

DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

WATER QUALITY DIVISION
Water Protection Bureau

Name of Project: Montana Pollutant Discharge Elimination System (MPDES) permit MT0000477 major modification for the ExxonMobil Billings Refinery wastewater treatment plant (ExxonMobil WWTP).

Type of Project: ExxonMobil proposes to install a single-port diffuser (Outfall 004) as an option to discharge treated refinery wastewater. The refinery would be allowed to discharge from only one of the process wastewater outfalls at any one time (Outfalls 001, 003, or 004).

Location of Project: 700 ExxonMobil Road

City/Town: Billings

County: Yellowstone

Description of Project: MPDES permit major modification to allow the installation and operation of a new single port diffuser.

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

ARM Title 17, Chapter 30, Subchapter 2 - Water Quality Permit Application and Annual Fees.
ARM Title 17, Chapter 30, Subchapter 5 - Mixing Zones in Surface and Ground Water.
ARM Title 17, Chapter 30, Subchapter 6 - Surface Water Quality Standards.
ARM Title 17, Chapter 30, Subchapter 7 - Nondegradation of Water Quality.
ARM Title 17, Chapter 30, Subchapter 12 and 13 - MPDES Standards.
Montana Water Quality Act, MCA 75-5-101 *et. seq.*

Summary of Issues: ExxonMobil provided a source-specific mixing zone study that supported the granting of up to 39.3% dilution for chronic/human health conditions

Benefits and Purpose of Action: The permit will ensure compliance with the Montana Water Quality Act and protect beneficial uses of the Yellowstone River.

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur

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] The Yellowstone River is a serpentine river that is known to migrate. Installation of the single port diffuser will not have any known effect on this natural migration.
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 will ensure compliance with the Montana Water Quality Act and protect beneficial uses of the Yellowstone River.
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] ExxonMobil is an existing oil refinery. The location where the proposed diffuser will be placed is in a meandering streambed with little to no expected vegetation to be impacted.
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[N] In this stretch of the Yellowstone River, Rainbow and Brown Trout are expected to pass through, and Mountain Whitefish are believed to spawn. Although Brown Trout could construct redds and non-salmonids could broadcast along the gravel beds in the Yellowstone River, the species expected in this area generally do not frequent the Yellowstone River from Billings through 10 miles downstream. The area considered for mixing is a minimal length (267 feet) and the diffuser outlet is located a sufficient distance from shore (20 feet) that the modelling shows the plume will not be shore-hugging. DEQ does not expect this project will threaten or impair any biologically important areas.
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] Montana's FWP did not identify any federally-listed threatened or endangered fish species. There are no other endangered environmental resources that would be impacted by this project.
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/ ? 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 recommendations 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.	[N] DEQ has verified the facility is within exempt community boundaries and therefore is not located within core, general, or connectivity sage grouse habitat.
8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[N] ExxonMobil is an existing oil refinery. The location where the proposed diffuser will be placed is in a meandering streambed with no expected any historical, archaeological or paleontological resources 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]

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
10. LAND USE: (waste disposal, agricultural lands [grazing, cropland, forest lands, prime farmland], recreational lands [waterways, parks, playgrounds, open space, federal lands), access, commercial and industrial facilities [production & activity, growth or decline], growth, land-use change, development activity)	[N]
11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N]
IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
12. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N]
13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[N]
14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N]
15. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N]
16. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N]
17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N]
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]
19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N]
20. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N]
21. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N]
22. 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, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N]
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]

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 22(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]

- 23. **Description of and Impacts of other Alternatives Considered:** None
- 24. **Summary of Magnitude and Significance of Potential Impact:** None
- 25. **Cumulative Effects:** None
- 26. **Preferred Action Alternative and Rationale:** The preferred action is to issue the modified 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: An EIS is not required under the Montana Environmental Policy Act (MEPA) because the project lacks significant adverse effects to the human and physical environment. All of the anticipated effects to the physical and human environment will be mitigated or eliminated during project implementation.

- 27. **Public Involvement:** A 30-day public comment period will be held.
- 28. **Persons and agencies consulted in the preparation of this analysis:** Montana Fish, Wildlife and Parks (FWP) - Mike Ruggles, March 8, 2019.

EA Checklist Prepared By: Christine Weaver, June 2019

Approved by:

Jon Kenning, Chief
Water Protection Bureau

Date