Fact Sheet
Montana Pollutant Discharge Elimination System
General Permit
For
Storm Water Discharges Associated with Small Municipal Separate Storm Sewer Systems

Permittees: Various Public Entities

MPDES Permit Number: MTR040000

I. Permit Status

Montana Pollutant Discharge Elimination System (MPDES) permit MTR040000 is a reissued General Permit for Storm Water Discharges Associated with Small Municipal Separate Storm Sewer Systems (Small MS4s) for a five year permit cycle. The proposed reissuance is the fourth iteration of the General Permit for Storm Water Discharges associated with Small MS4s.

The current permit became effective January 1, 2015, and expires on December 31, 2016.

MS4s Stakeholder Cooperative Process

To support the General Permit reissuance process, the Montana Department of Environmental Quality (DEQ) and the permitted MS4 cities (Billings, Missoula, Great Falls, Bozeman, Helena, Butte, and Kalispell) entered into a memorandum of understanding (MOU) on October 24, 2014, to cooperatively discuss and document common Montana-specific issues with implementation of the MS4 program. The MOU initiated a working group led by the permitted MS4 cities where the cities provided the facilitator and agendas for the meetings. The ultimate goal of the MS4 cities working group included improvements to MS4 storm water programs and compliance with state and federal requirements. Other participating stakeholders included MS4 counties and non-traditional permittees, the Environmental Protection Agency (EPA), and multiple non-governmental organizations. The MS4 cities working group scheduled monthly meetings in Helena, Montana and developed a technical subgroup in which DEQ also participated. The last meeting was held on April 7, 2016. The MOU declares that the MS4 cities working group will continue to meet on a quarterly basis. The MS4 cities working group's meeting agendas and summaries are located here: http://deq.mt.gov/Water/WPB/stormsewer.

II. Authority

Pursuant to 75-5-402, MCA and requirements found in ARM, Title 17, Chapter 30, Subchapters 11, 12, and 13, the Department regulates storm water discharges from Small MS4s. ARM 17.30.1105(1)(d) requires MPDES permit coverage for Small MS4s that are identified in ARM 17.30.1102(23) or designated pursuant to ARM 17.30.1107.

III. Background

The EPA promulgated a rule establishing the Storm Water Phase II Rule that extended coverage of the National Pollution Discharge Elimination System (NPDES) storm water program to certain "Small" MS4s. A small municipal separate storm sewer system means all separate storm sewers that are:

- Owned and operated by the United States, a State, city, town borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the Clean Water Act (CWA) that discharges to waters of the United States,

- Not defined as "large" or "medium" municipal separate storm sewer systems…, and

- This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares (40 Code of Federal Regulations (CFR) § 122.26(b)(16).

A Small MS4 can be designated by the permitting authority as a regulated Small MS4 in one of three ways:

- Automatic nationwide designation
  The Phase II Final Rule requires nationwide coverage of all operators of Small MS4s that are located within the boundaries of a Bureau of the Census-defined "urbanized area" (UA) based on the latest decennial Census. Once a Small MS4 is designated into the program based on the UA boundaries, it cannot be waived from the program if in a subsequent UA calculation the Small MS4 is no longer within the UA boundaries. An automatically designated Small MS4 remains regulated unless, or until it meets the criteria for a waiver;

- Potential Designation by the NPDES Permitting Authority-Required Evaluation
  An operator of a Small MS4 located outside of a UA may be designated as a regulated Small MS4 if the NPDES permitting authority determines that its discharges cause, or have the potential to cause an adverse impact on water quality. The Phase II Final Rule requires the NPDES permitting authority to develop a set of designation criteria and apply them, at a minimum, to all Small MS4s located outside of a UA serving a jurisdiction with a population of at least 10,000 and a population density of at least 1,000-people/square mile; and

- Potential Designation by the NPDES Permitting Authority-Physically Interconnected
  Under the final rule, the NPDES permitting authority is required to designate any Small MS4 located outside of a UA that contributes substantially to the pollutant loadings of a physically interconnected MS4 regulated by the NPDES storm water program. The final rule does not set a deadline for designation of Small MS4s meeting this criterion (40 CFR § 122.32).

MPDES permitting of storm water discharges from Small MS4s is required to be implemented nationally through the federal EPA, or authorized states and tribes, as part of EPA's NPDES Storm Water Phase II requirements. Federal requirements have been incorporated into the Administrative Rules of Montana (ARM), Title 17, Chapter 30, Subchapters 11, 12, and 13. These rules became effective on February 14, 2003.

Owners or operators of Small MS4s shall obtain coverage under an MPDES individual permit or general permit. General permit coverage requires completion of a notice of intent (NOI) and compliance with the application requirements set forth in ARM 17.30.1110 and ARM 17.30.1111(2).

In accordance with ARM 17.30.1341(4) and the Montana Environmental Policy Act (MEPA), the Department of Environmental Quality (the Department or DEQ) will issue an authorization or notify the applicant that the source does not qualify for authorization under the General Permit within 30 days of receipt of a completed application. The Department will provide an opportunity for public comment on the General Permit for Storm Water Discharges associated with Small MS4s, in accordance with ARM 17.30.1372 and shall adhere to the requirements of ARM 17.30.1373 through 17.30.1377 regarding public comments and public hearings.

IV. Summary of Significant Permit Changes

Proposed Permitting Approach with Reissuance
Summary of significant proposed changes to the existing 2015 General Permit include:

- Provides more flexible options for permittee authorizations;
- Requirement to establish a storm water management team with a primary coordinator;
- Requirements specific to Non-Traditional MS4s;
- Requirements to develop public education and involvement strategies based upon pollutants of concern and associated target audiences;
- Requirements to develop enforcement response plans for illicit discharge detection and elimination, construction site storm water runoff, and post-construction storm water management in new and redevelopment control measures;
- Requirements for the permittee to develop a corrective action plan for the illicit discharge and elimination control measure;
- Requirements specified for minimum construction storm water management practices that must be implemented and installed on all regulated projects;
- Requirements for construction projects that include prioritized inspections;
- Requirements for post-construction retention performance standards to include a water quality treatment performance standard for the portion of the runoff that is not retained;
- Requirements for the permittee to evaluate barriers to the implementation of Low Impact Development and green infrastructure practices;
- Requirements in the pollution prevention good housekeeping for permittee operations minimum measure for development of standard operating procedures (SOPs) for categories of permittee facilities and activities to reduce the discharge of pollutants;
- Requirements for all permittees to perform monitoring of storm water discharges; and

- Requirements for both storm water discharges to impaired waterbodies with Pre-Total Maximum Daily Load (TMDL) approval and approved TMDL wasteload allocations.

V. General Permit Authorization

This 2017 permit renewal authorizes all Small MS4s (ARM 17.30.1102(13)) to apply for coverage separately or together with another Small MS4.

ARM 17.30.1105(1)(d) requires MPDES permit coverage for Small MS4s that are identified in ARM 17.30.1102(23) or designated pursuant to ARM 17.30.1107. Regulated Small MS4s are required to apply for, and obtain, authorization for the discharge of storm water into state waters.

Permitted MS4s Under the 2015-Issued General Permit
The areas requiring permit coverage, pursuant to ARM 17.30.1102(23), that are served by, or contribute to, municipal separate storm sewers owned or operated by current permittees, and discharge to state waters are as follows:

1. Cities: Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, and Missoula.

For cities required to maintain coverage under this renewed permit, the geographic area of permit coverage will include the U.S. Census designated urbanized areas in accordance with the 2010 census for cities listed in ARM 17.30.1102(23)(a) and the entirety of the municipal incorporated boundary for cities listed in ARM 17.30.1102(23)(b). For the purposes of the 2017 General Permit, these permittees are referred to as Traditional MS4s.

2. Counties: Cascade, Missoula, and Yellowstone.

For counties required to maintain coverage under this renewed permit, the geographic area of permit coverage will include the U.S. Census designated urbanized areas in accordance with the 2010 census for counties listed in ARM 17.30.1102(23)(a). For the purposes of the 2017 General Permit, these permittees are referred to as Traditional MS4s.

3. Other: Malmstrom Air Force Base, Montana State University, and University of Montana (Missoula).

For all other permitted MS4s as identified in accordance with ARM 17.30.1102(23)(d) and required to maintain coverage under this renewed permit, the geographic area of permit coverage is the portion of the permittee's jurisdiction that is within permitted Traditional MS4s. For the purposes of the 2017 General Permit, these permittees are referred to as Non-Traditional MS4s.

Authorization Options under this Permit

New Authorizations (Not currently authorized under the 2015 General Permit)
Applicants seeking authorization under the 2017 General Permit shall submit a complete application package at least 30 days before the anticipated date of required permit coverage. If an applicant owns and operates Small MS4 areas throughout the state, the applicant can submit:

- application packages for each Small MS4 area separately,
- application packages for each Small MS4 area separately as a co-permittee with the interconnected Small MS4,
- application packages for each Small MS4 area to reflect both permittee and co-permittee statuses, as requested, or
- a single comprehensive application package to cover all Small MS4 areas in the state.

An application package includes:

- an application form, as provided by the Department,
- a storm water management program, and
- fees (renewal permit fees) as required under ARM 17.30.201.

If there are deficiencies with the application package, the Department may deny authorization under the permit or contact the MS4 for additional information necessary to ensure the application package meets requirements. If the request is denied, the Department may process the request as an Individual Permit (with additional fees); the applicant may withdraw the request; or the applicant may modify the MS4's operations to meet the conditions of the 2017 General Permit and re-apply for coverage under the 2017 General Permit.

Once determined adequate, the Department will issue an authorization letter to these MS4s confirming coverage under the 2017 General Permit beginning January 1, 2017 [ARM 17.30.1341(4)].

Continuing Authorizations issued under the 2015 General Permit
Permitted MS4s renewing authorizations under the 2017 General Permit shall submit a complete renewal application package at least 30 days in advance of the existing 2015 General Permit expiration.

A renewal application package includes:

- a renewal application form, as provided by the Department,
- a storm water management program, and
- fees (renewal permit fees) as required under ARM 17.30.201.

If there are deficiencies with the renewal application package, the Department may deny authorization under the permit or contact the MS4 for additional information necessary to ensure the application package meets requirements. If the request is denied, the Department may process the request as an Individual Permit (with additional fees); the applicant may withdraw the request; or the applicant may modify the MS4's operations to meet the conditions of the 2017 General Permit and re-apply for coverage under the 2017 General Permit.

Once determined adequate, the Department will issue an authorization letter to these MS4s confirming coverage under the 2017 General Permit beginning January 1, 2017 [ARM 17.30.1341(4)].

Co-permittees Authorizations (New or Continuing Authorizations)
When multiple Small MS4s apply for coverage under a single permit authorization number, they shall be considered co-permittees and shall be jointly responsible for compliance under the 2017 General Permit as set forth at ARM 17.30.1111(3) and (7). Each co-permittee must submit a separate application package to obtain authorization. Co-permittee authorizations may occur under the 2017 General Permit as a renewal authorization with continuing coverage under the 2015 General Permit or a new authorization. Co-permittees will be subject to the requirements above based on their status: new or continuing.

Other Permitting Requirements
Submittal of the application package and receipt of an authorization letter from the Department does not eliminate a permittee's obligation to obtain other necessary permits to include MS4-related activities that utilize the storm sewer systems as a conveyance for non-storm water discharges to a receiving waterbody.

Ineligibility for Coverage

This 2017 General Permit does not authorize, or supersede permitting requirements for "storm water discharge associated with industrial activity" as defined in ARM 17.30.1102(28), "storm water discharge associated with small construction activity" as defined in ARM 17.30.1102(29), or storm water discharges required or covered under another MPDES permit.

Applicants
The Department may determine that a Small MS4 applying for coverage does not qualify for authorization under the renewed 2017 General Permit for Storm Water Discharges associated with Small MS4s, citing one or more of the following reasons:

- The specific source applying for authorization appears unable to comply with the following requirements:
  - effluent standards, effluent limitations, standards of performance for new sources of pollutants, toxic effluent standards and prohibitions, and pretreatment standards;
  - water quality standards established pursuant to 75-5-301, MCA;
  - prohibition of discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste;
  - prohibition of any discharges to which the regional administrator has objected in writing;
  - prohibition of any discharge which is in conflict with a plan or amendment thereto approved pursuant to section 208(b) of the Act; and
  - any additional requirements that the Department determines are necessary to carry out the provisions of 75-5-101, et seq., MCA.
- The storm water discharge is different in degree or nature from discharges reasonably expected from sources or activities within the category described in this MPDES General Permit (including pollutants from process wastewater streams).

- The MPDES permit authorization for the same operation has previously been denied or revoked.
- The discharge sought to be authorized under the 2017 General Permit is also included within an application or is subject to review under the Major Facility Siting Act, 75-20-101, et seq., MCA.
- The point source is, or will be, located in an area of unique ecological or recreational significance. Such determination must be based upon considerations of Montana stream classifications adopted under 75-5-301, MCA, impacts on fishery resources, local conditions at proposed discharge sites, and designations of wilderness areas under 16 USC 1132 or of wild and scenic rivers under 16 USC 1274.

If the Department determines ineligibility for a Small MS4, the Department shall proceed, unless the application withdrawn, to process the application through the Individual MPDES Permit requirements. The Department will contact the applicant regarding ineligibility and request more information and fees, as needed, for Individual MPDES permit requirements.

Permittees

Per ARM 17.30.1341(9), the Department may require any Small MS4 authorized by the 2017 General Permit to obtain an Individual Permit instead. The Department might require a Small MS4 to get an Individual Permit citing one or more of the following reasons:

- a water quality management plan has been approved that contains requirements applicable to categories or subcategories of discharges or facilities covered in a general permit;
- the Department has determined that the Small MS4 is a significant contributor to pollution;
- a change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the Small MS4;
- the discharger is not in compliance with the conditions of the 2017 General Permit;
- circumstances have changed since the time of the request to be covered by the 2015 General Permit so that the Small MS4 is no longer appropriately controlled under the 2017 General Permit;
- effluent limitations guidelines have been promulgated for facilities covered under the 2017 General Permit; or
- a change in any condition that requires either a temporary or permanent reduction or elimination of the discharge authorized under the 2017 General Permit has occurred.

VI. Description of Discharging Facilities

The 2017 General Permit is applicable to the discharge of storm water associated with Small MS4s within the boundaries of the State of Montana, including those on state, federal, or private lands. An "MS4" is defined in ARM 17.30.1102(13). ARM 17.30.1102(23) defines "Small MS4" and identifies Small MS4s determined and designated to require permit coverage in Montana. Briefly, an MS4 is typically a conveyance or system of conveyances owned or operated by a state, city, town, or other public entity that discharges to state waters, and is designed or used for collecting or conveying storm water and is not part of a publicly-owned sanitary sewer system.

Small MS4s within Montana that have US Census Bureau designated urbanized area and require MPDES permit coverage include the City of Billings, portions of Yellowstone County outside the City of Billings, the City of Missoula, portions of Missoula County outside the City of Missoula, the City of Great Falls, and portions of Cascade County located outside the City of Great Falls. An "urbanized area" is defined by the U.S. Census Bureau as an area that has a population over 50,000 and an average population density of 1,000 people per square mile.

The Board designated the cities of Helena, Butte, Bozeman, and Kalispell as Small MS4s that require MPDES permit coverage because these cities are outside of urbanized areas with a population of at least 10,000 and have the potential to affect water quality.

Malmstrom Air Force Base, University of Montana-Missoula, Montana State University-Bozeman, and Montana Department of Transportation (MDT) roadways are areas that require Small MS4 General Permit coverage because they are classified as systems similar to separate storm sewer systems in municipalities (i.e. municipal systems at military bases, large educational, hospital or prison complexes, and highways and other thoroughfares). ARM 17.30.1107 also contains designation criteria and procedures for designation of Small MS4s in addition to those stated above.

VII. Description of Storm Water Discharges

Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage. Storm water runoff picks up and transports pollutants then discharges them, untreated, to waterways via storm sewer systems. Potential storm water discharges from Small MS4s in urbanized areas are a concern because urbanization increases the amount of impervious surface such as city streets, driveways, parking lots, and sidewalks, and diversifies the potential constituents of pollutants to multiple land-use categories including residential, commercial, industrial, institutional, transportation, and open-space. Urbanized areas with multiple land-use categories are pollutant sources for insecticides, pesticides, fertilizers, paint, solvents, auto fluids, oils, salt, litter, sediment, plastic bags, bottles, cigarette butts and other debris. Another concern is the possible illicit connections of sanitary sewers, which can result in fecal coliform bacteria entering the storm sewer system. The U.S. Environmental Protection Agency (EPA) conducted the Nationwide Urban Runoff Program (NURP) and published the report in 1983 which concluded that standard pollutants characterizing urban storm water runoff from multiple land-use categories included:

- Total Suspended Solids (TSS)
- Biological Oxygen Demand (BOD)
- Chemical Oxygen Demand (COD)
- Total Phosphorus (TP)
- Total Kjeldahl Nitrogen (TKN)
- Nitrite + Nitrate ($NO_2 + NO_3$)
- Total Copper (Cu)
- Total Lead (Pb)
- Total Zinc (Zn)

When left uncontrolled, these discharges can result in fish kills, the destruction of spawning and wildlife habitats, a loss in aesthetic value, and contamination of recreational waterways that can threaten public health. Polluted storm water often affects drinking water sources. This, in turn, can effect human health and increase drinking water treatment costs. In addition, non-storm water discharges can occur from MS4s and also cause impacts on plants, fish, animals, and people. Non-storm water discharges are discharges not entirely comprised of storm water and can be caused by such activities as illegal dumping into the storm drain system or unpermitted discharges from factories. These potential storm water discharges are general descriptions of typical MS4 discharges and are not intended to be representative of any MS4 specifically.

VIII. Receiving Waters and Applicable Standards

Nondegradation

New or increased sources (as defined at ARM 17.30.702(18)), must comply with Montana's Nondegradation Policy [75-5-303 MCA], and rules (ARM 17.30.701 et. seq.). Based on 75-5-306 MCA, the Department has determined that the reissuance of the 2017 General Permit to existing sources does not require review under Montana's Nondegradation Policy.

Mixing Zones

Consistent with all previously issued MPDES General Permits for Storm Water Discharges associated with Small MS4s, the Department is not authorizing mixing zones with this renewal because of the intermittent nature of storm water discharges and the lack of specific data on the characteristics of urban storm water and receiving waters.

Total Maximum Daily Loads (TMDL)

According to federal regulation, where a TMDL has been approved, NPDES permits must contain effluent limits and conditions consistent with the requirements and assumptions of the wasteload allocations (WLAs) in the TMDL (see 40 CFR § 122.44(d)(1)(vii)(B)). For the renewal 2017 General Permit, the Department has ensured that the Special Conditions permit section is consistent with the requirements and assumptions of WLAs assigned to MS4s. After the 2017 General Permit effectiveness date, the Department may develop TMDLs that EPA will have to approve.

According to the 2002 EPA memorandum and 2014 revisions, "where the NPDES permitting authority allows for a choice of Best Management Practices (BMPs), a discussion of the BMP selection and assumptions needs to be included in the permit's administrative record, including the fact sheet when one is required (see 40 C.F.R.§§ 124.8, 124.9, & 124.18). The clear, specific, and measurable permitting requirements within this renewal will be sufficient to implement applicable WLAs. Also, the Department has required and provided a timeframe for the development of TMDL implementation plans in the Special Conditions permit section.

IX. Proposed Effluent Limitations

The control of pollutants is established through effluent limits and other requirements in an MPDES permit. Two principal bases are reflected in the 2017 General Permit for Storm Water Discharges associated with Small MS4s' established effluent limits including: technology-based effluent limits (TBELs) that specify the minimum level of treatment or control; and water quality-based effluent limits (WQBELs) that attain and maintain applicable numeric and narrative water quality standards. TBELs are based on implementing available technologies to reduce or treat pollutants while WQBELs are designed to protect the beneficial uses of the receiving water.

Effluent Limits Rationale

Effluent limits contained in the 2017 General Permit for Storm Water Discharges associated with Small MS4s are non-numeric and constitute the level of controls to reduce the discharge of pollutants from the Small MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the federal Clean Water Act. Non-numeric effluent limits are practice-based effluent limits or the implementation of Best Management Practices (BMPs) that can be authorized in lieu of numeric limits, where "[n]umeric effluent limits are infeasible" [40 CFR 122.44(k)(3) and adopted by reference in ARM 17.30.1344(2)(b)]. ARM 17.30.1111(5) requires the Small MS4 to develop, implement, and enforce a Storm Water Management Program (SWMP) as the most appropriate form of effluent limits to satisfy technology requirements and protect water quality. The SWMP must include the six minimum control measures:

- Public education and outreach;
- Public involvement/participation;
- Illicit discharge detection and elimination;
- Construction site storm water runoff control;
- Post-construction storm water management in new development and redevelopment; and,
- Pollution prevention and good housekeeping for permittee operations.

Implementation of BMPs consistent with the six minimum control measures of the SWMP and all other provisions, including monitoring, reporting, and special conditions for impaired waterbodies and implementation of wasteload allocations, of the permit shall constitute compliance with the standard of reducing pollutants to the maximum extent practicable. BMPs are implemented to eliminate or minimize the migration of pollutants to surface waters. The Department affirms its position that Montana's surface water quality standards can be maintained for discharges from Small MS4s through water quality-based controls and implemented with BMPs through the iterative process of adaptive management of the MS4 storm water program.

Maximum extent practicable (MEP) is the statutory standard that directs the permitting authority, the Montana Department of Environmental Quality, to establish the level of pollutant reductions that permittees of regulated Small MS4s must achieve including management practices, control techniques, and system, design and engineering methods. The MEP standard for non-numeric limits is a unique permitting approach developed specifically for MS4s. During development of the MEP standard, the Department establishes General Permit requirements to reflect the determination of the maximum achievable level of pollutant reductions for all permittees. MEP is not to be interpreted as a minimum approach for MS4 program development, feasibility, and achievability. Therefore, implementation beyond MEP may be feasible and appropriate for permittees with developed storm water management programs. Consistent with EPA's Phase II Final Rule, the Department has determined that the achievement of MEP is an iterative and evaluative process. The Department will reassess MEP with each permit renewal cycle and this standard will continually adapt to current MS4 conditions and BMP effectiveness. To facilitate this iterative process, this 2017 General Permit renewal utilizes a more prescriptive approach with clear, specific, measurable, and enforceable requirements to allow the Department to assess whether or not storm water management plans are meeting the MEP standard.

X. Storm Water Management Plan (SWMP)

Permittees must develop and maintain a SWMP that includes management practices, control techniques, systems, designs, good standard engineering practices, and such other provisions necessary to reduce the discharge of pollutants from the permitted Small MS4 to the MEP. This section describes required BMPs and implementation schedules or deadlines for each BMP.

Note: DEQ does not utilize a customized Montana-specific storm water BMP manual and has not approved a list of BMPs. Consistent with all previously issued General Permits for Storm Water Discharges associated with Small MS4s, DEQ does not require specific BMPs that a permittee must implement to control pollutant sources. DEQ requires adequate and effective BMPs that are ***selected, designed, installed, implemented, inspected, and maintained*** (or replaced based on inspections) in accordance with good engineering, hydrologic, and pollution control practices. DEQ provides the flexibility for permittees to choose appropriate BMPs; therefore, permittees must utilize their location-specific discretion to self-determine appropriate BMPs to control pollutant sources.

The Permittee shall effectively manage a storm water management program inclusive of the six minimum control measures: Public Education and Outreach, Public Involvement and Participation, Illicit Discharge Detection & Elimination, Construction Site Storm Water Runoff Control, Post-Construction Site Storm Water Management in New and Redevelopment, and Pollution Prevent/Good Housekeeping for Permittee Operations.

Sharing Responsibility

In accordance with 17.30.1111(7), a Small MS4 may share responsibility to implement the minimum control measures with another entity in order to satisfy their MPDES permit obligations to implement a minimum control measure. Shared responsibility is allowed only if the other entity implements the control measure, and the particular control measure, or component therof, is at least as stringent as the corresponding MPDES permit requirement. The other entity must agree to implement the control measure on behalf of the owners and operators of the regulated Small MS4. In annual reports, the owners and operators must specify that they are relying on another entity to satisfy some of their permit obligations, unless the other entity is responsible to file the reports. The MS4 remains responsible for compliance with its permit obligations if the other entity fails to implement the control measure (or component thereof). The MS4 should enter into a legally binding agreement with the other entity in order to minimize uncertainty about compliance with the MPDES permit.

Program Management

The renewal 2017 General Permit will require the permittee to establish a primary storm water coordinator. Establishing a storm water management team with a primary contact person that meets at regular intervals will facilitate enhanced communication and coordination between the permittee departments and agencies. Therefore, the permittee shall effectively implement a coordinated storm water program inclusive of the development of a storm water management team comprised of persons responsible for implementation of the SWMP and the establishment of formal mechanisms for communication and coordination between team members (e.g. meetings, email updates, etc.) to ensure cooperation necessary to facilitate permit compliance and timely reporting. In addition, requiring the participation of all pertinent staff in the overall management of the SWMP will help increase ownership in the program and improve SWMP development and implementation, activity tracking, and timely reporting to DEQ.

Within 60 Days of 2017 General Permit effective date and then reviewed annually thereafter, all permittees must develop a storm water management team, including a primary SWMP coordinator, and organizational chart which identifies the position responsible for implementing each minimum measure. Any updates to this information shall be submitted with annual reports.

During the entire permit term, all permittees must establish and execute formalized mechanisms for regular communication between management team members to allow for exchange of information and submittal of information necessary for permit compliance tracking and reporting.

Public education and outreach

The permittee shall implement a storm water public education and outreach (PEO) program to develop or adapt, distribute, and evaluate educational materials and outreach activities to key target audiences in the MS4 that raise awareness about the impacts of storm water discharges on waterbodies, educate audiences about the behaviors and activities that have the potential to pollute storm water discharges, and motivate action to change behaviors to reduce pollutants in storm water runoff. The 2015 General Permit provided baseline requirements to identify target pollutants and target audiences of the identified pollutants, and utilizes a self-determined method to implement and evaluate success of the PEO program. The underlying goals of an effective PEO program are to generate awareness among target audiences, provide strategic guidance for

solutions to polluting behaviors, and change the polluting behaviors. The 2017 General Permit builds upon the permittee's PEO program and requires the permittee to analyze their MS4 and develop a more targeted approach to engage polluting audiences with increased accessibility to pollution solution materials and channels. With the 2017 General Permit renewal, DEQ prescribes measurable goals with specific timeframes to progress permittees' PEO programs. The permittees are required to develop or adapt their PEO program with a tailored and targeted approach towards specific water quality issues of concern throughout the MS4 and promote polluting behavior change.

Public involvement/participation

The permittee shall develop a public involvement/participation (PIP) program that strategically involves key target audiences in the development and implementation of the SWMP that complies with state and local public notice requirements. The 2015 General Permit provided baseline requirements for implementing and documenting a PIP program and utilizing a self-determined method to evaluate success of the PIP program. DEQ recognizes that the Public education and outreach minimum control measure is intrinsically related to Public involvement/participation. With the 2017 General Permit renewal, DEQ prescribes measurable goals with specific timeframes to progress the permittee's PIP program. The permittee is required to develop or adapt their PIP program with a tailored and targeted approach towards specific water quality issues of concern throughout the MS4 that increases public participation and solicits feedback. The renewal permit builds upon the permittee's PIP program and requires the permittee to analyze their MS4 and develop and implement a more targeted approach to engage key target audiences on the MS4 Storm Water Management Plan (SWMP). The permittee is encouraged to collaborate with existing organizations to maximize outreach efforts and strategically utilize available resources regarding SWMP feedback and improvements. Also, DEQ required increased accessibility to outreach materials and public feedback mechanisms.

Illicit discharge detection and elimination

The permittee shall develop, implement and enforce an Illicit discharge detection and elimination (IDDE) program to detect and eliminate illicit discharges (as defined in ARM 17.30.1102(7)) into the permitted Small MS4. The 2015 General Permit required developing, implementing and documenting an IDDE program and utilizing a self-determined method to evaluate success of the IDDE program. This 2017 General Permit renewal utilizes the previous requirements as a foundation to progress the program into a more focused approach. This focused and systematic approach qualifies non-storm water discharge categories based on significance, prioritizes outfalls susceptible to illicit discharges, outlines more specific infrastructure and outfall mapping requirements, prescribes a dry weather screening routine, and requires the development and implementation of an Enforcement Response Plan (ERP). DEQ recognized that the IDDE control measure needed more structured requirements to assist permittees in administering a comprehensive and effective IDDE program.

The 2015 General Permit requires permittees to address known common and occasional non-storm water discharges and flows to Small MS4s, and include a provision prohibiting any "individual" non-storm water discharge that is determined to be contributing significant amounts of pollutants. The 2017 General Permit renewal builds on these requirements by annually

reevaluating the significance of known common and occasional non-storm water and documenting/updating associated controls. Also, the 2017 General Permit requires all permittees to include a provision prohibiting any occasional incidental non-storm water discharge that is determined to be contributing significant amounts of pollutants to the Small MS4 in ordinances, regulatory mechanism, or memoranda of agreement by the second permit year.

DEQ recognized that a comprehensive IDDE program requires clear policies and procedures for tracing and eliminating illicit discharges upon detection (through outfall screening processes, complaints, or public notification) to ensure that permittees display consistency among protocol with each incident. The permittees will utilize the Center for Watershed Protection's Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assistance (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf) or equivalent published resources for information and guidance developing a comprehensive IDDE program to include outfall screening protocol for inspecting and screening all of the permittee's outfalls during dry weather.

The 2015 General Permit requires permittees to identify how a storm sewer map was developed to include the outfall locations and storm sewer system components. DEQ recognized that understanding a MS4s infrastructure is essential to an effective IDDE program. Therefore, the 2017 General Permit renewal requires additional information to be provided on existing maps and outlines specific storm sewer system components.

The 2017 General Permit outlines requirements for further development of the IDDE program. The completion of the permittee's storm sewer map is the first step to addressing illicit discharges. This tool will be used for tracking illicit discharges. During this renewal permit cycle, permittees will develop an Illicit Discharge Investigation and Corrective Action Plan to include, at a minimum, processes to investigate all illicit discharges; prioritize non-storm water discharges suspected as sanitary sewage and/or significantly contaminated illegal dumping for investigation first; notify Montana DEQ and appropriate agencies of dry weather flows believed to be an immediate threat to human health or to the environment; document good faith efforts made to find the source of the dry weather discharge and document each phase of the investigation in a case file; and resolve and document the conclusion of all investigations. This Illicit Discharge Investigation and Corrective Action Plan should include procedures to notify neighboring localities if a discharge is discovered either originating on or discharging to the neighboring storm sewer system and a clear, step-by-step procedure for conducting the investigation of illicit discharges. In many circumstances, sources of intermittent, illicit discharges are very difficult to locate, and these cases may remain unresolved, however the Illicit Discharge Investigation and Corrective Action Plan should describe how each case will be investigated and when the investigation should be concluded, after which the case may be considered closed. Resulting enforcement actions must follow the Storm Water Management Plan Enforcement Response Plan. The permittee will develop an Enforcement Response Plan (ERP) for illicit discharges that describes their legal authority (through ordinance, formal policies, or memoranda of understanding) to eliminate and abate illicit discharges; identify staff with enforcement authority; list enforcement actions available; outline an enforcement escalation process; and provide a schedule to be utilized to quickly and consistently eliminate the source of the discharge, abate any

damages, and prevent reoccurrence. Also, the ERP must include three tiers of responses: informal, formal, and judicial. Permittee staff who conduct the dry weather outfall screening must be properly trained in detecting illicit discharge, investigating the source and applying the appropriate enforcement action per the Illicit Discharge Investigation and Corrective Action Plan and ERP, respectively.

In efforts to utilize resources effectively and implement the Illicit Discharge Investigation and Corrective Action Plan, the 2017 General Permit focuses dry weather field screening activities in priority areas that are the most common sources of illicit discharges. The permittee will prioritize outfalls based on provided criteria. The 2017 General Permit outlines the criteria to use in the determination of high priority outfalls and provides high priority outfall inspection and screening frequencies. Each permittee will have a different set of priority areas. Priority areas must be based on land use, and prior history and frequency of problems. The identification of priority areas must include "hotspots" or areas where dumping, spills, or other illicit discharges are common. These hotspots will help identify potential field screening locations and may help target educational activities.

Construction site storm water runoff control

The permittee shall develop, implement, and enforce a program to reduce pollutants in storm water runoff to the permitted Small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The 2017 General Permit renewal builds upon the requirements set forth in the 2015 General Permit.

To ensure consistency among regulated projects and provide the basis for effective plan review and inspections, the 2017 General Permit specifies that the minimum standards required for construction site storm water management are reflective of the Non-Numeric Technology-Based Effluent Limits of the most current Montana DEQ General Permit for Storm Water Discharges Associated with Construction Activity. The permittee is required to have, if not completed previously, the necessary legal authority or regulatory mechanism (including formal policies or contractual agreements) to require erosion and sediment controls on all regulated projects and to ensure that the controls are included in site plans as well. These minimum standards should also be the basis for construction site inspections. To effectively conduct construction inspections and use resources efficiently, the permittee must know where construction activity is occurring and the potential pollutant impacts from each project to water quality. A construction site inventory tracks information such as project size, disturbed area, distance to any waterbody or flow channel, when the erosion and sediment control/storm water plan was approved by the permittee, and whether the project is covered by the DEQ's General Permit for Storm Water Discharges Associated with Construction Activity. This inventory will allow the permittee to track and target its inspections. DEQ provides criteria for prioritization of project inspections and establishes a minimum frequency for inspections. The permittee will inspect higher priority projects and noncompliant construction sites more frequently. In addition to inspections at regular intervals, inspections are required within a certain timeframe after rain events to ensure that storm water

controls are functional or repaired in a timely manner. Inspections are required before land disturbance occurs to ensure erosion and sediment controls are in place and a plan has been developed, during active construction, and after the site has been stabilized. The permittee is required to develop and implement an Enforcement Response Plan (ERP) that will ensure compliance with the construction storm water management using legal authority or regulatory mechanisms and tiered responses including any non-monetary construction project-specific penalties and corrective actions. Resulting enforcement actions must follow the ERP. Construction inspectors must be properly and regularly trained to ensure that inspections are conducted consistently and that the proper compliance actions are required per the ERP.

The Construction site storm water runoff control measure is separate from the Montana DEQ General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit) although there is some overlap. The Construction General Permit applies to construction activities that result in a total area of ground disturbance of equal to or greater than one acre, and where area(s) of ground disturbance or other construction-related pollutant sources have the potential to discharge into state surface waters. Because construction projects are known pollutant-generating activities that have the potential to impact surrounding waterbodies, the construction site storm water runoff control measure allows the permittee to proactively manage construction activities that discharge within their MS4s. This control measure requires more localized site regulation and enforcement efforts that, in return, enables the permittee to more effectively control construction site discharges to their MS4s. DEQ recognizes that MS4s may reference the Construction General Permit in their local program and any references have no compliance impacts on to the permittee's requirements under the Construction site storm water runoff control measure. References allow the permittee to clarify overlapping local and state permitting requirements that construction projects must adhere to.

Post-construction storm water management in new development and redevelopment

The permittee shall develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the permitted Small MS4. This program must ensure that controls are in place that would prevent or minimize water quality impacts. By reducing the volume of storm water discharges, the discharge of pollutants in storm water is subsequently reduced. The discharge volume reduction concept is the critical focus and metric for post-construction storm water management.

As in the 2015 General Permit, the performance standard for runoff reduction from the site is 0.5 inches of rainfall and this standard represents the 90th percentile rainfall frequency event. This renewal permit maintains the core performance standard for regulated projects implementing post-construction storm water control measures that infiltrate, evapotranspire, or capture for reuse the runoff generated from the first 0.5 inches of rainfall from a 24-hour storm preceded by 48 hours of no measurable precipitation. This 2017 General Permit maintains the requirements established in the 2015 General Permit. The purpose of the runoff reduction standard (the first 0.5 inches) is to maintain or restore stable hydrology in receiving waters, and protect water quality by having post-construction hydrology mimic the natural hydrology of the area. DEQ recognizes the

cascading effect of MS4 development to include increased impervious surface decreases precipitation infiltration; increased development increases potential pollutant sources; increased impervious surface increases the quantity of storm water runoff; increased pollutant sources decreases the water quality of storm water runoff that ultimately discharges to receiving waterbodies. The overall goal of the Post-construction site storm water management in new and redevelopment control measure is to have the hydrology associated with new development reflect the predevelopment hydrology, and to improve redeveloped sites' hydrology. Infiltration, evapotranspiration, and capturing for reuse are the required control practices to manage storm water from redevelopment and new development sites. The permit renewal provides options for projects that cannot meet 100 percent of the runoff reduction requirements where the remainder must be: (1) treated prior to discharge onsite with measures expected to remove 80 percent of total suspended solids; (2) managed offsite within the same sub-watershed using post-construction storm water management controls that are designed to infiltrate, evapotranspire, and/or capture for reuse; or (3) treated offsite within the same sub-watershed using post-construction storm water management controls expected to remove 80 percent of total suspended solids or alternative measures determined and documented to treat the remainder of the runoff to the best water quality practicable. The permittee must systematically start with option 1 and determine infeasibility before consideration of option 2 and so on to option 3. DEQ has further provided an outline for offsite treatment criteria and the permittee is required to develop a formal review and approval process for determination of eligibility for offsite treatment. DEQ has determined that Part 2.A.5.B.iv meets the intent of the MEP standard to prevent or minimize water quality impacts from new and redevelopment post-construction storm water management through the updated requirements of permittee plan review and approval process with specified criteria.

To ensure consistency among regulated projects and provide the basis for effective plan review and inspections, the 2017 General Permit specifies the minimum standards required for post-construction site storm water management as outlined above. In addition, the permittee is required to have, if not completed previously, the necessary legal authority or regulatory mechanism (including formal policies or contractual agreements) to require post-construction storm water management controls on all regulated projects and ensure that they are included in site plans as well. The above runoff reduction standards and the operation and maintenance of post-construction controls should also be the basis for post-construction inspections and the permittee-developed inspection forms or checklists. To effectively conduct post-construction inspections and use resources efficiently, the permittee must inventory all new post-construction controls being implemented, inventory existing high priority post-construction controls based on provided criteria, and develop and conduct an inspection program focused on annual high-priority inspections. Creating an inventory of post-construction structural storm water control measures, including tracking of specific information, will enable the permittee to know what control measures need to be maintained in order to function as designed. If control measures are not inspected and maintained, they might not retain or treat storm water onsite as designed and they could become sources of pollution rather than reducing pollution (e.g., through sediment discharges of poorly stabilized practices). The permittee is required to develop and implement an Enforcement Response Plan (ERP) that will ensure compliance with the post-construction storm water management using legal authority or regulatory mechanisms and tiered response including identification of staff with enforcement authority, enforcement escalation processes, and a

schedule for corrective actions. Resulting enforcement actions must follow the ERP. Post-construction inspectors must be properly and regularly trained to ensure that inspections are conducted consistently and that the proper compliance actions are required per the ERP.

The 2017 General Permit renewal builds upon the requirements established in the 2015 General Permit for runoff reduction being a preferred control practice because it can achieve both volume control and pollutant removal. DEQ encourages the use of "Low Impact Development" (LID) and "Green Infrastructure" best management practices. More information about green infrastructure benefits and practices can be found at EPA's Green Infrastructure website (http://water.epa.gov/infrastructure/greeninfrastructure/gi_what.cfm). The EPA Water Quality Scorecard (Scorecard) is a tool that allows reviewers to evaluate whether common planning documents, codes, ordinances and policy documents impede the implementation of green infrastructure practices and policies. Plans, codes and ordinances, and policies can inadvertently drive the creation of additional impervious surfaces such as large parking lots, wide roads, and curbed streets, and act as a barrier to property owners who attempt to decrease storm water runoff. The Scorecard addresses a variety of issues, and it, or an equivalent code review checklist, provides a quantitative scale that the permittee must use to score its policies with respect to the management of post-construction runoff. Adopted from the EPA Water Quality Scorecard, the 2017 General Permit requires the permittee to perform exercises targeted at incorporating recommendations and requirements into plans, codes, ordinances, and policies which allow and support the utilization of LID and green infrastructure concepts on public and private property. The purpose of the exercise is: 1) to help the permittee identify barriers to comprehensive post-construction storm water management and green infrastructure implementation, and 2) to identify ways to eliminate these barriers. DEQ's intent is permittee identification of barriers and solutions, and not for the permittee to overcome these barriers under this renewal permit cycle. The permittee will submit a summary of their efforts with the fourth year annual report.

DEQ clarifies that the Post-construction storm water management in new development and redevelopment control measure is separate from Circular DEQ 8 Montana Standards for Subdivision Storm Drainage although there is parallel regarding standards of runoff volume. Circular DEQ 8 Montana Standards for Subdivision Storm Drainage applies to all storm drainage plans for subdivisions in Montana and is not exclusive to subdivisions within permitted MS4 areas. Circular DEQ 8 Montana Standards for Subdivision Storm Drainage contains standards and technical procedures applicable to storm drainage plans and related designs, in order to ensure proper drainage ways for subdivisions in Montana. Also, Circular DEQ 8 Montana Standards were developed in compliance with Section 76-4-104, MCA, of the Sanitation in Subdivisions Act and ARM 17.36.310 whereas Small MS4s are regulated pursuant to 75-5-402, MCA and requirements found in ARM, Title 17, Chapter 30, Subchapters 11, 12, and 13. Circular DEQ 8 applications have their own requirements and forms, and are submitted and reviewed separately from the General Permit for Storm Water Discharges Associated with Small MS4s. DEQ recognizes that MS4s may reference Circular DEQ 8 in their local program and any references have no compliance impacts to the permittee's requirements under the Post-construction storm water management in new development and redevelopment control measure. References allow the permittee to clarify similar local and state permitting post-construction requirements.

Pollution prevention and good housekeeping for permittee operations
The permittee shall develop and implement an operation and maintenance program which includes a training component, and has the ultimate goal of preventing or reducing pollutant runoff from permittee operations. The 2017 General Permit renewal builds upon the requirements set forth in the 2015 General Permit.

The Pollution prevention and good housekeeping control measure has more detailed requirements for development of a facility and activity inventory to include identification of potential contaminants and department(s)/position(s) with associated responsibilities. Also, the permittee will develop and update annually a map that identifies the locations of facilities and activities listed in the pollution prevention and good housekeeping inventory. The permittee will organize similar facilities and activities identified in the inventory into categories, and standard operating procedures (SOPs) will be developed for each category. The SOPs for these facilities and activities must be developed in order to ensure that the proper BMPs are implemented by staff to prevent the discharge of pollutants. DEQ has outlines requirements and timeframes for SOPs that include annual training for all permittee staff directly involved with implementing the SOPs.

XI. Training

Based on the seasonal nature of some municipal employees directly involved in implementation of the storm water management program, normal employee turnover, and the iterative process involved with storm water permitting, the 2017 General Permit renewal outlines more comprehensive training requirements than the 2015 General Permit including identification of who should be trained, timeframes for training, and new hire training requirements.

XII. Monitoring

The "power to require monitoring" is granted to the DEQ through 75-5-602 MCA, and is further clarified through ARM 17.30.1351(2). Part V. of the 2017 General Permit describes the monitoring requirements during this permit term. DEQ reserves the right to require additional storm water sampling, testing, and reporting on a case-by-case basis. Factors which may trigger monitoring requirements could include, but are not limited to: atypical discharges into the Small MS4; SWMP development, implementation, and enforcement effectiveness; storm water quality issues; potential contamination issues; historical issues; compliance issues; new requirements; or other water quality issues.

The 2017 General Permit renewal builds upon the requirements set forth in the 2015 General Permit by requiring all permitted MS4s to monitor storm water discharge. DEQ has (1) increased monitoring requirements to provide more water quality information within the MS4 area, (2) increased monitoring options to provide more flexibility in the renewal permit, and (3) allowed the ability to strategically choose monitoring locations to be more representative of discharges from the MS4.

XIII. Total Maximum Daily Load (TMDL) Summaries

A TMDL is the maximum amount of a pollutant a waterbody can receive and still meet water quality standards. The TMDL assigns wasteload allocations (WLAs) to point sources to meet water quality standards. These WLAs are portions of the receiving waterbody's assimilative capacity. TMDLs provide an approach to improve water quality so that streams and lakes can support and maintain their state-designated beneficial uses.

City of Billings
The Department has not completed TMDLs for the receiving water bodies; therefore, MS4 wasteload allocations do not currently exist.

City of Bozeman
The "Lower Gallatin Planning Area TMDLs & Framework Water Quality Improvement Plan" was completed March 2013 and provides the following MS4 WLAs.

- Sediment in Bozeman (Sourdough) Creek & Bear Creek:

Percent reduction allocations were developed, but the WLAs are not intended to add load limits to the permit. The WLAs are met by adhering to the permit requirements. As identified in the permit, monitoring data should continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary.

- Nutrients in Bozeman Creek (Total Nitrogen), East Gallatin River (Total Nitrogen & Total Phosphorus); Bridger Creek (Nitrate), and Mandeville Creek (Total Nitrogen & Total Phosphorus):

The MS4 is assigned a wasteload allocation of zero when the storm water system is not activated or functioning during storm events. As required by the permit, an illicit discharge detection and elimination program is necessary to achieve this WLA, which requires the permittees to regularly update the storm sewer system map, showing the location and number of outfalls. When the storm water system is activated, the WLAs are met by adhering to the permit requirements. As identified in the permit, monitoring data should continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary.

- Escherichia coli in Bozeman Creek:

The MS4 is assigned a wasteload allocation of zero when the storm water system is not activated or functioning during storm events. As required by the permit, an illicit discharge detection and elimination program is necessary to achieve this WLA, which requires the permittees to regularly update the storm sewer system map, showing the location and number of outfalls. When the storm water system is activated, the WLAs are met by adhering to the permit requirements. As identified in the permit, monitoring data should continue to be evaluated to assess BMP

performance and help determine whether and where additional BMP implementation may be necessary.

Butte-Silver Bow
The "Upper Clark Fork Phase 2 Sediment and Nutrients TMDLs and Framework Water Quality Improvement Plan" was completed in April 2014 and provides the following MS4 WLAs.

- Sediment in Silver Bow Creek

Percent reduction allocations were developed, but the WLAs are not intended to add load limits to the permit. The WLAs are met by adhering to the permit requirements. As identified in the permit, monitoring data should continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary.

- Nutrients (Total Nitrogen & Total Phosphorus) in Silver Bow Creek

The MS4 is assigned a wasteload allocation of zero when the storm water system is not activated or functioning during storm events. As required by the permit, an illicit discharge detection and elimination program is necessary to achieve this WLA, which requires the permittees to regularly update the storm sewer system map, showing the location and number of outfalls. When the storm water system is activated, the WLAs are met by adhering to the permit requirements. As identified in the permit, monitoring data should continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary.

- Metals (Arsenic, Cadmium, Copper, Lead, Mercury, and Zinc) in Silver Bow Creek

The Butte-Silver Bow MS4 and the Butte Area Superfund Site are presently addressed via a composite wasteload allocation because the sections of these areas overlap. The WLAs are met by adhering to the permit requirements. The Superfund site has the goal of meeting water quality targets in Silver Bow Creek with direction from the CERCLA program.

City of Great Falls
The "Sun River TMDL" was completed in December 2004 and provides the following direction for future TMDL revisions.

- Nutrient and Sediment in the Lower Sun River

In 2004, the MS4 was not considered a significant point source and no MS4 WLAs were developed. However, the Department recognized that urban areas have the potential to impact nutrient and sediment loading and future analysis is needed. To meet the intent of the TMDL goals and future recommendations, the Great Falls MS4 must follow their permit requirements, evaluate potential impacts to impaired receiving waters, and utilize monitoring to implement an adaptive management approach to minimize pollutant loads to the lower Sun River.

City of Helena
The "Framework Water Quality Restoration Plan and Total Maximum Daily Loads (TMDLs) for the Lake Helena Watershed Planning Area: Volume II-Final Report" was completed in August 2006 and provides the following MS4 WLAs.

- Nutrients (Total Nitrogen & Total Phosphorus) in Prickly Pear Creek and Nutrients (Total Nitrogen & Total Phosphorus) in Ten Mile Creek

The Department recognized that regulated storm water contributes only a small fraction of the total nutrient load and imposed no additional requirements for permitted storm water facilities. However, to meet the intent of the TMDL goals and future recommendations, the Helena MS4 must follow their permit requirements, evaluate potential impacts to impaired receiving waters, and utilize monitoring to implement an adaptive management approach to minimize pollutant loads to Ten Mile Creek.

- Sediment in Prickly Pear Creek and Ten Mile Creek

The Department recognized that regulated storm water contributes only a small fraction of the total sediment load and imposed no additional requirements for permitted storm water facilities. However, to meet the intent of the TMDL goals and future recommendations, the Helena MS4 must continue to follow their permit requirements, evaluate potential impacts to impaired receiving waters, and utilize monitoring to implement an adaptive management approach to minimize pollutant loads to Prickly Pear Creek and Ten Mile Creek.

City of Kalispell
The "Flathead-Stillwater Planning Area Nutrient, Sediment, and Temperature TMDLs and Water Quality Improvement Plan" was completed in December 2014 and provides the following MS4 WLAs.

- Nutrients in Ashley Creek (Nitrate + Nitrite, Total Nitrogen & Total Phosphorus) and Spring Creek (Nitrate +Nitrite, Total Nitrogen & Total Phosphorus):

The Kalispell MS4 does not continuously discharge, and it only sporadically discharges during the dry summer growing season. Percent reduction allocations were developed, but the WLAs are not intended to add load limits to the permit. The WLAs are met by adhering to the permit requirements and discharge volumes. As identified in the permit, monitoring data should continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary.

- Dissolved Oxygen in Ashley Creek and Spring Creek:

Water quality improvements addressed in Nutrient TMDLs will result in improved DO concentrations. Therefore, the DO concentrations will increase by adhering to the permit requirements and discharge volumes. As identified in the permit, monitoring data should

continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary.

- Sediment in Ashley Creek and Stillwater River:

Percent reduction allocations were developed, but the WLAs are not intended to add load limits to the permit. The WLAs are met by adhering to the permit requirements and discharge volumes. As identified in the permit, monitoring data should continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary.

- Temperature in Ashley Creek and Whitefish River

The discharge temperatures will be consistent with naturally occurring conditions by the City of Kalispell MS4 adhering to the permit requirements. As identified in the permit, monitoring data should continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary.

The "Nutrient Management Plan and Total Maximum Daily Load for Flathead Lake, Montana" was completed in December 2002 and provides the following direction for future TMDL revisions.

- Nutrients in Flathead Lake (Total Nitrogen & Total Phosphorus):

In 2002, the MS4 was not a permitted point source and no MS4 WLAs were developed. However, the Department recognized that urban areas have the potential to impact nutrients loading and future analysis is needed. To meet the intent of the TMDL goals and future recommendations, the Kalispell MS4 must follow their permit requirements, evaluate potential impacts to impaired receiving waters, and utilize monitoring to implement an adaptive management approach to minimize nutrient loads to Flathead Lake.

City of Missoula

The allocations for the Missoula MS4 are found within five different TMDL documents including the 1998 Clark Fork nutrient TMDL document that does not include numeric WLAs for the Missoula MS4 or any urban areas, but intrinsically includes them within the composite load allocations for applicable upstream sources. The remaining TMDL documents include:

- The "Silver Bow Creek and Clark Fork River Metals TMDLs" completed in May 2014;
- The "Bitterroot Watershed Total Maximum Daily Loads and Water Quality Improvement Plan" completed in December 2014;
- The "Bitterroot Temperature and Tributary Sediment Total Maximum Daily Loads and Framework Water Quality Improvement Plan" completed in August 2011; and
- The "Central Clark Fork Basin Tributaries TMDLs and Water Quality Improvement Plan" completed in September 2014.

These four documents provide the following WLAs.

- Sediment in Grant Creek

Percent reduction allocations were developed, but the WLAs are not intended to add load limits to the permit. The WLAs are met by adhering to the permit requirements. As identified in the permit, monitoring data should continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary to minimize sediment loading to Grant Creek.

- Nutrients (Total Nitrogen) in Grant Creek

Percent reduction allocations were developed, but the WLAs are not intended to add load limits to the permit. The WLAs are met by adhering to the permit requirements. The MS4 is assigned a wasteload allocation of zero when the storm water system is not activated or functioning during storm events. As required by the permit, an illicit discharge detection and elimination program is necessary to achieve this WLA, which requires the permittees to regularly update the storm sewer system map, showing the location and number of outfalls. When the storm water system is activated, the WLAs are met by adhering to the permit requirements and that monitoring can be used to implement an adaptive management approach to minimize Total Nitrogen loading to Grant Creek.

- Temperature in Grant Creek and Bitterroot River

No MS4 WLAs (except during periods of non-storm water runoff) were developed for Grant Creek or the Bitterroot River; however, the Department recognized that urban areas have the potential to impact temperature. To meet the intent of the TMDL goals and future recommendations, the Missoula MS4 must follow their permit requirements, evaluate potential impacts to impaired receiving waters, implement Low Impact Development water retention and infiltration requirements, and utilize monitoring to implement an adaptive management approach. The MS4 is assigned a wasteload allocation of zero when the storm water system is not activated or functioning during storm events. As required by the permit, an illicit discharge detection and elimination program is necessary to achieve this WLA, which requires the permittees to regularly update the storm sewer system map, showing the location and number of outfalls. When the storm water system is activated, the WLAs are met by adhering to the permit requirements and that monitoring can be used to implement an adaptive management approach to minimize temperature increases.

- Metals- Lead in Bitterroot River and Arsenic, Cadmium, Copper, Iron, Lead, and Zinc in Clark Fork River

Percent reduction allocations were developed for the metals identified above in the Bitterroot River and Clark Fork River, but the WLAs are not intended to add load limits to the permit. The WLAs are met by adhering to the permit requirements. As identified in the permit, monitoring data should continue to be evaluated to assess BMP performance and help determine whether and where additional BMP implementation may be necessary.

XIV. Special Conditions

The 2015 General Permit addresses discharges to "water quality impaired waters" through requirements for the permittee to include a section in the SWMP that identifies specific BMPs used to collectively control the discharges of pollutants of concern, and ensuring the Department incorporates wasteload allocations, as applicable. The underlying goal of implementing TMDLs is to ensure that storm water discharges will not cause or contribute to instream exceedances of water quality standards. The 2017 General Permit renewal requires TMDL targeted monitoring, and the development and implementation of a long-term impairment improvement strategy with interim milestones.

The 2017 General Permit outlines requirements for both storm water discharges to impaired waterbodies with pre-TMDL approval and approved TMDL wasteload allocations. Appendix A of the permit contains a list of TMDLs with WLAs assigned to MS4s approved by the Department and EPA as of the effective date of this permit.

DEQ addresses water quality controls for storm water discharges to impaired waterbodies with pre-TMDL approval because this requirement increases awareness of receiving waterbodies and proactively engages the permittee to manage pollutants of impairment and plan for implementation of future controls. This requirement establishes a TMDL foundation for the permittee's storm water management program upon WLA approval.

DEQ addresses water quality controls for storm water discharges to impaired waterbodies with approved TMDL WLAs through a two-step process: (1) an approved TMDL Sampling Plan with public review and (2) based on the monitoring data from the TMDL Sampling Plan, the SWMP will include a section identifying the measures and BMPs that the permittee plans to implement, describing the permittee's impairment priorities and long term strategy, and outlining interim milestones (i.e., a completion schedule for action items) for controlling the discharge of the pollutants of concern and making progress towards meeting the TMDL. DEQ's TMDL WLA approach in the 2017 General Permit renewal provides the permittee with the flexibility, and a clear and specific framework to evaluate their controls specific to wasteload allocations, and develop and adaptively manage a part of their storm water program focused on wasteload allocations through an approved long-term strategy.

XV. Record Keeping

The permittee shall retain records of all monitoring information, copies of all reports required by the 2017 General Permit, and records of all data used to complete the application for the 2017 General Permit, for a period of at least three years from the date of sample, measurement, report, or application.

XVI. Reporting (Annual Reports and SWMPs)

Annual Report

The permittee (or co-permittee if co-permitted under one permit authorization number) shall prepare and submit an annual report to DEQ for each calendar year within the General Permit term by March 1st of the following year. Annual report requirements are located in Part IV of the 2017 General Permit. Annual reports are critical for providing the opportunity for the permittee to document and summarize implementation of the SWMP, evaluate program results, and describe planned changes. DEQ has updated annual reporting requirements to solicit more comprehensive feedback. DEQ has updated the annual report form to reflect 2017 General Permit requirements.

SWMP

Permittees must develop and maintain a SWMP per Part II of the 2017 General Permit. The SWMP will be submitted at the time of application and any changes to the SWMP are submitted with the corresponding annual report. DEQ acknowledges that parts of the SWMP include staggered development and implementation, and the permittee is able to detail such development and implementation progress in the SWMP until the specified timeframe.

DEQ may require changes to the SWMP as needed. Changes requested by DEQ must be made in writing, set forth the time schedule for the permittee to develop the changes, and offer the permittee the opportunity to propose alternative program changes to meet the objective of the requested modification. All changes required by DEQ will be made in accordance with ARM 17.30.1365, ARM 17.30.1361, or as appropriate ARM 17.30.1362.

XVII. Standard Permit Conditions

Conditions that apply to all MPDES permits including General Permit MTR040000 are listed in ARM 17.30.1342. Additional conditions applicable to MPDES permits are set forth in ARM 17.30.1344. All conditions applicable to MPDES permits must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these rules must be given in the permit. A listing of all Standard Conditions pertaining to all MPDES permits will be included in the 2017 General Permit.

XVIII. References

- Administrative Rules of Montana Title 17, Chapter 30 *et al.*
- Montana Code Annotated Title 75, Chapters 5, Subchapters 1 through 6.
- Code of Federal Regulations 40 CFR Parts 122 through 133.
- EPA *Environmental Impacts of Storm water Discharges: A National Profile*, published June 1992; EPA Document No. 841-R-92-001.
- National Research Council's *Urban Storm water Management in the United States*, 2008.
- EPA *Revisions to the November 22,2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs"*; Memorandum, November 2014.
- EPA *National Pollutant Discharge Elimination System - Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule* . 1999.
- EPA *MS4 Permit Improvement Guide*, April 2010.
- EPA *MS4 Program Evaluation Guidance,* January 2007.
- Center for Watershed Protection's *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments,* October 2004.
- Center for Watershed Protection. 2004. Illicit Discharge Detection and Tracking Guide. Center for Watershed Protection, Ellicott City, MD.
- *Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems* published in the "Federal Register / Vol. 61, No. 155 / Friday, August 9, 1996 / Rules and Regulations".
- *Technical Guidance on Implementing the Storm water Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security,* published 2009; EPA Document No. 841-B-09-001.
- *Managing Storm water In Your Community - A Guide for Building an Effective Post-Construction Program,* Center for Watershed Protection, published 2008; EPA Document No. 833-R-08-001.
- California Storm water Quality Association's *Municipal Storm water Program Effectiveness Guidance,* May 2007.
- EPA *Understanding Impaired Waters and Total Maximum Daily Load (TMDL) Requirements for Municipal Storm water Programs,* January 2008.
- Various Montana Small MS4 permittee Annual Reports.
- Various Final Montana TMDL documents