

DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

Permitting and Compliance Division
Water Protection Bureau

Name of Project: City of Chinook, Wastewater Treatment Plant

Location of Project: 300 Daffy Hills Lane

City/Town: Chinook

County: Blaine

Description of Project: This is a reissuance of MPDES permit MT0020125 for the City of Chinook Wastewater Treatment Plant (WWTP) which discharges treated domestic wastewater to the Milk River. The WWTP consists of an oxidation ditch activated sludge plant constructed in 1984 with modifications in 2005, and 2009/2010. Effluent disinfection is accomplished with ultraviolet light (UV) treatment.

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

Applicable rules and statute:

ARM Title 17, Chapter 30, Sub-chapter 2 – Water Quality Permit Application and Annual Fees.

ARM Title 17, Chapter 30, Sub-chapter 5 – Mixing Zones in Surface and Ground Water.

ARM Title 17, Chapter 30, Sub-chapter 6 – Surface Water Quality Standards.

ARM Title 17, Chapter 30, Sub-chapter 7 – Nondegradation of Water Quality.

ARM Title 17, Chapter 30, Sub-chapters 12 and 13 – Montana Pollutant Discharge Elimination System Standards.

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

Summary of Issues: The previous permit limits on five-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), pH, *Escherichia coli* (*E. coli*), total nitrogen (TN) and total phosphorus (TP) are included in the renewed permit. Year around limits are added on total ammonia-N and nitrate plus nitrite (NO₃/NO₂) and a compliance schedule is included in the permit for compliance with the NO₃/NO₂ limits by May 1, 2017. New limits are established on oil and grease (O&G). Monitoring requirements are similar to those of the previous permit.

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] The wastewater treatment facility has been located at this site since 1984. 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 wastewater treatment facility has discharged to this same receiving water for more than 27 years. The area around the treatment facility is a shallow groundwater area with well logs showing static water levels in the range of 10 feet below the surface. Effluent limits will improve water quality.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N]
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	[N]
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] The wastewater treatment facility has been at this same location for more than 27 years.
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] The wastewater treatment facility has been at this same location for more than 27 years and the permit reissuance will not adversely impact threatened or endangered species, species of special concern or wetlands.
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] The wastewater treatment facility has been at this same location for over 27 years and no impacts on historical, archaeological or paleontological resources are anticipated
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?	[N] The wastewater treatment plant has been at this same location for over 27 years and the permit reissuance will have no impact on aesthetics.
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)	[N] No impacts associated with the permit reissuance.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] None known or anticipated with the permit reissuance.

IMPACTS ON THE HUMAN ENVIRONMENT

11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N]
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N]
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N]
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N]
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?	[N] No impacts expected. No wilderness or recreational areas accessed through this site and no potential for recreational development.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N]
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,	[N]

IMPACTS ON THE HUMAN ENVIRONMENT	
and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	
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]
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.	[]

- 23. Description of and Impacts of other Alternatives Considered: None
- 24. Summary of Magnitude and Significance of Potential Impacts: None
- 25. Cumulative Effects: None
- 26. 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:

EIS More Detailed EA No Further Analysis

Rationale for Recommendation:

- 27. Public Involvement: A 30-day public comment period will be held.
- 28. Persons and agencies consulted in the preparation of this analysis: None

EA Checklist Prepared By: James F. Brown

Date: May 15, 2012

Approved By:

Jenny Chambers, Chief
Water Protection Bureau

Date