DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER PROTECTION BUREAU

Environmental Assessment

Name of Project: Absarokee Sewer District RSID 5 & 7, Wastewater Treatment Facility

Location of Project: 45º 31' 47" N latitude, 109º 26' 28" W longitude

City/Town: Absarokee **County:** Stillwater

Description of Project: This is a reissuance of an MPDES permit MT0021750 for the Absarokee Sewer District RSID 5 & 7 Wastewater Treatment Facility (WWTF) which discharges treated domestic wastewater to a ditch which drains to Rosebud Creek. The WWTF consists of a three-cell aerated lagoon system, with ultraviolet light (UV) disinfection, constructed in 1986.

Agency Action and Applicable Regulations: The proposed action of the Department is to reissue the MPDES permit for another five-year cycle.

Applicable rules and statute:
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.
Department Circular DEQ-12A – Montana Base Nutrient Standards
Department Circular DEQ-12B – Nutrient Standards Variances
Montana Water Quality Act, MCA 75-5-101 et. seq.

Summary of Issues: The WWTF must meet present permit limits for BOD_5, pH and *E. coli*; more stringent concentration, percent removal and load limits for TSS (effective immediately); new concentration limits on total ammonia-N (effective January 1, 2021); and new general variance limits for total nitrogen (TN) and total phosphorus (TP) [effective immediately]. The general variance limits for TN and TP reflect the treatment capability of the existing WWTF and, following upgrade of the WWTF, the TN and TP limits will be retained in order to comply with antibacksliding requirements and to prevent increasing the nutrient load to Rosebud Creek from the WWTF. The renewed permit will require the permittee to choose whether to continue to discharge from the upgraded WWTF to the ditch or to discharge direct to Rosebud Creek at approximately the location of the confluence of the ditch with Rosebud Creek. The effluent limits on total ammonia-N are slightly different for the discharge direct to Rosebud Creek versus continued discharge to the ditch from the upgraded WWTF.

Affected Environment & Impacts of the Proposed Project:

> Y = Impacts may occur (explain under Potential Impacts). *Include frequency, duration (long or short term), magnitude, and context for any significant impacts identified. Reference other permit analyses when appropriate (ex: statement of basis). Address significant impacts related to substantive issues and concerns. Identify reasonable feasible mitigation measures (before and*

after) where significant impacts cannot be avoided and note any irreversible or irretrievable impacts. Include background information on affected environment if necessary to discussion.

N = Not present or No Impact will likely occur. *Use negative declarations where appropriate (wetlands, T&E, Cultural Resources).*

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
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?	[N] The Absarokee WWTF has been at this same location for more than 45 years, when an Imhoff tank and single-cell facultative lagoon were constructed. The 3-cell aerated lagoon was constructed at the site in 1986.
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?	[N] The immediate effluent limits on BOD_5, TSS, pH and *E.coli* plus final effluent limits on total ammonia-N will improve discharge quality and protect the beneficial uses of the receiving water, i.e. the ditch and, ultimately, Rosebud Creek. The effluent limits on TN and TP will hold the discharge of nutrients at current levels, thereby protecting Rosebud Creek.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N]
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N]
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] The Absarokee WWTF has been at this same location for more than 45 years. Effluent limits will improve discharge quality.
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?	[N] The ditch that receives the Absarokee WWTF discharge is of a stream environment rather than a wetland environment for the approximately 1,500 ft. before reaching Rosebud Creek. Rosebud Creek in the vicinity of the WWTF is a typical small stream with riffles, runs and pools. No known federally listed threatened or endangered species or species of special concern are present. The Absarokee WWTF has been at this same location for more than 45 years.
7. SAGE GROUSE EXECUTIVE ORDER: Is the project proposed in core, general or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: http://dnrc.mt.gov/divisions/cardd/sage-grouse? If yes, did the applicant attach documentation from the Program showing compliance with Executive Order 12-2015 and the Program's recommendations? If so, attach the documentation to the EA and address the Program's recommendations in the permit. If project is in core, general or connectivity habitat and the applicant did not document consultation with the Program, refer the applicant to the Sage Grouse Habitat Conservation Program.	N] The Department has verified the facility is not within core, general, or connectivity sage grouse habitat.
8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] No sites identified. The Absarokee WWTF has been at this same location for more than 45 years.
9. 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?	[N] The Absarokee WWTF may be visible from residential developments on the west side of Rosebud Creek, but the WWTF has been at this same location for more than 45 years.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
10. 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 powerline or other energy source be needed)	[N]
11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N]

IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] Effluent limits will protect public health.
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N]
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N]
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N]
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?	[N]
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]

IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	**[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES**
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.	[N]
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.	[N]
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 21(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.	[]

23. Description of and Impacts of other Alternatives Considered: None

24. Summary of Magnitude and Significance of Potential Impact: None

25. Cumulative Effects: None

26. Preferred Action Alternative and Rationale: The preferred action is to reissue 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.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [x] No Further Analysis

Rationale for Recommendation:

27. Public Involvement: A 30-day public comment period will be held.

28. Persons and agencies consulted in the preparation of this analysis: None

EA Checklist Prepared By: James F. Brown **Date:** September 27, 2016

Approved by:

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Jon Kenning, Chief Date
Water Protection Bureau