

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Environmental Assessment**  
**Water Protection Bureau**

**Name of Project:** Montana Pollutant Discharge Elimination System (MPDES) permit MT0020125 renewal for the Chinook Wastewater Treatment Plant (WWTP).

**Description of Project:** The Department of Environmental Quality (DEQ) proposes to renew the MPDES permit for the city of Chinook WWTP to discharge to the Milk River. Chinook WWTP operates an oxidation ditch activated sludge system with ultraviolet disinfection and aerobic sludge digestion and an estimated average daily design flow of 0.5 million gallons per day (mgd).

**Location of Project:** 300 Daffy Hills Lane, Chinook, MT 59523

**Agency Action and Applicable Regulations:** The proposed action is to renew the MPDES permit for another five-year cycle.

**Applicable Rules and Statute:**

Administrative Rules of Montana (ARM Title 17, Chapter 30)

Subchapter 2 – Water Quality Permit Application and Annual Fees.

Subchapter 5 – Mixing Zones in Surface and Ground Water.

Subchapter 6 – Surface Water Quality Standards.

Subchapter 7 – Nondegradation of Water Quality.

Subchapter 12 and 13 – Montana Pollutant Discharge Elimination System Standards.

Montana Water Quality Act, MCA 75-5-101, *et. seq.*

**Summary of Issues:** DEQ is proposing to remove the total ammonia and nitrate plus nitrite effluent limitations in this permit. The monitoring frequency for oil and grease has been reduced. Monitoring will not be required for acute whole effluent toxicity (WET), total recoverable metals, phenols, cyanide, volatile organic compounds, semi-volatile acid-extractable compounds, and semi-volatile base neutral compounds. Ambient/upstream quarterly monitoring will be required for ammonia, nitrate plus nitrite, pH, and temperature. All other permit limitations are carried forward from the 2012-issued permit.

**Affected Environment & Impacts of the Proposed Project:**

Y = Impacts may occur (explain under Potential Impacts).

N = Not present or No Impact will likely occur.

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT</b>	
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] This facility is long established, since 1984, and represents no new impacts present. The underlying geology is unconsolidated Quaternary alluvium. The majority of the WWTP footprint is underlain by Hanly loam fine sand.
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 permit contains effluent limits and monitoring requirements that will continue to assure discharge quality and protect receiving water beneficial uses.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] No new impacts present.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetation communities be significantly impacted? Are any rare plants or cover types present?	[N] Based on a search of the Montana Natural Heritage Database, there are no vegetative species of concern, but there are 10 potential species of concern in or within one mile of the site. However, this MPDES permitting action is the renewal of an existing wastewater discharge permit, with no anticipated impact on these species.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND INHABITANTS: Is there substantial use of the area by important wildlife, birds or fish?	[N] Based on a search of the National Heritage Database, there are 11 species of concern, and 69 potential species of concern within one mile of the site. It is also considered Bat Roost (non-cave) habitat. The 11 species of concern are: <ul style="list-style-type: none"> <li>▪ <b>Fish:</b> <i>Sander Canadensis</i> (Sauger), <i>Margariscus nachtriebi</i> (Northern Pearl Dace), <i>Etheostoma exile</i> (Iowa Darter), <i>Chrosomus eos</i> (Northern Redbelly Dace)</li> <li>▪ <b>Birds:</b> <i>Dolichonyx oryzivorus</i> (Bobolink), <i>Ardea Herodias</i> (Great Blue Heron), <i>Buteo regalis</i> (Ferruginous Hawk), <i>Falco peregrinus</i> (Peregrine Falcon)</li> <li>▪ <b>Mammals:</b> <i>Myotis lucifugus</i> (Little Brown Myotis), and <i>Vulpes velox</i> (Swift Fox).</li> </ul> However, this MPDES permitting action is the renewal of an existing wastewater discharge permit, with no anticipated impact on these or other species.
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] See number 5. 20% of the land cover within 1 mile of the site are wetland and riparian systems.

<b>IMPACTS ON THE PHYSICAL ENVIRONMENT CONTINUED</b>	
<b>RESOURCE</b>	<b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
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 at <a href="https://sagegrouse.mt.gov/">https://sagegrouse.mt.gov/</a> ? If yes, did the applicant attach documentation from the Program showing compliance with Executive Order 12-2015 and the Program's recommendations? If so, attach the documentation to the EA and address the Program's recommendation in the permit. If project is in core, general or connectivity habitat and the applicant did not document consultation with the Program, refer the applicant to the Sage Grouse Habitat Conservation Program.	[Y] DEQ acknowledges the facility is within general sage grouse habitat. However, consultation with the Sage Grouse Program is not required as Chinook WWTP meets the Sage Grouse Exception from Executive Order 12-2015. DEQ notes the facility will NOT be expanding its footprint, and any expansion would make it ineligible to meet the Sage Grouse Exception. (Programmatic Exception from Executive Order 12-2015 approved by Montana Sage Grouse Oversight Team 2018).
8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] No new impacts present.
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] No new impacts present.
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 powerlines or other energy sources be needed?	[N] No new impacts present.
11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] No new impacts present.

<b>IMPACTS ON THE HUMAN ENVIRONMENT</b>	
<b>RESOURCE</b>	<b>[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES</b>
12. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] Effluent limits will protect public health.
13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N] No impacts are expected at this time.
14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] No impacts are expected at this time.
15. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] No impacts are expected at this time.

<b>IMPACTS ON THE HUMAN ENVIRONMENT CONTINUED</b>	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
16. DEMAND FOR GOVERNMENT SERVICES: Will sustainable traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No impacts are expected at this time.
17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] No impacts are expected at this time.
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 impacts are expected at this time.
19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] No impacts are expected at this time.
20. SOCIAL STRUCTURES: Is some disruption of native or traditional lifestyles or communities possible?	[N] No impacts are expected at this time.
21. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No impacts are expected at this time.
22. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] No impacts are expected at this time.
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]
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.	Not Applicable
23(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.	Not Applicable

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

A. *No Action*: Under the “No Action” alternative, DEQ would not renew MPDES Permit # MT0030155. “No Action” could result in unauthorized wastewater discharge. This may result in a negative impact on state water quality.

B. *Approval with Modification*: DEQ has not identified any necessary modifications to grant approval.

**25. Summary of Magnitude and Significance of Potential Impacts:** None

**26. Cumulative Effects:** None

**27. Preferred Action Alternative and Rationale:** The preferred action is to reissue the MPDES permit. This action is preferred because the permit program provides the regulatory mechanism for protecting water quality by enforcing the terms of the MPDES permit.

**Recommendation for Further Environmental Analysis:**

Environmental Impact Statement (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/or physical environments.

**28. Public Involvement:** A 30-day public comment period will be held.

**29. Persons and agencies consulted in the preparation of this analysis:** Montana Natural Heritage Program

**EA Checklist Prepared By:** Amelia Flanery

**Date:** October 2020

**Approved By:**

**DRAFT**  
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Jon Kenning, Chief  
Water Protection Bureau

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Date