



Cascade County, Montana

MS4 Permit #MTR040013

Storm Water Management Plan (SWMP)

Implementation Date: July 30, 2022

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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). Implementation of the SWMP consistent with the requirements of the General Permit shall constitute compliance with reduction of pollutants to the MEP and satisfy the appropriate water quality requirements of the Montana Water Quality Act. Compliance can be achieved by addressing the six minimum control measures (MCMs) described in this document. The six MCMs 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. Effluent Limits & Monitoring Requirements

A. Storm Water Management Program

The permittee must develop, document, maintain and implement a SWMP which includes management practices, control techniques, system 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 the minimum required BMPs for implementation. DEQ requires 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.

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 MCMs 1 & 2: Public Education, Outreach, Involvement, & Participation

CC will implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps the public can take to reduce pollutants in storm water runoff. CC will also implement a public involvement/participation program to involve key target audiences in the development and implementation of the SWMP that complies with state and local public notice requirements.

Minimum Measure	BMP	Permit Year	Goals & Deliverables
<p>a. Develop & continue to utilize the permittee’s storm water website for public involvement.</p>	<p>i. Annually review and update a storm water website that, at a minimum, includes the following:</p> <ul style="list-style-type: none"> • A copy of, or link to, the MS4 General Permit • A copy of the Notice of Intent application form submitted to the DEQ including all supplemental information • Access to outreach strategy information and materials • Applicable outreach event information • Most current version of the SWMP and any supporting documents • At a minimum, five years of most recent annual reports submitted to the DEQ • A mechanism for providing public input for the SWMP including contact information and directions for comments, questions, and complaints. • Information regarding how to identify and report illicit discharges • Permittee requirements for construction activities and how to submit related complaints • The Notice of Intent application form and supplemental application information, the updated General Permit and a minimum of five years of annual reports must be posted on the website within 90 days of the effective dates of this General Permit. 	<p>2022 2023 2024 2025 2026 2027</p>	<p>Goal: Develop, advertise, review, and annually update a storm water website.</p> <p>Resources: CC Website: http://www.cascadecountymt.gov/ CC MS4 Website: http://www.cascadecountymt.gov/departments/public-works/ms4</p>

	ii. Provide a minimum of one opportunity annually for the public to provide comments on the SWMP. Document all relevant input, responses, and SWMP modifications made as a result.		
b. Determine key target audiences most appropriate for storm water education & outreach.	<p>i. Based on the permittee’s local knowledge of storm water pollutant generating activity within their MS4, document which business types and/or residential behaviors from the list below are common sources of pollutants, illicit discharges, spills, and/or dumping within the permitted MS4 boundaries. Select a minimum of four applicable key target audiences to address pollutant generating behavior through storm water education and outreach.</p> <p>Residential Behaviors:</p> <ul style="list-style-type: none"> • Car Washing/Care • General Common Education • Hazardous Waste Disposal • Home Chemical Care • Lawn & Garden Care • Pet Waste <p>Business Types:</p> <ul style="list-style-type: none"> • Carpet Cleaning/Restoration Companies • Construction Industry • Gas Stations • Industrial Facilities & Operations • Landscapers • Mobile Cleaning/Pressure Washing • Post Construction Facility Owners • Restaurant or Food Trucks <p>ii. Review key target audiences annually and identify the pollutants associated with each.</p>	2022 2023 2024 2025 2026 2027	Goal: Analyze Illicit Discharge Data and Determine Key Target Audience, list pollutants associated with each key target audience. Develop storm water education and outreach tailored to selected key target audiences.
c. Identify and develop outreach formats, distribution channels, and messages for each key target audience and associated storm water polluting behavior. Include approaches for involving the public in SWMP	<p>i. For each key target audience, select a minimum of one outreach strategy listed below. At least two outreach strategies must be active.</p> <p>Passive Outreach Strategies</p> <ul style="list-style-type: none"> • Advertisements • Brochures/Fliers • Business Specific Emails • Community Artwork/Murals 	2022 2023 2024 2025 2026 2027	Goal: Develop tailored outreach strategies for each key target audience. Outreach activities shall include a minimum of two active strategies.

<p>development and implementation.</p>	<ul style="list-style-type: none"> • Educational Signage • Informative Articles or Stories • Social Media • Sponsorship of Community Events • Targeted Door Hangers • Utility Bill Inserts • Vehicle Wraps <p>Active Outreach Strategies</p> <ul style="list-style-type: none"> • Cleanup Days/Events • Community Meetings/Presentations • Community Storm Water Surveys • Form a Citizen Storm Water Advisory Panel • Host AmeriCorps Member • Industry Specific Training • Participation in Community Events • Pet Waste Stations • Public Tours • Public Workshops • Rain Garden Adoption/Building Program • Storm Drain Adoption Program • Student Outreach/Class Work • Water Quality Monitoring with Citizen Volunteers <p>ii. Each year, the permittee must implement at least four activities. The activities can be the same or different from year to year. For each key target audience, identify the outreach strategies and planned timeframe for implementation for the upcoming year and include this information in the annual report.</p>		
<p>d. Develop and/or perform outreach to target audiences and track performance/ public involvement</p>	<p>i. Implement the identified outreach strategies (from Part II.A.1.c.i., above) for each key target audience.</p> <p>ii. For each key target audience and their associated outreach strategy, document participation and feedback using one or more of the performance tracking methods listed below:</p> <p>Performance Tracking Methods</p> <ul style="list-style-type: none"> • Community Surveys • Illicit Discharge Events 	<p>2022 2023 2024 2025 2026 2027</p>	<p>Goal: Implement and distribute outreach materials to key target audiences. Document participation and feedback. Maintain records of outreach materials, activities, and performance.</p>

	<ul style="list-style-type: none"> • Percentage of Populations Reached • Performance Audits • Total Distribution • Total Event Participation • Total Weight Collected • Website Analytics <p>iii. Maintain records on selected key target audiences, outreach strategies, and performance tracking methods. Use the resulting information and/or measurements to direct education and outreach resources most effectively and document modifications in the SWMP.</p>		
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2.2 MCM 3: Illicit Discharge Detection & 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, implement, and enforce a program to detect and eliminate illicit discharges into the MS4. CC will develop and annually update a storm sewer system map showing the location of all outfalls and the names/locations of all receiving waters. To the greatest extent possible, CC will effectively prohibit non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions to the extent allowable under state or local law. CC will develop and implement a plan to detect and address non-storm water discharges, including illegal dumping and will inform employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

Minimum Measure	BMP	Permit Year	Implementation Schedule
<p>a. Identify categories of non-storm water discharges or flows that are significant contributors of pollutants to the MS4.</p>	<p>i. Determine which potential non-storm water discharges or flows to the MS4, including but not limited to a consideration of those listed below, are significant contributors of pollutants.</p> <p>Non-Storm Water Discharges or Flows:</p> <ul style="list-style-type: none"> • Water Line Flushing • Landscape Irrigation • Diverted Stream Flows • Rising Ground Water • Uncontaminated Ground Water Infiltration • 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 • Street Wash Water <p>ii. In the SWMP, document and update annually:</p> <ul style="list-style-type: none"> • A list of potential non-storm water discharges the 	<p>2022 2023 2024 2025 2026 2027</p>	<p>Goal: Evaluate non-storm water discharges (if identified as significant pollutant contributors) and the storm water controls present. Updated SWMP document annually based on findings.</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>permittee has identified as significant contributors of pollutants (i.e. illicit discharges). Include the pollutants associated with each illicit discharge, and any local controls or conditions placed on these discharges.</p> <ul style="list-style-type: none"> • A list of potential non-storm water discharges the permittee has determined as non-significant contributors of pollutants (i.e., occasional incidental discharges) and will not be addressed as illicit discharges, based on the information available to the permittee. Include the pollutants associated with each type of discharge and any local controls or conditions placed on these discharges. 		
b. Inventory storm water sewer infrastructure to track illicit discharges, contain spills, and determine high priority areas.	<p>i. Annually review and update a map of the MS4's storm drainage system to accommodate the provisions of a comprehensive Illicit Discharge Detection and Elimination (IDDE) program and SWMP including, but not limited to, the following:</p> <ul style="list-style-type: none"> • Outfall Locations • Inlets • Open Channels • Subsurface Conduits/Pipes • Dry Wells • Manholes • Other Similar Discrete Conveyances • Surface Water that Receive Discharges from Outfalls 	<p>2022 2023 2024 2025 2026 2027</p>	<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>
	<p>ii. Using inspection and screening results, storm sewer maps, and other appropriate data, list, label, or highlight determined high priority outfalls. When determining high priority outfalls, permittees must consider, at a minimum, the following:</p> <ul style="list-style-type: none"> • Industrial Areas • Areas with previous illicit discharges • Known illegal dumping areas • Oldest portions of the storm sewer infrastructure • Areas with onsite sewage disposal systems • Areas discharging to an impaired water body <p>CC will identify a minimum number of high priority outfalls not equaling zero, based on the knowledge of potential illicit discharges in their MS4. High priority outfalls shall be reviewed and updated annually.</p> <p>iii. Update the map annually and make available for review by the Department upon request.</p>		<p>Goal: Determine high priority outfalls.</p> <p>Resources: CC Zoning Maps IDDE Investigation and Cleanup reports. CC Outfall Sampling Data CC Dry Weather Screening Data MS4 Mapping Efforts</p>

<p>c. Develop/update an Illicit Discharge Investigation and Corrective Action Plan to consistently and effectively investigate suspected illicit discharges and connections and track subsequent compliance actions.</p>	<p>i. Maintain and annually update an Illicit Discharge Investigation and Corrective Action Plan. The plan should describe the processes that will be used to locate the source of an illicit discharge and refer to the permittee’s Enforcement Response Plan (in Part II.A.2.d.i, below) for execution of appropriate enforcement actions. At a minimum, this plan shall include processes to:</p> <ul style="list-style-type: none"> • Investigate a suspected illicit discharge within seven calendar days. Document circumstances that prevent this timeframe. • Prioritize illicit discharges suspected of being sanitary sewage and/or significantly contaminated for investigation first. • Confirmed illicit discharges must be eliminated within a timeframe of six months from the date of discovery. Where applicable, document circumstances that prevent this timeframe. • Notify Montana DEQ and appropriate agencies of illicit discharges 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 illicit discharge and document each phase of the investigation in a case file. • Resolve and document the conclusion of all investigations. The outfall where any illicit discharge is detected shall continue to be considered high priority and should be investigated as required in this permit. If further investigation and corrective action results show the incident was isolated, with no indication of habitual illicit discharge, the outfall may be removed from the high priority list during annual review, as required in section II.A.2.b.ii., above. <p>ii. Implement the Illicit Discharge Investigation and Corrective Action Plan. When an illicit discharge is identified, the permittee must cease, or require the cessation of, the discharge within a timeframe of six months. After the illicit discharge has been eliminated, the permittee must also minimize surface contamination by removing, or requiring the removal of, surface residue or other types of pollutant sources.</p> <p>iii. Maintain documentation which describes investigations conducted and corrective actions taken per the Illicit Discharge</p>	<p>2022 2023 2024 2025 2026 2027</p>	<p>Goal: Develop an Illicit Discharge Investigation and Corrective Action Plan.</p> <p>Resources: CC SOPs CC IDI & CAP Plan</p>
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	Investigation and Corrective Action Plan. Submit a summary with each annual report.		
d. Through ordinance or other regulatory mechanism to the extent allowable under state or local law, effectively prohibit discharge of non-storm water into the regulated storm sewer system and implement appropriate enforcement procedures and actions.	<p>i. Maintain, update, and implement a formal Enforcement Response Plan (ERP) for illicit discharges. At a minimum, the ERP must describe or identify the following:</p> <ul style="list-style-type: none"> • Legal authority (through ordinance, formal policies, or memoranda of understanding) to eliminate and abate illicit discharges • Staff with enforcement authority • Enforcement actions available • An enforcement escalation process • A schedule utilized to quickly and consistently eliminate the source of the discharge, abate any damages, and reduce the change of reoccurrence <p>To the extent allowable under local and state law, the ERP must include informal, formal, and judicial responses, such as the following:</p> <p>Informal:</p> <ul style="list-style-type: none"> • Telephone Notification • Verbal/Written Notice • Meetings <p>Formal:</p> <ul style="list-style-type: none"> • Administrative Order • Compliance Schedule • Order to Show Cause • Monetary Penalty (administrative) • Suspended Service • Notice of Violation (NOV) <p>Judicial:</p> <ul style="list-style-type: none"> • Injunctive Relief • Consent Decree • Civil Penalties • Criminal Penalties <p>ii. Permittees with legal authority must adopt an ordinance or other regulatory mechanism to prohibit illicit discharges, which shall include a provision prohibiting any occasional incidental non-storm water discharge event. Review the ordinance or regulatory mechanism once per permit cycle and update as needed.</p>	2022 2023 2024 2025 2026 2027	<p>Goal: Prohibit non-storm water discharges through an ordinance. Maintain, update, and implement ERP.</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 CC ERP CC IDI & CAP</p>

	<p>Permittees without legal authority to enact an ordinance or other regulatory mechanism to prohibit illicit discharges must develop and implement written policies and procedures to exert authority (to the extent allowable) over MS4 users, such as employees, the traveling public, contractors, etc... Review these written policies and procedures once per permit cycle and update as needed</p> <p>iii. 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 shall specify investigation and enforcement responsibilities and shall be described in each permittee's ERP and Illicit Discharge Investigation and Corrective Action Plan. Formalize cooperative agreements with all neighboring MS4s, as necessary, to implement the IDDE program.</p>		
<p>e. Inspect all outfalls during dry weather to detect illicit discharges and connections into the MS4</p>	<p>i. Inspect and screen all the permittee's outfalls during dry weather using the outfall field screening protocol developed by the <i>Center for Watershed Protection</i>, or an equivalent process. Using the protocol, if illicit discharge potential is determined, the permittee shall use the procedures identified above for tracing and removing an illicit discharge. This process shall be completed by the end of the permit cycle.</p> <p>ii. Inspect and screen identified high priority outfalls (from II.A.2.b.ii, above) during dry weather a minimum of once per year and submit a summary of screening results with each annual report.</p>	<p>2022 2023 2024 2025 2026 2027</p>	<p>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. High priority outfalls shall be screened yearly.</p>

2.3 MCM 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, implement, and enforce a program to reduce pollutants in any storm water runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre, including activities that are part of a larger common plan of development or sale that would disturb one acre or more. CC will develop and implement the following items, at a minimum:

- An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under state and local law;
- Requirements for site operator to implement appropriate erosion and sediment control BMPs, and to control waste;
- Procedures for site plan reviews that incorporate consideration of potential water quality impacts;
- Procedures for receipt and consideration of information submitted by the public; and
- Procedures for site inspections and enforcement control measures.

Minimum Measure	BMP	Permit Year	Implementation Schedule
<p>a. Require that all regulated construction projects within the Small MS4 submit a construction storm water management plan (site plan) prior to construction. The plan shall be consistent with state and local requirements and incorporate consideration of potential water quality impacts including storm water pollution prevention through appropriate erosion, sediment, and waste control BMPs. A storm water pollution prevention plan (SWPPP) developed pursuant to the MPDES General Permit, MTR100000 for Storm Water Discharges Associated with</p>	<p>i. Update and implement a construction storm water management plan review checklist that documents, at a minimum, the requirements described in the Technology-Based Effluent Limitations of the most current MPDES Storm Water Construction GP for all regulated construction projects. The checklist shall be used to ensure consistent review of submitted plans and to determine and document compliance with state and local requirements.</p>	<p>2022 2023 2024 2025 2026 2027</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. Implement construction storm water management plan review checklist.</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 CC Construction Design Review Checklist</p>

<p>Construction Activity (MPDES Storm Water Construction GP), may substitute for this site plan.</p>			
<p>b. Ensure that all construction storm water management controls are installed, operated, and maintained to function as designed.</p>	<p>i. Update and implement a site inspection form or checklist to complete consistent and thorough regulated project inspections for all regulated construction projects. The checklist shall include, at a minimum, the requirements described in the Technology-Based Effluent Limitations of the most current MPDES Storm Water Construction GP.</p> <p>ii. Maintain a regulated project inventory to include, at minimum, the following:</p> <ul style="list-style-type: none"> • If the project is covered under the most current MPDES Storm Water Construction GP and if so, the associated authorization number • The location, size, and topography of the site • The proximity of the site to waterbodies for each project <p>iii. Utilize a protocol to determine the priority and minimum routine inspection frequency of construction storm water management controls. Priority is to be determined using, at a minimum, the following criteria:</p> <ul style="list-style-type: none"> • Project size • Proximity to a water body • Steepness of the project site slopes • Discharge to waterbodies impaired for pollutants expected from construction projects • Past record of non-compliance by the operator of the construction site <p>The protocol shall establish the following minimum routine inspection frequency for all determined high priority projects:</p> <ul style="list-style-type: none"> • Once at commencement of construction after BMPs have been implemented • Once within 48 hours after each rain event of 0.25 inches or greater • Once within 48 hours after each occurrence of runoff from snowmelt due to thawing conditions that cause visible surface erosion at the site • Once at the conclusion of the project prior to finalization 	<p>2022 2023 2024 2025 2026 2027</p>	<p>Goal: Develop construction SWPPP review checklist. Maintain inventory of applicable projects and reviewed sites. Develop inspection protocol document and implement plan for site review frequencies.</p>

	<p>(i.e. release of bond, issuance of certificate of occupancy, etc.)</p> <p>In addition, the protocol shall include recidivism reduction and corrective measures at non-compliant sites, such as processes for:</p> <ul style="list-style-type: none"> • Additional on-site visits; • Increased inspection frequency; • Written notice of violations; • Stop work orders; and • Advancement to enforcement via the ERP process, as discussed below in II.A.3.c.iii. <p>iv. The permittee must annually identify and inspect a minimum number of projects not equaling zero. Conduct and document inspections using the inspection form and determined routine inspection frequency protocol. If a routine inspection identifies non-compliance, or a failure to implement appropriate control measures that cannot be corrected at the time of initial inspection, the permittee must verify and confirm issues have been corrected within 14 days of documentation of non-compliance. If the illicit discharge has not ceased after 14 days, or control measures are still inadequate, the permittee must advance the non-compliant site through the established ERP process (II.A.3.c.iii).</p>		
<p>c. Through ordinance or other regulatory mechanism to the extent allowable under state and local law, effectively require controls of construction-related pollutants (such as sediment and erosion) on regulated construction projects and implement appropriate enforcement procedures/actions.</p>	<p>i. Adopt and implement an ordinance or other mechanism to require construction storm water controls on private and permittee-owned regulated projects. At a minimum, the regulatory mechanism must:</p> <ul style="list-style-type: none"> • Require the construction storm water management minimum standards (described as Technology-Based Effluent Limitations in the most current MPDES Storm Water Construction GP) to be implemented on all regulated construction projects. • Provide the permittee the authority to inspect privately-owned construction storm water management controls. <p>iii. The Enforcement Response Plan (ERP) developed in II.A.2.d.i. shall be implemented and maintained to ensure compliance with construction storm water management regulatory mechanisms on regulated projects including private property. The ERP must include informal, formal, and judicial responses</p>	<p>2022 2023 2024 2025 2026 2027</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. Implement ERP.</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>(as listed in II.A.2.d.i.). Additionally, the ERP shall include sanctions and enforcement mechanisms to achieve compliance and must describe or identify, at a minimum, the following:</p> <ul style="list-style-type: none"> • How the permittee will eliminate and abate illegal construction discharges • Staff with enforcement authority • Enforcement actions available • Enforcement escalation processes including a schedule to quickly and consistently eliminate the source of the discharge • How the permittee will facilitate abatement of the damages and reduce the chance of reoccurrence <p>In addition, the ERP must also include non-monetary construction project-specific penalties such as stop work orders, bonding requirements, and/or permit denials for non-compliance. Review the written ERP once per permit cycle and document updates in the SWMP, as needed.</p>		<p>CC Construction Design Review Checklist CC ERP</p>
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2.4 MCM 5: Post-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 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. Ensure that controls are in place to prevent or minimize water quality impacts. CC will develop and implement strategies that include a combination of structural and non-structural BMPs appropriate for the community and develop and implement an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under state or local law. Finally, CC will ensure adequate long-term operation and maintenance of post-construction BMPs.

Minimum Measure	BMP	Permit Year	Implementation Schedule
<p>a. Require that all regulated development projects submit a site plan 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. Update 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.</p> <p>ii. 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 (runoff reduction requirement). 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:</p> <ul style="list-style-type: none"> • Treated onsite using post-construction storm water management controls expected to remove 80 percent total suspended solids (TSS); • 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 • Treated offsite within the same sub-watershed using post-construction storm water management controls expected to remove 80 percent total suspended solids (TSS) <p>Permittees allowing offsite treatment shall do the following:</p>	<p>2022 2023 2024 2025 2026 2027</p>	<p>Goal: Update & implement post-construction plan review checklist. Update development regulations to require post-construction storm water management controls.</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 CC Post-Construction Storm Water Management Control Checklist</p>

	<ul style="list-style-type: none"> • Develop and apply criteria for determining the circumstances under which offsite treatment may be allowed. The criteria must be based on multiple factors, including but not limited to technical or logistic infeasibility, such as: <ul style="list-style-type: none"> • Lack of available space • High ground water • Groundwater contamination • Poorly infiltrating soils • Shallow bedrock • Prohibitive costs • A land use that is inconsistent with capture and reuse or infiltration of storm water <p>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 available onsite options have been evaluated and documented through the permittee’s developed formal review and approval process</p> <ul style="list-style-type: none"> • Maintain an inventory of regulated project which utilized offsite treatment for post-construction storm water runoff. The inventory must include the following information for each approved project: <ul style="list-style-type: none"> • Geographic location of the project • Location of offsite treatment • Documentation of rationale for approval of offsite treatment 		
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<p>b. Ensure that all post-construction storm water management controls are installed, operated, and maintained to function as designed.</p>	<p>i. Update and implement an inspection form or checklist to ensure consistent and thorough inspections of post-construction storm water management controls.</p> <p>ii. Maintain 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 this permit.</p> <p>iii. Maintain an inventory (including at 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 this permit.</p> <p>iv. Utilize a protocol to determine the priority and minimum routine inspection frequency of post-construction storm water management controls. Priority must be determined based on potential water quality impacts using specific criteria, which at a minimum shall include:</p> <ul style="list-style-type: none"> • Operation and maintenance needs of the practices • Proximity to water body • Drainage area treated • Land use type • Location within an impaired waterbody watershed <p>The permittee must annually identify a minimum number of projects for inspection not equaling zero.</p> <p>v. Inspect all permittee-owned high priority post-construction storm water management controls annually and document findings and resulting compliance actions.</p> <p>vi. Develop a program to either conduct inspections of private high priority post-construction storm water management controls, or to require self-inspection and reporting by owners. Inspect or have inspected all high priority privately-owned post-construction storm water management controls annually. Document findings and resulting compliance actions.</p>	<p>2022 2023 2024 2025 2026 2027</p>	<p>Goal: Develop and implement post-construction storm water management installation review checklist. Maintain inventory of new and existing private and permittee-owned management controls.</p> <p>Resources: CC Post-Construction Storm Water Management Installation Review Checklist CC Post-Construction Review Protocol</p>
<p>c. To the extent allowable under state or local law, effectively require, through ordinance, or other</p>	<p>i. Adopt and implement an ordinance or other regulatory mechanism to require post-construction storm water management controls on regulated projects that, at a minimum, include the performance standard described in Part II.A.4.a.ii,</p>	<p>2022 2023 2024</p>	<p>Goal: Adopt an ordinance or review other existing permit or permittee ordinances that insure authority has been granted to require post-construction storm</p>

<p>regulatory mechanism, post-construction storm water management controls on regulated projects and implement appropriate enforcement procedures and actions.</p>	<p>above. Review the ordinance or regulatory mechanism once per permit cycle and update as needed.</p> <p>ii. The ERP developed in II.A.2.d.i. shall be implemented and maintained 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 (as listed in II.A.2.d.i.). Additionally, at a minimum, the ERP must describe or identify the following:</p> <ul style="list-style-type: none"> • Legal authority to require inspection and maintenance of post-construction storm water management controls • Staff with enforcement authority • Enforcement actions available • An enforcement escalation processes • A schedule to be utilized to quickly and consistently enforce compliance with post-construction requirements. 	<p>2025 2026 2027</p>	<p>water management controls on regulated projects. Implement ERP.</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 CC ERP</p>
<p>d. Incorporate recommendations and requirements into plans, policies, and ordinances which allow and support utilization of LID (low impact development) concepts and green infrastructure on public and private property.</p>	<p>i. Assess and document existing ordinances, policies, programs, and studies to identify whether the following LID concepts (both structural and non-structural BMPs) have been implemented to promote protection of storm water runoff quality associated with new and redevelopment projects:</p> <ul style="list-style-type: none"> • Directing growth to identified areas • Protecting sensitive areas such as wetlands and riparian areas • Maintaining and/or increasing open space • Providing buffers along sensitive water bodies • Minimizing impervious surfaces • Minimizing disturbance of soils and vegetation <p>ii. By the end of the third year of the permit cycle, develop and submit a plan outlining any needed modifications to relevant codes, ordinances, policies, and programs to implement LID/green infrastructure concepts. The plan shall include, but is not limited to, the preventative actions identified above that have not yet been implemented and proposed timelines for any needed code, ordinance, policy or programmatic updates. If modifications to codes, ordinances, policies, or programs are not needed, submit a plan/overview of any work scheduled or completed to implement LID/green infrastructure concepts, such as those listed above.</p>	<p>2022 2023 2024 2025 2026 2027</p> <p>2024</p>	<p>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.</p>

2.5 MCM 6: Pollution Prevention and Good Housekeeping

CC will develop and implement an operation and maintenance program that includes a training component and has the goal of preventing or reducing pollutant runoff from municipal operations. The program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

<p>a. Implement an operation and maintenance program to prevent or reduce pollutant runoff from permittee-owned/operated facilities and field activities.</p>	<p>i. Maintain a written inventory of permittee-owned/ operated facilities and activities that have the potential to contribute contaminants to the MS4. The inventory should include, at a minimum, the following:</p> <p>Facilities:</p> <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 • Snow or dredge material disposal areas operated by the permittee <p>Activities:</p> <ul style="list-style-type: none"> • Park and open space maintenance • Parking lot maintenance • Building maintenance • Road maintenance/deicing • Storm water system maintenance including catch basin cleaning <p>Organize facilities/activities into labeled categories and list the possible contaminants from each. List the local department(s) and position(s) responsible for pollution prevention of each facility/activity. Update the inventory annually.</p> <p>ii. For each category established, maintain written standard operating procedures (SOPs) aimed at preventing or reducing pollutant contributions from municipal operations. Each SOP must contain, at a minimum, the following:</p> <ul style="list-style-type: none"> • Identified storm water pollution controls (structural and non-structural controls, and operation improvements) installed, implemented, and/or maintained to minimize the 	<p>2022 2023 2024 2025 2026 2027</p>	<p>Goal: Inventory permittee-owned/operated facilities and activities that could potentially release contaminants to the MS4. Establish and implement written SOPs aimed at preventing or reducing pollutant contributions from municipal operations. Maintain map that identifies locations of facilities and activities included within inventory. Complete storm water pollution prevention training for all permittee staff involved with implementing SOPs.</p>
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	<p>discharge of contaminants.</p> <ul style="list-style-type: none"> • Inspection procedures for facilities and their structural storm water controls, which at a minimum must include: <ul style="list-style-type: none"> • An annual visual inspection of each applicable facility • A verification that the written facility procedures, documentation, and site map are current. • Visual observation of locations and areas where storm water from facilities is discharged off-site, to state waters, or to a storm sewer system that drains to state waters. • Visual observation of facility conditions, including pollutant sources and control measures, to identify control measures that are inadequate or needing maintenance. All inadequate control measures shall be modified or replaced as soon as possible, but no later than six months from visual inspection. If a control measure cannot be modified or replaced within the six-month timeframe due to infeasibility (such as financial burden or time commitment of capital improvement projects), the permittee will provide a written explanation and a schedule for improvement with the following year’s annual report. Document facility inspections and communication with relevant department personnel regarding inadequate control measures. <p>Evaluate/update each SOP at least once over the term of this permit and submit any updates to SOPs with the annual report.</p> <p>iii. Maintain a map that identifies the locations of facilities and activities identified. Update the map annually.</p> <p>iv. Conduct storm water pollution prevention training in compliance with Section II.B (below) for all permittee staff directly involved with implementing SOPs. Retain records of completed trainings and attendance.</p>		
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2B. Training

Cascade County is required to conduct and/or coordinate, at a minimum, the following trainings and document applicable personnel participation. All new hires that fall into the categories below (section II.B.1-4) with potential to impact storm water pollutant contributions must receive the equivalent amount of the following training within 90 days of their hire date.

1. Storm Water Management Team

1st Year of Permit Term: Conduct comprehensive training for all members of the storm water management team to educate them about permit updates and implementation responsibilities for the upcoming permit term.

2. Construction Site Personnel

At a minimum of once during the permit term, conduct Construction Site Storm Water Pollution Prevention Plan (SWPPP) training for personnel, including inspectors and plan reviewers, responsible for the implementation of the Construction Site Storm Water Management Minimum Measure (MCM 4). Training shall include, at a minimum, inspection protocol and implementation of the MS4's ERP.

3. Post-Construction Site Personnel

At a minimum of once during the permit term, conduct plan review and stormwater facility inspection training for all personnel responsible for the implementation of the Post-Construction Site Storm Water Management Minimum Measure (MCM 5). Inspector training shall include, at a minimum, inspection protocol and implementation of the MS4's ERP.

4. Field & Facility Personnel

1st and 4th years of Permit Term: Conduct field and facility training for MS4 personnel responsible for completing work activities with storm water pollution potential. This shall include any staff or field crews subject to oversight through SOPs as part of the Pollution Prevention and Good Housekeeping Minimum Measure (MCM 6). The training must provide, at a minimum, education regarding the following:

- An overview of this permit and the requirements contained herein.
- Potential storm water impacts.
- The detection and elimination of illicit discharges.
- BMPs necessary to minimize discharges of pollutants during permittee activities or the operation of permittee-owned facilities.
- Any SOP updates completed as a result of the required work under MCM 6.

2C. Monitoring Requirements

1. Storm Event Monitoring

All permittees are required to perform sampling, testing, and reporting of storm water discharges for their small MS4s during a storm event with a measurable amount of discharge. The Department reserves the right to require additional storm water sampling, testing, and reporting on a case-by-case basis. All analytical procedures must comply

with the specifications of 40 CFR Part 136. The required monitoring parameters are listed in Table 1, below.

Table 1: Self-Monitoring & Reporting Requirements

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

(1) See definition section within General Permit for explanation of terms.

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

(3) Twice per year. One sample at each monitoring location must be taken between January 1st and June 30th of each permitted calendar year and the other sample between July 1st and December 31st

(4) Hexanes extraction (EPA Method 1664A)

a. Storm Event Monitoring Locations

For each semi-annual monitoring period, CC will sample within the permitted geographic area during a storm event with a measurable amount of discharge. Permittees will establish a network of at least four monitoring locations with at least one location representing a predominantly commercial and/or industrial area and at least one location representing a predominantly residential area. One monitoring location may be upstream, outside the MS4 boundary to evaluate water quality entering the MS4. Refer to Table 2 below for information regarding CC-selected sampling locations.

Table 2. Sample Location Summary

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

Refer to the CC Sampling & Analysis Plan and CC Outfall Map for additional information regarding sampling locations and sample location identifications.

b. Storm Event Monitoring Frequency

- i. 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.

- ii. 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.
- iii. 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.

2. Impaired Waterbody Monitoring

CC will maintain an inventory of all outfalls that discharge to impaired waterbodies including the impaired waterbody name and associated pollutant(s) of impairment. Based on the status of an approved total maximum daily load (TMDL), the permittee must target and reduce discharges to impaired waterbodies via implementation of BMPs and/or through additional TMDL-related monitoring. Information on impaired waterbodies may be obtained from DEQ or from the Clean Water Act Information Center website (<http://cwaic.mt.gov/>).

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 CC Infrastructure Map. Updated locations of outfalls will be submitted with subsequent annual reports.

The Missouri River at GF does not have impairment parameters within Appendix A of the General Permit. Lower Sand Coulee Creek impairment parameters include lead and zinc. Sun River impairment parameters from Appendix A of the General Permit include phosphorus, nitrogen, total suspended solids, and sediment.

Table 3: Impaired Waterbody Monitoring Summary

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.

a. Pre-Total Maximum Daily Load

As detailed within Table 3 above, CC has identified outfalls that discharge to Sand Coulee Creek and the Missouri River which have noted impairments without an approved TMDL. In accordance with the requirements detailed within the General Permit, CC plans to evaluate its contribution to impairments for the pollutants identified in Table 3 above and implement BMPs targeted at reducing discharges contributing to the impairments. Results of the wet weather monitoring will be utilized to assess the County's BMP performance and will be utilized to evaluate future BMP implementation.

CC will continue to implement the 6 MCMs to target and reduce discharges to impaired waterbodies and will evaluate additional BMPs for implementation based on wet weather monitoring results and IDDE investigations. CC will maintain a summary of BMPs implemented each year as well as a schedule for planned future BMPs.

b. Approved TMDL Wasteload Allocations (WLAs)

As detailed within Table 3 above, CC has identified outfalls that discharge to the Sun River which have noted impairments with an approved TMDL. The Lower Sun River has approved TMDLs for TSS, Phosphorus, Sedimentation, 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.

In accordance with the requirements detailed within the General Permit, CC plans to evaluate its contribution to impairments for the pollutants identified in Table 3 above and implement BMPs targeted at reducing discharges contributing to the impairments. Results of the wet weather and TMDL monitoring will be utilized to assess the County's BMP performance and will be utilized to evaluate future BMP implementation. Implemented BMPs will be evaluated, revised as needed, and resubmitted with the 2025 Annual Report.

CC will continue to implement the 6 MCMs to target and reduce discharges to impaired waterbodies and will evaluate additional BMPs for implementation based on wet weather monitoring results and IDDE investigations. CC will maintain a summary of BMPs implemented each year as well as a schedule for planned future BMPs.

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 & TSS

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 – Lower Sun River

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.

b.2.1 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.

b.2.2 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.

b.2.3 Sediment & TSS 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.

b.3 TMDL-Related Monitoring

CC will supplement the Storm Event Monitoring Requirements in Part II.C of the permit with additional monitoring targeted at further evaluating MS4 loading to impaired waterbodies and evaluating BMP effectiveness. Refer to the CC Sampling & Analysis Plan for additional information. Impairments noted within Table 3 above are included within the Table 1 monitoring requirements and continued wet weather sampling will be utilized to review TMDL loading. CC will provide a minimum of one opportunity annually for the public to provide comments on the written sampling plan and TMDL-related monitoring.

b.4 TMDL-Related Monitoring Locations & Monitoring Frequency

CC will complete TMDL-related monitoring at least semi-annually for each of the storm-related pollutants listed as a source of impairment for each receiving waterbody. TMDL-related monitoring will be completed concurrently with the Storm Event Monitoring detailed above. CC has opted to utilize the same sampling locations for the TMDL-related monitoring as detailed in Table 2 above based on drainage areas associated with each outfall, surrounding land uses, and discharge locations.

2D. Recording Requirements

1. Monitoring Records

The following information will be recorded and maintained at the office of the MS4 coordinator for all monitoring samples:

- Date, exact place, and time of sampling
- Estimated duration (in hours) of the storm event(s) sampled
- Total rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff
- Name(s) of the individuals which performed the sampling or measurements
- Analytical laboratory test result data and reports for storm water samples, and/or records, which minimally indicate
 - Date(s) analyses were performed
 - Time analyses were initiated
 - Initial or name(s) of individual(s) who performed analyses
 - References and written procedures, when available, for the analytical techniques or methods used
 - The results of such analyses, including the bench sheets, instrument readouts, computer discs or tapes, etc. used to determine these results.

2. Retention of Records

CC shall retain records of all monitoring information for a period of at least five (5) years from the date of sample, measurement, report, or application. Records shall include:

- Performed calibrations
- Maintenance records
- Original strip chart recordings
- Copies of reports required by the General Permit
- Records of data used to complete the application for the General Permit

2E. Reporting & Evaluation of the SWMP

1. Annual Report and SWMP Updates

CC shall prepare and submit an annual report to DEQ for each calendar year within the General Permit term starting March 1, 2023. The signed annual report will be submitted electronically on the annual report form furnished by DEQ along with all required attachments and any additional requested information by March 1st of each year for the preceding calendar year. Any updates, changes, or improvements to the SWMP document made during the prior calendar year will be included as an attachment to the Annual Report with a date and description of the updates. Updates to the storm sewer map(s) will also be submitted electronically. All updates or revisions to submitted documents shall be retained onsite with the last revision date, and documents will be available upon request.

Part III. Special Conditions

a. **Sharing Responsibility**

A small MS4 may share responsibility to implement the minimum control measures with another entity to satisfy their MPDES permit obligations. Shared obligation must be in writing and maintained as part of the permittee's SWMP. In annual reports, the owners and operators of each MS4 must specify if they are relying on another entity to satisfy some, or any, of their permit obligations. Implementation of the control measure, or any component thereof, must be completed to a degree at least as stringent as the corresponding MPDES permit requirement.

Each individual MS4 remains responsible for compliance with its permit obligations if the other entity fails to implement the control measure, or any component thereof. Therefore, DEQ recommends MS4s with shared obligations enter into a legally binding agreement to minimize uncertainty about compliance with this MPDES permit.

b. **Qualifying Local Program**

If a qualifying local program (defined in ARM 17.30.1111(9)) requires a small MS4 to implement one or more of the six minimum control measures, the permittee is directed to follow that qualifying program's requirements rather than the applicable storm water management program requirements stated in Part II.A.

c. **Ownership, Authority, or Responsibility for SWMP Implementation**

The permittee must implement the SWMP on all new areas added to the permittee's portion of the Small MS4 (or for which the permittee becomes responsible for implementation of storm water quality controls) as expeditiously as possible. Within 90 days of transfer of ownership, operational authority, or responsibility for SWMP implementation, the permittee must have a plan for implementing the requirements of this General Permit on all newly added areas. The plan may include phases/schedules for implementation to allow for controls that cannot be implemented immediately. Information on all new annexed areas and any resulting updates to the SWMP must be included in the Annual Report.

d. **Changes in Storm Water Coordinator**

If the Storm Water Coordinator person/position, mailing address, email address, or telephone number identified on the application form change, the permittee shall notify the Department in writing within 15 calendar days of the change. Written notice must reference a "change of Storm Water Coordinator", identify the permit authorization number, identify the formal Small MS4 Name as identified on the application, and be signed by a person meeting the signatory requirements of Part IV.M. of the General Permit.

e. **Records for Inspection**

A copy of the General Permit, permit authorization letter, required SWMP documents, annual reports, discharge monitoring reports (if required), and other pertinent records required by the General Permit shall be maintained by the Storm Water Coordinator and

made available to Department inspectors upon request.

f. Twenty-four (24) Hour Notice of Noncompliance or Illicit Discharge

The permittee shall report any serious incident of noncompliance or illicit discharge affecting the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the Water Protection Bureau at (406) 444-5546 or the Office of Disaster and Emergency Services at (406) 324-4777. The following examples are considered serious incidents:

- Any noncompliance which may seriously endanger health or the environment.
- Any unanticipated bypass which exceeds any effluent limitation in the permit.
- Any upset which exceeds any effluent limitation in the permit.

Additionally, a written submission shall be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

- A description of the noncompliance/illicit discharge and its cause/origin.
- The period of noncompliance/illicit discharge, including exact dates and times.
- The estimated time for correction if it has not been corrected already.

DEQ may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-5546. Reports shall be submitted to the following address: DEQ Water Protection Bureau, PO Box 200901, Helena, MT 59620.

Part IV. Standard Conditions

a. Duty to Comply

The permittee must comply with all conditions of this permit. 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. The permittee shall 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 convictions. 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.

c. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The reapplication must be submitted at least 30 days before the expiration date of this permit.

d. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

e. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

f. Proper Operation & Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

g. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination,

or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

h. Property Rights

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

i. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

j. Inspection and Entry

Upon the presentation of credentials and other documents as may be required by law, the permittee shall allow the head of DEQ, the Regional Administrator, or any authorized representative, at reasonable times, to:

- Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- Have access to and copy any records that must be kept under the conditions of this permit;
- Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- Sample or monitor for any substance or parameters at any location for the purpose of assuring permit compliance.

k. 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, applications, permits and effluent data shall not be considered confidential.

l. Penalties for Falsification and Tampering

The Montana Water Quality Act provides that any person who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method, or 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.

m. Signatory Requirements

All applications, reports or information submitted to the Department or EPA shall be signed and certified. All permit notices of intent shall be signed by either a principal executive officer or ranking elected official. All reports required by the permit and other information requested by the Department shall 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:

- The authorization is made in writing by a person described above and submitted to the Department; and
- The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or an individual occupying a named position.)

If an authorization described above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the above requirements must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

Any person signing a document under this section shall make the following certification:

“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.”

n. Planned Changes

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition 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.

o. Anticipated Noncompliance

The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

p. Transfers

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

q. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in an application, or submitted incorrect information in an application or any report to the Department, it shall promptly submit such facts or information with a narrative explanation

of the circumstances of the omission or incorrect submittal and why they weren't supplied earlier.

r. Fees

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

- Impose an additional assessment computed at the rate established under ARM 17.30.201: and,
- Suspend the processing of the application for a 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 interest imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.

s. Removed Substances

Collected screenings, grit, solids, sludges, or other pollutants removed during 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.

t. 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 subject under Section 311 of the Clean Water Act.

u. 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.

v. 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 occurs:

- Water Quality Standards: 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.
- Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values in the receiving stream are exceeded either for parameters included in the permit or others, the Department may modify the permit conditions or water management plan.
- 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.

- **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.

w. 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 V. Definitions

The following definitions and abbreviations apply to terms used in this permit:

The **“Act”** means the Federal Clean Water Act.

“BMPs” is an acronym for **“Best Management Practices”** and 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.

“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.

The **“Department”** and **“DEQ”** means the Montana Department of Environmental Quality.

“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.

“Grab Sample” for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

“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.

“Hazardous substance” means any substance designated under 40 CFR Part 116 pursuant to section 311 of the federal Clean Water Act.

“Illicit Connection” means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

“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.

“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.

“MS4” means a municipal separate storm sewer system.

“Municipal separate storm sewer” 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:

- designed or used for collecting or conveying storm water;
- not a combined sewer; and
- not part of a publicly owned treatment works (POTW) as defined in ARM Title 17, chapter 30, subchapter 13.

“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.

“Outfall” means a physical location where conveyance structures discharge pollutants of 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.

“Owner or operator” means a person who owns, leases, operates, controls, or supervises a point source.

“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.

“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.

“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.

“Small MS4” means a small municipal separate storm sewer system.

“State waters” is defined at 75-5-103, MCA.

“Storm Water” means storm water runoff, snow melt runoff, and surface runoff and drainage.

“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.

“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.

“Time-weighted composite sample” means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

“Total Maximum Daily Load” or **“TMDL”** is defined at 75-5-103, MCA.

“Traditional MS4” means all cities and counties covered by this General Permit.

“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.