



**ENVIRONMENTAL ASSESSMENT**

**10/17/24**

**Water Quality Division  
Water Protection Bureau  
Montana Department of Environmental Quality**

<b>PROJECT/SITE NAME: LYMAN CREEK RESERVOIR</b>	
<b>APPLICANT/COMPANY NAME: CITY OF BOZEMAN</b>	
<b>PROPOSED PERMIT/LICENSE NUMBER: MT0031631</b>	
<b>LOCATION: 1600 STORY MILL RD, BOZEMAN, MT</b>	<b>COUNTY: GALLATIN</b>
<b>PROPERTY OWNERSHIP: _____ FEDERAL _____ STATE _____ CITY <u>X</u> _____</b>	

## Table of Contents

1. PURPOSE AND NEED FOR PROPOSED ACTION .....	3
1.1 AUTHORIZING ACTION .....	3
1.2 DESCRIPTION OF DEQ REGULATORY OVERSIGHT .....	3
1.3 PROPOSED ACTION .....	3
1.4 PURPOSE, NEED, AND BENEFITS .....	5
Figure 1: Map of general location of the proposed project .....	6
1.5 OTHER GOVERNMENTAL AGENCIES AND PROGRAMS WITH JURSDICTION:.....	6
2. AFFECTED ENVIRONMENT AND IMPACT BY RESOURCE .....	7
2.1 EVALUATION AND SUMMARY OF POTENTIAL IMPACTS .....	7
GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE .....	7
WATER QUALITY, QUANTITY, AND DISTRIBUTION .....	8
AIR QUALITY .....	9
VEGETATION COVER, QUANTITY AND QUALITY .....	10
TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS .....	11
UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES .....	<b>Error! Bookmark not defined.</b>
HISTORICAL AND ARCHAEOLOGICAL SITES.....	<b>Error! Bookmark not defined.</b>
DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY .....	12
IMPACTS ON OTHER ENVIRONMENTAL RESOURCES .....	<b>Error! Bookmark not defined.</b>
HUMAN HEALTH AND SAFETY.....	12
INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION .....	<b>Error! Bookmark not defined.</b>
QUANTITY AND DISTRIBUTION OF EMPLOYMENT .....	<b>Error! Bookmark not defined.</b>
LOCAL AND STATE TAX BASE AND TAX REVENUES .....	<b>Error! Bookmark not defined.</b>
DEMAND FOR GOVERNMENT SERVICES.....	<b>Error! Bookmark not defined.</b>
LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS.....	<b>Error! Bookmark not defined.</b>
ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES .....	<b>Error! Bookmark not defined.</b>
DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING .....	<b>Error! Bookmark not defined.</b>
SOCIAL STRUCTURES AND MORES .....	<b>Error! Bookmark not defined.</b>
CULTURAL UNIQUENESS AND DIVERSITY.....	<b>Error! Bookmark not defined.</b>
PRIVATE PROPERTY IMPACTS .....	13
OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES .....	<b>Error! Bookmark not defined.</b>
4. DESCRIPTION OF ALTERNATIVES .....	13
4.1 ADDITIONAL ALTERNATIVES CONSIDERED .....	13
4.2 CONSULTATION.....	13
4.3 NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS.....	13
5. PUBLIC INVOLVEMENT.....	14
6. CONCLUSIONS AND FINDINGS.....	14

# 1. PURPOSE AND NEED FOR PROPOSED ACTION

## 1.1 AUTHORIZING ACTION

Under the Montana Environmental Policy Act (MEPA), Montana agencies are required to prepare an environmental review for state actions that may have an impact on the human environment. The Proposed Action is considered to be a state action that may have an impact on the human environment and, therefore, the Department of Environmental Quality (DEQ) must prepare an environmental review. This EA will examine the proposed action and alternatives to the proposed action and disclose potential impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in Administrative Rules of Montana (ARM) 17.4.608.

## 1.2 DESCRIPTION OF DEQ REGULATORY OVERSIGHT

DEQ implements the Montana Water Quality Act of Montana, issuing discharge permits in conformance with the federal Clean Water Act under the Montana Pollutant Discharge Elimination System (MPDES).

## 1.3 PROPOSED ACTION

The City of Bozeman has applied for a renewal of the Montana Pollutant Discharge Elimination System (MPDES) Permit No. MT0031631 under the Montana Water Quality Act of Montana for their Lyman Creek Reservoir. The City of Bozeman utilizes Lyman Creek Spring as a potable water supply. Spring water is collected from the Lyman Creek drainage through a series of gravel beds and infiltration piping which directs water to a treatment and storage facility. Treatment buildings include an Inlet Control Building and an Outlet Control Building with a 5-million-gallon water storage reservoir. Water flows through the Inlet Control Building piping into the water storage reservoir. The reservoir holds treated water for distribution to city residents before it flows through the Outlet Control Building as demand warrants.

The 5-million-gallon water storage reservoir consists of a concrete basin overlaid with a polyethylene liner. There is a steady leak in the liner, which is the source of water covered under this discharge permit. Water is collected in an 8-inch drainpipe under the liner, which flows through a Parshall flume and then down the unnamed drainage to a small pond and then to Bridger Creek. Ground water from under the liner may also be collected in the 8-inch pipe. The facility and storage reservoir are located on public land, approximately 1.0 mile north, northeast of Bozeman, Montana. All information included in this EA is derived from the permit application, discussions with the applicant, analysis of aerial photography, topographic maps, and other research tools (cited in section I. References).

**Table 1: Summary of Proposed Action**

Proposed Action	
<b>General Overview</b>	<i>The proposed action is to reissue the MPDES permit for another five-year cycle.</i>
<b>Duration &amp; Hours of Operation</b>	<b>Construction:</b> <i>N/A This is an existing facility.</i> <b>Operation:</b> <i>This is a renewal of an existing permit that must meet nondegradation effluent limits from chlorine and fluoride. The leak from the</i>

	<i>storage reservoir is continuous and flows approximately 96 gallons per minute on average from the 8-inch collection pipe. The permit stipulates a minimum weekly frequency for sampling.</i>
<b>Estimated Disturbance</b>	<i>None, this is an existing 5-million-gallon water storage reservoir that consists of a concrete basin overlaid with a polyethylene liner. The surface area of the storage reservoir is approximately 1.0 acre. The storage reservoir has a steady leak with a flow rate approximately 96 gallons per minute.</i>
<b>Construction Equipment</b>	<i>None, this is an existing facility and storage reservoir.</i>
<b>Personnel Onsite</b>	<b>Construction:</b> N/A <b>Operation:</b> Lyman Creek Water Treatment Plant (WTP) has 10 operators on staff that operate and maintain both the Sourdough and Lyman facilities. The required sampling only takes one operator at a time, but they may require 2 or 3 personnel for periodic maintenance associated with the dichlorination system. The outfall does not require any active operation.
<b>Location and Analysis Area</b>	<b>Location:</b> The Lyman Creek WTP is located at 1600 Story Mill Rd, Bozeman, MT <b>Analysis Area:</b> The area being analyzed as part of this environmental review includes the immediate project area (Figure 1), as well as neighboring lands surrounding the analysis area, as reasonably appropriate for the impacts being considered.
The applicant is required to comply with all applicable local, county, state, and federal requirements pertaining to the following resource areas.	
<b>Air Quality</b>	The proposed action is a renewal permit for an already existing storage reservoir for the Lyman Creek Water Treatment facility. No additional air quality analysis is necessary.
<b>Water Quality</b>	The proposed action is a renewal permit for an already existing storage reservoir for the Lyman Creek Water Treatment facility. The steady leak from the reservoir is the purpose for the existing discharge permit. No additional water quality analysis is necessary beyond what is covered under Permit No. MT0031631.
<b>Erosion Control and Sediment Transport</b>	The proposed action is a renewal permit for an already existing storage reservoir for the Lyman Creek Water Treatment facility. No additional erosion control and sediment transport analysis is necessary.
<b>Solid Waste</b>	The proposed action is a renewal permit for an already existing storage reservoir for the Lyman Creek Water Treatment facility. No additional solid waste analysis is necessary.
<b>Cultural Resources</b>	The proposed action is a renewal permit for an already existing storage reservoir for the Lyman Creek Water Treatment facility. No additional cultural resource analysis is necessary.
<b>Hazardous Substances</b>	The proposed action is a renewal permit for an already existing storage reservoir for the Lyman Creek Water Treatment facility. No additional hazardous substance analysis is necessary.
<b>Reclamation</b>	The proposed action is a renewal permit for an already existing storage reservoir for the Lyman Creek Water Treatment facility. No additional reclamation analysis is necessary.

Cumulative Impact Considerations	
<b>Past Actions</b>	The MPDES permit became effective January 1, 2010, and ensures compliance with the Montana Water Quality Act and protects beneficial uses of the unnamed drainage and Bridger Creek. The permit was renewed and reissued October 1, 2017, for another five-year permit cycle. There are no other existing permits on Lyman Creek or the unnamed tributary of Lyman Creek. From the confluence of the unnamed tributary and Bridger Creek located in the NESW of Section 32, T01S, R06E, there are two current active general permit authorizations at facilities located approximately 1.0 to 2.0 miles upstream and to the east. The authorizations are under the Disinfected Water and Hydrostatic Testing (MTG770042) and Concentrated Aquatic Animal Production General Permits (MTG130006). Further, there are two Montana Groundwater Pollution Control System (MGWPCS) individual permits near Bridger Creek (MTX000145 & MTX000145).
<b>Present Actions</b>	The proposed action is to reissue the MPDES permit for another five-year cycle.
<b>Related Future Actions</b>	Of the four existing permits on Bridger Creek discussed above, three have been administratively extended pending renewal: MTG130006 for Concentrated Aquatic Animal Production and two groundwater permits (MTX000145 & MTX000145).

**1.4 PURPOSE, NEED, AND BENEFITS**

DEQ's purpose in conducting this environmental review is to act upon the City of Bozeman's renewal application for MT0031631. The effluent limits set forth in the permit would protect the beneficial uses of the receiving water, which preserves ambient water quality, due to the continuous leak in the storage reservoir. DEQ's action on the permit application is governed by § 75-5-101, *et seq.*, Montana Code Annotated (MCA) and the Administrative Rules of Montana (ARM) Title 17, Chapter 30, Sub-chapters 2, 5, 6, 7, 12, and 13. DEQ's action on the design review is governed by § 75-6-101, *et seq.*, Montana Code Annotated (MCA) and the Administrative Rules of Montana (ARM) 17.38.101, *et seq.*

The applicant's purpose and need, as expressed to DEQ in proposing this action, is to renew MPDES permit MT0031631 authorizing the point source discharge of water originating from the continuous leak in the storage reservoir.

**Figure 1: Map of general location of the proposed project**



**Located in the SESE of Section 29 and the NENE of Section 32, both of Township 01 South, Range 06 East, Gallatin County**

**1.5 OTHER GOVERNMENTAL AGENCIES AND PROGRAMS WITH JURISDICTION:**

The proposed project is located on property owned by the City of Bozeman. All applicable local, state, and federal rules must be adhered to, which may also include other local, state, federal, or tribal agency jurisdiction. Other governmental agencies which may have overlapped, or additional jurisdiction include but may not be limited to: Montana Department of Natural Resources, Montana Department of Fish Wildlife and Parks, United States Forest Service, U.S. Fish and Wildlife Service, U.S Army Corps of Engineers, and Gallatin County.

## 2. AFFECTED ENVIRONMENT AND IMPACT BY RESOURCE

### 2.1 EVALUATION AND SUMMARY OF POTENTIAL IMPACTS

The impact analysis will identify and evaluate direct and secondary impacts TO THE PHYSICAL ENVIRONMENT AND HUMAN POPULATION IN THE AREA TO BE AFFECTED BY THE PROPOSED PROJECT. *Direct impacts* occur at the same time and place as the action that causes the impact. *Secondary impacts* are a further impact to the human environment that may be stimulated, induced by, or otherwise result from a direct impact of the action. (ARM 17.4.603(18)) Where impacts would occur, the impacts will be described in this analysis.

*Cumulative impacts* are the collective impacts on the human environment within the borders of Montana of the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location and generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. The projects identified in Table 1 were analyzed as part of the cumulative impacts assessment for each resource.

The duration is quantified as follows:

- **Short-term:** Short-term impacts are defined as those impacts that would not last longer than the installation of the USTs and operation of the UST Facility.
- **Long-term:** Long-term impacts are impacts that would remain or occur following tank closure and removal.

The intensity of the impacts is measured using the following:

- **No impact:** There would be no change from current conditions.
- **Negligible:** An adverse or beneficial effect would occur but would be at the lowest levels of detection.
- **Minor:** The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- **Moderate:** The effect would be easily identifiable and would change the function or integrity of the resource.
- **Major:** The effect would alter the resource.

#### a. 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?*

There are no fragile, erosive, susceptible to compaction, or unstable soils present in the project area. There are no unusual or unstable geologic features, or special reclamation considerations in the project

area. The soils immediately around the project area mainly consist of Blackmore silt loam. From the project area down the unnamed drainage the soils transition to Anceney cobbly loam and eventually Bandy-Riverwash-Bonebasin complex as the unnamed drainage flows to Bridger Creek. For other soils within one mile of the project area please see the USDA Web Soil Survey.

***Direct Impacts***

*The project is a renewal of an MPDES permit. The MPDES permit became effective January 1, 2010, and ensures compliance with the Montana Water Quality Act and protects beneficial uses of the unnamed drainage and Bridger Creek. The renewal of this permit should have no direct impacts to the geology, stability and moisture or soil quality.*

***Secondary Impacts***

*No secondary impacts to the geology, stability and moisture, or soil quality are expected from the continued monitoring of the perennial leak from the storage reservoir.*

***Cumulative Impacts***

*Cumulative impacts would include erosion to the existing unnamed drainage. Should the city repair the leak in the future, it is assumed the drainage would revert to its ephemeral/intermittent condition.*

**b. WATER QUALITY, QUANTITY, AND DISTRIBUTION**

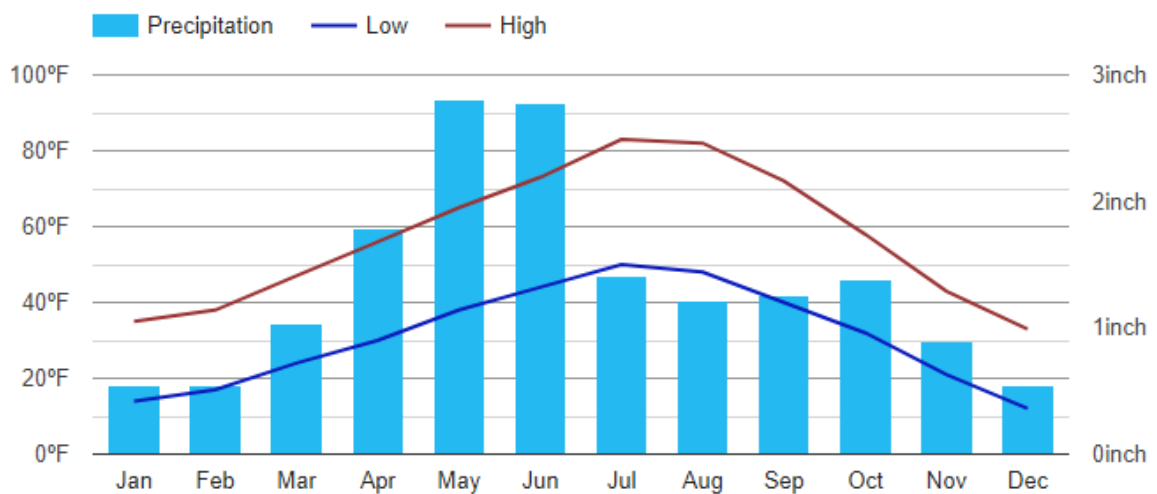
*Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels or degradation of water quality?*

The effluent limits set forth in the permit would protect the beneficial uses of the receiving water, which preserves ambient water quality standards and drinking water standards. For more information please refer to the MPDES Fact Sheet.

Characterize the precipitation, nearby surface water, wetlands and riparian areas, and groundwater in the project area, as well as water source for the project.



**Figure 2: Precipitation and Climate Graph**  
 Bozeman Climate Graph - Montana Climate Chart



Weather Service, US Climate Data 2023, version 3.0, [Climate Bozeman - Montana and Weather averages Bozeman \(usclimatedata.com\)](https://climate.bozeman-montana.com/averages-bozeman), Accessed 6 December 2023.

The City of Bozeman utilizes Lyman Creek Spring as a potable water supply. Spring water is collected, treated, and stored in a 5-million-gallon water storage reservoir. There is a steady leak in the liner of the reservoir and is the source of water covered under the discharge permit. Groundwater from underneath the liner may also be collected and discharged. The water travels down an unnamed drainage to a small pond and then to Bridger Creek.

The wetlands and riparian habitat within the area of interest mainly consist of Forested, and Scrub-Shrub riparian areas. No impacts to these wetlands are expected from the continued operation and monitoring of the storage reservoir and the associated perennial leak.

**Direct Impacts**

*The project is a renewal of an existing MPDES permit. The renewal of this permit should have no direct impact on water quality, quantity, and distribution.*

**Secondary Impacts**

*No secondary impacts to the water quality, quantity, or distribution are expected from the continued operation and monitoring of the perennial leak from the storage reservoir.*

**Cumulative Impacts**

*Should the city repair the leak in the future, it is assumed the drainage would revert to its ephemeral/intermittent condition which would reduce the volume and flow rate of the drainage.*

**c. AIR QUALITY**

*Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?*

This is an existing water treatment facility and drainage; therefore, no additional creation of airborne pollutants or particulate is anticipated.

Characterize the nearest Class I airshed(s)

This project site is not located near the vicinity of a Class I airshed.

**Direct Impacts**

*The project is a renewal of an existing MPDES permit. The renewal of this permit should have no direct impact on air quality.*

**Secondary Impacts**

*No secondary impacts to air quality are expected.*

**Cumulative Impacts**

*Impacts to air quality would add to cumulative impacts associated with any vehicle traffic in the project area.*

**d. VEGETATION COVER, QUANTITY AND QUALITY**

*Will vegetative communities be significantly impacted? Are any rare plants or cover types of present?*

No, vegetative communities would not be adversely impacted. There are no rare plants or cover types present. This is an existing discharge; no new impacts are expected.

Species of concern in the area of interest include: *Foxtail Muhly (Muhlenbergia andina)*, Small Yellow Lady's-slipper (*Cypripedium parviflorum*), and Slender Wedgegrass (*Sphenopholis intermedia*), Rocky Mountain Twinpod (*Physaria saximontana* var. *dentata*).

*Characterize the land cover in the project area and any findings from searching the Montana Natural Heritage Program.*

According to the Montana Natural Heritage Program the land cover within the area of interest consists of Montane Sagebrush Steppe (19%), Rocky Mountain Montane Douglas-fir Forest and Woodland (17%), Rocky Mountain Lower Montane, Foothill, and Valley Grassland (12%), Developed Open Space (8%), Cultivated Crops (6%), Rocky Mountain Subalpine-Montane Mesic Meadow (6%), County, City, or Rural Roads (6%), Rocky Mountain Lower Montane-Foothill Riparian Woodland and Shrubland (5%), Low Intensity Residential (4%), Pasture/Hay (4%), Rocky Mountain Montane-Foothill Deciduous Shrubland (4%), Commercial/Industrial (3%), Big Sagebrush Steppe (2%). For additional limited land cover please see the Montana Natural Heritage Environmental Summary.

**Direct Impacts**

*The project is a renewal of an existing MPDES permit. The renewal of this permit should have no direct impact on the vegetation cover, quantity, or quality as this is an existing facility.*

**Secondary Impacts**

*No secondary impacts to vegetation cover, quantity, or quality are expected.*

**Cumulative Impacts**

*Should the city repair the leak in the future, it is assumed the drainage would revert to its ephemeral/intermittent condition which could impact vegetation cover, quantity, or quality.*

**e. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS**

*Is there substantial use of the area by important wildlife, birds, or fish?*

According to the Montana Natural Heritage Program there is an important animal habitat for non-cave bat roosts in the area of interest. The Bald Eagle (*Haliaeetus leucocephalus*) is listed as a special status species. Species of concern in the area of interest include: Wolverine (*Gulo gulo*), Hoary Bat (*Lasiurus cinereus*), Little Brown Myotis (*Myotis lucifugus*), Grizzly Bear (*Ursus arctos*), American Bittern (*Botaurus lentiginosus*), Veery (*Catharus fuscescens*), Brown Creeper (*Certhia americana*), Evening Grosbeak (*Coccothraustes vespertinus*), Bobolink (*Dolichonyx oryzivorus*), Pileated Woodpecker (*Dryocopus pileatus*), Cassin's Finch (*Haemorhous cassinii*), Varied Thrush (*Ixoreus naevius*), Clark's Nutcracker (*Nucifraga columbiana*), Long-billed Curlew (*Numenius americanus*), Black-backed Woodpecker (*Picoides arcticus*), Green-tailed Towhee (*Pipilo chlorurus*), Brewer's Sparrow (*Spizella breweri*), Pacific Wren (*Troglodytes pacificus*), Suckley Cuckoo Bumble Bee (*Bombus suckleyi*), Monarch Butterfly (*Danaus Plexippus*), Hooked Snowfly (*Isocapnia crinita*), Brown's Microcylloepus Riffle Beetle, (*Microcylloepus browni*), and Warm Spring Zaitzevian Riffle Beetle (*Zaitzevia thermae*). For other observed or potential species please see the Montana Natural Heritage Environmental Summary.

The wetlands and riparian habitat within the area of interest mainly consist of Forested, and Scrub-Shrub riparian areas.

The area of interest does not fall within core, general, or connectivity sage grouse habitat.

**Direct Impacts**

*The project is a renewal of an existing MPDES permit. The renewal of this permit would have no impact on the terrestrial, avian or aquatic life habitat of the existing project area or the continued maintenance and monitoring of the facility and storage reservoir.*

**Secondary Impacts**

*No secondary impacts on terrestrial, avian, or aquatic life habitat are expected. The renewal of this permit should not impact terrestrial, avian, or aquatic life habitat in the project area or the continued maintenance and monitoring of the facility and storage reservoir.*

**Cumulative Impacts**

*Should the city repair the leak in the future, it is assumed the drainage would revert to its ephemeral/intermittent condition which could impact the habitat of terrestrial, avian, and aquatic life due to the reduction in the volume and flow of the drainage.*

**f. HISTORY, CULTURE AND ARCHEOLOGICAL UNIQUENESS**

*Are there any historical, archaeological, or paleontological resources present?*

There are no historical, archaeological, or paleontological resources present. It is not anticipated that this project would cause a shift in any unique quality of the area because this is an existing project and drainage area.

**Direct Impacts**

*There are no direct impacts on the history, culture, and archeological uniqueness of the project area due to the renewal of this permit on an existing facility and storage reservoir.*

**Secondary Impacts**

*No secondary impacts on the history, cultural, or archeological uniqueness of the project area*

*are expected.*

**Cumulative Impacts**

*No cumulative impacts are expected on the history, cultural, or archeological uniqueness of the project area in the continued maintenance or monitoring of this existing facility and storage reservoir.*

**g. 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?*

This is an existing facility and drainage area, there is no anticipated additional impact to local resources or nearby activities. The renewal of the permit would ensure compliance with the Montana Water Quality Act and protect beneficial uses of the unnamed drainage and Bridger Creek.

**Direct Impacts**

*There are no direct impacts anticipated on the demands of land, water, air, or energy resources of the project area.*

**Secondary Impacts**

*No secondary impacts on the land, water, air, or energy resources are anticipated.*

**Cumulative Impacts**

*Should the city repair the leak in the future, it is assumed the drainage would revert to its ephemeral/intermittent condition which could impact water resources due to the reduction in the volume and flow of the drainage.*

**h. HUMAN HEALTH AND SAFETY**

*Will this project add to health and safety risks in the area?*

This is an already existing WTP. The effluent limits set forth in the permit would protect the beneficial uses of the receiving water, which preserves ambient water quality standards and drinking water standards.

The applicant would be required to adhere to all applicable state and federal safety laws. The Occupational Safety and Health Administration (OSHA) has developed rules and guidelines to reduce the risks associated with this type of labor. Few, if any, members of the public would be in immediate proximity to the project during the operation or maintenance of the facility or storage reservoir.

**Direct Impacts**

*No direct impacts to human health and safety should occur due to the renewal of this permit.*

**Secondary Impacts**

*No secondary impacts on human health and safety are anticipated due to the renewal of this permit.*

**Cumulative Impacts**

*No cumulative impacts are anticipated to human health and safety from the renewal of this permit.*

**i. SOCIOECONOMICS**

*Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?*

Lyman Creek WTP has 10 operators on staff that operate and maintain both the Sourdough and Lyman Creek facilities. The required sampling only takes one operator at a time, but they may require 2 or 3 personnel for periodic maintenance associated with the dichlorination system. The outfall does not require any active operation. The Lyman Creek WTP is an existing facility on public land, there are no anticipated additional impacts to the existing socioeconomic structure of the area. The project area is subject to any plans or rules set forth by Gallatin County.

***Direct Impacts***

*No Impact.*

***Secondary Impacts***

*No Impact.*

***Cumulative Impacts***

*No Impact.*

**j. PRIVATE PROPERTY IMPACTS**

No analysis is required as this is an existing facility on public land.

**4. DESCRIPTION OF ALTERNATIVES**

**4.1 ADDITIONAL ALTERNATIVES CONSIDERED**

**No Action Alternative:** In addition to the proposed action, DEQ must also considered a "no action" alternative. The "no action" alternative would deny the renewal of MPDES Permit No. MT0031631. The applicant would lack the authority to conduct the proposed activity. Any potential impacts that would result from the proposed action would not occur. The no action alternative forms the baseline from which the impacts of the proposed action can be measured.

If the applicant demonstrates compliance with all applicable rules and regulations required for approval, the "no action" alternative would not be appropriate.

**Other Reasonable Alternative(s):** Describe any other alternatives that were considered.

No other alternatives were considered. The renewal of MPDES Permit No. MT0031631 is preferred because the permit program provides the regulatory mechanism for protecting water quality by enforcing the terms of the MPDES permit.

**4.2 CONSULTATION**

DEQ engaged in internal and external efforts to identify substantive issues and/or concerns related to the proposed project. Internal scoping consisted of internal review of the environmental assessment document by DEQ staff. External scoping efforts also included queries to the following websites/databases/personnel:

Montana State Library, Natural Heritage Program, Environmental Summary, [Montana Natural Heritage Program \(mtnhp.org\)](http://MontanaNaturalHeritageProgram.mtnhp.org), Accessed 30 November 2023.

USDA Natural Resources Conservation Service, Web Soil Survey, National Cooperative Soil Survey, [Web Soil Survey - Home \(usda.gov\)](#), Accessed 30 November 2023.

Weather Service, US Climate Data 2023, version 3.0, [Climate Bozeman - Montana and Weather averages Bozeman \(usclimatedata.com\)](#), Accessed 6 December 2023.

#### **4.3 NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS**

When determining whether the preparation of an environmental impact statement is needed, DEQ is required to consider the seven significance criteria set forth in ARM 17.4.608, which are as follows:

- The severity, duration, geographic extent, and frequency of the occurrence of the impact;
- The probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;
- Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts – identify the parameters of the proposed action;
- The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;
- The importance to the state and to society of each environmental resource or value that would be affected.
- Any precedent that would be set as a result of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and
- Potential conflict with local, state, or federal laws, requirements, or formal plans.

No further environmental analysis is recommended.

### **5. PUBLIC INVOLVEMENT**

A 30-day public comment period will be held.

### **6. CONCLUSIONS AND FINDINGS**

The preferred proposed action is to issue the MPDES permit. This action is preferred because the permit program provides the regulatory mechanism for protecting water quality by enforcing the terms of the MPDES permit.

**Environmental Assessment and Significance Determination Prepared By:**

Kristeen Wofford  
Permit Writer  
DEQ Water Protection Bureau

**Environmental Assessment Reviewed By:**

Alanna Shaw  
MPDES Section Supervisor

**Approved By:**

**SIGNATURE**

**DATE** 11/4/2024



Tatiana Davila, Chief  
Water Protection Bureau  
Department of Environmental Quality

## I. REFERENCES

ARM Title 17, Chapter 30, Sub-chapter 2 - Water Quality Permit Application and Annual Fees.  
ARM Title 17, Chapter 30, Sub-chapter 5 - Mixing Zones in Surface and Ground Water.  
ARM Title 17, Chapter 30, Sub-chapter 6 - Surface Water Quality Standards.  
ARM Title 17, Chapter 30, Sub-chapter 7 - Nondegradation of Water Quality.  
ARM Title 17, Chapter 30, Sub-chapter 12 and 13 - Montana Pollutant Discharge Elimination System Standards.  
Montana Water Quality Act, MCA 75-5-101 et. seq.

Montana Pollutant Discharge Elimination System Permit Number MT0031631 Fact Sheet

Montana Pollutant Discharge Elimination System Permit Number MT0031631:  
Administrative Record

**Renewal Application DEQ Form 1 and 2E, Revised February 2021** Montana State Library, Natural Heritage Program, Environmental Summary, [Montana Natural Heritage Program \(mtnhp.org\)](http://mtnhp.org), Accessed 30 November 2023.

USDA Natural Resources Conservation Service, Web Soil Survey, National Cooperative Soil Survey, [Web Soil Survey - Home \(usda.gov\)](http://websoilsurvey.sc.egov.usda.gov), Accessed 30 November 2023.

Weather Service, US Climate Data 2023, version 3.0, [Climate Bozeman - Montana and Weather averages Bozeman \(usclimatedata.com\)](http://climate.bozeman.usclimatedata.com), Accessed 6 December 2023.



## II. COMMENT SUMMARY AND RESPONSES TO SUBSTANTIVE COMMENTS

Responses to substantive comments.

In Section I.C.1 Effluent Monitoring of the Draft Permit it was erroneously stated that “*Samples are to be taken upstream of the Parshall flume...*”

A modification has been made to the final permit to read ““*Samples are to be taken downstream of the Parshall flume, which is located approximately 100 feet downstream from the 8-inch drainpipe, unless another location is requested and DEQ agrees, in writing.*”