

DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

Water Protection Bureau

Name of Project: Skyview & Northwest Subdivisions Community Water & Sewer Utility's
Wastewater Treatment System (WWTS)

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

Location of Project: NE 1/4 Section 7, Township 11 North, Range 3 West;
Lewis & Clark County, Montana

City/Town: Helena

County: Lewis & Clark County

Description of Project: This Environmental Assessment (EA) is for a renewed MGWPCS permit for the Skyview & Northwest Subdivisions Community Water & Sewer Utility's Wastewater Treatment System (WWTS) (facility). The MGWPCS permit reauthorizes AquaFlo, LLC (permittee) to discharge treated wastewater from a subsurface discharge structure (Outfall 002) into Class I ground water. The scope of this EA addresses the operation and discharge of the wastewater treatment and disposal system.

The Skyview WWTS has a design capacity of 30,660 gallons/day and consists of individual septic tanks with effluent filters, recirculation pump tanks, three recirculating sand filters (RSF), four drainfield dosing tanks, and distribution lines. The discharge is cycled between four zones within a single long drainfield.

The proposed permit renewal authorizes the permittee to discharge treated domestic wastewater to ground water from a subsurface drainfield identified as Outfall 002. Outfall 002 is approximately 2,150 feet in width and is located along the southern edge of the Skyview subdivision bordering the North Star subdivision. It extends west to east along the property that is situated between the Skyview and North Star Subdivisions.

An Environmental Assessment (EA) was earlier completed for Skyview in June 2005 by the Montana Department of Environmental Quality. The EA recommended that no further analysis would be needed. The receiving ground water classification is Class I.

The magnitude and significance of potential impacts are summarized below (bullet #24).

Agency Action and Applicable Regulations: The proposed action is to reissue 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 southwest of the discharge point. There are no limiting layers present in the soil profile that would impede continued treatment of effluent discharged from the drainfield. The water bearing formation is unconfined and present at approximately 69 feet below ground surface. No significant impacts have been identified.
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] This system is a standard 500-foot mixing zone discharging above Class I ground water with a historical specific conductance of just under 1,000 µmhos. Department conducted modeling analysis, indicated there would be no water quality or nondegradation significance limits exceeded outside of mixing zone for all parameters expected in the effluent. Static water levels in the immediate area average 69 feet below the surface. Refer to the June 2005 and April 2010 EAs for further details. See the 2016 Statement of Basis (Fact Sheet) for the permit.
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.

IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?</p>	<p>[N] No significant impacts have been identified. This system is already in-place and operating, so no significant disturbances to vegetation are proposed. Refer to the June 2005 and April 2010 Environmental Assessments for further details. This site is enclosed within existing large subdivisions that were built upon pasture and hay agricultural properties.</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] No significant impacts have been identified. The closest surface water capable of receiving ground water (Silver Creek) is approximately 14,700 feet southwest & downgradient of the discharge location.</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] No significant impacts have been identified from the EA, however the Montana National Heritage Program identified the following species of concern are present in the area of the discharge: <i>Cynomys ludovicianus</i> (Black Tailed Prairie Dog) and <i>Euderma maculatum</i> (Spotted Bat). These mammals have been observed in the area, especially to the east of this subdivision. But the subdivision is depicted on the Montana Natural Heritage Program map as being within the range of these animals.</p> <p>All discharge disposal structures must meet the minimum set back requirements of ARM 17.36.323, which includes surface water, flood plains, and springs. The discharge structure for this facility is subsurface. 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>
<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/</p>	<p>[N] The project is not listed as being within sage grouse habitat. DEQ referred to the Habitat and Occurrence mapping program at https://sagegrouse.mt.gov/projects/ This project site is not located near or within Core Areas, General Habitat, or Connectivity Areas.</p> <p>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/.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

<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. The wastewater treatment system is below grade and not generally visible by residents. The ground surface above the discharge structure is covered in grass and is located in a designated lot located behind residential backyards. A couple of smaller buildings are located in among the residences, but are maintained locked and isolated.</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 average 69 feet below the surface. Potential for ground water depletion is minimal. Refer to the June 2005 and April 2010 EAs for further details. It is unlikely that significant changes will be made to this facility prior to the next permit cycle.</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

<p>12. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>[N] No significant impacts have been identified. The wastewater treatment facility should employ a fence on the perimeter of the property, and maintain a locking gate. A couple of smaller buildings are located in among the residences, but are maintained locked and isolated.</p>
<p>13. 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>14. 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. This is not a new system and has been operational for years. No new jobs could be expected to be created by this system.</p>

IMPACTS ON THE HUMAN ENVIRONMENT	
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.
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] No significant impacts have been identified.
19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] No significant impacts have been identified.
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.

IMPACTS ON THE HUMAN ENVIRONMENT

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. No cumulative impacts have been identified based on ambient receiving ground water conditions at the time of this analysis (see the Statement of Basis / Fact Sheet). The final permit prohibits pollution and degradation of state waters. The Department notes the following:

- There are no other permitted discharges to this shallow aquifer in the nearby area.
- No impacts were identified based on ambient (receiving) 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.
- Ambient (receiving) ground water quality monitoring will be maintained within the permit renewal.

The ground water in the vicinity of the existing discharge structure is Class I ground water with a specific conductance just under 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 Statement of Basis / 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 reissue 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:**

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 **September 28, 2016**. Comments may be directed to:

DEQWPBPublicComments@mt.gov

or at:

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 were 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) 444-3080 or email DEQWPBPublicComments@mt.gov. All inquiries will need to reference the permit number (MTX000121), 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 Natural Heritage Program
Montana Bureau of Mines and Geology web site
Natural Resource Information System, Montana State Library
Historical Preservation Society
United States Department of Agriculture, Natural Resources Conservation Service
Soil Survey

EA Checklist Prepared By:

Jeffrey Frank Herrick, DEQ, WQD, WPB

03 August 2016

Approved By:

Jon Kenning, Chief
Water Protection Bureau

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Signature

Date