

**DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment**

**Permitting and Compliance Division
Water Protection Bureau**

Name of Project: Hebgen Lake Estates Wastewater Treatment Facility, Montana Ground Water Pollution Control System (MGWPCS) permit number MTX000151

Type of Project: Discharge of residential strength treated effluent to ground water from a subsurface drainfield

Location of Project: Northwest ¼, Southwest ¼ of Section 24, Township 12 South, Range 4 East

City/Town: West Yellowstone

County: Gallatin

Description of Project: This Environmental Assessment (EA) is for a new permit issued to the Hebgen Lake Estates Wastewater Treatment System (WWTS). The proposed permit authorizes the permittee to discharge domestic wastewater from a subsurface drainfield to ground water.

The proposed WWTS will treat residential strength (domestic) wastewater. The WWTS will consist of primary (septic tanks) and Level II recirculating trickle filter) treatment.

The proposed permit authorizes the permittee to discharge treated domestic wastewater from one drainfield (Outfall 001). This drainfield discharges into Class I ground water.

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 (MCA 75-5-101 *et seq.*), Montana Ground Water Pollution Control System (ARM 17.30.1001-10045), Montana Pollutant Discharge Elimination System (ARM 17.30.1201-1209 and ARM 17.30.1301-1387) and Montana Numeric Water Quality Standards in the Department Circular DEQ-7 (August 2010).

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 and 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
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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] Discharge from the facility will increase moisture in the vadose zone. There are no observed limiting layers present in the soil profile that would impede continued treatment of effluent discharged from the drainfield. Ground water monitoring is required.</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] A source specific mixing zone for nitrate has been requested. Ground water in the vicinity is Class I ground water with a specific conductance less than 1,000 $\mu\text{S}/\text{cm}$. The Department developed numeric effluent limits that will, unless exceeded, protect the water quality outside of the mixing zone. Ground water monitoring and reporting is required both upgradient of the discharge point and downgradient at the end of the mixing zone 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 (Class I airshed)?</p>	<p>[N] No significant impacts have been determined.</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will any vegetative communities be significantly impacted? Are any rare plants or cover types present?</p>	<p>[N] Construction of the new drainfield may disturb established plant communities. Based on a search of the Natural Heritage Database, there are no plant species of concern in or within one mile of the site.</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 site is located near the calving grounds for the bison that migrate out of Yellowstone National Park. Based on a search of the Natural Heritage Database, there are eleven animal species of concern observed in or within one mile of the site. The bison is the only species that is identified in the immediate area of the facility.</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] See #4 and #5 above. Site and habitat inventories for the applicable species were recommended in consultation with the Montana Natural Heritage Program.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] No significant impacts have been identified. In the event that these resources are inadvertently discovered the permittee should contact the Montana State Historic Preservation Office for investigation.</p>
<p>8. AESTHETICS: Is the project on a</p>	<p>[N] No significant impacts have been identified. The</p>

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<p>prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?</p>	<p>subsurface wastewater treatment system will be installed below grade.</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 powerline or other energy source be needed?</p>	<p>[N] No significant impacts have been identified. The Department analysis indicates that water quality limits will not be exceeded outside of the source specific mixing zone for all parameters expected in the effluent. Monitoring and reporting requirements of the effluent ensures 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 have been identified in this EA. However, effects may be seen in downgradient state water bodies if numeric effluent limits are not met or if the groundwater quality standards are exceeded at the edge of the mixing zone.</p>

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<p>11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>[N] A properly operated and maintained facility will protect human health by improving the quality of the effluent discharged.</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 have been 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 have been identified. The construction of the facility will generate less than 30 temporary positions.</p>
<p>14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p>[N] No significant impacts have been 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 significant impacts have been identified.</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] No significant impacts have been 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</p>	<p>[N] No significant impacts have been identified. Accesses remain unaltered.</p>

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there recreational potential within the tract?	
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] The upgrade of the wastewater treatment system may increase the land value of the surrounding areas and make the area more attractive to further development.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] No significant impacts have been identified.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No significant impacts have been identified.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No significant impacts have been identified.
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] No significant impacts have been identified.
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] No significant impacts have been identified.
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.	[N] No significant impacts were identified in 22(b).

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. In preparing permit effluent limits, the Department has taken steps to ensure that the beneficial uses of the receiving water are preserved and that exceedance of water quality standards will not occur. Violations of the permit may 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 terms of the permit have been clarified and modified in response to comments from regulated parties, the public and other agencies. 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 since the permit prohibits pollution and degradation of state waters.

26. **Preferred Action Alternative and Rationale:** The preferred action is to issue 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:** This draft EA will be posted on the Department web page: <http://deq.mt.gov/notices/WQnotices.mcpX>. For copies of the draft EA or to submit comments, write or call the Montana Department of Environmental Quality, Metcalf Building, Helena, MT 59620-090. If you wish to comment electronically, you may e-mail Barb Sharpe at WPBPublicNotices@mt.gov.

Comments will be received for 30-days after the date of the signature below.

The Department maintains a list of persons who have expressed an interest in all environmental water quality related issues. The Department will send a copy of this document to all persons who have submitted their name, address, and telephone number to the Department for the purpose of being included on the water quality interested parties' mailing list.

28. Persons and agencies consulted in the preparation of this analysis:
Martin Miller, Montana Natural Heritage Program
Montana Bureau of Mines and Geology web site
Montana Fish and Wildlife web site, species information web page
Natural Resource Information System, Montana State Library
Historical Preservation Society
U.S. Department of Agriculture, NRCS Soil Survey

EA Checklist Prepared By:

Tommy Griffeth

May 1, 2012

Approved By:

Jenny Chambers, Chief,
Water Protection Bureau

Signature

Date