



FINAL ENVIRONMENTAL ASSESSMENT

July 2024

**Water Quality Division
Montana Department of Environmental Quality**

PROJECT/SITE NAME: MPDES General Permit for Suction Dredging Operations	
APPLICANT/COMPANY NAME: Multiple Permittees	
PROPOSED PERMIT/LICENSE NUMBER: MTG370000	
LOCATION: Statewide (Except A-1, A-Closed waterbodies and Indian Reservations).	COUNTY: <u>Statewide</u>
PROPERTY OWNERSHIP: _____ FEDERAL <u>X</u> STATE <u>X</u> PRIVATE <u>X</u>	

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1. PURPOSE AND NEED FOR PROPOSED ACTION

1.1 AUTHORIZING ACTION

Under the Montana Environmental Policy Act (MEPA), Montana agencies are required to prepare an environmental assessment (EA) for state actions that may have an impact on the human environment. The Proposed Action is considered to be a state action that may have an impact on the human environment and, therefore, the Department of Environmental Quality (DEQ) must prepare an EA. This EA will examine the proposed action and alternatives to the proposed action and disclose potential impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in Administrative Rules of Montana (ARM) 17.4.608.

1.2 DESCRIPTION OF DEQ REGULATORY OVERSIGHT

DEQ implements the Water Quality Act of Montana, issuing discharge permits in conformance with the federal Clean Water Act under the Montana Pollutant Discharge Elimination System (MPDES) pursuant to Section 75-5-101, *et. seq.*, Montana Code Annotated (MCA), and the Administrative Rules of Montana (ARM) Title 17, Chapter 30, Sub-chapters 2, 5, 6, 7, 12, and 13.

1.3 PROPOSED ACTION

Portable suction dredges are mechanical devices that remove submerged streambed materials (substrate) by means of hydraulic suction. Water and substrate are vacuumed through an intake conduit with a diameter of four inches or less. The material is then processed through a sluice box, which is a riffled trough that traps gold and other dense materials settling out from flowing water. The remainder of the substrate falls off the end of the sluice box and is deposited back into the stream bottom as waste, or tailings. Lighter sediments are discharged in a turbid plume. The discharge consists of stream water and bed material; no materials or chemicals are added to the discharge water.

The proposed action is to reissue the statewide General Permit for Portable Suction Dredging Operations (MTG370000). Owners/operators of recreational portable suction dredges would be required to apply for authorization under the renewed General Permit. The renewed general permit would control recreation suction dredge wastewater containing turbidity.

Please refer to the permit Fact Sheet (MT DEQ, MTG370000, 2024) for additional information.

Table 1: Summary of Proposed Action

Proposed Action	
General Overview	Reissue the statewide General Permit for Portable Suction Dredging Operations (MTG370000). Owners/operators of recreational portable suction dredges will be required to apply for authorization under the renewed General Permit. The renewed General Permit will control recreational suction dredge wastewater containing turbidity.

Duration & Hours of Operation	Operation: Portable suction dredges are operated seasonally, primarily during summer months and may be operated at any time of day during the season. Dredging operations must be reviewed by Montana Fish Wildlife and Parks staff. Any seasonal restrictions due to fish spawning or habitat considerations are incorporated into each permit authorization and must be observed by dredge operators.
Estimated Disturbance	No surface disturbance will occur other than incidental use of stream banks during suction dredging operations. The permit does not allow for construction projects of any kind.
Construction Equipment	See above.
Personnel Onsite	The permit is for operation of recreational suction dredges. Personnel onsite will generally be limited to small groups.
Location and Analysis Area	Location: Statewide. Most suction dredging occurs in mountain streams in the western half of the state. Analysis Area: Statewide
The applicant is required to comply with all applicable local, county, state, and federal requirements pertaining to the following resource areas.	
Air Quality	No air quality regulations apply for issuance of the MPDES permit.
Water Quality	The applicants would obtain MPDES permit coverage and comply with requirements for discharge to state surface waters.
Erosion Control and Sediment Transport	Permit requirements prohibit operating suction dredges outside the wetted channel of the receiving water and place limitations on turbidity to reduce sediment transport within the receiving water.
Solid Waste	The MPDES permit does not allow for solid waste disposal. Solid waste regulations do not apply.
Cultural Resources	Suction dredging will not occur where cultural resources are identified as present.
Hazardous Substances	Hazardous substances associated with this permit are expected to be limited to the potential use of fuel and other compounds for the operation of dredges. Best management practices observed during vehicle fueling and maintenance will minimize the potential for any hazardous material spills.
Reclamation	NA

Cumulative Impact Considerations	
Past Actions	Suction dredge operations generally occur in remote areas where cumulative impacts are unlikely to occur. If other suction dredge operations exist nearby, monitoring requirements may be adjusted to account for potential overlap in mixing zones.
Present Actions	See above.
Related Future Actions	No other applications under consideration.

1.4 PURPOSE, NEED, AND BENEFITS

DEQ's purpose in conducting this EA is to re-issue the existing MPDES permit for recreational suction dredging. DEQ's action on the permit application is governed by § 75-5-101, *et seq.*, Montana Code Annotated (MCA) and the Administrative Rules of Montana (ARM) Title 17, Chapter 30, Sub-chapters 2, 5, 6, 7, 12, and 13.

The purpose and need is to reissue an existing MPDES permit to allow for recreational suction dredging activities in compliance with the regulations.

1.5 OTHER GOVERNMENTAL AGENCIES AND PROGRAMS WITH JURISDICTION:

All applicable local, state, and federal rules must be adhered to, which may also include other local, state, federal, or tribal agency jurisdiction. Other governmental agencies which may have overlapped, or additional jurisdiction include but may not be limited to: Montana Department of Natural Resources, Montana Department of Fish Wildlife and Parks, United States Forest Service, U.S. Fish and Wildlife Service, U.S Army Corps of Engineers.

2. AFFECTED ENVIRONMENT AND IMPACT BY RESOURCE

2.1 EVALUATION AND SUMMARY OF POTENTIAL IMPACTS

The impact analysis will identify and evaluate direct and secondary impacts TO THE PHYSICAL ENVIRONMENT AND HUMAN POPULATION IN THE AREA TO BE AFFECTED BY THE PROPOSED PROJECT. *Direct impacts* occur at the same time and place as the action that causes the impact. *Secondary impacts* are a further impact to the human environment that may be stimulated, induced by, or otherwise result from a direct impact of the action. (ARM 17.4.603(18)) Where impacts would occur, the impacts will be described in this analysis.

Cumulative impacts are the collective impacts on the human environment within the borders of Montana of the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location and generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impact statement evaluation, or permit processing procedures. The projects identified in Table 1 were analyzed as part of the cumulative impacts assessment for each resource.

The duration is quantified as follows:

- **Short-term:** Short-term impacts are defined as those impacts that would not last longer than the installation and operation of the proposed Facility.
- **Long-term:** Long-term impacts are impacts that would remain or occur following proposed project closure and removal.

The intensity of the impacts is measured using the following:

- **No impact:** There would be no change from current conditions.
- **Negligible:** An adverse or beneficial effect would occur but would be at the lowest levels of detection.
- **Minor:** The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- **Moderate:** The effect would be easily identifiable and would change the function or integrity of the resource.
- **Major:** The effect would alter the resource.

a. 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?

The general permit is for coverage of suction dredge operations statewide and over a wide range of soil types and geologic features.

Direct Impacts

Proposed Action: The permit would require Best Management Practices to control potential soil instability of stream banks at suction dredge sites.

Secondary Impacts

Proposed Action: Secondary impacts are not expected because the activities regulated occur for a short duration on a limited, seasonal basis. Permit conditions would protect receiving water conditions at each site.

Cumulative Impacts

Proposed Action: Each suction dredge site would be assessed by DEQ, Montana Fish Wildlife and Parks and other agencies on a case-by-case basis to ensure that no cumulative impacts occur.

b. 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?

Direct Impacts

Proposed Action: Turbidity and TSS: Under the general permit, applicants operating recreational suction dredges would be granted authorization to discharge wastewater from recreational suction dredges to surface waters of the state. Discharges are prohibited to A-1 and A-Closed waters.

If an operator notices an increase in turbidity 10 stream widths downstream from the operating suction dredge, a violation of the water quality standard probably occurs (there is assumed to be an increase of greater than 5 NTUs in the receiving stream) and the operator would be required to discontinue operations.

Subsequent suction dredge activities could continue as long as there is no increase in turbidity in the receiving stream 10 stream widths downstream from the operating suction dredge.

Best Management Practices (BMPs) are incorporated as a special condition of the permit to control discharge of pollutants. In addition, operators are not allowed to add chemicals or discharge petroleum products while suction dredging.

Secondary Impacts

Proposed Action: Secondary impacts are not expected due to the short term and seasonal timeframes of suction dredging operations. Permit conditions would protect the receiving water at each site.

Cumulative Impacts

Proposed Action: Each suction dredge site would be assessed by DEQ, Montana Fish Wildlife and Parks and other agencies on a case-by-case basis to ensure that no cumulative impacts occur.

c. AIR QUALITY

Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?

Operation of suction dredges is not regulated by air quality regulations.

Direct Impacts

Proposed Action: There may be short term combustion odors associated with the recreational suction dredge engine.

Secondary Impacts

Proposed Action: No impacts.

Cumulative Impacts

Proposed Action: No impacts.

d. VEGETATION COVER, QUANTITY AND QUALITY

Will vegetative communities be significantly impacted? Are any rare plants or cover types of present?
The Montana Natural Heritage Program identified the plant species of concern (SOC)

The general permit is for coverage of suction dredge operations statewide and over a wide range of vegetative conditions.

Direct Impacts

Proposed Action: Best Management Practices (BMPs) would limit vegetation disturbance.

Secondary Impacts

Proposed Action: No impacts.

Cumulative Impacts

Proposed Action: No impacts.

e. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS

Is there substantial use of the area by important wildlife, birds, or fish?

The general permit is for coverage of suction dredge operations statewide and over a wide range of terrestrial, avian, and aquatic life habitats.

Direct Impacts

Proposed Action: Applicants must contact FWP to ensure fisheries would be protected at the proposed suction dredge location(s). If FWP determines that a seasonal restriction is required to protect fisheries, the applicant must include the seasonal restriction on the NOI form. DEQ will include seasonal restrictions on the confirmation letter authorizing the discharge of wastewater.

Owners/operators of suction dredges would also be required to obtain a 310 Permit, which is a permit required to minimize sedimentation in streams and is issued by local conservation districts. Conservation Districts and FWP fishery biologists work together to review each

suction dredge operation and impose any necessary restrictions based on the FWP stream classification list. With seasonal restrictions, when necessary, suction dredging would not be expected to affect aquatic life.

Secondary Impacts

Proposed Action: Effluent limits and permit conditions would protect aquatic life from direct and secondary impacts.

Cumulative Impacts

Proposed Action: No impacts.

f. HISTORY, CULTURE AND ARCHEOLOGICAL UNIQUENESS

Are there any historical, archaeological, or paleontological resources present?

Direct Impacts

Proposed Action: The general permit would prohibit operating in the stream banks or undercutting stream banks in such a manner to cause carving or erosion of the banks. In addition, no machinery other than the floating suction dredge can be used during suction dredging. Since suction dredging occurs in the water and not on land, no historical or archaeological sites are expected to be impacted.

Secondary Impacts

Proposed Action: No impacts.

Cumulative Impacts

Proposed Action: No impacts.

g. 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?

Direct Impacts

Proposed Action: No impacts.

Secondary Impacts

Proposed Action: No impacts.

Cumulative Impacts

Proposed Action: No impacts.

h. HUMAN HEALTH AND SAFETY

Will this project add to health and safety risks in the area?

None expected. Each site would be evaluated individually, prior to issuance of the authorization.

Direct Impacts

Proposed Action: No impacts.

Secondary Impacts

Proposed Action: No secondary impacts expected.

Cumulative Impacts

Proposed Action: No impacts.

i. SOCIOECONOMICS

Will the project add to or alter industrial or agricultural activities? Will the project create, move, or eliminate jobs? Will the project create or eliminate tax revenue? Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed? Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect? The project would occur on [type of land]. Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract? Will the project add to the population and require additional housing? Is some disruption of native or traditional lifestyles or communities possible?

Direct Impacts

Proposed Action: Recreational suction dredge operations are not expected to add to or alter industrial, commercial, or agricultural activities in the areas where they occur.

Secondary Impacts

Proposed Action: No impacts.

Cumulative Impacts

Proposed Action: No impacts.

j. PRIVATE PROPERTY IMPACTS

If DEQ reissues recreational suction dredging MPDES permit, any conditions of the permit are required by either the federal Clean Water Act or the Montan Water Quality Act, as implemented by the MPDES program. DEQ does not propose to include in the permit any conditions that are not required under the applicable regulations. Therefore, DEQ is not required to determine whether there are alternatives that would reduce, minimize, or eliminate the restriction on the use of private property, and to analyze those alternatives.

4. DESCRIPTION OF ALTERNATIVES

4.1 ADDITIONAL ALTERNATIVES CONSIDERED

No Action Alternative: In addition to the proposed action, DEQ must also considered a "no action" alternative. The "no action" alternative would deny the approval of the MPDES permit. Applicants would lack the authority to conduct the proposed activity and would have to obtain individual MPDES permit coverage.

If the applicant demonstrates compliance with all applicable rules and regulations required for approval, the "no action" alternative would not be appropriate.

Other Reasonable Alternative(s): No other alternatives were considered.

4.2 CONSULTATION

DEQ engaged in internal and external efforts to identify substantive issues and/or concerns related to the proposed project. Internal scoping consisted of internal review of the environmental assessment document by DEQ staff. DEQ consulted with Montana Fish Wildlife and Parks and the U.S Forest Service in preparation of the draft permit.

4.3 NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS

When determining whether the preparation of an environmental impact statement is needed, DEQ is required to consider the seven significance criteria set forth in ARM 17.4.608, which are as follows:

- The severity, duration, geographic extent, and frequency of the occurrence of the impact;
- The probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;
- Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts – identify the parameters of the proposed action;
- The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;
- The importance to the state and to society of each environmental resource or value that would be affected.
- Any precedent that would be set as a result of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and
- Potential conflict with local, state, or federal laws, requirements, or formal plans.

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 based on above listed criteria.

As described above, DEQ’s decision to issue MPDES Permit No. MTG370000 authorizes discharge of suction dredging water to waters throughout Montana. The discharges are subject to permit conditions and limitations that would protect beneficial uses and prevent significant changes in water quality. Environmental impacts resulting from issuance of the MPDES permit are localized and would be managed through permit conditions and limitations. At the time of this analysis, there are no known conflicts with local, state, or federal laws, requirements, or plans.

5. PUBLIC INVOLVEMENT

A 30-day public comment period was held. The public comment period closed and a public hearing was held on May 30, 2024.

6. CONCLUSIONS AND FINDINGS

The preferred proposed action is to issue 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.

Environmental Assessment and Significance Determination Prepared By:

DEQ Water Protection Bureau

Environmental Assessment Reviewed By:

Alanna Shaw
DEQ Water Protection Bureau

Approved By:

SIGNATURE



Date July 8, 2024

Tatiana Davila, Chief
Water Protection Bureau
Department of Environmental Quality

I. REFERENCES

MT-DEQ. 2024. Fact Sheet for Montana Pollutant Discharge Elimination System Permit MTG370000, General Permit for Portable Suction Dredging.

MT-DEQ. 2024. Draft Montana Pollutant Discharge Elimination System Permit MTG370000, General Permit for Portable Suction Dredging .

II. COMMENT SUMMARY AND RESPONSES TO SUBSTANTIVE COMMENTS

Responses to substantive comments.