

DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

(Water Protection Bureau)

Name of Project: River Rock County Water and Sewer District

Type of Project: Discharge residential strength wastewater to a subsurface drainfield under the Montana Ground Water Pollution Control System permit program

Location of Project: The site is situated in Township 1S, Range 4E, Section 3, or North 45° 46' 44" latitude and West 111° 13' 24" longitude.

City/Town: Belgrade

County: Gallatin

Description of Project: The River Rock wastewater treatment system treats domestic wastewater from the River Rock Subdivision.

The wastewater will be transported to the treatment system via gravity-flow and lift stations. The wastewater will receive primary treatment in two aerated lagoons in series. During the summer months, after treatment in the lagoons, the wastewater can be diverted to a third lagoon cell prior to final disposal in one of seven infiltration/percolation (IP) cells. During the winter months, lagoon cell #3 can be used as an additional IP cell. The design flow rate for the treatment system is 374,000 gallons per day (gpd).

The proposed permit authorizes discharge of residential strength wastewater to one existing outfall, Outfall 001.

Class I ground water is the receiving water for Outfall 001.

Agency Action and Applicable Regulations: The proposed action is to issue an individual MGWPCS discharge permit to a residential strength wastewater treatment operation and specify effluent limitations, monitoring, discharge reporting requirements, and a compliance schedule. The compliance schedule includes time frames for upgrades to the treatment system to increase the treatment of nitrogen, five-day carbonaceous biological oxygen demand, and pathogens. The compliance schedule requires the upgrades and modifications be completed by October 1, 2013.

Applicable regulations are: the Montana Water Quality Act 75-5-101 *et seq.* Montana Ground Water Pollution Control System Administrative Rules of Montana (ARM) 17.30.10 *et seq.* and Montana Pollutant Discharge Elimination System ARM 17.30.12 *et seq.*

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 facility to implement design and management practices to prevent pollution and degradation of groundwater. The action will have benefits to water quality.

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] There are no limiting layers present in the soil profile that would impede discharged effluent. There are no issues with slope stability at the discharge locations.
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 permittee was required to obtain a ground water discharge permit due to a Water Quality Act violation. The Department developed numeric permit limits to ensure that water quality standards will be met and there would be no ground water quality standard exceedences after the permittee meets the compliance schedule.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] No significant impacts have been determined
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N] No significant impacts have been identified.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] No significant impacts have been identified.
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] No significant impacts have been identified.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] No significant impacts have been identified.

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. The system is existing – the required modifications to the treatment system should not change the current aesthetics.</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. Ground water levels are approximately 40 to 50 feet below the surface in the discharge areas. Potential for ground water depletion or excessive demands on other environmental resources is minimal.</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.</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] The compliance schedule for increased treatment of the wastewater will decrease human health and safety risks.</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.</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 there recreational potential within the tract?</p>	<p>[N] No significant impacts have been identified.</p>
<p>18. DENSITY AND DISTRIBUTION OF</p>	

IMPACTS ON THE HUMAN ENVIRONMENT	
POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] The system is serving an existing primarily residential subdivision. Population will not increase as a result of this action.
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. All proposed activities will take place on private property.
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 have been identified.

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 included a compliance schedule in the permit to reduce concentrations of nitrogen, bacteria and 5-day carbonaceous biological oxygen demand in the treated wastewater.

24. Summary of Magnitude and Significance of Potential Impacts:

Impacts were assessed with the assumption that the permittee 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, because the permit itself forbids such activities. However, the Department has included a compliance schedule to ensure violations do not occur at the end of the compliance schedule. 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: section 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 authorize the River Rock County Water and Sewer District to discharge treated wastewater under an individual MGWPCS Discharge Permit. This action is preferred because the permit program provides a regulatory mechanism for protecting and improving water quality by applying control technology to the source discharge of domestic wastes generated at the proposed wastewater treatment facility.

Recommendation for Further Environmental Analysis:

EIS More Detailed EA No Further Analysis

Rationale for Recommendation:

27. **Public Involvement:** This draft EA will be posted on the Department web page: <http://www.deq.state.mt.us/ea.asp>. For copies of the draft EA or to submit comments, write or call the Montana Department of Environmental Quality c/o Dianne Beaman, P.O. Box 200901, Helena MT 59620-0901, telephone (406) 444-3080. 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:**
Montana Bureau of Mines and Geology Web site
Natural Resource Information System, Montana State Library

EA Checklist Prepared By: Eric Regensburger

Eric Regensburger

September 8, 2009

(Name)

Date

EA Revisions and Corrections: As a result of comments received during the 30-day public comment period

Eric Regensburger

Approved By:

Jenny Chambers, Chief
Water Protection Bureau

Signature

Date