

DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

Water Protection Bureau

Name of Project: Terra Nova Cabins

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: PLSS: T11S, R3E, Section 25
Latitude: 44.84402°,
Longitude: -111.30101°

City/Town: West Yellowstone

County: Gallatin

Description of Project: This Environmental Assessment (EA) is for a new MGWPCS permit (MTX000245) for the Terra Nova Cabins (facility). The proposed MGWPCS permit authorizes the E.I. Holdings LLC (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 #26).

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, the Montana Ground Water Pollution Control System, 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
<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] No significant impacts have been identified.</p> <p>The Terra Nova Cabin site is in close proximity to the Red Canyon fault that runs the length of Hebgen Lake. Movement along this fault has occurred in the past. The proposed wastewater facility will be discharging effluent into the downslope side of the fault zone. Effluent will be mixing with the existing shallow aquifer while migrating toward Hebgen Lake. The construction and operation of the proposed facility should not affect the dynamics of the fault zone.</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] The facility covered under this permit must show evidence of treatment capable of meeting the established effluent limitation which was derived from the most restrictive ground water quality standards and nondegradation-nonsignificance criteria. This effluent limitation, along with special conditions and standard conditions of the permit has been developed to maintain the beneficial uses of all state ground waters including drinking water. Facilities must be able to meet this restrictive effluent limitation prior to discharge.</p> <p>Ground water monitoring at the hydraulically downgradient boundary of the mixing zone is maintained within the permit renewal. Please refer to the Fact Sheet document for further details.</p> <p>All discharge disposal structures must meet the minimum set back requirements which includes surface water, flood plains, ditches and springs. The applicant is encouraged to contact and consult with the Public Water, Subdivision and State Revolving Fund programs at DEQ:</p> <p>http://deq.mt.gov/Water/PWSUB/pws http://deq.mt.gov/Water/PWSUB/sub http://deq.mt.gov/Water/TFA/srf</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	<p>Construction activities may impact water quality by contributing discharges of sediment to surface waters. The permittee may be required to obtain permit coverage under a Montana Pollutant Discharge Elimination System (MPDES) General Permit for Storm Water Discharges Associated with Construction Activity. The permittee may be required to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which includes best management practices to protect nearby surface waters. Additional information can be found at the following website:</p> <p>http://deq.mt.gov/Water/WPB/mpdes/stormwater</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] Best management practices are encouraged during construction of the replacement treatment system and drainfield to mitigate particulates produced. For additional information, the permittee is encouraged to contact the Montana DEQ Air Resources Management Bureau:</p> <p>http://deq.mt.gov/Air</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?</p>	<p>[N] The proposed location is currently developed as a vacant grass lot. No vegetative species of concern are anticipated to be present.</p> <p>Identified species of concern within one mile of Outfall 001; White Bark Pine and Pink Agoseris.</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 system will be built on previously disturbed lands. Species of concern identified in the Montana Natural Heritage Program index are listed below. Terrestrial, avian and aquatic Species of Concern are not expected to be present or disturbed in the vicinity of this project. Identified species of concern within one mile of Outfall 001 include; West Slope Cutthroat Trout, Grizzly Bear, Wolverine, Hoary Bat, Bald Eagle, and Bison.</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. All discharge disposal structures must meet the minimum set back requirements which include surface water, flood plains, ditches and springs. The applicant is encouraged to contact and consult with the Public Water, Subdivision and State Revolving Fund programs at DEQ:</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
	<p>http://deq.mt.gov/Water/PWSUB/pws http://deq.mt.gov/Water/PWSUB/sub http://deq.mt.gov/Water/TFA/srf</p> <p>Site and habitat inventories for the applicable species were recommended in consultation with the Montana Natural Heritage Program. The applicant is encouraged to contact and consult with this program or other Natural Resource Information Programs available at the Montana State Library: http://nris.msl.mt.gov/</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: https://sagegrouse.mt.gov/	[N] The project site is not listed as being located within sage grouse habitat. DEQ referred to the Habitat and Occurrence mapping program at https://sagegrouse.mt.gov/projects/ . If there are questions about Sage Grouse at this site, the applicant must contact and consult with the Sage Grouse Habitat Conservation Program at: https://sagegrouse.mt.gov/ .
8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] A general recommendation by the Montana State Historic Preservation Office (MSHPO) states that in the event that cultural materials are inadvertently discovered, the permittee should contact the MSHPO office for investigation.
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] Most drainfields are constructed sub surface. Most wastewater treatment systems are enclosed within buildings located on pre-disturbed lands previously used for agriculture practices. There may be some disruption during construction of the facility.
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?	[N]
11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N]

IMPACTS ON THE HUMAN ENVIRONMENT	
12. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] If this system is operated and maintained properly it will not be creating any health or safety risks.

IMPACTS ON THE HUMAN ENVIRONMENT	
13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] The construction and operation of this waste water system will not add or alter commercial, agricultural or industrial activities.
14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] The construction of new wastewater treatment systems and discharge structures may result in the creation of several temporary jobs until construction is completed. The operation and maintenance of the wastewater treatment system may also result in permanent jobs.
15. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] Property tax revenue may increase as a result of the completion of this project.
16. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] Traffic may increase during the construction of any new wastewater treatment systems and discharge structures. Once construction is complete, there may be minimal traffic for the operation and maintenance of the wastewater treatment system.
17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] Wastewater treatment systems may be owned and operated by local communities or sewer districts. These systems are a vital tool in protection of their own public and environmental health.
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] Access to recreational areas will not be restricted by the completion of this project.
19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] No housing is associated with the permitting of this wastewater system.
20. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] Social Structures and Mores will not be disrupted.
21. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] The construction of this wastewater system does not affect cultural uniqueness or diversity.
22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] The construction of this wastewater system does not affect other social or economic circumstance.
23(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police	[N] This project is not causing the regulation of use of private property.

IMPACTS ON THE HUMAN ENVIRONMENT	
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.	
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]
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 issue 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. The proposed permitting action will not individually or cumulatively have a significant impact on the human environment, and does not have a reasonable potential to exceed surface water standards.

The applicant performed projections to demonstrate the significance of the proposed activity. The projections included all potential cumulative impacts including upgradient (ambient) sources obtained from on-site water well samples; and downgradient with an estimation of downgradient septic systems. The projections, which included recent aquifer monitoring, indicated that nitrate in ground water will not exceed the significance criteria. This is further discussed in Section VIII of the Fact Sheet document.

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 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. 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 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.

28. **Public Involvement:**

Legal notice information for water quality discharge permits are listed at the following website: <http://deq.mt.gov/Public/notices/wqnotices>. Public comments on this proposal are invited any time prior to close of business on **August 28, 2018**. Comments may be directed to:

DEQWPBPublicComments@mt.gov

or to:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901

Helena, MT 59620

All comments received or postmarked prior to the close of the public comment period will be considered in the formulation of the final permit. DEQ will respond to all substantive comments pertinent to this permitting action and may issue a final decision within thirty days of the close of the public comment period.

All persons, including the applicant, who believe any condition of the draft permit is inappropriate, or that DEQ's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, shall raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period (including any public hearing). All public comments received for this draft permit will be included in the administrative record and will be available for public viewing during normal business hours.

Copies of the public notice are mailed to the applicant, state and federal agencies, and interested persons who have expressed interest in being notified of permit actions. A copy of the distribution list is available in the administrative record for this draft permit. Electronic copies of the public notice, draft permit, fact sheet, and draft environmental assessment are available at the following website: <http://deq.mt.gov/Public/notices/wqnotices>.

Any person interested in being placed on the mailing list for information regarding this permit may contact the DEQ Water Protection Bureau at (406) 444-5546 or email DEQWPBPublicComments@mt.gov. All inquiries will need to reference the permit number (MTX000245), and include the following information: name, address, and phone number.

During the public comment period provided by the notice, DEQ will accept requests for a public hearing. A request for a public hearing must be in writing and must state the nature of the issue proposed to be raised in the hearing.

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

Montana State Historic Preservation Society

Montana Natural Heritage Program

Montana Bureau of Mines and Geology:

- Ground Water Information Center
- Ground Water Investigation Program
- Ground Water Assessment Program

Natural Resource Information System, Montana State Library

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

United States Geological Survey, Publication Warehouse

Application information MTX000245

EA Checklist Prepared By:

Rich Morse

May 6, 2018

Approved By:

Jon Kenning, Chief
Water Protection Bureau

DRAFT

Signature

Date

DRAFT