2002 the highest reported Chl a results were reported at the Logan site (Aug: 18.5, mg/sq M, Sept: 18.3 mg/sq M, Oct: 14.5 mg/sq M, and Nov: 26.1mg/sq M) and at the Axtel Bridge site (30.1 mg/sq M).	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District
chlorophyll	Field Sampling Results: Gallatin Local Water Quality District, 2001: Reported values for Chlorophyll a on rock substrate were low at all sampling sites. Notably, the Axtell Bridge site had some of the highest Chl a values, including the highest of the 2001 study: 46 mg/sq m on Oct 17, 2001. This value is slightly below that which indicates the risk of nuisance algae growth that may affect recreation and aesthetics (50 mg/sq m)	Common.General.DR 8	(2002), DEQ Field Assessment Form
fish	" A study completed in 1978 evaluated the impacts of summer irrigation withdrawals. Results suggested that the magnitude of the flows during the summer irrigation season is the primary factor limiting the	Common.General.wr4 52	Montana Department of Fish and Game (1979), Instream Flow Evaluation for Selected Streams in the Upper Missouri River Basin

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Data Type	Comments	Catalog Number	Citation
	numbers and pounds of adult trout in the valley portion of the river." ... "A summer flow of 400cfs would support 235 adult trout, weighing 200 pounds, per 1000 feet of river."		
macroinvertebrates	"The bioassessment method applied to these data appears to have some limitations to the accurate evaluation of riverine sites. Originally designed for second-to-fourth order streams, the assessment criteria appear to overestimate impairment for riverine sites. In particular, the Sensitive Taxa Richness and Percent Tolerant Taxa metrics should probably be re-evaluated, and scoring criteria for all metrics revised to better apply to riverine conditions."	Upper Missouri.Gallatin.mb050	Bollman, Wease (2003), An Analysis of the Aquatic Invertebrates and Habitat of the Lower Gallatin River and South Cottonwood Creek Gallatin County, MT: September 2001 and September 2002
macroinvertebrates	Metric Score(average of 2 replicates): Percent of Maximum: 61, Impairment Classification: Slightly Impaired, Use Support: Partial Support. Mild nutrient enrichment is suggested by biotic index values. (2001 Composite score: 72)	Upper Missouri.Gallatin.mb050	Bollman, Wease (2003), An Analysis of the Aquatic Invertebrates and Habitat of the Lower Gallatin River and South Cottonwood Creek Gallatin County, MT: September 2001 and September 2002
Central Park, above I-90 bridge			
Data Type	Comments	Catalog Number	Citation
macroinvertebrates	Metric Score(average of 2 replicates): Percent of Maximum: 61, Impairment Classification: Slightly Impaired, Use Support: Partial Support. Animals preferring warm water temperatures appeared at the Central Park site, and persisted downstream to Logan. 2001 Scores: 67 & 72	Upper Missouri.Gallatin.mb050	Bollman, Wease (2003), An Analysis of the Aquatic Invertebrates and Habitat of the Lower Gallatin River and South Cottonwood Creek Gallatin County, MT: September 2001 and September 2002

Montana DEQ - Water Quality Standards Attainment Record

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General Comments

Data Type	Comments	Catalog Number	Citation
macroinvertebrates	Discusses conditions affecting aquatic macroinvertebrates, Tubifex worms in reach near Logan. See document in file	Upper Missouri.Gallatin.DR8	Gustafson, Daniel (1999), Personal Communication

DATA MATRIX

Habitat Data

Comments:

Above Logan Bridge

Data Type	Comments	Catalog Number	Citation
riparian &/or instream surveys & physical features	8/19/02: Riparian Assessment Score:39/61=64%. "At Risk"	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District

Above Williams Bridge

Data Type	Comments	Catalog Number	Citation
riparian &/or instream surveys & physical features	8/19/02: Riparian Assessment Score:50/61=82%. "Sustainable"	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District

Below Axtel Bridge

Data Type	Comments	Catalog Number	Citation
riparian &/or instream surveys & physical features	8/19/02: Riparian Assessment Score:52/61=85%. "Sustainable"	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District

Above Shedds Bridge

Data Type	Comments	Catalog Number	Citation
riparian &/or instream surveys & physical features	Stream Reach Assessment score for the reach described as: "from Axtell Bridge to Cameron Bridge": 198/240 = 82%, "Non-impaired, Fully-Supporting, but threatened". 8/19/02: Riparian Assessment Score:49/61=80%. "Sustainable"	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District

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Above Hwy 191 bridge , at the mouth of the Gallatin Canyon

Data Type	Comments	Catalog Number	Citation
photo points	Photos dated 8/19/02 at the mouth of the Gallatin Canyon and 8/21/02 near Central Park show dewatered condition of channel. Upper site: 415cfs, Lower site: 200cfs .	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District
riparian &/or instream surveys & physical features	2002 Stream Reach Assessment score for the reach described as: "from Spanish Creek to the Gallatin Gateway Bridge": 240/240 = 85% "Non-impaired, Fully-Supporting, but threatened". 8/19/02: Riparian Assessment Score:56/61=92%. "Sustainable"	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District

Central Park, above I-90 bridge

Data Type	Comments	Catalog Number	Citation
riparian &/or instream surveys & physical features	Stream Reach Assessment score for the reach described as: "from Erwin Bridge at Amsterdam Rd, to Logan Bridge": 172/240= 72%, " Minor Impairment, Partially-Supporting". 8/19/02: Riparian Assessment Score:49/61=80%. "Sustainable"	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District

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DATA MATRIX
Chemistry Data

Comments:

Above Logan Bridge			
Data Type	Comments	Catalog Number	Citation
common ions, pH, conductivity, miscellaneous	Statewide Monitoring, Gallatin River near Logan 7/12/2001: Specific conductivity: 324 umhoS/cm, pH: 8.76, Water Temperature: 23.2 C, Dissolved Oxygen: 17.46.	Common.General.DR 8	(2001), DEQ Field Assessment Form
major nutrients	Field Sampling Results: Gallatin Local Water Quality District, 2001: highest nutrient values reported in 2001 occurred on 10/16/01 for nitrogen and on 11/05/01 for Total P. TKN: .4 mg/l, nitrate & nitrite: .31mg/l, Total P: 0.026 mg/l. The highest nutrient values in the Logan reach occurred following the senescence of macro algae and macrophytes.	Common.General.DR 8	(2001), DEQ Field Assessment Form
major nutrients	The highest nutrient values reported for the 2002 sampling occurred in the area of Logan Bridge. 8/21/02: TKN: 0.4 mg/L, N, as nitrate+nitrite: 0.08, Total P: 0.044mg/L. 10/16/02: TKN: 0.20 mg/L, N, as nitrate + nitrite: .34 mg/L, Total P : 0.014 mg/L. 11/04/02:TKN: 0.3 mg/L, nitrate+nitrite: 0.45, Total P: 0.006 mg/L	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District
Above Williams Bridge			
Data Type	Comments	Catalog Number	Citation
major nutrients	Field Sampling Results: Gallatin Local Water Quality District, 2001: highest nutrient values reported in 2001 occurred 8/20/01: TKN: .3mg/L, nitrate + nitrite: <0.01 mg/l, Total P: 0.022 mg/l.	Common.General.DR 8	(2001), DEQ Field Assessment Form
major nutrients	highest nutrient results for 2002: 8/19/2002: TKN: 0.2 mg/L, nitrate+nitrite: non-detect, Total P: 0.015 mg/L	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District

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Near Three Forks			
Data Type	Comments	Catalog Number	Citation
common ions, pH, conductivity, miscellaneous	Statewide Monitoring, Gallatin River near Three Forks 8/29/02: Specific conductivity: 337 umhoS/cm, pH: 8.0, Water Temperature: 20.6 C, Dissolved Oxygen: 11.7.	Common.General.DR 8	(2001), DEQ Field Assessment Form
Below Axtel Bridge			
Data Type	Comments	Catalog Number	Citation
major nutrients	Field Sampling Results: Gallatin Local Water Quality District, 2001: highest nutrient values reported in 2001 occurred 10/16/01 for nitrogen and 9/10/01 for phosphorus: TKN: .3mg/L, nitrate + nitrite: 0.02 mg/l, Total P: 0.023 mg/l.	Common.General.DR 8	(2001), DEQ Field Assessment Form
major nutrients	highest nutrient results for 2002: 11/04/02:TKN: 0.3 mg/L, nitrate+nitrite: 0.01 mg/L, Total P: 0.016 mg/L. Highest Total P: 09/10/02: 0.018 mg/L	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District
Above Shedd's Bridge			
Data Type	Comments	Catalog Number	Citation
major nutrients	Field Sampling Results: Gallatin Local Water Quality District, 2001: highest nutrient values reported in 2001 occurred on 8/20/01 & 10/16/01 for nitrogen and 9/10/01 for phosphorus: TKN: .3mg/L, nitrate + nitrite: <0.01 mg/l, Total P: 0.023 mg/l.	Common.General.DR 8	(2001), DEQ Field Assessment Form
major nutrients	highest nutrient results for 2002: 8/20/02:TKN: 0.5 mg/L, Nitrate+ nitrite: ND, Total P: 0.016 mg/L	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2014 Assessment Record: MT41H001_010.pdf Status: Unassigned

Above Hwy 191 bridge , at the mouth of the Gallatin Canyon			
Data Type	Comments	Catalog Number	Citation
benthic sediment data	Sediment sampling conducted at the 6 sites on the lower Gallatin River yielded no metals concentrations that exceed values shown to cause ecological risks, as published in the CDM report, Draft Baseline Risk Assessment, Streamside tailings O.U. Silver Bow Creek. Dec. 29, 1994.	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District
benthic sediment data	Field Sampling Results: Gallatin Local Water Quality District, 2001: Sediment sampling conducted at the 6 sites on the lower Gallatin River yielded no metals concentrations that exceed values shown to cause ecological risks	Common.General.DR 8	(2002), DEQ Field Assessment Form
common ions, pH, conductivity, miscellaneous	Field Sampling Results: Gallatin Local Water Quality District, 2001: Low TDS values were reported for the water chemistry samples collected at all 6 sampling sites.	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District
common ions, pH, conductivity, miscellaneous	Field Sampling Results: Gallatin Local Water Quality District, 2001: TDS values range from 161 mg/l to 281 mg/l in the 2001 sampling. TDS values less than 500mg/l are suitable for irrigating all types of crops. Specific conductivity: The highest values occurred in the results for the Logan Bridge site. 442 umhoS/cm and 496 umhoS/cm were the two highest values recorded. The highest value was on 10/18/01. SC values < 1500 umhoS/cm indicate low level of salinity and that the water is excellent for all classes of livestock and poultry. pH ranged from 7.86 (near Central Park) to 9.0 (near Logan Bridge)	Common.General.DR 8	(2002), DEQ Field Assessment Form
major nutrients	Field Sampling Results: Gallatin Local Water Quality District, 2001: The highest nutrient values in the	Common.General.DR 8	(2001), DEQ Field Assessment Form

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2014 Assessment Record: MT41H001_010.pdf Status: Unassigned

Data Type	Comments	Catalog Number	Citation
	entire 2001 study occurred at this uppermost sampling site on 8/20/01: TKN: .5 mg/l, Nitrate & Nitrite: 0.01mg/l, Total P: 0134 mg/l. The Clark Fork River nutrient standards for the upper river are : Total Phosphorus 20 ug/l, Total Nitrogen [(TKN+ (nitrate+nitrite)) : 300 ug/l. . The lower Clark Fork R standard uses 39 ug/l for Total P. We are showing Total Nitrogen of 510 ug/l, 70 % greater than the CFR standard. These high numbers do not persist downstream. Rather, they are rapidly reduced even by the time the river reaches Williams Bridge, where TKN has reduced to .3 mg/l (300ug/l), n+n reduces to <.01mg/L 9 (< 10 ug/l) and Total P declines to : .022 mg/l (22ug/l).		
major nutrients	highest nutrient results for 2002: 9/10/2002: TKN 0.3 mg/L, nitrate+nitrite: non-detect, Total P: 0.25 mg/L	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District
metals	Field Sampling Results: Gallatin Local Water Quality District, 2001: No exceedences of Human Health Standards or Aquatic Life Standards reported in the water chemistry results collected 4 times at the 6 sampling sites on the lower Gallatin River in 2001	Common.General.DR 8	(2001), DEQ Field Assessment Form
metals	No exceedences of Human Health Standards or Aquatic Life Standards reported in the water chemistry results collected 4 times at the 6 sampling sites on the lower Gallatin River in 2002.	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District
Central Park, above I-90 bridge			
Data Type	Comments	Catalog Number	Citation
major nutrients	Field Sampling Results: Gallatin Local Water Quality District, 2001: highest nutrient values reported in	Common.General.DR 8	(2001), DEQ Field Assessment Form

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2014 Assessment Record: MT41H001_010.pdf Status: Unassigned

Data Type	Comments	Catalog Number	Citation
	2001 occurred on 10/16/01 for nitrogen and 9/10/01 for phosphorus: TKN: .3mg/L, nitrate + nitrite: 0.02 mg/l, Total P: 0.022 mg/l.		
major nutrients	8/21/02: TKN: 0.3 mg/L, nitrate+nitrite: 0.02 mg/L, Total P: 0.016 mg/L	Upper Missouri.Gallatin.DR8	(2002), Assessment and Sampling Results: Gallatin Local Water Quality District

ASSESSMENT HISTORY

Cycle 2006

Cycle 2008

Not assessed this cycle

Cycle 2010

Not assessed this cycle

Cycle 2012

Not assessed this cycle

Cycle 2014

Not assessed this cycle

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2014 Assessment Record: MT41H001_010.pdf Status: Unassigned

Overall Condition of Segment

Site/Reach Name: Above Hwy 191 bridge , at the mouth of the Gallatin Canyon. Comments: The Gallatin River was well studied during the 1970s and 1980s. There has been rapid growth in the area, especially in the 1990s. Dr. Dan Gustafson has observed a declining trend since his comprehensive macroinvertebrate investigations in the mid-1980s while collecting aquatic worms for whirling disease studies. Irrigation withdrawal is by far the most limiting factor affecting the biological potential of the Lower Gallatin. Site/Reach Name: Central Park, above I-90 bridge. Comments: Chronic dewatering for crop irrigation is demonstrated by flows declining from over 400 cfs at the mouth of the Gallatin Canyon, to 200 cfs near Central Park in August, 2002. Aquatic Life: Biology: 2003 Macroinvertebrate report for sampling conducted in 2001 & 2002 : results indicates slight impairment and partial support of aquatic life at all sites. 2002 Algae report concludes;"Other than minor sedimentation and a few abnormal cells at all sites, and minor organic loading at sites 10 & 13, the diatoms indicate excellent water quality in the lower Gallatin River." Chemistry: 2001 & 2002 stream sampling results: No exceedences of Human Health Standards or Aquatic Life Standards reported in the water chemistry results collected 4 times at the 6 sampling sites, for 2 years on the lower Gallatin River. 48 total sediment metals sampling results corroborate the low metals concentrations in the water column. Habitat: 2002 Stream Reach Assessment: Scores for the river including the upper 4 sites indicated "Non-impaired, Fully-Supporting, but threatened". From Erwin Bridge at Amsterdam Rd, to Logan Bridge: " Minor Impairment, Partially-Supporting". Riparian Assessment scores for the upper 5 sites rated "Sustainable". The Logan Bridge site rated: "Functioning at Risk". Cold Water Fishery: Documented chronic dewatering is OVERWHELMING EVIDENCE of severe impairment to aquatic life and the cold water fishery; 32.7 miles of chronic dewatering is documented on MFWPs dewatered streams list; USGS gaging data indicates a loss in flow over this length which is dramatic near the mouth. A minimum flow of 400 cfs was requested by the MT FWP; measured flows in August 2002 were 200 cfs. Agriculture: This water is suitable for irrigation and livestock. 2001 & 2002 Water sampling yielded low Specific Conductivity and TDS values, indicating low salinity. Trace metals concentrations are very low. The water is suitable for all types of crops and is excellent for livestock and poultry. Industrial: The Gallatin River is partially-dewatered during the summer irrigation season. Salinity levels are low. Turbidity spikes following storm events, primarily due to natural conditions. Drinking Water: No exceedences of Human Health Standards or Aquatic Life Standards reported in the water chemistry results collected 4 times at the 6 sampling sites on the lower Gallatin River in 2001 & 2002. Sediment metals sampling corroborates the low metals concentrations in the water column. In all 48 water sampling events, Pb concentrations were reported below the criteria of detection (0.002 mg/l). Previous Pb Human Health Standard exceedences were based on 1973 data. Clearly, in almost 30 years, lead concentrations have been reduced in the watershed. Back in 1973 the use of leaded gasoline in automobiles was the norm. That may have been the source of lead to the Gallatin River at the time. Primary Contact (recreation): 32.7 miles of chronic dewatering documented on MFWP~s dewatered streams list; USGS gaging data indicates a loss in flow over this length which is dramatic near the mouth. Localized heavy algae blooms in the Logan Bridge area.

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2014 Assessment Record: MT41H001_010.pdf Status: Unassigned

IMPAIRMENT INFORMATION

Uses	Cause (Confidence): Source(Confirmed)	Observed Effects
Aquatic Life	270 (N): 66 (N)	
Agricultural		
Drinking Water		
Primary Contact Recreation	270 (N): 66 (N)	
Cause Number and Description	Source Number and Description	Observed Effect Number and Description
270-Low flow alterations	66-Irrigated Crop Production	

DELISTINGS

Cause	Delisting Reason	Delisting Date

Reporting Cycle: 2014 Assessment Record: MT41H001_010.pdf Status: Unassigned

CATEGORY INFORMATION

Previous Cycle

Cycle	2012
Category	4C - Identified threats or impairments result from pollution categories such as dewatering or habitat modification and, thus, the calculation of a Total Maximum Daily Load (TMDL) is not required
User Defined Category	N/A

Current Cycle

Cycle	2014
Category	4C - Identified threats or impairments result from pollution categories such as dewatering or habitat modification and, thus, the calculation of a Total Maximum Daily Load (TMDL) is not required
User Defined Category	N/A



GALLATIN COUNTY

February 10, 2014

Montana Department of Commerce
CDBG Program
Attn. Jennifer Olson, Bureau Chief
PO Box 200523
Helena MT 59620-0523

Re: Gallatin Gateway Water & Sewer District and Floodplain

Dear Mrs. Olson:

The Department of Commerce has asked for additional information concerning whether structures that will be served by the Gallatin Gateway Water and Sewer District are located within the FEMA established floodplain boundary. It is my understanding the Department of Commerce asked for clarification of floodplain matters for Wortman Creek and the West Gallatin River. Wortman Creek has not been the subject of any FEMA floodplain mapping effort thus no floodplain for Wortman Creek has been established.

The West Gallatin River has a FEMA-established floodplain boundary. The area of concerns appears to be those properties north of Mill Street and west of Lynde Street. The structures circled in orange on the attached map are the structures in close proximity to the FEMA-established floodplain boundary that will be served by the District (407 Mill St., 102, 161, and 201 Lynde St.). As the map shows, all of the structures that will be connected are outside of the FEMA-established floodplain boundary.

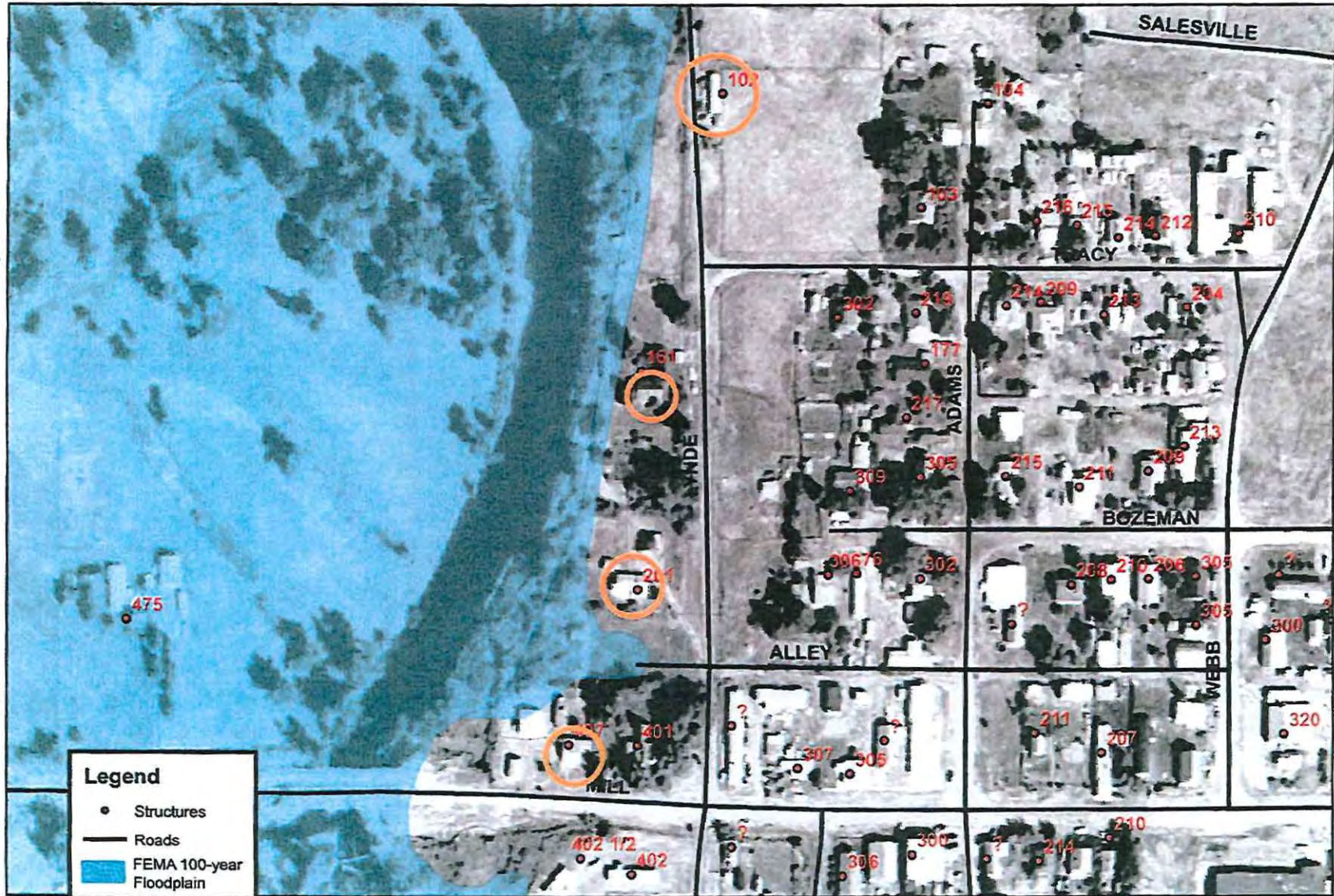
Hopefully this answers the floodplain-related questions from the Department of Commerce. If you have additional questions, please don't hesitate to contact me at (406) 582-3130.

Sincerely,

Sean O'Callaghan, CFM
Gallatin County Floodplain Administrator

F:\PLNR\Sean\Misc\GGWSD_Floodplain.docx

FEMA Floodplain Map Portion of Panel 30031C0905D



Legend

- Structures
- Roads
- FEMA 100-year Floodplain



Gallatin County Department of
Planning & Community Development





U.S. Fish and Wildlife Service National Wetlands Inventory

Gallatin Gateway NWI Wetlands

Jul 9, 2014



Wetlands

-  Freshwater Emergent
-  Freshwater Forested/Shrub
-  Estuarine and Marine Deepwater
-  Estuarine and Marine
-  Freshwater Pond
-  Lake
-  Riverine
-  Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

National Wetland Inventory Data



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 Gallatin County Area, Montana

Treatment Disposal Site



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 (<http://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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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

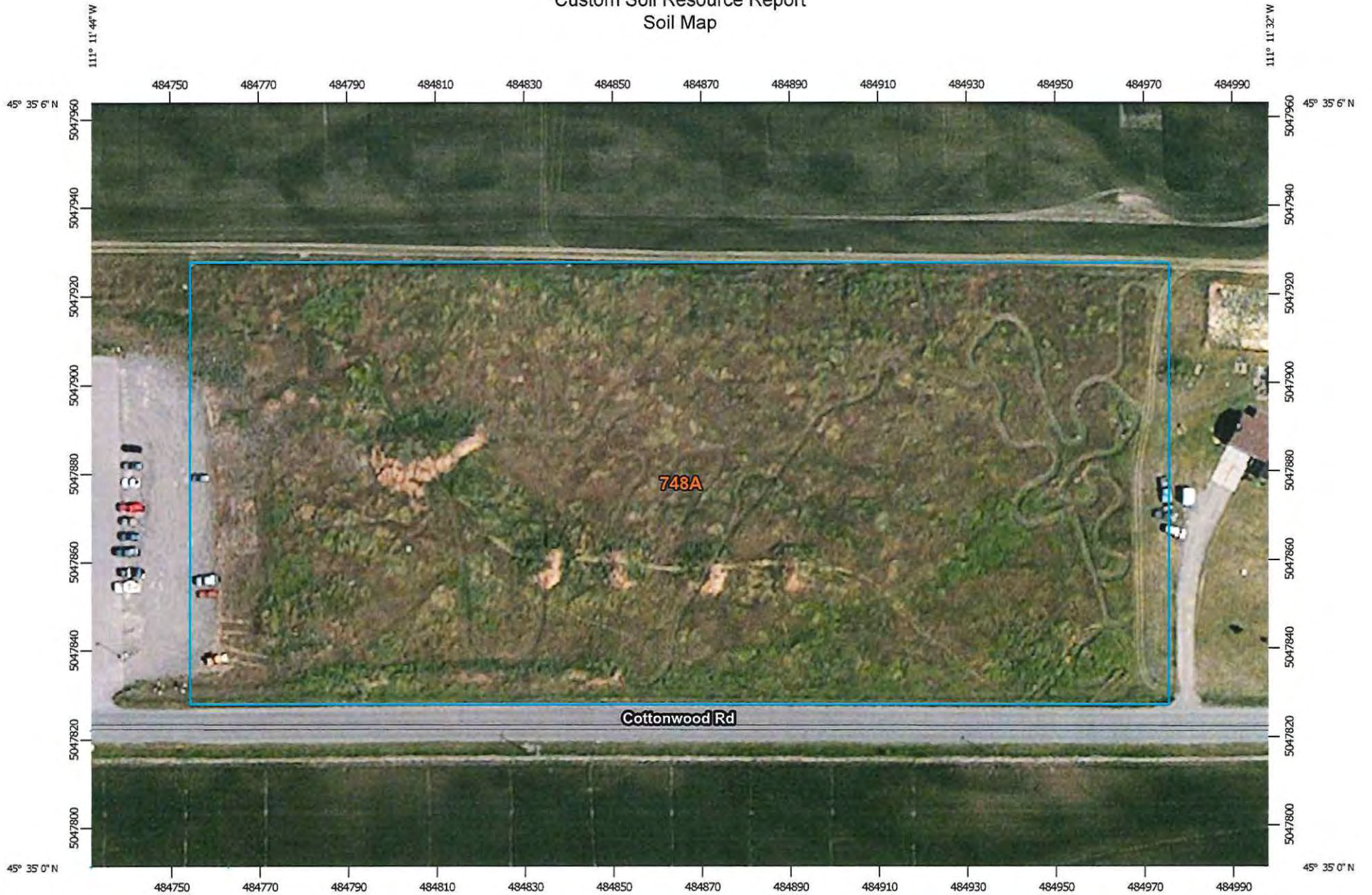
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

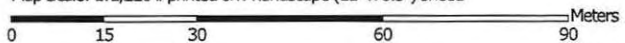
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map







































Map Scale: 1:1,220 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84



MAP LEGEND

Area of Interest (AOI)		 Spoil Area
 Area of Interest (AOI)		 Stony Spot
Soils		 Very Stony Spot
 Soil Map Unit Polygons		 Wet Spot
 Soil Map Unit Lines		 Other
 Soil Map Unit Points		 Special Line Features
Special Point Features		Water Features
 Blowout		 Streams and Canals
 Borrow Pit		Transportation
 Clay Spot		 Rails
 Closed Depression		 Interstate Highways
 Gravel Pit		 US Routes
 Gravelly Spot		 Major Roads
 Landfill		 Local Roads
 Lava Flow		Background
 Marsh or swamp		 Aerial Photography
 Mine or Quarry		
 Miscellaneous Water		
 Perennial Water		
 Rock Outcrop		
 Saline Spot		
 Sandy Spot		
 Severely Eroded Spot		
 Sinkhole		
 Slide or Slip		
 Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 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: Gallatin County Area, Montana
 Survey Area Data: Version 17, Dec 10, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 28, 2011—Aug 10, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Gallatin County Area, Montana (MT622)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
748A	Hyalite-Beaverton complex, 0 to 4 percent slopes	5.5	100.0%
Totals for Area of Interest		5.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Gallatin County Area, Montana

748A—Hyalite-Beaverton complex, 0 to 4 percent slopes

Map Unit Setting

Elevation: 4,350 to 6,150 feet
Mean annual precipitation: 15 to 19 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 90 to 110 days

Map Unit Composition

Hyalite and similar soils: 70 percent
Beaverton and similar soils: 20 percent
Minor components: 10 percent

Description of Hyalite

Setting

Landform: Stream terraces, alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium

Typical profile

A - 0 to 5 inches: neutral, loam
Bt1 - 5 to 9 inches: neutral, clay loam
Bt2 - 9 to 17 inches: neutral, silty clay loam
2Bt3 - 17 to 26 inches: neutral, very cobbly sandy clay loam
3C - 26 to 60 inches: neutral, very cobbly loamy sand

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Farmland classification: Farmland of local importance
Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: Shallow to Gravel (SwGr) 15-19" p.z. (R044XS354MT)

Description of Beaverton

Setting

Landform: Stream terraces, alluvial fans
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Custom Soil Resource Report

Typical profile

A - 0 to 5 inches: neutral, cobbly loam

Bt - 5 to 21 inches: neutral, very gravelly clay loam

Bk - 21 to 25 inches: moderately alkaline, very cobbly coarse sandy loam

2Bk - 25 to 60 inches: moderately alkaline, extremely cobbly loamy coarse sand

Properties and qualities

Slope: 0 to 4 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 3.7 inches)

Interpretive groups

Farmland classification: Farmland of local importance

Land capability classification (irrigated): 4s

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: B

Ecological site: Shallow to Gravel (SwGr) 15-19" p.z. (R044XS354MT)

Minor Components

Turner

Percent of map unit: 5 percent

Landform: Stream terraces

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: Silty (Si) 15-19" p.z. (R044XS355MT)

Hyalite

Percent of map unit: 5 percent

Landform: Stream terraces, alluvial fans

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: Shallow to Gravel (SwGr) 15-19" p.z. (R044XS354MT)

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ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES* Endangered Species Act

June 2014

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		
<i>Spiranthes diluvialis</i>	Ute Ladies' Tresses	LT
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Thymallus arcticus</i>	Arctic Grayling (Upper Missouri River DPS)	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
BIG HORN		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
BLAINE		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
BROADWATER		
<i>Spiranthes diluvialis</i>	Ute Ladies' Tresses	LT
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C

County/Scientific Name	Common Name	Status
CARBON		
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
CARTER		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
CASCADE		
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Pinus albicaulis</i>	Whitebark Pine	C
CHOUTEAU		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Pinus albicaulis</i>	Whitebark Pine	C
CUSTER		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Grus americana</i>	Whooping Crane	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
DANIELS		
<i>Grus americana</i>	Whooping Crane	LE
<i>Anthus spragueii</i>	Sprague's Pipit	C
DAWSON		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Grus americana</i>	Whooping Crane	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
DEER LODGE		
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Thymallus arcticus</i>	Arctic Grayling (Upper Missouri River DPS)	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
FALLON		
<i>Grus americana</i>	Whooping Crane	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C

County/Scientific Name	Common Name	Status
FERGUS		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
FLATHEAD		
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Silene spaldingii</i>	Spalding's Campion	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Lednia tumana</i>	Meltwater Lednian Stonefly	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
GALLATIN		
<i>Spiranthes diluvialis</i>	Ute Ladies' Tresses	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
GARFIELD		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Charadrius melodus</i>	Piping Plover	LT, CH
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
GLACIER		
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Lednia tumana</i>	Meltwater Lednian Stonefly	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
GOLDEN VALLEY		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
GRANITE		
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C

County/Scientific Name	Common Name	Status
HILL		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
JEFFERSON		
<i>Spiranthes diluvialis</i>	Ute Ladies' Tresses	LT
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Pinus albicaulis</i>	Whitebark Pine	C
JUDITH BASIN		
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
LAKE		
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Howellia aquatilis</i>	Water Howellia	LT
<i>Silene spaldingii</i>	Spalding's Campion	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
LEWIS AND CLARK		
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Pinus albicaulis</i>	Whitebark Pine	C
LIBERTY		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
LINCOLN		
<i>Acipenser transmontanus</i>	White Sturgeon (Kootenai River Pop.)	LE
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Silene spaldingii</i>	Spalding's Campion	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C

County/Scientific Name	Common Name	Status
MADISON		
<i>Spiranthes diluvialis</i>	Ute Ladies' Tresses	LT
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Thymallus arcticus</i>	Arctic Grayling (Upper Missouri River DPS)	C
<i>Pinus albicaulis</i>	Whitebark Pine	C
McCONE		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Charadrius melodus</i>	Piping Plover	LT, CH
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Grus americana</i>	Whooping Crane	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
MEAGHER		
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
MINERAL		
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
MISSOULA		
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Howellia aquatilis</i>	Water Howellia	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Coccyzus americanus</i>	Yellow-billed cuckoo (western pop.)	P
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
MUSSELSHELL		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
PARK		
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C

County/Scientific Name	Common Name	Status
PETROLEUM		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
PHILLIPS		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Charadrius melodus</i>	Piping Plover	LT, CH
<i>Mustela nigripes</i>	Black-footed Ferret	LE, XN
<i>Grus americana</i>	Whooping Crane	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
PONDERA		
<i>Charadrius melodus</i>	Piping Plover	LT
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
POWDER RIVER		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
POWELL		
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
PRAIRIE		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Grus americana</i>	Whooping Crane	LE
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
RAVALLI		
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Coccyzus americanus</i>	Yellow-billed cuckoo (western pop.)	P
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
RICHLAND		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Charadrius melodus</i>	Piping Plover	LT, CH
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Grus americana</i>	Whooping Crane	LE
<i>Myotis septentrionalis</i>	Northern Long-eared Bat	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C

County/Scientific Name	Common Name	Status
ROOSEVELT		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Charadrius melodus</i>	Piping Plover	LT, CH
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Grus americana</i>	Whooping Crane	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Anthus spragueii</i>	Sprague's Pipit	C
ROSEBUD		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
SANDERS		
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Salvelinus confluentus</i>	Bull Trout	LT, CH
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
<i>Silene spaldingii</i>	Spalding's Campion	LT
SHERIDAN		
<i>Charadrius melodus</i>	Piping Plover	LT, CH
<i>Grus americana</i>	Whooping Crane	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Anthus spragueii</i>	Sprague's Pipit	C
SILVER BOW		
<i>Salvelinus confluentus</i>	Bull Trout	LT
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Thymallus arcticus</i>	Arctic Grayling (Upper Missouri River DPS)	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
STILLWATER		
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
SWEET GRASS		
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C

County/Scientific Name	Common Name	Status
TETON		
<i>Ursus arctos horribilis</i>	Grizzly Bear	LT
<i>Lynx canadensis</i>	Canada Lynx	LT, CH
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Pinus albicaulis</i>	Whitebark Pine	C
TOOLE		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Anthus spragueii</i>	Sprague's Pipit	C
TREASURE		
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
VALLEY		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Charadrius melodus</i>	Piping Plover	LT, CH
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Grus americana</i>	Whooping Crane	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
WHEATLAND		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Lynx canadensis</i>	Canada Lynx	LT
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
<i>Gulo gulo luscus</i>	Wolverine	P
<i>Pinus albicaulis</i>	Whitebark Pine	C
WIBAUX		
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE
<i>Sterna antillarum athalassos</i>	Interior Least Tern	LE
<i>Grus americana</i>	Whooping Crane	LE
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C
YELLOWSTONE		
<i>Mustela nigripes</i>	Black-footed Ferret	LE
<i>Grus americana</i>	Whooping Crane	LE
<i>Calidris canutus rufa</i>	Red Knot	P
<i>Centrocercus urophasianus</i>	Greater Sage-Grouse	C
<i>Anthus spragueii</i>	Sprague's Pipit	C



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MONTANA

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*While progress should never come to a halt,
there are many places it should never come to
at all. — Paul Newman*

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GALLATIN GATEWAY COMMUNITY PLAN

A Revision to the
Gallatin County Growth
Policy

Adopted _____

Planning Board Hearing: January 13, 2009

County Commission Hearing: January 27, 2009

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A Changing Community

1

A Brief History

In 1865, a man named Zachariah Sales and his family decided to end their journey from Ontario, Canada and homestead on a scenic spot next to the Gallatin River in Montana territory. Mr. Sales started a sawmill on his homestead. He and his fellow homesteaders were successful enough to need a name for this little burg and decided on Slab town. The little area of Slab town flourished during those years and they built a church, school, post office, blacksmith shop and a few Saloons. On July 13, 1883, Slab town honored Mr. Zachariah Sales by renaming the little town Salesville and filing an official plat of the town with the Montana Territorial capital in Helena.

The years following 1883 saw much activity in and around the area of Salesville. Area residents of the day made a living from farming, ranching, logging and developing the land. In 1885 the property on the corner of Bozeman St. and Adams St. was donated to build a church which later led to the creation of the Ladies Aid in 1912, now known as the Willing Workers Ladies Aid, Inc. (WWLA).

Change and growth were in the cards for the little area of Salesville with the launching of new businesses like a livery stable and Mercantile built in 1906, along with a grocery store and later a gas station. A novelty store on the east side of Salesville, complete with a dance hall upstairs, gave proof to the adage, "build and they will come" because Salesville continued to grow and change. The Salesville State Bank was built in 1910. The growth also brought more children, and the Gallatin Gateway school was constructed in 1914. The school continued to grow and expand with additions in 1961, 1966, 1978 and 1989, with the latest addition in 2005.

The needs of the surrounding area were not the only growth influencing Salesville. In 1906 the Gallatin Valley Railway Company began construction of a track from Salesville to Bozeman, and by 1908 the Inter Urban Electric car had completed its first trip. In 1927 the Milwaukee built a spur line from Three Forks to carry travelers to Yellowstone National Park.

The Gallatin Gateway Inn was built to serve and refresh these travelers. Constructed in only four months, a grand opening held June 17, 1927 for the 42,000 square Colonial Spanish-style building attracted 23,000 people. Although tourism increased, the railroads suffered financially as highway travel improved and the Inn fell into disrepair. After extensive restoration, the Gallatin Gateway Inn is once again a gracious, full service hotel, offering superb dining, conferences, weddings, swimming, fishing with superb accommodations for today's traveler. The popularity created by the Milwaukee Railroad of Salesville as the "Gateway" to Yellowstone Park lead to Salesville becoming known by what we call it today, Gallatin Gateway.

The community has long had a history of service and involvement. WWLA, inc., a community service organization, has operated continuously since its origin in 1912. Its mission is to assist those in need and to promote unity and goodwill.

Incorporated by the State of Montana in 1992, WWLA, Inc. has federal and state non-profit, tax-exempt status. To achieve its goal of establishing a permanent community center, land at 145 Mill Street was purchased from Lumber Enterprises, Inc. in 1990. Grants and fund-raising activities provided money for construction. Designed by a local architect, constructed by volunteers, and completed in 1995, the Gallatin Gateway Community Center is the site for community meetings, school events, social activities, and a polling place for elections. Rentals, donations, and fund-raisers finance maintenance and operations. WWLA, Inc. conducts charitable work throughout the year and awards scholarships to Gallatin Gateway youth.

Over the last several decades, the Gallatin Gateway area has continued to grow and change. As the Big Sky Ski Resort has expanded, the amount of traffic traveling through the community has increased. As residents have moved to the area, school enrollment has steadily swelled. Businesses have been founded, and existing businesses expanded. The Fire Department has seen a growing demand for emergency services. Change has been happening to Gallatin Gateway for over 100 years, and examining the community within the context of the greater Gallatin Valley shows that change can be expected to continue for some time to come.

What's Next?

This is the first community plan for Gallatin Gateway. Over the last several months, residents have expressed a desire to use the planning process to preserve the rural nature of the area, direct growth into the core of downtown Gallatin Gateway, preserve the river and other water resources, explore the possible formation of a water and sewer district, and have a serious discussion about zoning to mitigate potentially incompatible uses.

Several of these discussions have been controversial, and it remains to be seen how successful they will be. This plan represents a new approach to growth in Gallatin Gateway. It attempts to balance the rights of individuals with the desire of the community to allow growth that doesn't infringe on the rights of existing neighbors, and to encourage a better school and emergency services, improve traffic controls on highway 191, and preserve the open space and rural atmosphere that so many people love. Before detailing policies to implement this vision, however, the remainder of this chapter deals with compliance with state statute, the county growth policy, and describes the process leading to this plan's adoption.

The Planning Process

The planning process for the Gateway Community Plan formally began in February of 2007. The process has been coordinated by the Gateway Community Planners, a steering committee of volunteers who have partnered with Gallatin County to guide the process. The steering committee has met twice a month at the Gallatin Gateway Community Center and has hosted several community events to present information and gather feedback. The steering committee has also solicited information and feedback from several agencies and professionals,

including the Montana Department of Transportation, Montana Fish, Wildlife, and Parks, the Gallatin Gateway School Board, the Gallatin Gateway Fire Department, the Gallatin City/County Environmental Health Department, and several consulting engineers. This Plan is a result of that conversation.

The following events have been held over the course of the last year:

- March 2007: Survey mailed to 650 landowners announcing the beginning of the planning process and asking initial questions (120 returned);
- May 18, 2007: Held a kickoff meeting to formally begin the process and establish general direction (70 community members participating);
- August 15, 2007: Meeting held to focused on historic downtown (40 community members participating);
- October 17, 2007: Meeting held to receive feedback on the initial direction of the planning process (87 community members participating)
- November 7, 2007: Meeting held to discuss sewer and water district formations and zoning regulations;
- January 25, 2008: Meeting held with large landowners to discuss policy options;
- January 30, 2008: Meeting held to discuss policy for rural Gallatin Gateway (67 community members participating);
- March 13, 2008: Meeting held with large landowners to discuss policy options;
- March 13, 2008: Meeting held to discuss policy for the downtown core (55 community members participating);
- April 30, 2008: Meeting held to discuss goals and policies of the Highway 191 corridor.
- June 4, 2008: Presentation of the first draft of the Gallatin Gateway Community Plan.
- October 8, 2008: Presentation of the final draft of the Gallatin Gateway Community Plan

Authority

This plan will be adopted as the Gallatin Gateway Community Plan Chapter of the Gallatin County Growth Policy. Authority of this community plan is authorized by Montana State Statute and the Gallatin County Growth Policy. Section 76-1-106 of the Montana Code Annotated (MCA) requires local planning boards to prepare growth policies, and Section 76-1-601 offers general guidance for the contents of a growth policy and/or neighborhood plan. Sections 76-1-602 through 76-1-604 give the procedure for adoption of growth policy or growth policy amendment.

Additionally, Chapter 4.3 of the Gallatin County Growth Policy authorizes the development of Neighborhood, or Community, Plans throughout Gallatin County. Those community plans must be drafted in compliance with the County Growth Policy, and are designed to give greater specificity within a certain defined area.

Organization of the Plan

This plan contains three layers of guidance for residents and decision makers:

- The overall vision and guiding principles presented below, which set the stage for more specific direction that follows;
- Goal statements in each chapter, which are broad statements about how the community will address a particular issue or need;
- Policies, which are specific action statements about how the community will achieve each goal.

The plan calls for exploring three primary strategies for managing growth in the Gallatin Gateway area:

- **Partnerships.** Partnerships, or agreements, between two agencies are a primary strategy communities can use to implement their planning policies. A primary strategy to implement plan policies in Gallatin Gateway are is a partnership between Gallatin County and the Montana Department of Transportation.
- **Investments.** A second strategy to implement the Gallatin Gateway Community Plan policies involve investments. Investments require the residents of Gallatin Gateway, the County, or perhaps outside agencies (such as MDT or federal grant programs) to invest time, energy, money, or a combination thereof. Investments include exploring the option of public water and sewer for downtown Gateway.
- **Requirements.** Requirements can take several different forms. The most common type of requirement is a set of development standards which new development or changes in land use would have to meet (also known as zoning). These standards could include setbacks from canals or ditches, landscape buffers between commercial and residential uses to help compatibility, lighting standards for new commercial buildings, density requirements for new subdivisions, requirements for central sewer/water, etc. Other types of requirements could take the form of plan policy. Examples include planned road connections, trail connections, or sidewalk connections which new development would have to build as a condition of their approval.

The plan is divided into three geographic areas: the Town Core, Rural Gallatin Gateway, and the Highway 191 corridor. Partnerships, investments, and strategies are all discussed as implementation strategies for achieving the goals and policies of each geographic area.

Gallatin Gateway's Community Vision and Guiding Principles

2

Gallatin Gateway has seen slow but steady change over the past 100 years, from the platting of the original town of Salesville, to the development of numerous subdivisions in the area, to the operation of several local businesses and the development and use of property ongoing today. As residents of Gallatin Gateway discuss these changes, the questions that have arisen during this planning process are:

- How does the community grow without eroding many of the values attracting people to the area?
- How do we ensure that new uses are compatible with existing uses?
- How do we meet the growing demand for public facilities?
- How do we protect environmental quality and the rural landscape?
- How do we balance the right of individuals to use their property with the responsibility to the community that comes with new development?

In this changing landscape, these questions are what planning is all about. The conversation is ongoing and will evolve over time. Gallatin Gateway's answers begin below, with the community vision and the Guiding Principles.

2.1 Gallatin Gateway's Vision for the Future

2.2 Guiding Principles

2.1 Vision for the Future

Gallatin Gateway recognizes it will continue to grow and change over the next several years. The following statements begin to discuss how, as it develops, Gallatin Gateway will continue to enjoy its rural, small town atmosphere and continue to be a place its residents want to call home:

- **Downtown Gateway** will explore opportunities to invest in new facilities, including a water and sewer district, roads, schools, parks, and trails as necessary, to ensure downtown Gateway grows in a healthy and moderate manner;
- **Rural Gateway** will sustain its rural, working, and agricultural

landscapes by exploring both regulatory and non-regulatory tools to protect its open spaces, wildlife habitat, water quality, natural resources, and property values;

- Gallatin Gateway, Gallatin County, and the Montana Department of Transportation will cooperate to ensure that **Highway 191** receives necessary improvements to safely handle increasingly higher traffic loads and to improve the aesthetic character of the corridor;
- Gallatin Gateway will continue to respect **private property rights** by ensuring that new uses do not degrade the value of existing landowners, and by ensuring that any new regulations are flexible and not overly burdensome;

Residents of Gallatin Gateway believe **responsibility** comes with new development. New development should be consistent with the custom, culture, and historic pattern of development of the community.

Policy 2.2 Guiding Principles

The following Guiding Principles have been used to guide specific policy direction in each of the three geographic areas of the planning jurisdiction.

Rural Lifestyle. Repeatedly, residents have stressed that Gallatin Gateway is a unique place. The quality of life, the night sky, access to recreational areas, and the sense of community and neighborliness of people were continually mentioned as principle values. Residents stressed that new development, whether residential, commercial, or industrial, should be appropriate to the area and its neighbors.

Compatibility between existing residential and new commercial. Many residents expressed concern with the compatibility of residential, commercial, and industrial use. Generally, residents feel that Gallatin Gateway should primarily be residential and agricultural in the rural parts of the planning area, with most of the commercial development limited to the downtown core, including the area between Gooch Hill Road and Cottonwood Road along Highway 191.

Property Rights Protection. Basic property rights protection is always in the background (if not the forefront) of every discussion regarding planning. Discussion showed that property rights is a two-sided coin: the right to use property goes hand in hand with responsibility to your neighbors and your community.

Pride in the Gallatin Gateway School. According to recent surveys, there is strong community support for the school, including the idea that the school helps provide an identity for the community and will need to be supported in the future.

A Healthy, Vibrant Downtown. Many residents expressed a desire for a safe, walkable, and vibrant town center with adequate services for residents, including appropriate commercial development, a functioning school, a volunteer-constructed community center, central water and sewer, and parks and trails.

Protected Natural Resources. Elements such as clean water, clean air, wildlife, and the surrounding open space and agricultural lands are crucial to maintaining the quality of life of the community.

Sufficient Infrastructure, Including Central Sewer and Water for Downtown Gallatin Gateway. As Gateway grows, sufficient infrastructure should be in place, including central sewer and water, a strong, well-funded school, and a fire department which can provide efficient and safe services.

A dominant issue has been the need for central sewer and water for downtown Gateway and the protection of groundwater in the area. With this discussion, however, two primary cautions have emerged regarding central water and sewer: the presence of infrastructure could potentially lead to greater density than was desired, and the fear that a heavy financial burden could be imposed on residents who may not have an immediate need for hookup to a central system. Any exploration of central water and sewer will need to take these questions into account.

Protected Viewsheds Through Control of Signage and Billboards. All participation efforts showed that control of new signs and billboards, primarily along Highway 191, was a priority.

Better Transportation. Good, safe, and efficient traffic safety on Highway 191 is critical to the quality of life of the area, as is traffic and pedestrian safety on Mill Street in Downtown Gateway. Additionally, many residents expressed a desire to see paths and trails incorporated into the area.

Protected Open Spaces and Agricultural Landscapes. Open spaces and healthy agricultural landscapes are critical to maintaining the rural nature of the area.

Implementation and Results. Many residents expressed a desire to

have a successful and meaningful planning process, resulting in a thoughtful community plan ensuring the appropriateness of new development in the area. In addition, residents have expressed a willingness to explore zoning, central water and sewer, and other tools to implement the plan.

Gallatin Gateway Town Core

3

The Gallatin Gateway Town Core, defined as Cottonwood Road to the south, Gooch Hill Road to the north, the Gallatin River to the west, and a quarter-mile east of Highway 191 on the east, is where residents of the area collect their mail, gather for community events, send their children to school, eat out, and live. Historically, the town has had several lives, many of them lived at the same time: among these are the logging and farming town of its origins, the dude ranches and tourist stops for Yellowstone of the 1920' and 1930's, and presently as a distinct Gallatin Valley community situated between Bozeman and Big Sky.

The following policies ensure that, as the Gallatin Gateway Town Core continues to grow, it continues to function as a community center and to be the residential, retail, service, social, and cultural center of the surrounding Gallatin Gateway area:

- 3.1 Land Use Map**
- 3.2 Central Business District**
- 3.3 Central Water and Sewer**
- 3.4 Historic Mix of Uses**
- 3.5 Pattern of Streets and Alleys**
- 3.6 Flexibility of Design and Use**
- 3.7 Land Use Compatibility**
- 3.8 Gallatin River**
- 3.9 Underground Utilities**
- 3.10 Mail Service**
- 3.11 Streamline Bus/Big Sky Shuttle System**

Policy 3.1 Land Use Map

Adopt a land use map designating a Town Core growth area around the existing platted town. Generally, the boundaries of this area run from Cottonwood Road to the south, Gooch Hill Road to the north, the Gallatin River to the west, and a quarter-mile east of Highway 191 on the east. New development in the Gallatin Gateway area will be focused within this Town Core to allow for natural extension of the existing townsite.

To preserve the rural character, the natural resources, and wildlife habitat of the greater Gallatin Gateway area, and to reduce conflict between new residential development and existing agricultural operations in the area, the majority of new growth will be focused into the Town Core rather than throughout rural Gallatin Gateway.

3.1.1 The existing platted town of Gallatin Gateway consists of 140 lots on 31 acres, resulting in a gross density of 4 lots per acre. Many lots have multiple uses on each lot (such as residences and businesses). This pattern shall continue throughout the existing platted town (see also Policy 3.2 for a discussion of a central business district on Mill Street).

As the Town Core grows, this basic pattern may continue. New development in the Town Core matching the existing density of four lots per gross acre (with the potential for multiple uses on each lot) shall be considered appropriate growth, as long as infrastructure needs, such as those of the Gallatin Gateway School and affordable and efficient central water and wastewater treatment, are addressed.

Dense development east of Highway 191 and within the Town Core has been a concern for Gateway residents and a catalyst to this process. While this Plan calls for the historically mixed use development currently existing in the original town plat to be continued as the Town Core expands (see Policy 3.4), the Plan also recognizes that existing conditions on the edges of the Town Core should be respected. Given existing conditions on the edges of the Town Core, density will gradually decrease to the perimeter edges of the Town Core boundary as described below.

On the west, the Town Core is bounded by the Gallatin River, and new development should be designed to avoid the floodplain and provide a setback from riparian habitat (see Policy 3.8). On the east, the Town Core is bounded by existing rural residential properties between one and ten acres. New development along the far eastern edge of the Town Core should be designed to transition smoothly to the more rural lots to the east. Potential mitigation measures along the eastern boundary may include the use of larger lots, parks and open space, and landscaping.

As both the zoning district process and the water and sewer district process proceed, every effort will be made to include the community in

addressing acceptable density levels and mitigating concerns arising from any design that doesn't respect surrounding land uses and constraints.

- 3.1.2 As the Town Core develops over time, the amendment process will allow for annexations.

Policy 3.2 Central Business District

Adopt a Land Use Map and Zoning Regulations delineating a central business district along Mill Street.

Historic Downtown has always centered on Mill Street. Currently, the Gateway School, the Fire Department, restaurants, offices, and the Community Center are located on Mill Street. The land use map and zoning regulations adopted to implement this plan will delineate a central business district to allow Mill Street to develop as a traditional "historic downtown" main street with mixed residential and commercial uses as sewer and water infrastructure becomes available.

Policy 3.3 Central Sewer and Water

The Gallatin Gateway community and Gallatin County will jointly explore options to form a public water and sewer district and provide central water and sewer in the Town Core to protect the area's water quality. Specifically, the following policies are adopted:

- 3.3.1 Formation of a public water and sewer district in the Town Core will require significant investment of time and energy from local residents and Gallatin County. Adoption of this policy shows commitment from both the Gallatin Gateway community and Gallatin County to explore options for system types, funding mechanisms, and location of facilities.
- 3.3.2 To protect the rural character of the area, dense development shall only be allowed in the Town Core area, as shown in the adopted Land Use Map. The development standards and map adopted to implement this plan will provide standards assigning densities in the Gallatin Gateway Town Core area and rural Gallatin Gateway.
- 3.3.3 Residents of Gallatin Gateway also recognize that provision of central water and sewer could, with careful control, be provided in other ways. New development in the Town Core requiring centralized water and wastewater shall coordinate with the water and sewer district for eventual inclusion in the District. It is the general policy of the Gallatin Gateway Community Plan that new development in the Town Core connect to the water and sewer systems controlled and operated by the District. In the event that

new development requiring central water and/or sewer precedes the District's construction of central water and/or sewer infrastructure, the development could coordinate with the District to jointly provide service or infrastructure for existing development.

Policy 3.4 Historic Mix of Uses

The Gallatin Gateway Town Core will continue to allow the historic mix of residential and commercial development already found in the original townsite.

Historically, the original townsite of Gallatin Gateway has consisted of residences, schools, bars and restaurants, community centers, churches, service businesses for surrounding agricultural and logging operations, and services for tourists passing through. Development standards adopted to implement this plan will continue to allow the historic mix in both the existing downtown away from Mill Street and in new development as the Town Core expands.

Policy 3.5 Pattern of Streets and Alleys

New development in the Gallatin Gateway Town Core should continue the pattern of streets similar to the original townsite where feasible.

The original townsite of Salesville was platted in a grid pattern of streets and alleys that provides the structure for the existing town. As new development occurs in the Town Core, this general pattern of connectivity shall continue to the north and the south to facilitate an even flow of car and bike, pedestrian, and equestrian traffic. To keep the small-town feel of new development, current County subdivision standards may have to be waived.

New development in the Town Core shall provide a connection to the old town of Salesville where feasible. West of Highway 191, development in some areas will be constrained by the presence of the Gallatin River floodplain, but several options exist both to the north and the south. Across Highway 191 to the east, new development should use pedestrian trails to connect with the pedestrian underpass.

Policy 3.6 Flexibility of Design and Use

Allow flexibility of building design and use within the Town Core.

Historical development in the original townsite was a mix of single- and multi-family residential uses with commercial uses. In many cases, structures were built to the lot line. While limitations are currently imposed on new development because of sewer and water, the development standards adopted to implement this plan shall maintain this historic flexibility in both use and site design.

Policy 3.7 Land Use Compatibility

It shall be the policy of Gallatin Gateway to ensure that new development in the Town Core is compatible with existing and adjacent land uses. This policy will be pursued using the following strategies:

- 3.7.1 Adopt development standards allowing residential uses to mix with retail uses, professional offices, restaurants and bars, and light manufacturing. Heavy industrial uses and gravel pits will not be allowed within the Town Core. Industrial uses such as those historically located on the Model Log property and on the Big Timberworks property are not considered “heavy industrial” as defined by this community plan and will continue to be allowed in the Town Core adjacent to Highway 191.

The Gallatin County Growth Policy and this Community Plan defines heavy industrial as uses engaged in the basic process and manufacturing of materials or products predominantly from extracted or raw materials, or a use engaged in storage of or manufacturing processes that potentially involve hazardous or commonly recognized offensive conditions, including large animal feeding operations. Heavy industry is also defined in terms of intensity and impact, and with respect to acceptable standards regarding noise, air pollution, emissions, odors, vibration, dust, dirt, glare, heat, fire hazards, wastes, traffic impacts, and visual impacts.

- 3.7.2 Adopt development standards requiring mitigation of potential nuisances, including noise, glare, and the improper handling of solid waste.
- 3.7.3 Adopt development standards establishing size limits for commercial signs and limiting billboards in the Town Core to those already in place.
- 3.7.4 Study possible routes that would allow high-tonnage commercial vehicles to by-pass Mill St. when accessing Highway 191. Any future expansions of gravel pits in the Gateway area provide the opportunity to explore alternative routes for high-tonnage commercial vehicles. Possible routes include Gateway South Road, Axtell Gateway Road, and/or Axtell Anceney Road. Any of these would require significant road improvements and the input of the people who live on those routes.
- 3.7.5 Adopt development standards prohibiting commercial sand and gravel mining operations in the Town Core.
- 3.7.6 All existing businesses within the Town Core shall be grandfathered.

Policy 3.8 Gallatin River

New growth in the Town Core shall be designed to protect the Gallatin River.

As the Town Core expands to the south and north of the existing historic townsite, new development should be designed to avoid the floodplain and provide a setback from the river to protect both groundwater and riparian areas. Existing lots within the Town Core and the original platted townsite shall be grandfathered.

Policy 3.9 Underground Utilities

To preserve the historic nature of the Town Core and to enhance the safety of the residents, all new utilities shall be underground. Furthermore, the community will strive to "underground" the existing overhead utilities where and when feasible.

Policy 3.10 Mail Service

As the Town Core grows in the future, this policy provides the basis for future conversations with the Postmaster regarding establishment of mail delivery service in the downtown core.

Policy 3.11 Streamline Bus/Big Sky Shuttle System

The Streamline Bus/Big Sky shuttle system has begun service to the Gallatin Gateway area. This policy provides the basis for a future conversation regarding expansion of the Streamline Bus/Big Sky shuttle system as Gallatin Gateway and the County continues to grow. Future Expansion of the Streamline Bus/Big Sky Shuttle system offers more travel options and could improve traffic flow. Streamline should consult with local businesses on placement of bus stops to avoid conflicts with parking and traffic.

Rural Gallatin Gateway

4

Rural Gallatin Gateway provides many of the amenities that make the area a desirable place to live. Agricultural landscapes, natural amenities such as wildlife habitat, the Gallatin River and other watercourses, wetlands, rural lifestyle, and the night sky all provide the context for rural Gallatin Gateway. Additionally, uses such as home-based businesses and gravel pits are a rural reality in the area and will continue in a way that is compatible with surrounding land uses. The following policies will ensure that, as rural Gateway grows, these amenities and rural realities are protected:

4.1 Land Use Map

4.2 Natural Assets

4.3 Land Use Compatibility

4.4 Existing Agricultural Operations and the Rural Character of the Area

Policy 4.1. Land Use Map

Adopt a land use map designating three land use classifications in rural Gallatin Gateway. Generally, Rural Gallatin Gateway is defined as land outside of the Downtown Core and the Highway 191 classifications.

Rural Gallatin Gateway has seen varied development over the past 100 years resulting in several different neighborhoods. Each neighborhood has different characteristics and needs. The land use and zoning map adopted to implement this plan will recognize those different needs.

Existing subdivision and COS development. Parts of Rural Gallatin Gateway were subdivided and developed years ago, including the Little Bear and Bear Creek Properties developments in the southern portion of the district, the extensive Certificate of Survey (COS) development in the northeast portion of the district, and COS and minor subdivision development west of the river. All of this development is large lot, using well and septic systems. This land use classification and zoning district will provide protection of the character of these existing residential neighborhoods by allowing continued residential uses while limiting commercial uses to home occupations and home-based businesses. In areas with appropriate access, lot splits and other minor subdivisions will be allowed.

Rural West. This classification consists primarily of the undeveloped parcels west of the river. Many of these parcels continue to be part of working farms and are somewhat constrained by the Gallatin River floodplain. Given the riparian nature of all land adjacent to the river, these parcels contain significant riparian

habitat that should be considered with all new development proposals. New subdivision in this area should be low density, with the opportunity for increased density if an open space development pattern is used.

Rural East. This classification consists of the undeveloped parcels along the eastern border of the planning jurisdiction. Most of these parcels continue to be part of working farms and many have significant constraints regarding access. The southern portion of this area has been identified by Montana Fish, Wildlife, and Parks as having significant value to wildlife, and as a wildlife corridor for elk and deer winter range. Given the agricultural nature of the area, the constraints on access (and, consequently, to emergency service vehicles), and the high wildlife value, future development should be restricted to low density. Higher-density development could be allowed if an open space development pattern (clustering) is used.

Rural South. This classification includes parcels in the southeast area of the planning jurisdiction. As with the Rural East classification, new development should consider the significant wildlife habitat in the area, and density and design requirements should be similar in both districts.

Policy 4.2. Natural Assets

Adopt standards protecting natural assets in the area. The natural environment is one of the primary values of residents of the Gallatin Gateway area. It shall be the policy of rural Gallatin Gateway to protect and maintain the natural assets of the area, such as wetlands, groundwater, the Gallatin River, and wildlife habitat. This policy will be pursued using the following strategies:

- 4.2.1 **Adopt standards requiring minimum setbacks to watercourses and wetlands, including the Gallatin River.** The Gallatin County Subdivision Regulations currently require setbacks of 300 feet to the Gallatin River and 150 feet to all other watercourses as a condition of subdivision approval. Adopting zoning standards would extend these setbacks to all existing lots in rural Gallatin Gateway and would provide significant protection to riparian and wildlife resources, as well as avoid potential floodplain issues.
- 4.2.2 **Protect rural character, open space resources, and wildlife habitat by requiring open space development patterns.** Preserving the rural landscape that occupies approximately 75% of the planning area is an important goal of this plan. As countywide zoning standards are established for development outside of the planning jurisdiction, large landowners within the planning area shall be afforded greater development potential. As a group participating in the planning process, large landowners have agreed that an average future density of one lot per 10 acres (average density, rather than minimum lot size) for new residential development is acceptable, with development clustered and sixty-five percent (65%) of the site preserved in open space. Development shall be designed on-site to protect existing agricultural operations, wildlife habitat, and natural assets such as watercourses and

wetlands. Approval of development remains the authority of the Gallatin County Commission, and each development plan will be considered individually and with respect to the overall guidance of the Gallatin Gateway Community Plan and the Gallatin County Growth Policy.

- 4.2.3 **Require wildfire mitigation plans for new development.** The entire Gallatin Gateway Planning Jurisdiction has been classified by the Department of Natural Resources Management (DNRC) as being within the Wildland-Urban Interface (WUI) and at increased risk to wildfire. New development in rural Gallatin Gateway should work closely with the Gateway Rural Fire Department, the DNRC and the United States Forest Service to mitigate risks of wildfire.

Policy 4.3 Land Use Compatibility

Rural Gallatin Gateway is currently a mix of agricultural operations, residential development, light commercial and manufacturing, and a few gravel pits. As the area grows, it shall be the policy of rural Gallatin Gateway to ensure that new development is compatible with existing land uses. This policy will be pursued using the following strategies.

- 4.3.1 **Respect rural realities.** Future growth in the rural Gateway area shall respect rural realities. Home-based businesses, gravel pits, and other commercial operations currently exist, and future development should consider this reality. Gallatin County will adopt development standards to ensure compatibility between new industrial, commercial uses, and residential uses in rural Gallatin Gateway.
- 4.3.1.a It is generally understood that the primary use of property in rural Gateway shall be agricultural and/or residential. Secondary uses may be commercial. Commercial operations will be limited to businesses which have a small number of employees on parcels where the primary use is agricultural or residential. This policy is not intended to restrict any home occupations or businesses conducted by agricultural users, nor gravel pit operations as described in Policy 4.3.3 below.
- 4.3.1.b Existing commercial uses shall be grandfathered and allowed to continue.
- 4.3.2 **Adopt standards for mitigation of potential nuisances.** Gallatin County will use the development standards to require mitigation of potential nuisances, including noise, glare, and the improper handling of solid waste.
- 4.3.3 **Adopt standards for gravel pits.** Much of the greater Gallatin Gateway area is old floodplain of the Gallatin River. Consequently, gravel resources in the area are plentiful. As more and more development has

taken place in rural Gallatin Gateway, however, conflicts have arisen between residential development and gravel extraction. The development standards adopted to implement this plan will require new and expanded gravel pit operations to obtain a conditional use permit to address off-site mitigation measures. If temporary and appropriately mitigated, gravel pits are expected to continue being a part of rural life in the area.

Policy 4.4 Existing Agricultural Operations And The Rural Character Of The Area

Recognize the importance of existing agricultural operations in the area by requiring protection of agricultural canals and ditches and by directing the majority of growth in the area into the core area identified on the land use map.

The Gallatin Gateway area has over 9,000 acres in existing agricultural production. All of these agricultural lands contribute to the character of the area, and the impact on agriculture has been identified as one of the primary concerns of residents of the Gateway area.

The character of the soils and the climate create large demands for water to support crops. Since the early 1800's, surface water has been diverted from the Gallatin River to meet these demands. Within this area, there are several major canals and numerous smaller ditches. These supply systems are fragile and require continual maintenance to provide this valuable resource for agriculture. State statues provide for access and easements for the owners of these ditches and canals and are in place to provide for access and easement for the owners of these ditches and canals. The water systems can be as large as 18 feet in width for a canal, to 18 inches in width for a small ditch. The equipment used to maintain these structures can vary from a large excavator to a small tractor. Maintenance often includes cleaning the grass and trash, as well as occasional removal of trees and other vegetation which remove water and impede water flow.

Within the Gallatin Gateway Planning Jurisdiction, there are five major and several smaller irrigation ditches carrying large amounts of water. The larger ditches are the West Gallatin Canal, High Line Ditch, Noble Ditch, Farmer's Canal, and the Allison-Lewis Ditch. Other identified ditches are the Gilmore-Todd, Bush-Etherington, Cockrell, and Shadoan. The large ditch companies have water flowing from April through October of each year with volumes which have the potential to produce hazards near these systems. The large canals depend on natural water ways to release water during time of emergencies. It is essential for development to be educated on these features to avoid placing structures in places which impede operation and maintenance of these water way areas.

Agricultural lands and waterways shall be protected through the following policies:

4.4.1 **Adopt development standards requiring new development to mitigate its impact on existing canals and ditches.** Generally, these standards will:

- 4.4.1.a Require new development adjacent to a canal or ditch to contact the appropriate canal company prior to approval;
- 4.4.1.b Require acknowledgment by the canal company that contact has been made, along with any comments or conditions they require to mitigate impacts;
- 4.4.1.c Prohibit channeling of stormwater or snowmelt runoff into a canal or ditch without express consent of the company;
- 4.4.1.d Establish a setback from the centerline of any canal or ditch;
- 4.4.1.e Require agreement by canal company prior to alteration of a canal or ditch;
- 4.4.1.f Require new subdivision to locate canals or ditches in parkland or open space.

4.4.2 **Exempt agricultural practices and structures from future zoning regulations.**

4.4.3 **Exempt family transfer exemptions from any future zoning regulations.**

4.4.5 **Recognize the right to farm and ranch in the Gallatin Gateway area.**

Agricultural operations are abundant throughout rural Gallatin Gateway. This policy states that non-agricultural landowners accept and are aware that standard agricultural and farming practices can result in smoke, dust, animal odors, flies and machinery noise, and that standard agricultural practices feature the use of heavy equipment, burning, chemical sprays and the use of machinery sometimes 24 hours a day.

Highway 191 Corridor

5

State Highway 191 runs north-south through the planning jurisdiction east of the Gallatin River, leading to Big Sky and Yellowstone National Park to the south and providing access to Bozeman, Belgrade, and the interstate to the north and east. The location of a major state highway providing access to areas of high recreational value to the south and access to the outside world to the north place Gallatin Gateway in context as it continues to see growth pressure.

This plan recognizes that Highway 191 is a major transportation route bisecting Gallatin Gateway. Additionally, Highway 191 serves as the gateway to Gallatin Gateway. As the community grows, necessary improvements should be made to ensure maximum safety. Additionally, while the area fronting Highway 191 is a natural location for commercial use, the following policies ensure that new development does not follow the standard pattern of strip commercial:

5.1 Land Use Map

5.2 Commercial Development Along Highway 191

5.3 Highway 191 Improvements

Policy 5.1. Land Use Map

Adopt a land use map designating two land use classifications within the Highway 191 Corridor. Generally, the boundaries of these subdistricts area are defined as Cottonwood Road south for one mile along 191, and Gooch Hill Road north to the northern boundary of the planning jurisdiction. Both subdistricts extend one half mile one either side of Highway 191.

Land along the Highway 191 corridor requires special consideration in order to ensure orderly commercial development occurs without infringing on the values discussed by this plan. Two land use classifications are defined.

Northern Highway District. This classification includes several large parcels west and north of the Peak View Subdivision along Highway 191, and is the area first encountered by visitors and traffic approaching Gallatin Gateway from the north. Approximately 180 acres have been placed under conservation easement, and a number of parcels west of Highway 191 are constrained by the Gallatin River floodplain. There is, however, significant highway frontage and buildable land both on the bench above the river (west of Highway 191) and on properties east of Highway 191. The area is pressured by growth from the Four Corners area to the north, and by significant high-speed traffic passing on to Big Sky. Commercial uses and mixed commercial/residential uses will be allowed, though specific design standards (described below in Policy 5.2) will be adopted to prevent standard strip commercial.

Southern Highway District. This classification includes land extending from Cottonwood Road south for one mile. This area plays a different role than the

Northern Highway District in that it does not have the immediate pressures of development from Four Corners. Traffic reaching this area is primarily through traffic to the south. Given the reality of highway frontage, this land use classification will allow some commercial development along the highway, though standards will be adopted requiring certain design elements to mitigate the safety issue raised by extended strip commercial.

Consideration should be given to future development as the Town Core grows. Continuity of flow for density of residential development away from the highway and to the south should consider view shed, open areas, connectivity with the Town Core, walking paths, access to the Gallatin River and recreational space along the Gallatin River.

Policy 5.2. Commercial Development Along Highway 191

Strip development consists of commercial uses that are one lot deep, have separate access to the highway (resulting in numerous places where vehicles attempt to enter the flow of traffic), and display numerous large signs. Strip development often has a continuous curb cut (allowing vehicles to enter or leave the road at numerous points and angles), little if any landscaping, and no provision for pedestrian or bicycle movement to the businesses or through the area. While several of these issues will be constrained by policies of the Montana Department of Transportation, this plan will supplement those policies further.

This plan recognizes the difference in the types of businesses locating in the downtown core versus on property along the highway. Given the reality of through traffic to the south, businesses along the highway will develop to serve that traffic. To ensure new development along Highway 191 meets the goal of discouraging strip commercial, the following actions will be taken:

- 5.2.1 **Commercial Nodes.** The Montana Department of Transportation (MDT) has limited the number of access points from adjacent properties onto Highway 191. As new development occurs along the Highway 191 corridor, commercial uses shall be clustered around existing MDT encroachments.
- 5.2.2 **Site Design.** The development standards and land use map will require the use of frontage roads connecting structures and properties, deep lots, landscaped buffers, and other site planning tactics along Highway 191 to ensure that strip development is discouraged. Additionally, the development standards will encourage parking lots and other impervious surfaces to be placed along the rear or side of structures.
- 5.2.3 **Connections.** New development along Highway 191 must have safe, functional access for vehicles, pedestrians, and cyclists through the site, as well as have safe, functional connections with adjoining developments.
- 5.2.4 **Landscaping.** The development standards will require landscaping for new commercial uses fronting Highway 191

Policy 5.3 Highway 191 Improvements

Improvements to state highways are implemented when a specific set of warrants are met. This policy calls for applications for high-traffic developments accessing Highway 191 to include a traffic impact study specifically analyzing impacts to the highway. The following improvements have been identified by the Gallatin Gateway community as potentially necessary as warrants are met:

- 5.3.1 **General Improvements.** The following improvement is located on Highway 191 but are not located within either the Highway 191 North or Highway 191 South subdistricts.
 - 5.3.1.a Install a stoplight at the Mill Street/Highway 191 intersection, with a preemptive Traffic Device to allow the Gallatin Gateway Fire Department safer access to the highway.
- 5.3.2 **Northern Highway Subdistrict.** The following improvements are suggested for Cottonwood Road north to Axtell-Anceny Road section of Highway 191 as warrants are met:
 - 5.3.2.a Consider extension the 50 mph speed zone north to Axtell-Anceny Road and south to Cottonwood Road.
 - 5.3.2.b Install signage at both ends of the speed zone to indicate “congested area next 2 miles” or “dangerous intersection ahead”.
 - 5.3.2.c As warrants are met, consider installing turning lanes at the intersections of Highway 191 and Axtell-Anceny Road, Zachariah Lane, and Cottonwood Road.
 - 5.3.1.d Continue evaluating the Mill Street/Highway 191/Rabel Lane intersection. To the west, Mill Street services the elementary school, the fire station, the Gallatin Gateway Community Center, and businesses and homes in town, as well as the Gallatin River and a network of rural roads. To the east, this intersection services the Post Office, various businesses, and residences. This intersection was recently given a Level of Service performance grade of C/C (a.m./p.m.). More growth is expected in the future in that area, and increased traffic could quickly diminish the LOS to a failing grade
 - 5.3.2.e Continue to require traffic impact studies for all major development and install road improvements as determined by traffic studies.
- 5.3.3 **Southern Highway Subdistrict.** The following improvements to Highway 191 are suggested for Cottonwood Road south to the southern

edge of the district:

- 5.3.3.a Eliminate the speed differential between cars and trucks on Highway 191, by posting a day speed of 65 mph and night speed of 60 mph.
- 5.3.3.b As warrants are met, consider installing turning lanes at the intersections of Highway 191 and Low Bench Road, Williams Road, and Gateway South Road.

District-Wide Policies

6

Several policies apply across the entire Gallatin Gateway Planning Jurisdiction. These policies are:

- 6.1 Fire and Emergency Services**
- 6.2 Gallatin Gateway School**
- 6.3 Pedestrian and Trail opportunities**
- 6.4 Signs and Billboards**
- 6.5 Greater Bozeman Area Transportation Plan**
- 6.6 Night Sky**
- 6.7 Connections**
- 6.8 Recommended Speed Controls**
- 6.9 Sexually-Oriented Businesses**

Policy 6.1. Fire and Emergency Services

Ensure continued provision of adequate fire and emergency services.

- 6.1.1 Planning for hydrant placement in the Town Core should include the Fire Department.**

If a Gallatin Gateway Sewer and/or Water District becomes a reality over the next few years, any discussion of hydrant placement throughout the Town Core should include the Gateway Rural Fire Department.

- 6.1.2 Explore the possibility of addressing a reduced Fire Suppression Rating from ISO for portions of the fire district.**

With the addition of new apparatus over the past few years, the Fire Department should explore the possibility of addressing a lower ISO rating for portions of the fire district.

6.1.3 Cooperate with the County Road Department and the County GIS Department to rename the southernmost portion of Portnell Road.

There is currently some confusion for emergency services regarding the southernmost portion of Portnell Road. As houses are built on existing Certificates of Survey in this area, the potential for more confusion and conflicts increases. The Fire Department should cooperate with the County Road Department and the County GIS Department to rename the southern portion of the road.

6.1.4 Consider provisions to add career staff as the need dictates.

The number of calls the Fire Department is responding to is nearing an average of one per day. The current staff is all volunteer, but as the community grows and the volume of calls increase, the Fire Department should engage the community in discussions about adding career staff as the need dictates.

6.1.5 If traffic lights are installed anywhere in the jurisdiction, pre-emptive traffic devices should be installed to allow emergency vehicles access.

6.1.6 The Zoning Regulation adopted to implement this plan should consider height requirements and building separation for new buildings that can adequately be served by the Fire Department (i.e., ladder height, etc.)

6.1.7 Any variances to road standards in new subdivisions should be routed to the Fire Department for comment.

6.1.9 Two bridges in the planning jurisdiction, the Axtell-Gateway bridge and the West Williams bridge, do not meet weight capacities for fire engines and water tender. New development using these bridges shall be required to participate in improvements to the bridges.

6.1.9 New commercial structures should contact the Fire Department for Knox boxes.

Knox boxes allow fire department members to access buildings by a secure key system rather than creating damage to doors in order to allow access for fire suppression or investigation.

Policy 6.2. Gallatin Gateway School

The community and Gallatin County should actively explore options to help the Gallatin Gateway School expand as new growth occurs in the Downtown Core.

The Gallatin Gateway School is one of the foundations of Historic Gateway. The original school building was constructed in 1914 and has provided education for the community since its inception. Currently, grades K-8 attend the school.

School enrollment has increased consistently over the past 20 years, and recent discussions have raised the following issues:

- Current enrollment leaves very little room for expansion in the current school due to issues with space;
- Parts of the original building do not meet state building codes, making full utilization of the building difficult;
- The school is served by a well and septic system that is at capacity;
- Federal law requires a certain percentage of playground space per student. Any significant rise in enrollment will require an expansion in the amount of playground space for the school.
- There are almost 300 buildable lots in the Gateway School District that are currently empty. Even with no new subdivision, there is significant potential for growth in the area that will affect public facilities such as the school.

In light of these issues, the following policies are suggested:

- 6.2.1 Gallatin Gateway School District has prepared a school facilities inventory to prepare for new students. The School District should continue this work and develop a school facilities Master Plan, including infrastructure, utilities, and service requirements projections.
- 6.2.2 Gallatin Gateway School should work with the School Superintendent to ensure an annual discussion with the Board of County Commissioners regarding the status of the school and growth in the area.
- 6.2.C GG School District should request a voluntary school impact fee from new residential development. Additionally, major subdivisions shall provide a school mitigation plan to discuss impacts on the Gateway School and potential solutions.
- 6.2.D New development in the Gallatin Gateway area should confer with the Gallatin Gateway School District to discuss mitigation measures (see also Policy 7.4 for more discussion of infrastructure concurrency).

Policy 6.3 Pedestrian and Trail Opportunities

Explore opportunities to provide pedestrian and other trail opportunities within the core. Specifically:

6.3.1 Explore opportunities to provide pedestrian trails along major Roads.

Many of the secondary roads in Gallatin Gateway are used by residents for various recreational pursuits, such as walking, riding horses, bicycling, and cross-country skiing. Developments that add considerable traffic to the roads should mitigate their impact by providing for trails within or adjacent to the development so that residents can continue to enjoy these pursuits safely.

6.3.2 Expand the pedestrian trail on the East side of Highway 191.

The underpass provides a pedestrian connection to the historic downtown for properties on the east side of Highway 191. New development within the core and along Highway 191 should provide pedestrian connections where possible to the existing trail and underpass. This includes extending the trail both to the north and the south, but also investigating options for expanding pedestrian opportunities along Mill Street to the Gallatin River. Expansion of this trail should consider not only bicycle and pedestrian travel, but also equestrian travel.

6.3.C Explore options for a pedestrian trail west of Highway 191.

As property develops along the West side of 191, the feasibility of constructing a pedestrian trail along highway frontage should be considered on a case-by-case basis.

Policy 6.4 Signs and Billboards

One of the primary concerns for residents has been the proliferation of billboards in the Gateway vicinity. As of the drafting of the plan, 14 billboards were located between the mouth of the canyon and Zachariah Lane. The development standards will include a sign provision prohibiting new billboards, explore options for a sunset clause for existing billboards, and establish size and design criteria for signs along Highway 191.

Policy 6.5 Greater Bozeman Area Transportation Plan

The Greater Bozeman Area Transportation Plan has jurisdiction that includes the Gallatin Gateway Planning area. Many of the design standards and transportation guidelines are generally supportive of the vision described by this plan. This policy urges the Gallatin County Commission to adopt the Greater Bozeman Area Transportation Plan and implement those policies as development occurs. For more

information on the Transportation Plan, please contact the Gallatin County Planning Department.

Policy 6.6 Night Sky

Protect the night sky by adopting lighting standards for commercial uses, billboards, and signs.

Much of the rural nature of the Gallatin Gateway area can be attributed to the visibility of the night sky, as consistently expressed by the community. To preserve and protect this element of the Gateway community, lighting standards for commercial uses, billboards, and signs will be drafted as part of the zoning regulations adopted to implement this plan. Additionally, any street lighting constructed in the planning jurisdiction shall comply with applicable lighting standards to protect the night sky.

Policy 6.7 Connections

Multiple points of access will be required to most developments. Additionally, safe, functional connections between neighborhoods, and within residential and commercial areas and public places, will be required.

6.7.1 Require Connectivity as a Condition of Development Approval.

Commercial and residential developments must have safe, functional access for vehicles, pedestrians, and cyclists through the site. They should also have safe, functional connections with adjoining developments.

Benefits of safe, functional connections between neighborhoods between neighborhoods via roads and sidewalks, paths, and trails include the following:

- Having multiple points of access to a neighborhood can be important during emergencies;
- Facilitating movement from one part of the community to another via local roads, sidewalks, paths, and trails can reduce congestion on arterial roads and major connectors. It also encourages walking and cycling;
- Connecting neighborhoods promotes a sense of community throughout town;
- Providing multiple connections, including sidewalks and paths, can facilitate safe movement of school children to either of the two schools in the community.

Policy 6.8 Recommended Speed Controls

The Gallatin County Road Department should consider extending the 25 mph speed zone on Mill Street to the west to the intersection with Cottontail Road, Axtell-Gateway Road, and Gateway South Road. Additionally, given the number of residences and the potential traffic from gravel pits, the County Road Department should examine the possibility of designating Gateway South Road as 35 mph.

Policy 6.9 Sexually-Oriented Businesses

A prevalent concern of area residents is the potential for undesirable commerce. Sexually-oriented businesses should be prohibited within the Gallatin Gateway planning jurisdiction.

Continuing the Conversation and Implementing the Plan

7

This chapter addresses the desire of many Gallatin Gateway residents to have increased say in the future of their community. It shall be the policy of the Gallatin Gateway community and Gallatin County to actively engage citizens in the long-range planning process. The Gallatin Gateway community's commitment to active citizen participation is affirmed by the extensive program of involvement used to develop this plan. The strategies for continuing implementation of this policy are:

- 7.1 Zoning District Formation**
- 7.2 Sewer and Water District Formation**
- 7.3 Development Review Board**
- 7.4 Concurrency of Development and Infrastructure**
- 7.5 A Return to the Vision and Guiding Principals**

Policy 7.1 Zoning District Formation

The Gallatin Gateway community and Gallatin County will adopt a zoning district and regulation to implement the goals and policies of the community plan.

Many of the goals and policies of the Gallatin Gateway community plan call for specific development standards to be adopted. The community and Gallatin County will draft a zoning regulation specifically designed to implement the community plan. After adoption of the community plan, the County Commission will formally appoint a citizen board (comprising residents of the Gallatin Gateway jurisdiction) to work with planning staff to draft a zoning regulation.

Policy 7.2 Sewer and Water District Formation

The Gallatin Gateway community and Gallatin County will jointly explore options to form a water and sewer district.

As stated in Policy 3.3, community water and sewer infrastructure in the historic Town Core will implement several guiding principles of the plan. While sewer and water infrastructure can be provided in several ways, many residents have expressed interest in the options for increased local control offered by a public

district. After adoption of the plan, residents of the community and Gallatin County commit to exploring options to provide community water and sewer, ideally in the form of a public district.

Policy 7.3 Development Review Board

Gallatin County will appoint a Development Review Board, comprised of Gallatin Gateway residents, for the Gallatin Gateway jurisdiction to ensure new development reflects the goals and policies of this plan.

New development within the Gallatin Gateway planning jurisdiction will continue to be reviewed by the Gallatin County Commission for compliance with the Gallatin Gateway Community Plan and any other applicable regulations, such as future zoning regulations and the Gallatin County Subdivision Regulations. To provide guidance to this process, the Commission will appoint a Development Review Board to review all developments for compliance with the adopted plan.

Policy 7.4 Concurrency of Development and Infrastructure

New development shall be required to include necessary infrastructure concurrent with the impacts and demands of new development

As discussed throughout this plan, mitigation of development's impact on existing infrastructure is an important goal of the Gallatin Gateway community. As development proceeds within the Gallatin Gateway planning jurisdiction, new development shall demonstrate that all infrastructure (public facilities and services) needed to accommodate the impact of new development shall be provided and available at the time those impacts occur.

New development shall be evaluated on the basis of its impact on roads, sewer/treatment facilities, water supply/distribution, schools, fire, and police protection. All projects will be submitted for review to the appropriate service provider or special district to confirm the projected impacts of the proposed development, the existing level of service, and the availability of service capacity.

Additionally, Gallatin County will consider adoption of impact fees in the Gateway area to mitigate impacts of new development on existing residents.

Policy 7.5 A Return to the Vision and Guiding Principles

This plan ends with a reminder that, while this is the first community plan for the Gallatin Gateway area, it was written on a foundation of Guiding Principles obtained through an inclusive process involving several hundred individuals. As the community continues to grow and change, decisions that affect the area should be weighed with those Guiding Principles and the planning policies in mind. Likewise, as the discussion about Gallatin Gateway continues and the plan evolves over time, that vision should continue to serve as the foundation for future community conversation.

APPENDIX D

Public Comments



Public comments are anticipated after required public notification period.

-C. Percy 7/29/2014

APPENDIX E

Cumulative Impact Analysis



Appendix E – Cumulative Impact Analysis

Cumulative impacts are the summation of impacts on a resource resulting from the incremental impact of the proposed project when added to other past, present, or reasonably foreseeable future actions regardless of the actions' originator. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Cumulative impact analysis considers connected actions, projects related and dependent upon the completion of the proposed public sewer system for the community of Gallatin Gateway, and similar actions or projects having a common geography or timing that provide a basis for considering their impact together with impacts related to the proposed project.

Cumulative impacts are evaluated on past actions, present actions, and reasonably foreseeable actions. Due to the limited availability of information regarding past actions, this portion of the analysis is limited to aerial photograph interpretation and the current land use within the project area. Present actions are those projects which are ongoing and will continue during the implementation of the proposed project. Reasonably foreseeable actions, for the purposes of this project, are those that have received local approval for implementation within a 1-mile radius of the subject property. Additionally, reasonably foreseeable actions will include the expansion of the wastewater treatment facility to eventually accommodate up to 336 people.

Additionally, an application for an open-cut gravel pit has been submitted by Gateway Village LLC for the property directly north of the lot designated for the proposed groundwater disposal facility located off of Cottonwood Road. The public comment period for this application ended on July 22, 2014. Based on the information obtained from the public meeting held at the Gallatin Gateway School on July 15, 2014, MDEQ will either extend the agency review period or send a deficiency letter to Gateway Village LLC by July 28, 2014. The environmental professional received a "Notice of Extended Review for the Application for Opencut Mining Permit Gateway Pit Site, Opencut #2520" on July 28, 2014 (a copy of this communication can be found in Appendix B). This notice stated the proposed gravel pit does not adequately protect shallow groundwater resources that local residents use for drinking water and domestic needs and as a result, the proposed plan does not satisfy the following requirements of the Opencut Mining Act. MDEQ stated that it will conduct an extended review within the following timeframes:

(a) For a complete application subject to an extended review, the department shall, within 60 days from the date the department determines the application warrants an extended review, inspect the proposed site if the department determines an inspection is necessary and notify the applicant as to whether or not the application is acceptable pursuant to 82-4-432. If the application is unacceptable, the notice must include a detailed explanation of the deficiencies.

(b) Within 30 days of receipt of the applicant's response to the identified deficiencies, the department shall review the responses and notify the applicant as to whether or not the application is acceptable. If the application is unacceptable, the department shall notify the applicant in writing and include a detailed identification of the deficiencies.

(c) The department may for sufficient cause extend either or both of the review periods in subsection (2)(a) or (2)(b) for an additional 30 days if it notifies the applicant of the extension prior to the end of the respective original period. The department shall include in the notification of extension the reason for the extension.

(d) If the application is acceptable, the department shall issue a permit or a permit amendment to the operator that entitles the operator to engage in the opencut operation on the land described in the application.

See Section 82-4-439(2)(a-d), MCA.

Because this action has not yet received local approval for implementation, it is considered speculative and will not be considered in this cumulative impact analysis.

Past Actions

As discussed in the table provided in Exhibit 2-M, the proposed project area consists of the 109 acres of property located within the Gallatin Gateway County Water and Sewer District and a 5 acre parcel of land located directly behind the Buffalo Station Sports Bar (Figure 1 and 2). The proposed project activities will consist of the design and construction of a wastewater collection system, lift station and wastewater treatment plant. The majority of these materials will be installed below the surface of the ground.

The community of Gallatin Gateway consists of homes, streets, businesses, and associated infrastructure. The surrounding properties include rural residential, agricultural, light commercial and light industrial. Review of aerial photography from 1995 to 2011 on Google Earth reveal increased light commercial and rural residential development within a 1-mile radius of the subject property.

The Gallatin County Planning and Community Development Department provided the environmental professional with a list of subdivisions that have occurred within a 1 mile radius of Gallatin Gateway. None of these have occurred within the past 5 years, with the exception of two boundary relocations. The list of these subdivisions is provided below. Please see Appendix B for a copy of the email communication.

- Minor sub 129 = 1994
- Minor sub 7 = 1974
- Minor sub 377 = 2005
- Minor sub 262 = 1999
- Minor sub 213A = 2008
- Minor sub 213 = 1997
- Minor sub 56A = 1993
- Minor sub 56C = 2002
- Minor sub 56B = 1995
- Minor sub 56 = 1985
- Minor sub 424 = 2008
- **Minor sub 424A = 2011 (boundary relocation)**
- Minor sub 374 = 2005
- Minor sub 54 = 1985
- **Minor sub 309C = 2013 (boundary relocation)**
- Minor sub 309 = 2002

Present Actions

Present actions are projects which are ongoing and will continue during the implementation of the proposed project. No projects which are ongoing and will continue during the implementation of the proposed project have been identified.

Foreseeable Future Actions

Reasonably foreseeable actions, for the purposes of this project, are those that have received local approval for implementation within a 1-mile radius of the subject property. The Planning Director of Gallatin County, was contacted on July 24, 2014 to inquire about any projects that have received approval for implementation. Mr. Sean O'Callaghan provided the following comments (see Appendix B for communication records):

- During the phone call, Mr. O'Callaghan stated that he did not believe any changes to a floodplain were taking place within a mile radius of the community of Gallatin Gateway.
- The Planning Department reviews minor and major subdivisions. In an email received on July 29, 2014, Warren Vaughan from Gallatin County Planning and Community Development states that there have been no subdivisions in the past 5 years within a 1 mile radius of Gallatin Gateway and there have been 2 boundary relocations.

Future projects planned that have received local approval for implementation have not been identified within a 1-mile radius of the subject property. However, future growth is anticipated within the community of Gallatin Gateway as an indirect impact of the installation of the proposed community wastewater collection and treatment system.

Planning and Project Design for Future Growth

As stated in the "Wastewater Collection System & Wastewater Pumping Stations Design Report" (Stahly Engineering 2014), the community sewers are designed in accordance with DEQ-2 Chapter 30 and can accommodate the peak hour of the 20-year build-out design flow of 40,000 gallons per day. The sewers were also designed to provide capacity in excess of the 20-year design flow as they will likely serve future growth in the community. Additionally, the report states:

"Future growth is anticipated to be to the north of the town of Gallatin Gateway, as well as to the south. Future growth to the north will connect to MH-1 with a new main. Future growth to the south will utilize the existing mains proposed for construction. The section of mains to most likely be used for future growth have been upsized to 10-inch mains between MH-1 to MH-2 and MH-2 to MH-3."

The Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report (Stahly Engineering 2014) states the following:

"Because the District lacks any collection, treatment, or disposal facilities, the initial financial commitment to construct these facilities will be substantial. As a result, the biological treatment portion of the wastewater treatment facility is sized for the existing population of 168 persons plus the existing non-residential flows. An expansion area for the biological facilities is provided and can be used to increase capacity to 336 persons plus non-residential flows."

The treatment and disposal report also provides the following flow parameters:

Design Average Flow

26,570 gallons per day current condition
40,000 gallons per day at full build out

Design Maximum Day Flow

30,000 gallons per day at current condition

50,000 gallons per day at full build out

Discussion

Stahly Engineering incorporated population projections within their design specifications. They estimate the current population of Gallatin Gateway at 168 residents and accounted for existing non-residential flows. Growth scenarios presented in Table 11.1 (Wastewater Treatment & Groundwater Disposal Facility Preliminary Design Report, Stahly 2014) have the population of Gallatin Gateway growing to 234 residents by 2020 and 336 residents by 2030.

On June 24, 2014, Stahly Engineering submitted a request to modify the Groundwater Discharge Permit Application to Montana Department of Environmental Quality (MDEQ). The modification request requested to increase the amount of treated wastewater discharged to the ground from 40,000 gallons per day to 50,000 gallons per day. The 50,000 gallons per day reflects the design maximum daily flow at full build out. Along with this request, Stahly Engineering submitted a figure showing the site layout with updated dimensions to the drainfield, new non-degradation calculations, pump test results from June 7, 2013 on the test well that was drilled June 5, 2013 and test pit and percolation test results from tests conducted the week of June 17, 2013.

MDEQ issued a Montana Ground Water Pollution Control System (MGWPCS) Permit No. MTX000229 to the Gallatin Gateway County Water and Sewer District on September 9, 2013.

Conclusion

This cumulative impact analysis considered connected actions, projects related and dependent upon the completion of the proposed development of a community sewer system and treatment plant, and similar actions or projects having a common geography or timing that provide a basis for considering their impact together with impacts related to the proposed project. Few, if any connected actions, related or independent projects were identified for this analysis. No significant cumulative impacts were identified during this analysis.