



Cascade County, Montana

MS4 Permit #MTR040013

Storm Water Management Plan (SWMP)

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Part I. Permit Coverage

This Storm Water Management Plan (SWMP) was developed by Cascade County (CC) to satisfy the applicable requirements of the Montana Pollutant Discharge Elimination System (MPDES) General Permit for Storm Water Discharge Associated with Traditional MS4 designations. This SWMP describes the procedures and practices CC will use to protect water quality by minimizing the discharge of storm water to the maximum extent practicable (MEP). Compliance can be achieved by addressing the six minimum control measures described in this application. They include the following:

1. Public Education and Outreach;
2. Public Involvement and Participation;
3. Illicit Discharge Detection and Elimination (IDDE);
4. Construction Site Storm Water Management;
5. Post-Construction Site Storm Water Management in New and Redevelopment; and
6. Pollution Prevention/Good Housekeeping for Permittee Operations.

Part II. Minimum Measures

A. Storm Water Management

Within 60 days of the permit effective date, CC will develop a storm water management team to include a primary SWMP coordinator and organizational chart which identifies the positions responsible for implementing each minimum measure.

Updates will be submitted with annual reports.

The following sections describe each of the six control measures.

2.1 Public Education and Outreach

CC will implement and maintain a program for Public Education and Outreach on Storm Water Impacts and maintain documentation with respect to the development of the program. These control measures include the following.

Minimum Measure	BMP	Permit Year	Goals & Deliverables
a. Determine key target audiences most appropriate for storm water outreach.	i. <ul style="list-style-type: none"> • Analyze which business types and/or residential behaviors are common sources of illicit discharges, spills, and dumping. • Develop a list, description, and rationale for selecting these key target audiences based on business and residential groups associated with illegal discharges and improper disposal of waste to the MS4. • List the pollutants associated with each key target audience. • Submit with 1st Annual Report 	2017	Goal: Analyze Illicit Discharge Data and Determine Key Target Audience, list pollutants associated with each key target audience.
	ii. <ul style="list-style-type: none"> • Develop and advertise a storm water website for access by key target audiences, other interested stakeholders, and the general public. • At a minimum, the storm water website must include: <ul style="list-style-type: none"> ○ A copy of this General Permit; or ○ A link to the permittee’s webpage containing <ul style="list-style-type: none"> ▪ The permit, ▪ Access to outreach materials, ▪ Outreach event information (more recent & current) ▪ Storm water management program documents and updates, ▪ Annual reports (or an equivalent summary or document providing an annual overview, and the availability for the general public to request the annual report), and ▪ An effective mechanism for providing continued public input for the SWMP. • The website must also include: <ul style="list-style-type: none"> ○ Information regarding how to identify sources of illicit discharges, ○ Procedures on how to report an illicit discharge, 	2017	Goal: Develop and advertise a storm water website (likely to be included within existing CC website). Resources: CC Website: http://www.cascadecountymt.gov/ CC MS4 Website: http://www.cascadecountymt.gov/departments/public-works/ms4

	<ul style="list-style-type: none"> ○ A summary of the permittee’s requirements for covered construction activities; and ○ How to submit construction project complaints ● The website shall be available to the public on the internet. 		
b. Develop & utilize the permittee’s website for public outreach and involvement.	i. <ul style="list-style-type: none"> ● Develop outreach messages which promote benefits of non-polluting behaviors to the key target audience as well as benefits to storm water discharges. ● Submit with 2nd Annual Report. 	2018	Goal: Develop CC MS4 Permit webpage to include outreach materials for key target audiences.
c. Develop a tailored outreach strategy for each key target audience and specific storm water polluting behavior.	i. <ul style="list-style-type: none"> ● Identify and, as needed, develop outreach formats and distribution channels for messages developed for each key target audience and associated storm water polluting behavior. ● Formats and distribution channels should be tailored to key target audiences and can utilize other existing formats and distribution channels, such as existing community newsletters. ● Submit a description of formats, distribution channels and schedule for each key target audience in 2nd Annual Report. 	2018	Goal: Tailor outreach messages to key target audiences and storm water polluting behaviors.
	ii. <ul style="list-style-type: none"> ● Distribute outreach materials to target audiences ● Describe distribution in Annual Reports 	2019 2020 2021	Goal: Distribute outreach materials to key target audiences.

2.2 Public Participation and Involvement

CC shall develop a strategy to involve key target audiences in the development and implementation of the SWMP and will comply with state and local public notice requirements.

Minimum Measure	BMP	Permit Year	Implementation Schedule
a. Develop strategies for key target audiences in SWMP development and implementation	i. <ul style="list-style-type: none"> ● Identify approaches for involving the key target audiences (identified under Part II.A.1.a.i.) in the development and implementation of the SWMP over the 5-year permit term. ● For each key audience, describe: <ul style="list-style-type: none"> ○ The approach ○ The target date(s) for implementation; and ○ Purpose of the involvement approach (e.g. raise 	2017	Goal: Determine how key target audiences and regulatory stakeholders will be involved in the SWMP development and implementation.

	<p>awareness, change behavior, and improve the SWMP</p> <ul style="list-style-type: none"> • Wherever possible, identify existing organizations with membership that represent some or all of the key target audiences and describe opportunities for partnering to involve membership in SWMP development and implementation. • Document collaboration with existing organizations if this is an approach for involving key target audiences. • Submit a description of public involvement approach, and schedule for each key audience in 1st Annual Report. 		
	<p>ii.</p> <ul style="list-style-type: none"> • Implement identified involvement approaches for each key target audience. • Document participation and key target audience feedback on the approach in the SWMP and in each Annual Report. 	<p>2018 2019 2020 2021</p>	<p>Goal: Implement target audience participation in SWMP development and implementation.</p>
<p>b. Develop and utilize permittee’s website for public involvement.</p>	<p>i.</p> <ul style="list-style-type: none"> • Develop and advertise a storm water website for soliciting input from key target audiences, other interested stakeholders, and the general public. At a minimum, the storm water website must include: <ul style="list-style-type: none"> ○ access to outreach materials; ○ most recent or current outreach event information; ○ SWMP planning documents; ○ annual reports (or an equivalent summary or document providing an annual overview, and the availability for the public to request the annual report); ○ a mechanism for collecting public input for the SWMP; and ○ illicit discharge and construction project complaints. • Website shall be available to the public on the internet. 	<p>2017</p>	<p>Goal: Solicit and encourage public outreach and involvement within the County’s MS4 website.</p> <p>Resources: CC Website: http://www.cascadecountymt.gov/ CC MS4 Website: http://www.cascadecountymt.gov/departments/public-works/ms4</p>

2.3 Illicit Discharge Detection and Elimination

While Cascade County does not have the self-governing power to enact a stand-alone ordinance to regulate MS4 program activity, it does have existing ordinances that can be utilized to inhibit illicit discharges. CC will continue to develop and implement measures to detect illicit discharges into the permitted Small MS4.

Minimum Measure	BMP	Permit Year	Implementation Schedule
<p>a. Address the following categories of non-storm water discharges or flows (i.e., illicit discharges) if identified as significant contributors of pollutants to the Small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined in ARM 17.30.1102(8)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (discharges or flows from firefighting activities are excluded from the effective prohibition against non-storm water and need only</p>	<p>i.</p> <ul style="list-style-type: none"> • Evaluate and include, in each Annual Report; <ul style="list-style-type: none"> ○ A list of non-storm water discharges that the permittee has identified as significant contributors of pollutants; ○ The pollutants associated with each non-storm water significant contributor; and ○ Document any local controls or conditions placed on these discharges 	<p>2017 2018 2019 2020 2021</p>	<p>Goal: Evaluate non-storm water discharges (if identified as significant pollutant contributors) and the storm water controls present.</p> <p>Resources: IDDE Investigation and Cleanup Reports. CC Outfall Sampling Data CC Dry Weather Screening Data CC Junk Vehicle/Community Decay Complaints</p>

<p>be addressed where they are identified as significant sources of pollutants to state waters). These more frequent non-storm water discharges must be reasonably expected (based on information available to the permittee) to not be significant sources of pollutants to the Small MS4, because of either the nature of the discharges or conditions the permittee established for not allowing these discharges to the Small MS4.</p>			
<p>b. Develop a list of other similar occasional incidental non-storm water discharges (e.g. non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-storm water discharges must not be reasonably expected (based on information available to the permittee) to be significant sources of pollutants to the Small MS4, because of either the nature of the discharges or conditions the permittee established for allowing these discharges to the Small MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive waterbodies, BMPs for the wash water, etc.).</p>	<p>i.</p> <ul style="list-style-type: none"> • Evaluate and include, in each Annual Report; <ul style="list-style-type: none"> ○ a list of occasional incidental non-storm water discharges that the permittee has determined will not be addressed as illicit discharges; ○ the pollutants associated with each non-storm water occasional incidental; and ○ document any local controls or conditions placed on these discharges. 	<p>2018 2019 2020 2021</p>	<p>Goal: Implement target audience participation in SWMP development and implementation.</p> <p>Resources: IDDE Investigation and Cleanup Reports. CC Outfall Sampling Data CC Dry Weather Screening Data CC Junk Vehicle/Community Decay Complaints</p>

	<ul style="list-style-type: none"> ii. <ul style="list-style-type: none"> • 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 appropriate ordinances, regulatory mechanism or memoranda of agreements. 	2018	<p>Goal: Prohibit occasional incidental non-storm water discharges if determined to be contributing pollutants to the MS4.</p> <p>Resources: CC Website: http://www.cascadecountymt.gov/ (refer to applicable permit applications)</p>
c. Inventory storm water sewer infrastructure to thoroughly track illicit discharges, contain spills, and determine high priority areas. When determining high priority areas, permittees must document and consider, at a minimum, the following: industrial areas, previous areas with illicit discharges, known illegal dumping areas, the oldest portions of MS4 storm sewer infrastructure, any areas with onsite sewage disposal systems, and areas that discharge to an impaired waterbody.	<ul style="list-style-type: none"> i. <ul style="list-style-type: none"> • Update the existing map showing: <ul style="list-style-type: none"> ○ The location and number of all outfalls (as defined in ARM 17.30.1102(14) and Part VIII of this General Permit); and ○ The names and locations of all surface waters that receive discharges from those outfalls • Development of this map to accommodate the provisions of a comprehensive illicit discharge detection and elimination (IDDE) program and the SWMP would typically include mapping storm sewer system components including: <ul style="list-style-type: none"> ○ Inlets; ○ Open channels; ○ Subsurface conduits/pipes ○ Dry wells (discharges to ground water directly); and ○ Other similar discrete conveyances. • List, label, or highlight determined high priority areas. • Update the storm sewer map regularly and make available for review by the Department upon request. 	2017	<p>Goal: Inventory and map storm sewer infrastructure within CC MS4 area.</p> <p>Resources: Coordinate with City of GF GIS mapping efforts to develop a more comprehensive mapping area. IDDE Investigation and Cleanup reports. CC Outfall Sampling Data CC Dry Weather Screening Data</p>
d. To the extent allowable under State, or local law, effectively prohibit, through ordinance or other regulatory mechanism, non-storm water discharges (except those listed under Part III.A.3.a.) into the regulated storm sewer system and implement appropriate enforcement procedures and actions.	<ul style="list-style-type: none"> i. <ul style="list-style-type: none"> • If not done previously, adopt an ordinance or other regulatory mechanism to prohibit illicit discharges • Submit with 2nd Annual Report. 	2018	<p>Goal: Prohibit non-storm water discharges through an ordinance.</p> <p>References: CC Subdivision Regulations: Resolution #13-82 CC Community Decay Ordinance: Ordinance 06-01C CC Litter Control Ordinance: Ordinance 06-03B CC Buildings for Lease or Rent (BLR) Regulations: Resolution 13-93(Note: additional language to be added to permit application to allow for storm drainage review) CC Special Use Permit (Note: additional language to be added to permit application to allow for storm drainage review) CC Location Conformance Permit</p>

<p>iii.</p> <ul style="list-style-type: none"> • Solicit assistance from neighboring MS4s as necessary to detect and eliminate illicit discharges that may originate within the neighboring MS4 and formalize in cooperative agreements, i.e. memoranda of understanding. • Agreements should specify investigation and enforcement responsibilities and these agreements should be described in each permittee's Enforcement Response Plan (ERP) (Part II.A.3.d.iv.) and Illicit Discharge Investigation and Corrective Action Plan (Part II.A.3.f.). • Formalize cooperative agreements, i.e. memoranda of understanding, with all neighboring MS4s as necessary to implement the IDDE program described in Part II.A.3. • Submit a summary of the cooperative agreements with the 2nd Annual Report. 	<p>2019</p>	<p>Goal: Demonstrate cooperation with neighboring MS4s - - Montana Department of Transportation (MDT), City of Great Falls, Malmstrom Air Force Base.</p>
<p>iv.</p> <ul style="list-style-type: none"> • Develop a formal ERP for illicit discharges. The ERP must describe; <ul style="list-style-type: none"> ○ legal authority - through ordinance, formal policies or memoranda of understanding - to eliminate and abate illicit discharges; ○ identify staff with enforcement authority; ○ enforcement actions available; ○ enforcement escalation process; and ○ schedule to be utilized to quickly and consistently eliminate the source of the discharge, abate any damages and prevent recurrence. • The ERP must include informal, formal, and judicial responses. <ul style="list-style-type: none"> ○ Informal responses may include: <ul style="list-style-type: none"> ▪ telephone notification; ▪ verbal notice; ▪ notice of violation; and ▪ meetings. ○ Formal responses may include: <ul style="list-style-type: none"> ▪ administrative order; ▪ compliance schedule; ▪ order to show cause; ▪ monetary penalty (administrative); and ▪ suspended service . ○ Judicial responses may include: <ul style="list-style-type: none"> ▪ injunctive relief; ▪ consent decree; ▪ civil penalties; and 	<p>2019</p>	<p>Goal: Develop an Enforcement Response Plan (ERP)</p> <p>Resources: CC IDDE & Corrective Action Plan Center for Watershed Protection Website (IDDE Detection & Elimination)</p>

	<ul style="list-style-type: none"> ▪ criminal penalties. • Submit the ERP with the 2nd Annual Report. 		
	v. <ul style="list-style-type: none"> • Implement ERP 	2019	Goal: Implement ERP.
e. Proactively inspect, during dry weather, all outfalls to detect illicit discharges and connections into the MS4 and identify high priority outfalls.	i. <ul style="list-style-type: none"> • Inspect and screen all of the permittee’s outfalls during dry weather using the outfall field screening protocol developed by the Center for Watershed Protection or equivalent process. • This process shall be completed by the end of the permit cycle. 	2017 2018 2019 2020 2021	Goal: Inspect and screen all of the permittee’s outfalls during dry weather using outfall field screening protocol developed by the Center for Watershed Protection.
	ii. <ul style="list-style-type: none"> • Using inspection and screening results, storm sewer maps, and other appropriate data, determine high priority outfalls. • Priority is to be determined by the permittee and shall be based on potential water quality impact. When determining high priority outfalls, permittees must consider, at a minimum, outfalls: <ul style="list-style-type: none"> ○ which drain industrial areas (as identified by the Small MS4s zoning regulations or growth policy); ○ where illicit discharges have been detected during past permit terms; ○ which drain areas prone to incidents of illegal dumping; ○ which drain the oldest portions of the Small MS4s storm sewer infrastructure; ○ which serve areas primarily served by onsite sewage disposal systems; and/or ○ which discharge into an impaired water body. • Submit the list of high-priority outfalls with each 2nd - 5th Annual Reports. The 3rd-5th Year lists may reflect updated priority outfalls based on screening results. 	2018 2019 2020 2021	Goal: Determine high priority outfalls. Resources: CC Zoning Maps IDDE Investigation and Cleanup reports. CC Outfall Sampling Data CC Dry Weather Screening Data MS4 Mapping Efforts
	iii. <ul style="list-style-type: none"> • Inspect and screen high priority outfalls during dry weather a minimum of once per year. • Submit a summary of screening results with each 3rd-5th Annual Reports 	2019 2020 2021	Goal: Inspect high priority outfalls during dry weather and document results.
f. Consistently and effectively investigate suspected illicit discharges and connections and track subsequent compliance actions.	i. <ul style="list-style-type: none"> • Develop an illicit discharge investigation and Corrective Action Plan. This plan will describe the process that will be used to: <ul style="list-style-type: none"> ○ locate the source of an illicit discharge and select the appropriate corrective action, i.e. enforcement action, abatement, etc. ○ At a minimum, this plan shall include processes to: <ul style="list-style-type: none"> ▪ investigate all illicit discharges within 7 calendar 	2017	Goal: Develop an Illicit Discharge Investigation and Corrective Action Plan. Note: County to employ Standard Operating Procedure (SOP) until a more formal document is available for use.

	<p>days. Document circumstances that prevented this timeframe;</p> <ul style="list-style-type: none"> ▪ prioritize non-storm water discharges suspected of being sanitary sewage and/or significantly contaminated for investigation first; ▪ confirmed illicit connections must be eliminated within a goal timeframe of 6 months. Document circumstances that prevented this timeframe; ▪ notify Montana DEQ and appropriate agencies of dry weather flows believed to be an immediate threat to human health or the environment; ▪ document that a good faith effort was 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. <ul style="list-style-type: none"> • The outfall where any illicit discharge is detected shall continue to be considered high priority and should be investigated as required in the permit. • The plan should refer to the permittee’s ERP for execution of appropriate enforcement actions. • Submit the plan with the 1st Annual Report. 		<p>Resources: CC SOPs CC IDDE & CAP Plan</p>
	<p>ii. • Implement an Illicit Discharge Investigation and Corrective Action Plan.</p>	<p>2018</p>	<p>Goal: Implement Illicit Discharge Investigation and Corrective Action Plan.</p>
	<p>iii. • Maintain documentation which describes the investigations conducted and corrective actions taken per the Illicit Discharge Investigation and Corrective Action Plan during dry weather screening or through other detection methods, e.g. public complaints.</p> <ul style="list-style-type: none"> • Submit summary with each Annual Report . 	<p>2018 2019 2020 2021</p>	<p>Goal: Document results of the Illicit Discharge Investigation and Corrective Action Plan.</p>

2.4 Construction Site Storm Water Management

While CC does not have the self-governing power to enact a stand-alone ordinance to regulate MS4 program activity, it does have existing ordinances that can be utilized to inhibit illicit discharges and reduce pollutants in storm water runoff due to construction activities. CC will develop and implement measures to reduce pollutants in storm water runoff to permitted MS4 waterbodies 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. If the Department waives its permitting requirements for storm water discharges associated with construction activity that disturbs less than five acres of total land area in accordance with ARM 17.30.1105(5), the Small MS4 permittee is not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.

Minimum Measure	BMP	Permit Year	Implementation Schedule
<p>a. To the extent allowable under State, or local law, effectively require, through ordinance, or other regulatory mechanism, erosion and sediment controls and controls of other construction-related pollutant sources on regulated construction projects (construction storm water controls) and implement appropriate enforcement procedures and actions.</p>	<p>i.</p> <ul style="list-style-type: none"> • If not completed previously, adopt an ordinance or other mechanism to require construction storm water controls on private and permittee-owned regulated projects. • At a minimum, the ordinance or other regulatory mechanism must: <ul style="list-style-type: none"> ○ require the construction storm water management minimum standards described as Non-Numeric Technology-Based Effluent Limits in the most current Montana DEQ General Permit for Storm Water Discharges Associated with Construction Activity to be implemented on all regulated construction projects, and ○ provide the permittee the authority to inspect privately-owned construction storm water management controls. • Submit with 3rd Annual Report. 	<p>2019</p>	<p>Goal: Adopt an ordinance or review other existing permit or permittee ordinances that insure authority has been granted to enforce construction storm water controls on private and permittee-owned regulated projects.</p> <p>Resources: CC Subdivision Regulations: Resolution #13-82 CC Community Decay Ordinance: Ordinance 06-01C CC Litter Control Ordinance: Ordinance 06-03B CC Buildings for Lease or Rent (BLR) Regulations: Resolution 13-93(Note: additional language to be added to permit application to allow for storm drainage review) CC Special Use Permit (Note: additional language to be added to permit application to allow for storm drainage review) CC Location Conformance Permit</p>
	<p>iii.</p> <ul style="list-style-type: none"> • Develop a formal ERP to ensure compliance with the construction storm water management regulatory mechanisms on regulated projects including private property. The sanctions and enforcement mechanisms to be used to ensure compliance will be included. • The ERP must describe how the permittee will: <ul style="list-style-type: none"> ○ eliminate and abate illegal construction discharges; ○ identify staff with enforcement authority; ○ enforcement actions available and enforcement 	<p>2017 2019</p>	<p>Goals: Develop an Enforcement Response Plan (ERP)</p>

	<p>escalation process and include a schedule to be utilized to quickly, and consistently eliminate the source of the discharge; and</p> <ul style="list-style-type: none"> ○ abate any damages and prevent recurrence. ● The ERP must include informal, formal, and judicial responses. <ul style="list-style-type: none"> ○ Informal responses may include telephone notification, verbal notice, notice of violation, and meetings. ○ Formal responses may include administrative order, compliance schedule, order to show cause, monetary penalty (administrative), and suspended service. ○ Judicial response may include injunctive relief, consent decree, civil penalties, and criminal penalties. ● In addition, the ERP must also include nonmonetary construction project-specific penalties such as stop work orders, bonding requirements, and/or permit denials for noncompliance. ● Submit documentation of progress towards creation of ERP with the 1st Annual Report. ● Submit adopted ERP with the 3rd Annual Report. 		
<p>b. Require that all regulated construction projects submit a construction storm water management plan prior to construction which is consistent with state and local requirements and which incorporates consideration of potential water quality impacts including storm water pollution prevention through appropriate erosion, sediment, and waste control BMPs. The storm water pollution prevention plan (SWPPP) developed pursuant to the MPDES General Permit for Storm Water Discharges</p>	<p>iv.</p> <ul style="list-style-type: none"> ● Implement ERP <p>i.</p> <ul style="list-style-type: none"> ● Develop a construction storm water management plan review checklist which documents, at a minimum, that the requirements described in the Non- Numeric Technology-Based Effluent Limits of the most current Montana DEQ General Permit for Storm Water Discharges Associated with Construction Activity have been included on all regulated project construction storm water management plans. ● The construction storm water management plan review checklist shall be used to ensure consistent review of submitted plans and to determine and document compliance with state and local requirements. ● Submit with the 1st Annual Report 	<p>2020</p> <p>2017</p>	<p>Goal: Implement ERP</p> <p>Goal: Develop construction storm water management review checklist.</p>

Associated With Construction Activity (Permit Number MTR100000) may substitute for this site plan for projects where a SWPPP is developed.			
	ii.	<ul style="list-style-type: none"> Implement construction storm water management plan review checklist. 	2017 Goal: Implement construction storm water management plan review checklist.
c. Ensure that all construction storm water management controls are installed, operated and maintained in order to function as designed.	i.	<ul style="list-style-type: none"> Develop an inspection form or checklist to ensure consistent and thorough regulated project inspections. The checklist shall include, at a minimum, the requirements described in the Non-Numeric Technology-Based Effluent Limits of the most current Montana DEQ General Permit for Storm Water Discharges Associated with Construction Activity. Submit with the 1st Annual Report . 	2017 Goal: Develop construction storm water site visit inspection form. Resources: DEQ GP for Stormwater Discharges Associated with Construction Activity DEQ BMP Installation Guide
	iii.	<ul style="list-style-type: none"> Conduct inspections using the inspection form. 	2017 Goal: Conduct inspections using the construction storm water site visit inspection form.
	iv.	<ul style="list-style-type: none"> Develop and maintain/update a regulated project inventory to include, at a minimum, if the project is covered under the Montana DEQ General Permit for Storm Water Discharges Associated with Construction Activity and associated authorization number, the location, size, topography of site and proximity to waterbodies for each project. 	2017 Goal: Inventory construction storm water projects. Resources: MDEQ Storm Water Discharges Associated with Construction Activity webpage, “Effective, Terminated. MPDES Storm Water Construction Permit Authorization”
	v.	<ul style="list-style-type: none"> Develop an inspection frequency determination protocol based upon the priority of the project. Priority is to be determined using specific criteria to include – at a minimum: <ul style="list-style-type: none"> project size; proximity to a water body; steepness of project site slopes; discharge to waterbodies impaired for pollutants expected from active construction projects; and past record of non-compliance by the operator of the construction site. The protocol shall establish the following minimum inspection frequency for all high priority projects: <ul style="list-style-type: none"> once at commencement of construction after BMPs 	2017 Goal: Develop, prioritize, and establish a protocol for high priority projects.

	<ul style="list-style-type: none"> ○ have been implemented; ○ once within 48-hours after a rain event of 0.25 inches or greater; ○ once within 48-hours after each occurrence of runoff from snowmelt due to thawing conditions that causes visible surface erosion at the site; and ○ once at the conclusion of the project prior to finalization (i.e. release of bond, issuance of certificate of occupancy etc.). ● In addition, the inspection frequency shall include: <ul style="list-style-type: none"> ○ recidivism reduction measures such as incentives; disincentives; or ○ increased inspection frequency at non-compliant operator’s sites. 		
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2.5 Post-Construction Site Storm Water Management New and Redevelopment

While CC does not have the self-governing power to enact a stand-alone ordinances to regulate MS4 program activity, it does have existing ordinances that can be utilized to inhibit illicit discharges and reduce pollutants in storm water runoff due to construction activities. 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.

Minimum Measure	BMP	Permit Year	Implementation Schedule
<p>a. To the extent allowable under State, or local law, effectively require, through ordinance, or other regulatory mechanism, post-construction storm water management controls on regulated projects and implement appropriate enforcement procedures and actions.</p>	<p>i.</p> <ul style="list-style-type: none"> ● If not completed previously, adopt an ordinance or other mechanism to require post-construction storm water controls on regulated projects that, at a minimum, include the performance standard described in Part II.A.5.b.iii. ● Submit with 4th Annual Report. 	<p>2020</p>	<p>Goal: Adopt an ordinance or review other existing permit or permittee ordinances that insure authority has been granted to require erosion and sediment controls for post-construction projects.</p> <p>Resources: CC Subdivision Regulations: Resolution #13-82 CC Buildings for Lease or Rent (BLR) Regulations: Resolution 13-93(Note: additional language to be added to permit application to allow for storm drainage review) CC Special Use Permit (Note: additional language to be added to permit application to allow for storm drainage review) CC Location Conformance Permit</p>

	<p>iii.</p> <ul style="list-style-type: none"> • Develop a formal ERP to ensure compliance with installation, operation and maintenance requirements for post-construction storm water management controls on regulated projects including private property. • The ERP must include informal, formal, and judicial responses. <ul style="list-style-type: none"> ○ Informal responses may include: <ul style="list-style-type: none"> ▪ telephone notification; verbal notice; notice of violation; and meetings. ○ Formal responses may include: <ul style="list-style-type: none"> ▪ administrative order; compliance schedule; order to show cause; ▪ monetary penalty (administrative); and suspend service. ○ Judicial responses may include: <ul style="list-style-type: none"> ▪ injunctive relief; consent decree; civil penalties; and ▪ criminal penalties. • The ERP must describe: <ul style="list-style-type: none"> ○ legal authority to require inspection and maintenance of controls; ○ identify staff with enforcement authority; ○ the enforcement actions available; ○ enforcement escalation process; and ○ schedule to be utilized to quickly and consistently ensure compliance with post-construction requirements. • Submit the ERP with the 4th Annual Report. 	2020	Goal: Develop an Enforcement Response Plan (ERP)
	<p>iv.</p> <ul style="list-style-type: none"> • Implement ERP 	2021	Goal: Implement ERP
<p>b. Require that all regulated development projects submit a site plan which is consistent with state and local post construction requirements which incorporates consideration of potential water quality impacts including appropriate post-construction storm water management controls.</p>	<p>i.</p> <ul style="list-style-type: none"> • Develop and implement a plan review checklist to ensure consistent review of submitted plans and to determine and document compliance with state and local post-construction requirements • Submit with the 1st Annual Report. 	2017	Goal: Develop and implement post-construction storm water management plan review checklist.

	<p>iii.</p> <ul style="list-style-type: none"> • Require that all regulated projects implement post-construction storm water management controls that are designed to infiltrate, evapotranspire, and/or capture for reuse the post-construction runoff generated from the first 0.5 inches of rainfall from a 24-hour storm preceded by 48 hours of no measurable precipitation. For projects that cannot meet 100% of the runoff reduction requirement, the remainder of the runoff from the first 0.5 inches of rainfall must be either: <ul style="list-style-type: none"> a. Treated onsite using post-construction storm water management control(s) expected to remove 80 percent total suspended solids (TSS); b. Managed offsite within the same subwatershed using post-construction storm water management control(s) that are designed to infiltrate, evapotranspire, and/or capture for reuse; or c. Treated offsite within the same subwatershed using post-construction storm water management control(s) expected to remove 80 percent TSS. • Permittees allowing offsite treatment shall do the following: <ul style="list-style-type: none"> a. Develop and apply criteria for determining the circumstances under which offsite treatment may be allowed. <ul style="list-style-type: none"> ▪ The criteria must be based on multiple factors, including but not limited to: <ul style="list-style-type: none"> i. technical or logistic infeasibility (e.g. lack of available space); ii. high groundwater; iii. groundwater contamination; iv. poorly infiltrating soils; v. shallow bedrock; vi. prohibitive costs; and vii. a land use that is inconsistent with capture and reuse or infiltration of storm water). ▪ Determinations may not be based solely on the difficulty and/or cost of implementation. ▪ The permittee must develop a formal review and approval process for determining projects eligible for offsite treatment. ▪ The offsite treatment option is to be used only after all onsite options have been evaluated and 	2017	<p>Goal: Update applicable CC standards and requirements to address performance standards outlines in Part b(iii).</p>
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	<p>documented through the permittee's developed formal review and approval process.</p> <p>b. Create and maintain an inventory of regulated projects which utilize offsite treatment of post-construction storm water runoff. The inventory must include the following information pertaining to each approved project:</p> <ul style="list-style-type: none"> ▪ Geographic location of the project; ▪ Location of the offsite treatment facility which the project drains to; and ▪ Documentation of the rationale for approval of offsite treatment. <ul style="list-style-type: none"> • Submit adopted performance standards with the 1st Annual Report. 		
c. Ensure that all post-construction storm water management controls are installed, operated and maintained in order to function as designed.	i. <ul style="list-style-type: none"> • Develop and implement an inspection form or checklist to ensure consistent and thorough inspections of post-construction storm water management controls. • Submit with 2nd Annual Report 	2018	Goal: Develop an inspection checklist for post-construction storm water management controls.
	iii. <ul style="list-style-type: none"> • Develop and maintain/update an inventory (including at a minimum, a description and location) of all new permittee-owned and private post construction storm water management controls installed since the effective date of the permit. 	2018	Goal: Inventory and maintain a list of all new permittee-owned and private post-construction storm water controls.
	iv. <ul style="list-style-type: none"> • Develop and maintain/update an inventory (including at a minimum, a description and location) of all existing permittee-owned and private high priority post-construction storm water management controls installed prior to the effective date of the permit. • Priority is to be determined by the permittee and should be based on potential water quality impact using specific criteria which may include: <ul style="list-style-type: none"> ○ operation and maintenance needs of the practices; ○ proximity to water body; ○ drainage area treated; ○ land use type; and ○ location within an impaired waterbody watershed. 	2019	Goal: Inventory all existing permittee-owned and private high priority post-construction storm water controls.
	vi. <ul style="list-style-type: none"> • Develop an inspection frequency determination protocol based upon the priority of the post-construction storm water management control. • Priority is to be determined by the permittee and should be based on potential water quality impact using specific 	2018	Goal: Develop an inspection frequency determination protocol.

	<ul style="list-style-type: none"> ○ operation and maintenance needs of the practices; ○ proximity to water body; ○ drainage area treated; ○ land use type; and ○ location within an impaired waterbody watershed. ● Submit protocol with 2nd Annual Report. 		
	<ul style="list-style-type: none"> vii. ● Develop a program to either: <ul style="list-style-type: none"> ○ conduct inspections of high-priority post-construction storm water management controls at least annually, OR ○ to require self-inspection and reporting by owners at least annually. ● Submit program description with 2nd Annual Report. 	2018	Goal: Develop a process to inspect high-priority post-construction storm water management controls annually.
	<ul style="list-style-type: none"> viii. ● Inspect permittee-owned high priority post-construction storm water management controls annually and document findings and resulting compliance actions. 	2019 2020 2021	Goal: Inspect permittee-owned high priority post-construction controls annually.
	<ul style="list-style-type: none"> ix. ● Inspect or have inspected all high priority privately-owned post-construction storm water management controls annually. ● Document findings and resulting compliance actions. 	2019 2020 2021	Goal: Inspect privately-owned high priority post-construction controls annually.
d. Incorporate recommendations and requirements into plans, policies, and ordinances which allow and support utilization of LID concepts on public and private property.	<ul style="list-style-type: none"> i. ● Convene appropriate staff and conduct a discussion to evaluate existing barriers to implementing LID infrastructure in the permittee's codes, ordinances and policies. ● The outcome of this discussion must identify opportunities for change and address the potential inconsistencies between policies. ● Appropriate staff must include member(s) of various departments, some of which may include: <ul style="list-style-type: none"> ○ Parks and Recreation; ○ Public Works; ○ Planning; ○ Environmental Protection; ○ Utilities; and ○ Transportation. ● Submit a summary of the discussion outcomes with the 4th Annual Report. 	2020	Goal: Incorporate utilization of LID concepts on public and private property into plans, policies, and ordinances. Initiate process by convening appropriate staff to discuss incorporation alternatives and opportunities.

2.6 Pollution Prevention and Good Housekeeping

CC will develop and implement an operation and maintenance program, including training, which has an ultimate goal of preventing or reducing pollutant runoff from permittee operations within the 2010 Census Urban Area but outside Great Falls city boundaries. CC facilities or activities within Great Falls City boundaries are managed by the City storm water management program but will have County BMPs installed and maintained.

a. Identify the operation and maintenance program to prevent or reduce pollutant runoff from permittee-owned/operated facilities and field activities.	i.	<ul style="list-style-type: none"> • Create an inventory of permittee-owned/operated facilities and activities that have the potential to release contaminants to the MS4. The inventory should include, at a minimum, the following: <ol style="list-style-type: none"> 1. Facilities: <ul style="list-style-type: none"> ▪ maintenance and storage yards; ▪ waste handling and disposal areas; ▪ vehicle fleet or maintenance shops with outdoor storage areas; ▪ salt/sand storage locations; and ▪ snow or dredge material disposal areas operated by the permittee. 2. Activities: <ul style="list-style-type: none"> • park and open space maintenance; • parking lot maintenance; • building maintenance • road maintenance/deicing; and • storm water system maintenance including catch basin cleaning. • List the possible contaminant(s) from each facility/activity and list the local department(s) and position(s) responsible for pollution prevention with each facility/activity. • Update the inventory annually. 	2017	Goal: Inventory permittee-owned/operated facilities and activities that could potentially release contaminants to the MS4.
	ii.	<ul style="list-style-type: none"> • Develop a map that identifies the locations of facilities and known locations of activities identified in 6.a.i. • Update the map annually. 	2018 2019 2020 2021	Goal: Map permittee-owned/operated facilities. Update map annually.
	iii.	<ul style="list-style-type: none"> • Organize similar facilities and activities identified in 6.a.i. into categories, label the categories, and develop standard operating procedures (SOPs) for all categories. • Development of the SOPs must include documented inspections and communication with relevant department personnel of 2 facilities/activities per category prior to 	2018 2019 2020 2021	Goal: Develop Standard Operating Procedures (SOPs) for permittee-owned and operated facilities and activities.

	<p>SOP category completion.</p> <ul style="list-style-type: none"> • The SOPs must identify storm water pollution controls (structural and nonstructural controls, and operation improvements) to be installed, implemented, and/or maintained to minimize the discharge of contaminants. • The permittee must complete, at a minimum, the required SOPs according to the following schedule: <ul style="list-style-type: none"> ○ one-fourth by the end of the 2nd permit year; ○ one-half by the end of the 3rd permit year; ○ three-fourths by the end of the 4th permit year; and ○ all by the end of the 5th permit year. • Submit the completed SOPs annually starting with the 2nd Annual Report. 		
iv.	<ul style="list-style-type: none"> • Develop and internally document storm water pollution prevention training in conjunction with the development of the SOPs for each category. 	2018 2019 2020 2021	Goal: Develop storm water pollution prevention training associated with each SOP category.
v.	<ul style="list-style-type: none"> • Conduct annual storm water pollution prevention training for all permittee staff directly involved with implementing SOPs. • Trainings will be conducted during the next permit year after development of each SOP. <i>Example: SOP and training developed in 2nd Permit Year. Training conducted in 3rd Permit Year.</i> • Retain records of completed trainings and attendance. 	2019 2020 2021	Goal: Conduct SOP-specific storm water training for applicable CC personnel involved with implementing SOPs.

B. Training

Cascade County will conduct the following training.

1. Training the 1st year of permit for all members of storm water management team. New members will receive training within 90 days of adding to team.
2. Storm water awareness training for appropriate field staff and facility staff during 1st and 4th year. New members will receive training within 90 days of adding to team.
3. Training for all inspectors and plan reviewers during 1st and 4th year for construction site storm water management control minimum measures. New members will receive training within 90 days of adding to team.
4. Training for all inspectors and plan reviewers during 1st and 4th year for post-construction site storm water management control minimum measures. New members will receive training within 90 days of adding to team.
5. Conduct training for storm water staff responsible for implementing Standard Operating Procedures. New members will receive training within 90 days of adding to team.

C. Sharing Responsibility

If CC shares responsibilities with other entities, a binding document will be written addressing compliance with this permit.

D. Qualifying Local Program

CC is not part of a Qualifying Local Program.

E. Transfer of Ownership, Operational Authority, or Responsibility for SWMP

CC will implement the SWMP on all new areas added to the MS4 permit as expeditiously as possible. Implementation may be accomplished in phases to allow additional time for controls that cannot be implemented immediately.

Within 90 days of a transfer of ownership, operational authority, or responsibility for SWMP implementation, CC will have a plan for implementing the SWMP on all newly added areas. The plan may include schedules for implementation. Information on all new annexed areas and any resulting updates required for the SWMP will be included in the Annual report.

F. Storm Water Management Program Updates Required by the Department

DEQ may require changes to the SWMP as needed to:

1. Address impacts on receiving water quality caused, or contributed to, by discharges from

small MS4;

2. Include more stringent requirements necessary to comply with new federal statutory or regulatory requirements; or
3. Include such other conditions deemed necessary by the Department to comply with the goals and requirements of the Montana Water Quality Act.
4. Update BMP's as necessary to improve program effectiveness per information and data submitted in permittee's annual report.
5. Changes requested by the Department must be made in writing, set forth the time schedule for the permittee to develop the changes and update their program, and offer the permittee the opportunity to propose alternative to their program to meet the objectives of the requested changes.

Part III. Special Conditions

A. Water Quality Controls for Storm Discharges to Impaired Waterbodies Pre-Total Maximum Daily Load (TDML) Approval.

CC has identified outfalls into the lower Sun River, Missouri River at Great Falls, and lower Sand Coulee Creek. Locations of outfalls are shown on the attached CC Infrastructure Map. Updated location of outfalls will be submitted with the 1st Annual report and subsequent annual reports.

The Missouri River at GF does not have impairment parameters from Table 1 in Part IV of the permit. Lower Sand Coulee Creek impairment parameters from Table 1 in Part IV include lead and zinc. Sun River impairment parameters from Table 1 in Part IV include phosphorus, nitrogen, and total suspended solids.

Impairment Parameters	Sample Location		
	Approved TMDL	Pre-TMDL	Pre-TMDL
	Sun River	Sand Coulee Creek	Missouri River
Total Suspended Solids (TSS), mg/L	X		
Total Phosphorus, mg/L	X		
Total Nitrogen, mg/L	X		
Flow Regime Modification	X		
Zinc, mg/L		X	
Salinity		X	
Lead, mg/L		X	
Sedimentation – Siltation	X		X
Total Chromium			X
Mercury			X
Physical Substrate Habitat Alterations			X
PCBs			X
Selenium			X
Turbidity			X

The Missouri River and Sand Coulee Creek do not have an approved TMDL.

CC has selected Monitoring Option 2 and will submit a plan with the 1st Annual report. The plan will include strategy rationale, monitoring frequency, monitoring parameters, and monitoring locations. After approval by the Department, the plan will be made available for public review.

B. Water Quality Controls for Storm Discharges to Impaired Waterbodies with Approved TMDL Wasteload Allocations (WLAs)

As detailed above, the Missouri River and Sand Coulee Creek do not have approved TMDLs at this time. The Lower Sun River has approved TMDLs for TSS, Phosphorus, and Nitrogen as detailed within the “Water Quality Restoration Plan and Total Maximum Daily Loads for the Sun River Planning Area” document prepared by the Montana DEQ.

B.1 Lower Sun River TMDLs

B.1.1 Phosphorus

The Lower Sun River is noted as having elevated levels of total phosphorus and a target concentration of 50 µg/L (0.050 mg/L) was selected for the subject section of river. In the Sun River Watershed, phosphorus tends to cling on soils particles and is usually transported and associated with suspended sediment in water (Walther, 1982). As noted within the TMDL document, it is anticipated that Muddy Creek contributes approximately 63% of the total phosphorus loading to the Sun River and most of the nutrient load found in the Lower Sun River is derived from upstream sources. Additional areas contributing phosphorus loading include small, intermittent tributaries with unstable, eroding banks; fallow cropping; hay production; AFO's, CAFO's, urban activities and POTW. As noted within the document, source reduction within Muddy Creek is required to provide nutrient reduction as necessary to meet TMDL requirements within the lower Sun River Watershed. Additionally, it is anticipated that increased discharge permit requirements associated with Sun Prairie Village and Vaughn wastewater treatment systems are also anticipated to impact long term nutrient loading. Although not directly listed as a significant point source at this time, Cascade County will begin incorporating phosphorus reducing activities in preparation for future TMDL documentation and in anticipation of subsequent reports following watershed remediation projects within the Muddy Creek reach.

B.1.2 Nitrogen

The Lower Sun River is noted as having elevated levels of nitrogen and a target concentration of 650 µg/L (0.650 mg/L) was selected for the subject section of river. In the Sun River Watershed, fertilizer and livestock production are the largest human caused contributors of nutrients. Therefore; eroding banks along the river and its tributaries are likely a significant source of phosphorus. As noted within the TMDL document, it is anticipated that Muddy Creek contributes approximately 85% of the total nitrate loading to the Sun River and most of the nutrient load found in this section of river is derived from upstream sources. Additional areas contributing nitrogen loading include small, intermittent tributaries with unstable, eroding banks; fallow cropping; hay production; AFO's, CAFO's, urban activities and POTW. As noted within the document, source reduction within Muddy Creek is required to provide nutrient reduction as necessary to

meet TMDL requirements within the lower Sun River Watershed. Additionally, it is anticipated that increased discharge permit requirements associated with Sun Prairie Village and Vaughn wastewater treatment systems are also anticipated to impact long term nutrient loading. Although not directly listed as a significant point source at this time, Cascade County will begin incorporating nitrogen reducing activities in preparation for future TMDL documentation and in anticipation of subsequent reports following watershed remediation projects within the Muddy Creek reach.

B.1.3 Sediment

The lower Sun River is noted as having excessive silt deposition due to sediment loading being deposited in the channel originating upstream. Additionally, riparian agricultural impacts to the riverbanks within the lower Sun River area also contribute to sediment loading. A general bank erosion target for less than 10% eroding banks is provided within this reach to address eroding bank issues with a corresponding 75th percentile concentration of 42 mg/L. The total allocation to all natural and human caused immediate sediment sources on the lower Sun River will be 4,685 tons/year which requires a 35% reduction in loading from immediate sources in the area. As noted within the TMDL document, it is anticipated that Muddy Creek and upstream sources are the main source of high suspended solid concentrations and upstream restoration activities in Muddy Creek and the upper Sun River are crucial to restoring uses in the lower Sun River. Grazing management and buffer enhancements are the only restoration goals presented for the lower Sun River segment at this time. Although not directly listed as a significant point source at this time, Cascade County will begin incorporating sediment reducing activities in preparation for future TMDL documentation and in anticipation of subsequent reports following watershed remediation projects within upstream contributing area.

B.2 Proposed BMPs

Cascade County continues to develop and implement its MS4 program that includes all six required Minimum Control Measures. Continued implementation of the MS4 program will target pollutants of impairment by evaluating potential sources to receiving waterbodies and determining applicable remedies to address those potential impacts.

Phosphorus BMPs

As noted within the TMDL documentation, a large portion of the in-stream phosphorus is attributed to streambank erosion and sediment transport. As such, Cascade County will continue to implement water quality standards associated with the MS4 permit to incorporate storm water treatment prior to discharge into the receiving streams. Additionally, and as noted within the TMDL document, streambank protection and remediation projects will also benefit the overall water quality of the watershed.

Continued implementation of construction storm water runoff requirements as well as post-construction BMPs area generally targeted at sediment transport and erosion control which directly benefits this impairment parameter.

Nitrogen BMPs

Nitrogen concentrations within the lower Sun River are noted as being generally impacted by agricultural activities and the application of fertilizers within the watershed. While the TMDL document details the need for remediation within upstream contributing areas, Cascade County will continue to implement the MS4 program to aid in water quality treatment within the downstream portion of the lower Sun River. CC will continue to implement targeted training and informational pamphlets to detail the importance of controlled fertilizer and chemical application as well as other activities currently utilized by the County for public outreach and education.

Sediment BMPs

Sediment transport generally originating from streambank erosion is noted as a major impairment within the lower Sun River. While the river length within the Cascade County MS4 area is relatively limited, the continued implementation of MCMs 1-6 as well as construction and post-construction storm water requirements will continue to aid in the reduction of sediment loading to the watershed. In addition to the current permit operations, the County may also seek to partner with the nearby irrigation districts to help facilitate the implementation of riparian management throughout the watershed to aid in reducing bank erosion and ultimately sediment loading.

Part IV. Monitoring, Recording, and Reporting Requirements

A. Self-Monitoring

1. Storm Water Discharge Monitoring

CC will perform the following storm water sampling outlined in A2 and A3 below.

2. Specific Monitoring Parameters

The following monitoring parameter will be evaluated:

Table 1. Section IV Parameters

Parameter ⁽¹⁾⁽²⁾	Frequency	Type ⁽³⁾
Total Suspended Solids (TSS), mg/L	Semi-annual	Grab or Composite
Chemical Oxygen Demand (COD), mg/L	Semi-annual	Grab or Composite
Total Phosphorus, mg/L	Semi-annual	Grab or Composite
Total Nitrogen, mg/L	Semi-annual	Grab or Composite
pH, standard units	Semi-annual	Instantaneous
Copper, mg/L	Semi-annual	Grab or Composite
Lead, mg/L	Semi-annual	Grab or Composite
Zinc, mg/L	Semi-annual	Grab or Composite
Estimated Flow, gpm	Semi-annual	Instantaneous ⁽⁴⁾
Oil and Grease ⁽⁵⁾ , mg/L	Semi-annual	Grab

(1) Detection limits are pursuant to levels defined in Circular DEQ-7

(2) Total recoverable methods to be used on all metals

(3) See Definitions in Part VII of this General permit

(4) Estimated flow rates are appropriate in cases where measurement gauges are not installed

(5) Hexane extraction (EPA Method 1664A)

3. Monitoring Locations

CC has selected Monitoring Option 2. Locations are submitted with the application for General Permit coverage (Table 2).

Table 2. Option 2 Sample Location Special Conditions IV

Outfall Map Location	Storm Water Origin	Receiving Water
CC-1	Sun River	Monitoring upstream, outside the MS4 boundary to evaluate water quality entering the MS4. (Impaired Waterbody)
CC-12	Residential	Missouri River
CC-17	Industrial	Missouri River
CC-21	Commercial/Industrial	Sun River

4. Storm Water Discharge Monitoring Schedule

CC is required to begin self-monitoring starting January 1, 2020. CC elected to begin self-monitoring and reporting in 2017 because it does not possess storm water data in its jurisdiction.

5. Impaired Waterbodies Monitoring

Refer to Part III discussion above. New authorizations under the 2017 General Permit will apply Part III.A requirements and Part III.B is not applicable during this permit cycle. While Cascade County may not be required to provide TMDL-related monitoring at this time, outfall CC-21 was selected for Part IV monitoring as well as TMDL monitoring as the sampling location is intended to sample storm water that has first passed through low slope, wetland areas prior to discharge to attempt to document the effectiveness of the area's treatment of storm water prior to discharge into the impaired Sun River. CC-21 will continue to be monitored for this reason. Refer to "Montana Post-Construction Storm Water BMP Design Guidance Manual" for additional information pertaining to potential treatment components of bioretention and bioswale areas as well as extended detention basins.

6. Monitoring Frequency

- a. Samples will be collected semi-annually (two times per year) for each of the listed parameters above. One sample at each sample location will be collected between January 1st and June 30th of each permitted calendar year. The other sample between July 1st and December 31st.
- b. If CC cannot collect a sample during a six-month monitoring period a substitute sample will be collected in the following six-month monitoring period. Rationale will be reported in the annual report. The substitute and required six-month sample will then be collected. The samples may be collected from back to back storm events, with at least 48 hours of no measurable precipitation.
- c. CC may request to change sample outfalls if a sample cannot be collected during a six-month sampling period. This is contingent on DEQ approval.

7. Monitoring Procedures

Monitoring will be conducted according to test procedures approved under Part 136, Title 40 of the Code of Federal Regulations.

8. Penalties for Tampering

The Montana Water Quality Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$25,000, or by imprisonment for not more than six months, or both.

B. Reporting and Evaluation of Monitoring Results

1. Monitoring results will be reported with each annual report.
2. In each annual report, a calculation of the long term medium concentration of each parameter in Table 1 of Part IV.A. will be supplied from all monitoring results.
3. Monitoring results will be used to self-evaluate measures taken to improve the quality of storm water discharges. Each annual report shall include an evaluation of the monitoring results relative to the long term medium and will include the following:
 - Comparison between monitoring stations;
 - Discussion of trends and outliers in monitoring results compared to the calculated long-term median;
 - Discussion of exceedances of pH outside the range of 6.0 to 9.0; and
 - Schedule and rationale for BMP's planned to improve water quality of storm water discharge based on monitoring results.

C. Monitoring Records

The following information will be recorded and maintained by CC for all storm water discharges that are sampled:

1. Date, exact place, and time of sampling;
2. Estimate duration (in hours) of the storm event(s) sampled;
3. Total rainfall measurements or estimates (in inches) of the storm event which generated the sample runoff;
4. Name(s) of the individual who performed the sampling or measurements; and
5. Analytical laboratory test result data and reports for storm water samples, and/or records, which include:
 - a. The date(s) analyses were performed;
 - b. The time analyses were initiated;
 - c. The initials or name(s) of individual(s) who performed the analyses;
 - d. Reference and written procedures, when available, for the analytical techniques or methods used;
 - e. The results of such analyses, including the bench sheets, instruments readouts, computer disks or tapes etc. used to determine the results.

D. Retention of Records

CC will keep records of monitoring information and results for three years from date of sample.

E. Compliance Schedule

Reports will be submitted to DEQ electronically or paper format no later than 14 days following each schedule date unless otherwise specified by the permit.

F. Annual Report

CC will submit the following in their Annual Report:

1. An annual report will be submitted for each calendar year within the permit term;
2. Signed annual report will be submitted electronically by March 1st of each year for the preceding calendar year. Electronic submission is through NetDMR;
3. DEQ Annual Report Form will be submitted;
4. Additional requested information will be submitted with the annual report;
5. Monitoring results and evaluation will be included;
6. Dates and descriptions of the Storm Water Management Program updates will be included;
7. Maps will be included with updates;
8. Annual report will comply with signatory and certification requirements;
9. Submitted documents will be retained on site and made available upon request;
10. Annual report will comply with the signatory and certification requirements; and
11. Updates or revisions to submitted documents will be retained on site and made available upon request.

G. Changes in Storm Water Coordinator

If CC Storm Water Coordinator person/position, mailing address, email address, or telephone number should change, the Department will be notified in writing within 15 calendar days of the change. The notification will state there is a “change of the Storm Water Coordinator”. The notification will include the permit authorization number and identify CC formal “Small MS4 Name”. The notification letter will be signed by a person meeting the signatory requirements.

H. Records for Inspection

A copy of the General permit, permit authorization letter, required SWMP, annual reports, and other records required by the General permit will be maintained by the Storm Water Coordinator for this Small MS4. The documents will be made available to Department inspectors upon request.

I. Inspection and Entry

The head of DEQ, regional Administrator, or an authorized representative, upon presentation of credentials and other documents as required by law, to:

1. Enter upon the premises;
2. Will be given access to and copy at reasonable times, any record kept under the conditions of the permit;
3. Inspect at reasonable times facilities, equipment practices, and operations related to this permit; and
4. Sample or monitor at reasonable times for the purpose of assuring permit compliance, any substances or parameters.

J. Twenty-four Hour Notice of Noncompliance Reporting

CC will report any serious incident of noncompliance affecting the environment, as soon as possible, but no later than twenty-four (24) hours from the time a noncompliance was documented. The report will be made to the Water Protection Bureau at 406-444-3080 or the Office of Disaster and Emergency Services at 406-324-4777.

A written submission will also be made within five days of the time CC became aware of the noncompliance. The written submission will include:

1. A description of the noncompliance and cause;
2. The period of noncompliance, including exact dates and times;
3. The estimated time noncompliance is expected to continue if it has not been corrected already;
4. Report will be submitted to the DEQ Water Protection Bureau, P.O. Box 200901, Helena, MT 59620; and
5. The written report may be waived by DEQ

K. Other Required Reporting

CC will report any serious incident of illicit discharge affecting the environment, as soon as possible, but no later than twenty-four (24) hours from the time documentation of the circumstances occurs. The report will be made to the Water Protection Bureau at 406-444-3080.

A written submission will also be made within five days of the time CC became aware of the circumstances. The written submission will include:

1. A description of the illicit discharge and origin/cause;
2. The period of illicit charge, including exact dates and times;
3. The estimated time for correction of the illicit discharge if it has not been corrected already;
4. Report will be submitted to the DEQ Water Protection Bureau, P.O. Box 200901, Helena, MT 59620; and
5. The written report may be waived by DEQ.

Part V. Compliance Responsibilities

A. Duty to Comply

CC will comply with all conditions of the permit within the legal authority it has been granted. CC does not have self-governing powers to enact a stand-alone ordinance to regulate MS4 program activity.

Subject to the previous paragraph, any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for termination under the General permit; or for denial of coverage under this General Permit renewal. CC will give the Department advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance.

B. Penalties for Violations of Permit Conditions

The Montana Water Quality Act provides that any person who violates a permit condition of the Act is subject to civil or criminal penalties not to exceed \$25,000 per day or one year in prison, or both, for the first conviction, and \$50,000 per day of violation or by imprisonment for not more than two years, or both, for subsequent violations. MCA 75-5-611(a) also provides for administrative penalties not to exceed \$10,000 for each day of violation and up to a maximum not to exceed \$100,000 for any related series of violations. Except as provided in permit conditions “Bypass of Treatment Facilities” and “Upset Conditions”, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

C. Need to Halt or Reduce Activity not a Defense

CC will do everything within its legal authority to halt or reduce the permitted activity to include notification of MDEQ Enforcement Division in order to maintain compliance within conditions of the permit.

D. Duty to Mitigate

CC will take all reasonable steps to minimize or prevent any discharges in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operations and maintenance

Within the 2010 census urban area, CC will operate and maintain all facilities and systems of treatment and control which are installed or used by CC to achieve compliance of the permit.

F. Removed Substances

Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the State or creating a health hazard.

Part VI General Requirements

A. Planned Changes

CC will give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility.

The alterations or additions could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit, changes that will significantly change the nature or increase the quantity of pollutants discharged.

B. Anticipated Noncompliance

CC will give advance notice to the Department of any planned changes that will result in a noncompliance.

C. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by CC for a permit modification, revocation, and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

D. Duty to Reapply

If CC wishes to continue an activity regulated by this permit after the expiration date of this permit, CC will apply for and obtain a new permit. The NOI will be submitted at least 90 days before the expiration date of the permit.

E. Duty to Provide Information

CC will comply with supplying requested information by the Department.

F. Other Information

CC will promptly supply information overlooked in any report when it becomes aware of the omission. Narrative explaining the oversight will be included.

G. Signatory Requirements

All CC NOIs, reports, or information submitted to the Department or the EPA shall be signed and certified.

1. Permit Notices of Intent shall be signed by either the principal executive officer or ranking elected official.

2. All reports required by the permit and other information requested by the Department will be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:
 - a. Authorization is made by person described above;
 - b. Authorization will be an individual person or a position having responsibility for the overall operation of the regulated facility or activity, including environmental matters.
3. If authorization described above changes, the Department will be notified prior to or together with any reports, information, or NOIs to be signed by the authorized representative.
4. Any person signing a document under this section will make the following certification.
5. "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. Penalties for Falsification of Reports

The Montana Water Quality Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by the Clean Water Act, NOIs, permits and effluent data shall not be considered confidential.

J. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subjected under Section 311 of the Clean Water Act.

K. Property Rights

The issuance of this permit does not convey any property or water rights of any sort, or any exclusive privileges.

L. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

M. Transfers

This permit is not transferable to a new permittee. A new owner or operator must apply according to the standard application procedures 30 days prior to taking responsibility for the facility.

N. Fees

CC will submit payment of an annual fee set forth in ARM 17.30.201. If CC fails to pay the annual fee within 90 days after the due date for payment, the Department may:

1. Impose an additional assessment computed at the rate established under ARM 17.30.201: and,
2. Suspend the processing of the application for a new permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interested imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.

O. Reopener Provisions

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occur:

1. **Water Quality Standard:** The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different permit conditions than contained in this permit.
2. **Water Quality Standards Exceeded:** If it is found that water quality standards or trigger values in the receiving stream are exceeded either for parameters included in this permit or others, the Department may modify the permit conditions or water management plan.

3. TMDL or Wasteload Allocation: TMDL requirements or a wasteload allocation is developed and approved by the Department and/or EPA for incorporation in this permit.
4. Water Quality Management Plan: A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.

P. Toxic Pollutants

A toxic standard or prohibition is established under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.

Part VII. Definitions

1. The "Act" means the Federal Clean Water Act.
2. "Best Management Practices" ("BMPs") means schedule of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of state waters. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
3. "Control measure" as used in this General Permit, means any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to state waters.
4. The "Department" means the Montana Department of Environmental Quality.
5. "Flow-weighted composite sample" means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.
6. "Grab Sample" for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.
7. "Green Infrastructure" means vegetation, soils, and natural processes used to manage water and create healthier urban environments. At the scale of a city or county, green infrastructure refers to the patchwork of natural areas that provides habitat, flood protection, cleaner air, and cleaner water. At the scale of a neighborhood or site, green infrastructure refers to storm water management systems that mimic nature by soaking up and storing water.
8. "Hazardous substance" means any substance designated under 40 CFR Part 116 pursuant to section 311 of the federal Clean Water Act.
9. "Illicit Connection" means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.
10. "Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to an MPDES permit (other than the MPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities.
11. "MEP" is an acronym for "Maximum Extent Practicable", the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by the Clean Water Act, Section 402(p). A discussion of MEP as it applies to Small MS4s is found in ARM 17.30.1111(5). The MEP standard

requires the development, implementation, and enforcement of measures including BMPs, control techniques, system design, engineering methods, and other provisions that the Department determines to be appropriate for the control of such pollutants. MEP is an iterative, dynamic, flexible standard that the permittee shall evaluate and update continuously, as necessary, to better tailor or expand the program based on its effectiveness in reducing pollutant discharge load.

12. "MS4" means a municipal separate storm sewer system.
13. "Municipal separate storm sewer⁽¹⁾" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that discharges to surface waters and is: (a) owned or operated by the state of Montana, a governmental subdivision of the state, a district, association, or other public body created by or pursuant to Montana law, including special districts such as sewer districts, flood control districts, drainage districts and similar entities, and designated and approved management agencies under section 208 of the federal Clean Water Act, which has jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, and is:
 - a. designed or used for collecting or conveying storm water;
 - b. not a combined sewer; and
 - c. not part of a publicly owned treatment works (POTW) as defined in ARM Title 17, chapter 30, subchapter 13.
14. "Non-Traditional MS4" means MS4s which are designated as Small MS4s but are not cities or counties, such as drainage districts, transportation agencies, municipal utility districts, military bases, prisons and universities.
15. "Outfall" means the physical location where these conveyance structures discharge pollutants or storm water into surface water or where they leave the boundary of the designated MS4. The term does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances that connect segments of the same stream or other surface waters and that are used to convey surface waters.
16. "Owner or operator" means a person who owns, leases, operates, controls, or supervises a point source.
17. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

18. "Process wastewater" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.
19. "Small municipal separate storm sewer system" means:
 - a. small MS4s, and portions of them, that are located in the following urbanized areas in Montana as determined by the latest decennial census by the United States census bureau:
 - i. the city of Billings and Yellowstone County;
 - ii. the city of Missoula and Missoula County; and
 - iii. the city of Great Falls and Cascade County;
 - b. the following small MS4s serving a population of at least 10,000 as determined by the latest decennial census by the United States census bureau and that are located outside of an urbanized area:
 - i. MS4s located in the city of Bozeman;
 - ii. MS4s located in the city of Butte;
 - iii. MS4s located in the city of Helena; and
 - iv. MS4s located in the city of Kalispell;
 - c. MS4s designated by the department pursuant to 17.30.1107; and
 - d. systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large educational, hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.
20. "Small MS4" means a small municipal separate storm sewer system.
21. "State waters" is defined at 75-5-103, MCA.
22. "Storm Water" means storm water runoff, snow melt runoff, and surface runoff and drainage.
23. "Storm Water Management Program" or "SWMP" means a comprehensive program to manage the quality of storm water discharged from the Small municipal separate storm sewer system.
24. "Surface waters" means any waters on the earth's surface including, but not limited to, streams, lakes, ponds, and reservoirs, and irrigation and drainage systems discharging directly into a stream, lake, pond, reservoir, or other surface water. Water bodies used solely for treating, transporting, or impounding pollutants shall not be considered surface water.
25. "Time-weighted composite sample" means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

26. "Total Maximum Daily Load" or "TMDL" is defined at 75-5-103, MCA.
27. "Traditional MS4" means all cities and counties covered by this General Permit.
28. "Waste Load Allocation" or "WLA" means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources.