

DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

Water Protection Bureau

Name of Project: Red Dog Ranch Subdivision Community Public Sewer System (CPSS)

Type of Project: Proposed discharge of treated domestic wastewater to ground water under the Montana Ground Water Pollution Control System (MGWPCS) permit program.

Location of Project: Corner of Frontage Road and Roman Creek Road, SW1/4 of Section 27 and NW1/4 of Section 34, Township 15 North, Range 21 West; Latitude 47.02222, Longitude -114.24833; Missoula County

City/Town: Frenchtown

County: Missoula

Description of Project: This Environmental Assessment (EA) is for a renewal MGWPCS permit for the Red Dog Ranch Subdivision (facility). The proposed MGWPCS permit re-authorizes Robert Alexander (permittee) to discharge treated wastewater from a subsurface discharge structure (Outfall 001) into Class I ground water. The scope of this EA addresses the installation, operation, and discharge of the proposed wastewater treatment and disposal system. The magnitude and significance of potential impacts are summarized below (bullet #24).

Agency Action and Applicable Regulations: The proposed action is to re-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.*), the Montana Ground Water Pollution Control System (ARM 17.30.1001-1045), and the Montana Numeric Water Quality Standards in the Department Circular DEQ-7.

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 permittee 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
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] Discharge will increase moisture in the vadose zone. There are no limiting layers present in the soil profile that would impede continued treatment of effluent discharged between the drainfield and ground water. The water bearing formation is unconfined.
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 Department developed numeric permit limits to ensure that water quality standards will be met and there would be no water quality or nondegradation significance limit exceedances. See Fact Sheet.
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. Some dust may result during construction.
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. Disturbed areas are to be covered with native soils and reseeded, without reseeding the native grasses may have a difficult time re-establishing themselves.
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. The closest surface water capable of receiving ground water (oxbow of the Clark Fork River) is approximately 2,060 feet downgradient of the discharge location. The main stem of the Clark Fork River is approximately 5,200 feet downgradient of the discharge location. The Department has developed numeric permit limits to ensure that water quality standards will be met and there would be no water quality or nondegradation significance limit exceedances.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
<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] No significant impacts have been identified from the EA, however the Montana Natural Heritage Program identified the following species of concern are present in the area of the discharge: Fisher (<i>Pekania pennant</i>), Little Brown Myotis (<i>Myotis lucifugus</i>), Great Blue Heron (<i>Ardea Herodias</i>), Lewis's Woodpecker (<i>Melanerpe lewis</i>), Pileated Woodpecker (<i>Dryocopus pileatus</i>), Westslope Cutthroat Trout (<i>Oncorhynchus clarkii lewisi</i>), <i>Salvelinus confluentus</i>, and Columbia Water-meal (<i>Wolffia Columbiana</i>). The Montana Natural Heritage Program also identified a mapped wetland; however, it has already been disturbed by agricultural activities.</p>
<p>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/cadd/sage-grouse?</p>	<p>[N] This project is not listed as being within sage grouse habitat.</p>
<p>8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] No significant impacts have been identified from the EA. The Montana State Historic Preservation Office reported that there have been no previously recorded sites within the designated search locales.</p>
<p>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?</p>	<p>[N] No significant impacts have been identified from the EA. Static water levels in the immediate area range from 9.69 to 16.25 feet below the surface.</p> <p>Most drainfields are constructed sub surface. Most wastewater treatment systems are enclosed within buildings located on pre-disturbed lands previously used for agriculture practices.</p>
<p>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 power line or other energy source be needed?</p>	<p>[N] No significant impacts have been identified from the EA. Static water levels in the immediate area range from 9.69 to 16.25 feet below the surface.</p>
<p>11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?</p>	<p>[N] No significant impacts have been identified during EA preparation.</p>

IMPACTS ON THE HUMAN ENVIRONMENT	
12. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] No significant impacts have been identified. There is potential for health and safety risks to arise during construction. With added vehicle traffic, there is potential for increased motor vehicle accidents. The wastewater treatment facility should employ a fence on the perimeter of the property, and furnish a locking gate.
13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] No significant impacts have been identified.
14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] No significant impacts have been identified.
15. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] No significant impacts have been identified.
16. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No significant impacts have been identified. The facility is located off of rural roads and the increased activity is likely to increase traffic on these roads.
17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] No significant impacts have been identified.
18. 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] The wastewater treatment system is for a new subdivision with proposed single family and multifamily residences. The permittee has listed a commercial site which will be limited to neighborhood commercial uses such as retail, food, general merchandise, personal service or hardware. The population is expected to increase due to the subdivision.
19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] This subdivision has not been built to date. There have been no changes in the proposed population or number of homes to be built. No significant impacts have been identified.

IMPACTS ON THE HUMAN ENVIRONMENT	
20. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] No significant impacts have been identified.
21. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No significant impacts have been identified.
22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No significant impacts have been identified.
23(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.
23(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.
23(c). PRIVATE PROPERTY IMPACTS: If the answer to 23(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 23(b).

24. **Description of and Impacts of other Alternatives Considered:**

- A. No Action: Under the “No Action” alternative, the Department would not reissue this ground water discharge permit. “No Action” may lead to the creation of non-permitted wastewater systems. This may result in a net negative impact to ground water quality as the permit would prevent pollution and degradation of state waters.
- B. Approval with Modification: The Department has not identified any necessary modifications to grant approval.

25. **Cumulative Effects:**

Cumulative effects were analyzed as part of this EA and permitting determination. No cumulative impacts have been identified. The Department notes the following:

- There are no other permitted discharges to this aquifer in the vicinity of the facility.

- There are no other known discharges downgradient (vicinity) of Outfall 001 (see Fact Sheet).
- No impacts were identified based on ambient (receiving) and downgradient ground water conditions at the time of this analysis.
- Ambient (receiving) ground water quality conditions were factored into the assimilative capacity determination which is reflected in the proposed effluent limitations.
- The permittee is required to reapply to continue permit coverage. Ambient (receiving) and downgradient ground water quality monitoring will be reanalyzed during each permit renewal.

The ground water in the vicinity of the existing discharge structure is Class I ground water with a specific conductance less than 1,000 $\mu\text{S}/\text{cm}$. DEQ has developed effluent limitations based on water quality standards to maintain the beneficial uses of this state ground water. The permit prohibits pollution and degradation of state waters. The permit includes monitoring, reporting, and corrective action requirements to establish, confirm, and maintain compliance with permit limitations. Please refer to the Fact Sheet document for additional information.

26. **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.

27. **Preferred Action Alternative and Rationale:** The preferred action is to re-issue an 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.

28. **Public Involvement:**

Public comments on this permit renewal are invited any time prior to close of business on **April 25, 2017**.

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29. **Persons and/or Agencies Consulted or Referenced in the Preparation of this**

Analysis:

Montana Natural Heritage Program

Montana Bureau of Mines and Geology web site

Natural Heritage Program, Montana State Library

United States Department of Agriculture, Natural Resources Conservation Service Soil Survey

EA Checklist Prepared By:

Carolyn DeMartino

March 6, 2017

Approved By:

Jon Kenning, Chief
Water Protection Bureau

Signature

Date

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