

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
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**PROGRAMMATIC REVIEW / ENVIRONMENTAL ASSESSMENT**

**Division/Bureau:**

Permitting & Compliance Division; Water Protection Bureau; Water Quality Discharge Permits Section.

**Proposed Action:**

The proposed action is the reissuance of the Montana Pollutant Discharge Elimination System (MPDES) "General Permit for Storm Water Discharges Associated with Construction Activity", MPDES Permit Number MTR100000. In this document, this is hereafter referred to as the "General Permit" or "MTR100000".

Based on Administrative Rules of Montana (ARM) 17.30.1341(6), every MPDES general permit must have a fixed term not to exceed five years, and consequently, MTR100000 is an ongoing MPDES general permit which needs to be reissued every five years. MTR100000 was originally issued in 1992, with the most recent fourth generation of this General Permit having an effective date of April 16, 2007 and an expiration date of December 31, 2011. The proposed reissuance of this fifth generation of the General Permit includes a few significant changes and improvements, primarily with respect to the development and implementation of the required Storm Water Pollution Prevention Plan (SWPPP) and associated requirements.

**Description of Proposal:**

This General Permit is applicable to storm water discharges associated with construction activity within the State of Montana, excluding Indian Reservations. "Storm water" is defined in ARM 17.30.1102(27). "Storm water discharge associated with construction activity" is defined in ARM 17.30.1102(28). For regulated storm water discharges under this definition, the term applies to construction-related disturbance totaling one or more acres due to clearing, grading, excavating, stockpiling earth materials, and other placement or removal of earth material performed during construction projects through to "final stabilization" (as defined in ARM 17.30.1102(5)) of the construction-related disturbance. The proposed General Permit does not regulate the underlying construction activity, but only the discharge of potential pollutants through storm water runoff associated with that activity.

To obtain coverage under the General Permit, an "owner or operator" (as defined in 75-5-103, Montana Code Annotated (MCA)), must submit a "Notice of Intent" form, a SWPPP, and the applicable fee based on ARM 17.30.201.

The proposed General Permit would require a permittee to develop and implement a SWPPP in addition to other related requirements. The General Permit requires that the permittee comply with the SWPPP from the initiation of construction-related ground disturbance through to final stabilization.

### **Benefits and Purpose of Proposal:**

The primary benefit and purpose of MTR100000 is to minimize the extent to which potential pollutants affect receiving state surface waters (as defined in ARM 17.30.1102(32)). This is primarily accomplished through compliance with narrative effluent limitations as manifested through the development and implementation of the SWPPP, including identifying pertinent site characteristics, identifying potential pollutant sources, implementing Best Management Practices (BMPs), and performing self-inspections. Based on Department experience and information related to construction activity sites, without these adequate controls, typical storm water discharges contain potential pollutants which pose a threat to receiving state surface waters.

Construction activities typically disturb the site's stabilizing vegetative cover and expose the remaining soil to erosion more from rainfall and snowmelt runoff. Consequently, storm water runoff from construction activities may carry higher than normal loadings of sediment, but also other potential pollutants such as those from wastes, fueling (oil & grease, hydrocarbons, etc.), and/or washing at the construction activity site. The primary potential pollutant generated at construction sites is sediment including, total suspended solids, turbidity, and siltation. The potential generation of pollutants through storm water runoff at a site can be sporadic and unpredictable given the nature of rainfall and snowmelt events. Whether a discharge occurs at all depends on the intensity and duration of the runoff event as well as on the proximity of the construction site to state surface waters. The above factors demonstrate why it is so important to proactively develop and implement effective BMPs at a construction site through the General Permit's SWPPP and related requirements.

Potential pollutant concentrations may vary considerably with respect to construction activity sites, storm events, and location. Typically, sediment runoff rates from construction sites are 10 to 20 times greater than those from agricultural lands, and 1,000 to 2,000 times greater than those of forestlands (EPA 833-F-00-013, January, 2000). During a short period of time, construction activity can contribute more sediment to streams than is naturally deposited over several decades.

### **Description and analysis of reasonable alternatives:**

#### 1. Issuance of the General Permit

Through federal and state law, environmental regulation is mandatory with respect to these storm water discharges. Through the same federal and state laws pertaining to storm water discharges, the issuance of a General Permit is the typical regulatory mechanism to institute appropriate controls for these types of discharges. A General Permit is typically issued for a category of point sources, such as storm water discharges

associated with construction activity, which have similarities in potential wastes/pollutants, operations, effluent limitations, monitoring, BMPs, and/or standard requirements. Additionally, there is a relatively much higher volume of construction activity storm water discharge permit authorizations necessary at any given time, and they are a relatively shorter-term finite discharge with a relatively higher turnover rate. Consequently, the use of a MPDES general permit is vastly more efficient for the Department and regulated community for this type of discharge, while ensuring adequate environmental protection.

75-5-401(1)(c), MCA, requires that the NOI and SWPPP be submitted in order to obtain coverage under the General Permit, and exemplifies through statute that the General Permit is the typical and conventional mechanism used for this type of discharge.

## 2. No Action Alternative

The General Permit requires permittees to comply with the narrative effluent limitations, SWPPP, BMPs, and related requirements in order to minimize pollution that may be caused by construction storm water runoff. If the General Permit is not issued, construction activity would still occur. Without coverage under a discharge permit, any construction storm water discharges that contain pollutants would be a violation of the Montana Water Quality Act. If the General Permit is not issued, there would be an increased potential for pollution of state surface waters caused by storm water runoff from the construction activity site.

## 3. Issuance of Individual MPDES Permits

Another alternative to issuance of the General Permit would be the issuance of an individual MPDES permit for storm water point source discharges from each construction activity. BMPs are the most appropriate type of control measure to help ensure the storm water discharge does not contain potential wastes or pollutants. Consequently, individual MPDES permits would be similar to the proposed General Permit in that they would depend upon narrative effluent limitations, require the development/implementation of a SWPPP, and the use of BMPs. The primary difference between the general and individual permit processes would be that, for individual permits, the Department would need to review and approve SWPPPs for each construction site. However, 75-5-401(1)(c), MCA indicates that construction storm water discharges are typically regulated under a general permit, with permit coverage effective upon receipt of a NOI by the Department. This precludes Department review of SWPPPs. In any event, the Department has found that up-front review of SWPPPs has limited value in terms of resource protection. The development and implementation of the SWPPP is a dynamic and iterative process whereby the effectiveness of BMPs is tracked and improved upon as necessary. Consequently, SWPPPs are considered "living documents" which typically change through the course of the construction activity. Due to the variability of conditions at each site, SWPPPs must be flexible, and must afford discretion to the permittee to implement BMPs as appropriate based on field conditions. Also, rather than focusing Department time on the up-front review of an initially-proposed SWPPP, which often becomes obsolete with the progression of time and the construction project, the Department will be able to conduct more field inspections and provide more effective

compliance assistance to permittees. The use of MPDES individual permits instead of the General Permit would also be far less efficient for the Department and regulated community given the volume of construction activity storm water discharges requiring regulation, as discussed above.

In conclusion, issuance of the General Permit is the preferred alternative and the most reasonable given the volume of regulated construction storm water discharges at a given time.

**Listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by this or another government agency:**

Storm water discharges covered under this General Permit pertain to construction activities which may be affected and regulated through other applicable federal, state, or local law, rule, standard, ordinance, or order. This General Permit is based on MPDES regulatory authority and institutes controls which pertain to the appropriate management of storm water discharges due to construction activity. Requirements associated with other enforceable documents may overlap or supplement these controls.

**AFFECTED ENVIRONMENT AND IMPACTS OF THE PROPOSED PROJECT:**

The following symbols are used in the table below:

<b>Key to Rank</b>	
NA	<i>Not applicable</i>
N	<i>No effects</i>
B	<i>Potentially beneficial effects</i>
C	<i>Potentially minor adverse effects</i>
M	<i>Corrective action required</i>
P	<i>Additional permits will be required</i>

NOTE: The following table reflects potential effects from issuance of the proposed “General Permit for Storm Water Discharges Associated with Construction Activity”, as well as from the implementation of BMPs required by the General Permit. The table does not discuss other potential effects from the construction activity itself, or the effects of what is actually being constructed when it initiates operation or utilization. Also, the General Permit contains significant requirements related to BMPs, including their maintenance and associated corrective action as necessary. Essentially, the implementation or improvement of BMPs is corrective action in many circumstances.

Rank	Consideration	Remarks
<b>PHYSICAL AND BIOLOGICAL ENVIRONMENT</b>		
B, C	1. SOIL SUITABILITY, TOPOGRAPHIC AND/OR GEOLOGIC CONSTRAINTS (soil moisture, unstable soils or geologic conditions, steep slopes, erosion potential, subsidence potential, seismic activity)	Issuance of the General Permit would have beneficial effects in this category. Implementation of a SWPPP and BMPs will reduce the potential for soil erosion caused by storm water runoff from construction sites. BMPs will also help preserve natural topographic features such as slopes. As discussed under category 4, implementation of BMPs could have a minor effect on soil moisture content at the

		construction activity site by modifying drainage and subsurface infiltration of precipitation and snowmelt.
N	2. HAZARDOUS FACILITIES (power lines, hazardous waste sites, distances from explosive and flammable hazards including chemical/petroleum storage tanks, underground fuel storage tanks and related facilities such as natural gas storage facilities and propane tanks)	Storm water discharge regulation under this General Permit should have no effect on hazardous facilities. Also, discharges authorized under this General Permit are restricted from having any process wastewater discharges.
C	3. AIR QUALITY (effects to or from project, dust, odors, emissions)	Issuance of the General Permit may have minor adverse impacts to air quality due to dust created during BMP construction activities. The impacts in this category from BMP construction would not be significant in comparison with the impacts from the construction activity itself, which is not regulated under the General Permit.
B, C	4. GROUNDWATER RESOURCES & AQUIFERS (quality/nondegradation, quantity/reliability, distribution, uses/rights, number of aquifers, mixing zones)	Issuance of the General Permit may have beneficial effects on ground water quality. The General Permit does not regulate discharges of storm water (and any potential wastes/pollutants) to ground water. However, BMPs implemented to protect surface waters could prevent the commingling of storm water with pollutants. These practices will prevent spreading of pollutants, which may reduce infiltration of pollutants to ground water. There may be minor adverse effects to ground water quantity. Use of storm water detention/retention structures and/or the development of relatively impervious surfaces could alter the pattern of recharge to ground water in the immediate vicinity of the construction activity. Retention/detention structures could also allow more evaporation and/or evapotranspiration of precipitation/snowmelt runoff, which could slightly reduce recharge to ground water. These impacts would be slight and would be limited to the period of construction.
B, C	5. SURFACE WATER RESOURCES (quality/nondegradation, quantity/reliability, distribution, uses/rights, storm water controls, source of community supply, community treatment, mixing zones)	Issuance of the General Permit would have beneficial effects on surface water quality. Implementation of a SWPPP and BMPs will reduce the potential for pollutants from construction sites to reach surface waters through storm water runoff. There may be minor adverse impacts to water quantity if interception and treatment of storm water results in altered or reduced recharge to surface waters. These impacts would be slight and would be limited to the period of construction.
B, C	6. VEGETATION AND WILDLIFE SPECIES AND HABITATS, INCLUDING FISHERIES AND AQUATIC RESOURCES (threatened, endangered, sensitive species, prime habitat, population stability, potential for human wildlife conflicts, effectiveness of post-disturbance plans)	Issuance of the General Permit would have beneficial effects on fisheries, aquatic vegetation, and other aquatic resources. Implementation of a SWPPP and BMPs will reduce the potential for pollutants from construction sites to reach surface waters through storm water runoff. Implementing BMPs may create temporary new habitats (such as ponds and/or wetlands) and may provide new or improved vegetation (such as reseeding with erosion-resistant new grass mixtures and removing noxious weeds). There may be minor adverse impacts to vegetation from construction of BMPs such as retention/detention structures. These impacts would be slight because they would be limited to small areas and would be limited to the period of construction. Any impacts from BMP construction would not be significant in comparison with the impacts from the

		construction activity itself, which is not regulated under the General Permit.
B, C	7. UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES (biologic, topographic, wetlands (within one mile), floodplains (within one mile), scenic rivers, natural resource areas, etc.)	Issuance of the General Permit would have beneficial effects on the resources identified in this category. Implementation of a SWPPP and BMPs will reduce the potential for pollutants from construction sites to leave the site. Implementing BMPs may also create new habitats (such as ponds and/or wetlands) and/or provide new or improved vegetation (such as reseeding with erosion-resistant new grass mixtures and removing noxious weeds). There may be minor adverse scenic impacts caused by construction of BMPs. However, these impacts would be slight and would be limited to the period of construction. Any impacts from BMP construction would not be significant in comparison with the impacts from the construction activity itself, which is not regulated under the General Permit.
B, C	8. 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)	Issuance of the General Permit would have beneficial effects on the resources identified in this category. Implementation of a SWPPP and BMPs will reduce the potential for pollutants to leave construction sites. This will protect lands adjacent to the site. There may be minor adverse effects on land use if lands adjacent to the construction site are used to implement BMPs. However, these impacts would be slight and would be limited to the period of construction.
C	9. HISTORICAL, CULTURAL, & ARCHEOLOGICAL (sites, facilities, uniqueness, diversity)	Issuance of the General Permit could have minor adverse effects on the resources identified in this category if lands adjacent to the construction site are used to implement BMPs. This occurs infrequently, and in such cases the amount of land disturbed would be small. Under prior General Permits there has been no evidence that BMP construction significantly affected the resources in this category, although the underlying construction projects may have had such impacts.
B, C	10. AESTHETICS (visual quality, nuisances, odors, noise)	Issuance of the General Permit will have beneficial effects on surface water aesthetics in the vicinity of the construction site. Implementation of a SWPPP and BMPs will reduce the potential for pollutants from the construction site to impact surface waters. Compliance with the General Permit should reduce negative impacts to the appearance of surface water in the vicinity, and should reduce negative taste and odor effects by minimizing releases of pollutants. There may be minor adverse effects on visual aesthetics from construction of BMP structures. However, BMPs typically are placed in areas where construction disturbance has already occurred, so the impacts from BMP construction would not be significant in comparison with the impacts from the construction activity itself, which is not regulated under the General Permit. There may be minor adverse effects if lands adjacent to the construction site are used to implement BMPs. These impacts would be slight and would be limited to the period of construction.

B, C	11. DEMANDS ON OR CHANGES IN ENVIRONMENTAL RESOURCES INCLUDING LAND, WATER, AIR, OR ENERGY USE (need for new or upgraded energy sources, potential for recycling, etc.) {See (4), (5), and (8).}	Issuance of the General Permit may have beneficial effects on the resources identified in this category. The SWPPP requires a permittee to characterize potential sources of pollution at the construction activity site, and evaluate and implement measures to reduce these potential sources. This could potentially include waste reuse, reduction, recycling, and/or treatment. Potentially minor adverse effects could occur through temporary interference with a higher use of land while BMPs are in place.
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Rank	Consideration	Remarks
<b>IMPACTS ON THE HUMAN POPULATION</b>		
N	12. CHANGES IN DEMOGRAPHIC CHARACTERISTICS (population quantity, distribution and density, rate of change)	NA
N	13. GENERAL HOUSING CONDITIONS (quality, quantity and affordability)	NA
N, B	14. DEMANDS FOR GOVERNMENT SERVICES	Other than the demand on the Department for continuing to implement discharge permitting under this General Permit in our permit fee-funded program, and the potential demand for some public entities to require permitting related to their construction projects, there is little potential effect on government services. However, by minimizing potential impacts to state surface waters through storm water discharge permitting, there may be a potential beneficial effect on other government services through the avoidance of respective water pollution and related issues.
N	15. POTENTIAL FOR DISPLACEMENT OR RELOCATION OF BUSINESS OR RESIDENTS	NA
B	16. PUBLIC HEALTH AND SAFETY (medical services and facilities, police, fire protection and hazards [see (2)], emergency medical services [see (8), LAND USE for waste disposal])	Issuance of the General Permit may have a beneficial effect on public health, based on the beneficial effects to resources such as surface water, discussed above. The Department does not anticipate any effects of the General Permit on public safety.
B	17. LOCAL EMPLOYMENT AND INCOME PATTERNS (quantity and distribution of employment, economic impact)	Issuance of the General Permit may have beneficial effects on employment. The development and implementation of the SWPPP and BMPs will require facility personnel, consultants, and various local services resulting in a probable minor increase in local employment and the economy.
B	18. LOCAL AND STATE TAX BASE AND REVENUES	Issuance of the General Permit may have a beneficial effect on tax revenues due to the need for personnel described in the preceding category.
N	19. EFFECTS ON SOCIAL STRUCTURES AND MORES (social conventions/standards of social conduct), DEMANDS ON SOCIAL SERVICES (law enforcement, educational facilities [libraries, schools, colleges, universities], welfare, etc.)	NA
C	20. TRANSPORTATION NETWORK (condition and use of roads, traffic flow conflicts, rail, airport compatibility, etc.)	Issuance of the General Permit would have little effect on the transportation network, although the underlying construction activities may benefit the condition of roads. Construction of BMPs could result in brief disruptions of traffic flow.
N	21. CONSISTENCY WITH LOCAL ORDINANCES, RESOLUTIONS, OR PLANS (conformance with local comprehensive plans, zoning or capital improvement plans)	Based upon previous Department experience, issuance of the General Permit will have little or no effect on the subjects described in this category.

C, B	<p>22. REGULATORY RESTRICTIONS ON PRIVATE PROPERTY RIGHTS <i>(Are we regulating pursuant to a police power? Does the Agency action restrict the use of the property beyond the minimum necessary to achieve compliance with the Act? What are the costs of such additional restrictions resulting from proposed permit conditions? Are there other, less restrictive ways of achieving the same goal? See your assigned legal counsel for assistance preparing this section. [See the Private Property Assessment Act checklist accompanying this permit for details.]</i></p>	<p>The proposed General Permit includes regulating storm water discharges from construction projects that disturb 1 acre or more. This can impose additional costs on permittees for SWPPP preparation and BMP implementation. However, the General Permit does not require the use of pollution controls beyond those necessary to achieve compliance with the Montana Water Quality Act. The General Permit also allows permittees some flexibility in determining what are the best methods to meet the goal of minimizing pollution. The proposed General Permit, through use of the NOI process, will make the permit application process less burdensome for permittees.</p>
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**Other groups or governmental agencies contacted or which may have overlapping jurisdiction:**

The Environmental Protection Agency regulates, under a federal General Permit, certain similar storm water discharges from construction activities that are located on Indian Reservation lands. Various other federal, state, and local permits, ordinances, orders, judgments, or decrees may also pertain to the construction activities covered under this General Permit.

**Individuals or groups contributing to this Programmatic Review:**

Montana Department of Environmental Quality, Permitting & Compliance Division, Water Protection Bureau

**Summary of Issues:**

This General Permit is proposed to be issued in order to allow for the regulation of storm water discharges from construction activities, and to ensure the implementation of BMPs (as documented in the SWPPP) in order to help keep potential pollutants from entering storm water discharges, and eventually receiving state surface waters.

**Summary of Potential Effects:**

The effect of the proposed reissuance of the General Permit will be to minimize impacts to water quality caused by storm water runoff from covered construction activities. Through compliance with the narrative effluent limits (TBELs, etc.), and the development and implementation of a SWPPP and associated BMPs, the General Permit should have beneficial effects in the areas of water quality, aquatic resources, soils, and vegetation.

Any potential adverse effects associated with the reissuance of the General Permit should be minimal. These effects would be caused by the actual construction of BMPs in areas not otherwise disturbed by the construction activity. The area affected by BMP construction would typically be small, and the effects limited to the duration of the construction activity through to final stabilization. In most cases, BMPs are constructed in

areas already disturbed in order to minimize additional erosion and sediment control issues and consequent additional BMPs from those areas.

**Cumulative Effects:**

The issuance of this General Permit should have little to no cumulative effects, beneficial or adverse, other than a general beneficial effect with respect to the water quality in receiving surface waters. Also, construction projects covered under the General Permit are typically not concentrated in any one area, but are spread throughout the state.

**Recommendation:**

Issue this General Permit.

**Recommendation for Further Environmental Analysis:**

- Prepare an Environmental Impact Statement
- Prepare a detailed Environmental Assessment
- No further analysis for issuance of General Permit

**This Programmatic Review was prepared by Brian Heckenberger in October, 2012**

**Approved by:**

\_\_\_\_\_  
Paul Skubinna, Program Manager  
Water Quality Discharge Permit Section  
Water Protection Bureau  
Permitting and Compliance Division

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Date