County of Missoula
Small MS4 Storm Water Management Program

Prepared for MPDES General Permit No. MTR040011

Prepared By:
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INTRODUCTION

Executive Summary:

It is a critical interest of the County to manage its storm water. From its impacts on public health and safety, surface water quality, wildlife habitat, and future development, the effectiveness and efficiency of storm water management is crucial. Consequently, the Federal government amended the Clean Water Act (CWA) in 1987 to regulate the management of storm water runoff from municipalities and specific industrial classifications. Recent state and federal regulations ("Phase II") promulgated in response to those amendments require that designated various municipalities and counties to obtain coverage under a Statewide General Permit by March of 2003. Though the County of Missoula is unable to enforce and implement certain aspects of a Storm Water Management Program (SWMP) due to Montana State Law, this document was prepared to exhibit fulfillment to requirements of that permit.

The purpose of this SWMP is to describe efforts proposed by the county to control discharge of pollutants to state waters in the storm water system that runs into the waters of the Missoula Urbanized Area. The SWMP includes descriptions of storm water management activities that will be undertaken during the fourth cycle of the statewide general permit, which extends through 2021 The program has been built around a suite of programmatic elements that the County has already implemented, is in the process of development for implementation, or plans to develop in order to meet new or revised requirements set forth in the latest General Permit. Together, these programmatic elements address the six minimum control measures required under the Statewide General Permit:

- Public Education - The County must continue to educate the public on storm water in its permitted jurisdiction, to develop or adapt, distribute, and evaluate educational materials and outreach activities to key target audiences in the MS4 that raise awareness about the impacts of storm water discharges on waterbodies, educate audiences about the behaviors and activities that have the potential to pollute storm water discharges, and motivate action to change behaviors to reduce pollutants in storm water runoff.

- Public Involvement/Participation – The County must continue to provide opportunities to involve key target audiences in the development and implementation of the SWMP that complies with state and local public notice requirements.

- Illicit Discharge Detection and Elimination – The County must continue to adopt and enforce ordinances or take equivalent measures to prohibit illicit discharges into the storm sewer system. The County must also implement a program to detect illicit discharges and eliminate their presence.

- Construction Site Storm Water Runoff Control – The County must continue to develop a program to control the discharge of pollutants from erosion and sediment for construction activity on sites greater than one acre in size within its permittee jurisdiction.

- Post-Construction Storm Water Management in New Development and Redevelopment – The County must continue to require long-term post-construction best management practices (BMPs) that protect water quality and control runoff flow to be incorporated into development and significant redevelopment projects.

- Pollution Prevention/Good Housekeeping for Municipal/County Operations – The County must continue to examine its activities and develop programs to prevent or reduce the discharge of pollutants from these activities. The County must also educate staff on pollution prevention practices.

The program is designed to reduce the discharge of pollutants from the county's Municipal Separate Storm Sewer System (MS4) to the maximum extent practicable (MEP) and to protect water quality. According to the EPA's 2016 303(d) list, water bodies that the County discharges to, which are impaired, include the Clark Fork River, Bitterroot River, Grant Creek, and Rattlesnake Creek. In addition, the areas within the county storm water jurisdiction can be characterized as primarily residential, with some commercial, and very little industrial. Based on these factors, the pollutants of concern / causes of impairment targeted by the County's Storm Water Management Program will include:

- Chlorophyll-a
- Nitrogen, Nitrate
- Organic Enrichment (Sewage)
- Phosphorus
- Sedimentation/Siltation
- Metals (Arsenic, Cadmium, Copper, Lead, Iron, and Zinc)

The County has also identified additional potential contaminants and causes of impairment of concern, which are not required to be addressed by the Department of Environmental Quality. These identified contaminants and causes of impairment include:

- Biological indicators such as fecal coliform
- Chloride
- Excess Algal Growth
- Litter and Trash
- Magnesium Chloride
- Oil, Hydro carbons, including PAHs
- Pesticides
- Sodium Chloride
- Streambank Alteration
- Temperature

The Missoula area has a long history of addressing water quality issues. In 1988, the Missoula City-County Health Department applied for and obtained Sole Source Aquifer designation from the US EPA. This designation requires that all projects which obtain federal funding be reviewed by the EPA. In January 1993, the Missoula Board of County Commissioners and the Missoula City Council passed a resolution creating the Missoula Valley Water Quality District (MVWQD), providing for more direct control for the protection of water resources with the Missoula Valley. The MVWQD has since undertaken numerous projects to protect and improve water quality. These projects include removal of auto shop floor drains that discharge through subsurface injection, public education on issues pertaining to water quality, household hazardous waste collection, establishment of a permitting system for facilities that store regulated substances, and regulation of deicer products. In August 1998, the Clark Fork River Voluntary Nutrient Reduction Program was finalized and put into place as an agreement among major parties in the Montana portion of the watershed to significantly reduce nutrient pollution along a 200-mile stretch of the Clark Fork River. The County of Missoula has chosen to build its storm water program on this framework of successful, established programs that are already making significant strides to protect our water resources.

Montana Pollutant Discharge Elimination System

The State of Montana has established a permit system which is similar to the federal permit system, called the Montana Pollutant Discharge Elimination System (MPDES). This system is administered by the Montana Department of Environmental Quality (MDEQ). The Administrative Rules of Montana (ARM), section 17.30.1105 require that any entity discharging storm water from a point source must obtain coverage under an MPDES general permit. MPDES general permits cover discharges 1) associated with construction activity; 2) associated with industrial activity; 3) associated with mining, oil, and gas activity; 4) from small municipal separate storm sewer systems (small MS4s); 5) for which the department determines that storm water controls are needed based on waste load allocations that are part of Total Maximum Daily Loads (TMDLs) that address the pollutants of concern; and 6) that the department determines are contributing to a violation of a water quality standard or are significant contributors of pollutants to surface waters.

Montana Designated Small MS4s

The EPA established guidelines for designating small MS4s, which MDEQ used to create the list of Montana small MS4s named in the Administrative Rules of Montana (ARM) 17.30.1102(23) – the Urban Areas (as determined by the 2010 decennial census by the United States census bureau) of the City of Billings and Yellowstone County; the City of Missoula and Missoula County; and the City of Great Falls and Cascade County. In addition, MS4s located within the cities of Bozeman, Butte, Helena, and Kalispell were also named because their discharge "results in, or has the potential to result in, exceedances of water quality standards, including impairment of designated uses, or has other significant water quality impacts, including habitat and biological impacts".

Municipalities within the Missoula Urban area which own and operate separate storm sewer systems are the City of Missoula, Missoula County, Montana Department of Transportation – Missoula Office, and the University of Montana.

General Permit

The General Permit for Storm Water Discharge Associated with Small Municipal Separate Storm Sewer Systems (MS4) provides authorization to discharge storm water to waters of the United States under the Montana Pollutant Discharge Elimination System (MPDES). Complete Phase I and II requirements have been incorporated into the Administrative Rules of Montana (ARM), Title 17, Chapter 30, Subchapters 11, 12, and 13. The General Permit, under the authority of ARM, defines effluent limitations; establishes monitoring, recording, and reporting requirements; establishes requirements for a Storm Water Management Program; and sets standard permit conditions.

Looking toward this fourth cycle, the MS4 permittees in the Missoula Urban Area are no longer filing as co-permittees. This calls for a redrafting of the County SWMP as some BMPs will need to be recorded separately from the other entities. Of course, some practices are still shared between the City and County as the Water Quality District and the City-County Health department are responsible for much of the action taken in the SWMP. An inter-local agreement has been drafted and signed between the County Commissioners of Missoula County and the Director of City-County Health department surrounding the role the Water Quality district will take in some aspects of the SWMP.

Missoula City-County Health Code, Regulation 1 (which is a County wide regulation) and the Water Quality Ordinance (which is a City Ordinance, but effective within five miles of the City limits because it is deemed a Health Ordinance pursuant to §7-4-4306, and the extraterritorial application of the ordinance has been agreed to in a Resolution of Concurrence by the Missoula Board of County Commissioners) demonstrate that the County is regulating illicit discharges.

The permit area of Missoula has been defined by the MDEQ as the Urban Area delineated following the most recent decennial census, and responsibility has been divided among the permittees within the Urban Area as follows:

1) The Montana Department of Transportation – parcels owned by the department and the numerous state traffic routes within the Urban Area.
2) The University of Montana - parcels owned by the University within the Urban Areas.
3) The City of Missoula – areas within the City Limits and Urban Area which are not owned by either the Department of Transportation of the University of Montana, excluding state traffic routes.
4) Missoula County – areas outside the City Limits, but within the Urban Area which are not owned by either the Department of Transportation of the University of Montana, excluding state traffic routes.

An inter-local agreement has been formed in the past amongst these four entities in order to maintain an effective joint effort in meeting compliance with the Minimum Control Measures set in the General Permit. With limitations by the County to enforce many ordinances needed to meet compliance, coordination has been necessary to ensure regulatory mechanisms are in place to effectively implement the SWMP required by the MS4 permit. As the Missoula MS4 permitee's are no longer applying as co-permittees, this SWMP entails the Best Management Practices (BMPs) carried out by the County within its designated jurisdiction with the assistance of City-County Health personnel from the Water Quality District

Storm Water Management Program Requirements

As required by the General Permit for Storm Water Discharge Associated with Small Municipal Separate Storm Sewer System (MS4), permittees must develop a SWMP designed to reduce the discharge of pollutants from the permitted Small MS4 to the maximum extent practicable (MEP) to protect water quality, and to satisfy the appropriate water quality requirements of the Montana Water Quality Act. The SWMP must include management practices, control techniques, systems, designs, good standard engineering practices, and such other provisions necessary for the control of such pollutants. Each Minimum Control Measure (MCM) has requirements to identify how the success of the Best Management Practice (BMP) will be evaluated, including how the measurable goals for each of the BMPs were selected. In addition to these requirements, permittees are required to maintain documentation describing how and why each of the BMPs and measurable goals for the SWMP was selected. These items have been addressed in the Minimum Control Measure sections of this document.

The SWMP must include a section describing how the SWMP will control discharges of pollutants of concern (POC) and ensure storm water discharges will not cause or contribute to instream exceedances of water quality standards. The Montana Department of Environmental Quality's 2016 303(d) list is being used as the basis for the list of Pollutants of Concern (POC) and the specifics of addressing these can be found on pages 7 – 12.

Finally, each Minimum Control Measure has requirements to identify the responsible party for overall management and implementation of the programs and Best Management Practices. A Storm Water Program Staff Organizational Chart with responsibilities assigned for each BMP has

been included in this section on page 13. Since some agencies involved in the storm water program are funded by both City and County taxes, these agencies have been shown on the chart to illustrate the relationship. Responsibilities are also noted in the Minimum Control Measure sections.

This program documents the efforts of the County of Missoula to meet the requirements of the MTDEQ Storm Water General Permit.

Pollutants of Concern

Water Body	Pollutant	Probable Source(s)	Associated Uses	TMDL	BMPs
Clark Fork River, Blackfoot River to Rattlesnake Creek MT76M001_030	Arsenic	Mill Tailings	Drinking Water	Yes	3.3
	Cadmium	Mill Tailings	Aquatic Life	Yes	3.3
	Copper	Mill Tailings	Aquatic Life	Yes	3.3
	Eutrophication	Industrial Point Source Discharge,Dam or Impoundment	Aquatic Life	Yes	3.3

	Iron	Mill Tailings	Aquatic Life	Yes	3.3
	Lead	Mill Tailings	Aquatic Life,Drinking Water	Yes	3.3
	Zinc	Mill Tailings	Aquatic Life	Yes	3.3

Outfalls into MT76M001_030:

- (January 1st-June 30th) and (July 1st-December 30th)
- Dry Weather Screening August-September

Water Body	Pollutant	Probable Source(s)	Associated Uses	TMDL	BMPs
Clark Fork River, Rattlesnake Creek to Fish Creek MT76M001_020	Chlorophyll-a	Industrial Point Source Discharge,Municipal Point Source Discharges	Aquatic Life,Primary Contact Recreation	Yes	Chlorophyll-a
	Copper	Mill Tailings	Aquatic Life	Yes	Copper
	Iron	Mill Tailings	Aquatic Life	Yes	Iron

	Lead	Mill Tailings	Aquatic Life	Yes	Lead
	Nitrogen, Total	Industrial Point Source Discharge,Municipal Point Source Discharges	Aquatic Life,Primary Contact Recreation	Yes	Nitrogen, Total
	Organic Enrichment	Municipal Point Source Discharges,Industrial Point Source Discharge	Aquatic Life	Yes	Organic Enrichment
	Phosphorus, Total	Industrial Point Source Discharge,Municipal Point Source Discharges	Aquatic Life,Primary Contact Recreation	Yes	Phosphorus, Total

Outfalls into MT76M001_020:

- dischpt_21 Outfall Clark Fork River 24 inch concrete pipe terminating to riverbank. Obscured by dense vegetation.
- dischpt_13 Outfall Clark Fork River Deer Creek Rd @ Clark Fork River. Culvert needs maintenance.
- dischpt_486 Outfall Clark Fork River Roadside swale and culvert discharges to Clark Ford.
- dischpt_474 Outfall Clark Fork River CMP terminating near Clark Fork River. Likely infiltrates prior to reaching river.
- dischpt_5 Outfall Clark Fork River I-90 east bound @ Clark Fork River
- dischpt_4 Outfall Clark Fork River I-90 WB @ Juniper Dr/Clark Fork River
- dischpt_12 Outfall Clark Fork River I-90 west bound @ Clark Fork River

- Monitoring Schedule N/A

Water Body	Pollutant	Probable Source(s)	Associated Uses	TMDL	BMPs
Bitterroot River, Eightmile to the mouth (Clark Fork River) MT76H001_030	Alteration in stream-side or littoral vegetative covers	Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO),Rangeland Grazing	Aquatic Life	N/A	3.3
	Lead	Source Unknown	Aquatic Life	Yes	3.3
	Temperature	Wet Weather Discharges (Non-Point Source),Agriculture	Aquatic Life	Yes	3.3

Outfalls into MT76H001_030:

- dischpt_462 Outfall Bitterroot River Outfall from detention at Missoula Country Club
- dischpt_11 Outfall Bitterroot River Ravenwood drainage discharging to the Bitterroot River South of Briggs St Neighborhood
- dischpt_466 Outfall Bitterroot River Storm water discharges to Bitteroot River. Large concrete outflow control structure.
- dischpt_16 Outfall Bitterroot River Outfall into Bitterroot River from Hwy 93 storm Inlets
- dischpt_460 Outfall Bitterroot River Storm water terminates to Bitterroot River. Property of Linda Vista golf course property

- Monitoring Schedule begins January 2018
- (January 1st-June 30th) and (July 1st-December 30th)
- Dry Weather Screening August-September

Water Body	Pollutant	Probable Source(s)	Associated Uses	TMDL	BMPs
Grant Creek, headwaters to the mouth (Clark Fork River) MT76M002_130	Algae	Crop Production (Irrigated),Site Clearance (Land Development or Redevelopment)	Primary Contact Recreation	N/A	TBD
	Alteration in stream-side or littoral vegetative covers	Site Clearance (Land Development or Redevelopment),Crop Production (Irrigated)	Aquatic Life	N/A	TBD
	Flow Regime Modification	Water Diversions,Site Clearance (Land Development or Redevelopment),Crop Production (Irrigated)	Aquatic Life	N/A	TBD
	Nitrate-Nitrite (Nitrite plus Nitrate as N)	Crop Production (Irrigated),Site Clearance (Land Development or Redevelopment)	Aquatic Life,Primary Contact Recreation	Yes	TBD
	Nitrogen, Total	Crop Production (Irrigated),Site Clearance (Land Development or Redevelopment)	Aquatic Life,Primary Contact Recreation	Yes	TBD
	Sedimentation-Siltation	Site Clearance (Land Development or Redevelopment),Stream bank Modifications-destabilization	Aquatic Life	Yes	TBD

	Temperature	Water Diversions,Loss of Riparian Habitat	Aquatic Life	Yes	TBD
Outfalls into MT76M002_130: None Identified • Monitoring Schedule N/A					

Water Body	Pollutant	Probable Source(s)	Associated Uses	TMDL	BMPs
Rattlesnake Creek MT76M002_120 Rattlesnake Wilderness boundary to Rattlesnake Dam	Other flow regime alterations	Dam Construction Water Diversions	Aquatic Life	N/A	TBD
Outfalls into MT76M002_120: None Identified • Monitoring Schedule N/A					

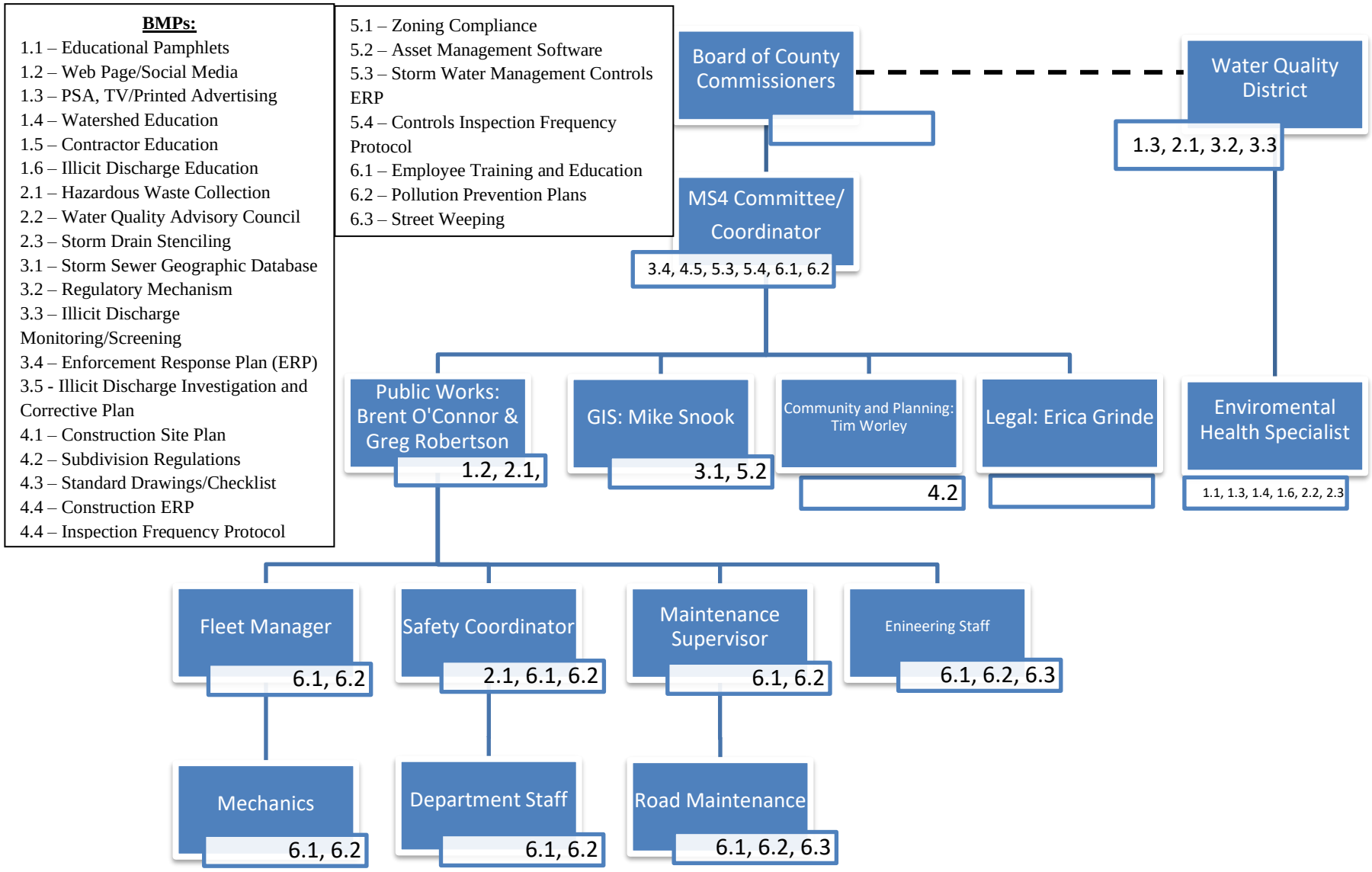
Information based on 2018 Water Quality Information from Montana Department of Environmental Quality Clean Water Act Information Center.

Contributing Sources of Impairment:

- Mill Tailings
- Industrial Point Source Discharge
- Municipal Point Source Discharge
- Rangeland Grazing
- Wet Weather Discharges
- Sediment Resuspension
- On-Site Treatment Systems
- Streambank Modifications/Destabilization
- Loss of Riparian Habitat
- Agriculture/Irrigated Crop Production
- Dam Construction/Upstream Impoundments
- Flow Alterations from Water Diversion

- Site Clearance/Land Development

Missoula County should consider these and/or other pollutant sources located within the MS4 boundary that may have an impact on receiving waters and include those as targets within the SWMP. Specific provisions should be implemented in order to reduce the impairment to these “high-quality” waters.


BMPs:
1.1 – Educational Pamphlets
1.2 – Web Page/Social Media
1.3 – PSA, TV/Printed Advertising
1.4 – Watershed Education
1.5 – Contractor Education
1.6 – Illicit Discharge Education
2.1 – Hazardous Waste Collection
2.2 – Water Quality Advisory Council
2.3 – Storm Drain Stenciling
3.1 – Storm Sewer Geographic Database
3.2 – Regulatory Mechanism
3.3 – Illicit Discharge Monitoring/Screening
3.4 – Enforcement Response Plan (ERP)
3.5 - Illicit Discharge Investigation and Corrective Plan
4.1 – Construction Site Plan
4.2 – Subdivision Regulations
4.3 – Standard Drawings/Checklist
4.4 – Construction ERP
4.4 – Inspection Frequency Protocol
5.1 – Zoning Compliance
5.2 – Asset Management Software
5.3 – Storm Water Management Controls ERP
5.4 – Controls Inspection Frequency Protocol
6.1 – Employee Training and Education
6.2 – Pollution Prevention Plans
6.3 – Street Weeping
Board of County Commissioners
Water Quality District
1.3, 2.1, 3.2, 3.3
MS4 Committee/ Coordinator
3.4, 4.5, 5.3, 5.4, 6.1, 6.2
Public Works: Brent O'Connor & Greg Robertson
1.2, 2.1,
GIS: Mike Snook
3.1, 5.2
Community and Planning: Tim Worley
4.2
Legal: Erica Grinde
Enviromental Health Specialist
1.1, 1.3, 1.4, 1.6, 2.2, 2.3
Fleet Manager
6.1, 6.2
Safety Coordinator
2.1, 6.1, 6.2
Maintenance Supervisor
6.1, 6.2
Enineering Staff
6.1, 6.2, 6.3
Mechanics
6.1, 6.2
Department Staff
6.1, 6.2
Road Maintenance
6.1, 6.2, 6.3

MCM 1 (Education & Outreach)

Missoula County shall implement a stormwater public education program to develop or adapt, distribute, and evaluate educational materials and outreach activities to key target audiences in the MS4. The goal of our educational efforts is to raise awareness about the impacts of stormwater discharges on water quality and educate citizens about the behaviors and activities that can pollute stormwater discharges to change behaviors to reduce pollutants in stormwater runoff.

BMP 1.1 <u>Educational Pamphlets and Utility Stuffers</u>

Description: The Missoula Valley Water Quality District prints and distributes brochures to participants of the Annual Household Hazardous Waste Collection Event. Members of the public have received the following brochures: Alternatives to Household Toxics, Managing Leftover Paint, and A Residential Guide to the Missoula Valley Aquifer. This material includes information on recycling and proper disposal of household toxics. It also informs readers of the hazards associated with improper waste disposal. The pamphlets also lead to the Missoula Valley Water Quality Districts Website, where additional information on common wastes and their proper disposal can be found. Pamphlets are also distributed at the Water Quality District office.

September 2017, Missoula County will not be hosting its annual Hazardous Waste days due to efforts in establishing a permanent facility to enable collection of material year round. In the meantime, the Missoula Valley Water Quality District has published information regarding disposal of household waste and other hazardous material with contact information and locations of sites to drop-off in the Missoula area. The Montana Department of Agriculture did schedule a pesticide collection in Missoula on September 20th of 2017, which MVWQD and the county advertised on its website. The permanent hazardous waste structure will eventually serve as a crucial BMP in mitigating pollutants in to the MS4 and the distribution of educational material.

Rationale: Buying less toxic alternatives and disposing of household toxics is a proactive way to prevent stormwater pollution. With an established facility, local citizens will have more accessible means in carrying out their individual responsibilities in protecting our state waterways and drinking water.

Personnel: Missoula Valley Water Quality District - Environmental Health Specialist

Annual Reports: Missoula's Household Hazardous Waste Days 2016 were held on September 16th and 17th. Vehicle counts are taken each year and the numbers of educational materials that are distributed are tallied. Once the location of the permanent facility is established, collected material will be documented.

BMP 1.2 <u>Web Page, Social Media</u>

Description: The County's website provides information about impacts of stormwater pollution and offers ways to decrease these impacts. The Missoula Valley Water Quality District, Missoula County and Missoula County Public Works maintain a Facebook presence. Timely information about stormwater projects, impacts and news are periodically posted on these venues. Records of these posts are maintained. In addition, the Water Quality District's webpage includes links to current projects addressing stormwater as well as monitoring data and construction requirements are also found. The page also keeps residents informed on current cleanup sites and the importance of riparian buffers to the water quality. Stormwater complaints can be filed through this website

The Website includes:

- A Copy of the Current General Permit
- Access to Outreach Material
- Outreach event information (most recent and current)
- Stormwater Management Program documents and updates
- Annual Reports
- A mechanism for public input for the SWMP
- Information regarding how to identify sources of illicit sources
- Procedures on how to report an illicit discharge

Needing to be added in the First Permit Year:

- A summary of Missoula County's requirements for covered construction activity
- An explanation on how to submit construction project complaints

Rationale: This BMP was chosen because many obtain information via social media and web pages. It has the potential to reach thousands of people using a minimum amount of personnel time and money

Personnel: Missoula Valley Water Quality District, Missoula County Communications, Missoula County Public Works

Annual Reports: Between the two web pages and various links, the County plans to reach approximately 3,000 households annually. Additional Updates to the Webpage will also be listed, as the SWMP updates. Website counts will be tallied and submitted as part of the annual report.

BMP 1.3 PSAs, TV and Printed Advertisement

Description: TV, PSA, and printed advertising are also being used to inform citizens of the steps they can take to reduce stormwater pollution. Television advertising is primarily centered on the Annual Household Hazardous Waste CollectionOne ad portrays various residents using a storm drain for disposal of paints, antifreeze and lawn clippings and explains that these contaminants find their way into surface water and drinking water supplies. Public education advertising conducted by the Water Quality District also targets riparian habitat protection in Missoula County. Periodically, PSAs are placed with local radio stations. The Water Quality District also runs ads during Hazardous Waste Days in local newspapers to publicize the collection event. The District targets education through ValPak which is a direct marketing company. The District also advertises with utility stuffers that are distributed through Mountain Water Company bills.

Rationale: By using a diverse selection of media, the District can reach diverse segments of the population.

Personnel: Missoula Valley Water Quality District – Environmental Health Specialists

Annual Reports: Number of Ads placed/distributed will be recorded

BMP 1.4 Watershed Education

Description: The Missoula Valley Water Quality District provides support to the Watershed Education Network in the form of staff and financial support to educate school groups about the effects of non-point source pollution and how to evaluate surface water quality. Students collect and analyze surface water samples for nutrients, dissolved oxygen, temperature and pH. They compare more urban, impacted sites to more pristine waters.

Rationale: This BMP was chosen because children that learn about environmental issues are more likely to develop and appreciation and stewardship mentality towards natural resources. In addition, students often share their knowledge with significant adults in their lives, making it an effective way to pass environmental awareness to the entire community.

Personnel: Missoula Valley Water Quality District – Environmental Health Specialists

Annual Reports: The number of Students participating in the program will be recorded

BMP 1.5 <u>Contractor Education Program</u>

Description: The Public Works Department works closely with designers and excavation contractors in the community to develop rules and methods that work effectively and efficiently. This group as well as any member of the public can review the Public Works Manual for stormwater management guidelines. These guidelines and typical drawings in the manual should be considered in planning stages to reduce potential pollutants during construction activities. The County has also produced this manual to clarify when hillside standards or Commercial/Industrial standards apply. These requirements can be found in Section 9 of the Public Works Manual. When standards apply a grading and drainage plan shall be submitted for review and approval. For projects wanting to be constructed on slopes of 5 to 9 percent a plan shall include, at minimum; a building footprint, finished floor elevations, setbacks, water and sewer facilities, sidewalk, curb and gutter location details, parking details, and a landscaping plan. For grades steeper than 9%, or for Commercial/Industrial developments, a plan shall include in addition to the 5 to 9 percent requirements a topographic map showing existing and proposed contours at a minimum two foot intervals completed by a professional engineer.

For projects that require a SWPPP permit, the County requires that these documents be submitted with the construction plans prior to any authorization of the construction work. These construction zones will be monitored by County staff for compliance with the SWPPP permit. The owner shall comply with all local authorities and state laws.

In addition to these items, the Public Works Manual has been assembled to be a useful resource for stormwater activities. The manual provides specific design guidelines for stormwater retention and detention practices for

private development and subdivisions facilities. Excavating contractors can find our policies for work in the public rights-of-ways, as well as standard BMP drawings that should be used for construction activities. This resource can be found on the Missoula County Public Works website and should be serving as useful mechanism to minimize erosion and unwanted discharges that could potentially pollute our rivers, streams and, watersheds.

In June of 2017 Section 9, Titled "Storm Drainage, of the Public Works Manual was revised to increase clarity and ensure storm water controls and management practices on construction activity are properly executed within the Missoula County MS4. Revisions emphasize zoning compliance for grading and drainage plans as well as allow for the proper tacking of storm water controls installed on private properties in drainage plan designs. Further revisions occurred in November 2017, and comment period for the public has allowed ample opportunity for stakeholder input.

Rationale: All of these methods have been used successfully by the County of Missoula to direct contractor efforts in the past. With the advent of the MS4 program, County staff has added to these mediums to clarify and update requirements related to stormwater pollution prevention.

Personnel: Public Works/MS4 Committee

Annual Reports: Updated educational information and dated information session will be reported in annual reports

BMP 1.6 <u>Illicit Discharge Education Programs</u>

Description: The Missoula Valley Water Quality District administers a permitting program for facilities that store regulated substances above certain threshold quantities listed in the Missoula Valley Water Quality Ordinance. Water Quality District staff performs periodic inspections to ensure proper materials handling. When deficiencies are found, the inspector uses the opportunity to educate staff on proper procedures.

In addition to these activities, area businesses and the general public are educated via the Water Quality District's educational pamphlets, utility stuffers, TV advertising, PSAs, and printed advertising. The County's and Water Quality District's web pages also serve as sources of education.

Rationale: The Water Quality District has been responding to illicit discharge complaints and inspections since the early 90's. Personal contact with business owners and managers has proven to be the most effective means of preventing illicit discharge in our community. Inspections are always followed-up with letters which outline specific points discussed during the inspection and provide a written record of recommendations or violations.

Personnel: Missoula Valley Water Quality District – Environmental Health Specialists

Annual Reports: Inspections conducted, website hits, printed education numbers

Developing BMPs:

The MS4 committee intends to use the resources that it has available to identify target audiences within the first year to better address illicit discharges in the subsequent permit years. This effort will be documented in the first annual report, as the current BMPs will address the community and pre-determined target audiences.

Minimum Measure		BMP	Implementation
a.) Determine key target audience most appropriate for stormwater outreach	i.) Analyze which business types and/or residential behavior are common sources of illicit discharges, spills or dumping - Develop a list, description and rationale for selecting these target audiences based on business and residential groups associated with illegal discharge and improper disposal of waste to the MS4. - List the pollutants associated with each key target audience	1.1, 3.1, 1.5 1.6	1st Permit Year
	ii.) Develop and advertise a stormwater website for access by key target audiences, other interested stakeholders, and the general public	1.1, 1.2, 1.3, 1.5, 1.6	1st Permit Year
b.) Develop and utilize the permittee's website for public outreach and involvement	i..) Develop Outreach messages which promote benefits of non-polluting behaviors to the key target audience as well as benefits to stormwater discharges	1.1, 1.2, 1.3, 1.6	2nd Permit Year

c.) Develop a tailored outreach strategy for each key target audience and specific stormwater polluting behavior	i.) Identify and, as needed, develop outreach formats and distribution channels for messages developed for each target audience and associated stormwater polluting behavior - Format Distribution Channels should be tailored to key target audiences and can utilize other existing formats and distribution channels, such as existing community newsletters	1.1, 1.2, 1.3, 1.4, 1.5, 1.6	2nd Permit Year
	ii.) Distribute outreach Materials to target audiences	1.1, 1.2, 1.3, 1.4, 1.5, 1.6	3rd, 4th 5th Permit Years

MCM 2 (Public Involvement and Participation)

Missoula County shall develop a strategy to involve key target audiences in the development and implementation of the SWMP that complies with the state and local public notice requirements.

BMP 2.1 <u>Annual Hazardous Waste Collection Event</u>

Description: The Missoula Valley Water Quality District conducts and annual household hazardous waste collection event which sees high levels of participation (approximately 1200 vehicles over a 2-day period). Most unwanted hazardous and toxic materials are accepted from Missoula County residents for no charge, including; oil-based paints and stains, paint thinner, degreasers, gasoline, other flammable liquids, aerosol paints, fertilizer, and non-alkaline household batteries. Items accepted for a fee include pesticides, caustics, strong acids, and chlorinated solvents. The fee charged covers approximately 25% of the County's costs for shipping and disposing the waste.

The Water Quality District coordinates volunteer efforts for the annual Household Hazardous Waste Collection. Volunteers are recruited from the University of Montana, local environmental consultants, interested citizens, and other local businesses.

September 2017, Missoula County will not be hosting its annual Hazardous Waste days due to efforts in establishing a permanent facility to enable collection of material year round. In the meantime, the Missoula Valley Water Quality District has published information regarding disposal of household waste and other hazardous material with contact information and locations of sites to drop-off in the Missoula area. The Montana Department of Agriculture did schedule a pesticide collection in Missoula on September 20th of 2017, which

MVWQD and the county advertised on its website. The permanent hazardous waste structure will eventually serve as a crucial BMP in mitigating pollutants into the MS4 and the distribution of educational material.

Rationale: This brings together individuals from across the community and allows residents to participate in proper disposal of dangerous substances. They receive educational materials and get one-on-one conversation about hazardous materials with County staff.

Personnel: Missoula Valley Water Quality District – Environmental Health Specialists / Public Works – Safety Coordinator

Annual Reports: Document the days and events held, volumes collected and number of residents who participated

BMP 2.2 <u>Water Quality Advisory Council</u>

Description: An annual presentation to the Missoula County Water Quality Advisory Council and solicits comments. The Water Quality Advisory Council is comprised of 20 volunteers appointed by the Chair of the Missoula City-County Board of Health, representing technical advisors, large water users, conservation groups, and interested citizens.

Meetings are held once a month and are advertised and open to the public.

MS4 Committee personnel joined the Water Quality Advisory Council during the August 2017 meeting to present current development of the Storm Water Management Programs, along with the current implementation of BMPs. The Water Quality Advisory Council expressed interest in assisting the county in developing a monitoring plan that will ensure effective measures in protecting the waterways which pass through the Missoula Urbanized area.

Rationale: A qualified, engaged advisory council is an asset for our community. The council weighs in on a variety of issues that affect water quality. Members of the community are invited to attend and to bring up issues of their own concern. The meetings are held on the 2nd Tuesday of every month.

Personnel: Missoula Valley Water Quality District – Environmental Health Specialists / MS4 Committee

Annual Reports: Annual presentation will be documented as well as additional interactions with the council over the MS4.

BMP 2.3 <u>Storm Drain Stenciling Program with Public Education and Involvement</u>

Description: Periodically, storm drains have been stenciled or re-stenciled to remind residents never to dispose of waste through storm drains. Past events have taken place at the University of Montana, downtown Missoula and in Lolo. This work has been done by university students, eagle scouts and community members. County personnel will continue to seek volunteers for this project, or this BMP will be replaced with a similar BMP.

All newly installed storm drains grates on sumps and catch-basins include the phrase "Dump no Waste, Drains to Waterways" on the outer steel of the grate. With future installations of storm drains bearing this phrase, further citizen awareness of the effect storm water flow has on waterways will increase.

Rationale: Stenciling is a passive, low-cost educational tool that is fun and engaging for those who volunteer and really targets those who might intentionally dump directly into a storm drain.

Personnel: Missoula Valley Water Quality District – Environmental Health Specialists

Annual Report: Record dates and locations where stenciling occurred, as well as the number of volunteers who have participated

Minimum Measure		BMP	Implementation

a. Identify approaches for involving key target audiences in SWMP development and implementation	i.) Identify approaches for involving the key target audiences in the development and implementation of the SWMP over the five-year permit. - For each key audience, describe: • The approach • The target date(s) for implementation • The purpose of the involvement approach - 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	1.2, 1.3, 1.4, 1.5, 1.6, 2.2, 2.3	1st permit year
	ii.) 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	1.2, 1.5, 1.6, 2.1, 2.2, 2.3,	2nd, 3rd, 4th, 5th Permit years
b. Develop and utilize website for public involvement	i.) Develop and advertise a stormwater website for soliciting input from key target audiences, other interested stakeholders, and the general public.	1.1, 1.2, 1.3, 2.1, 2.2, 2.3	1st Permit Year

MCM 3 (Illicit Discharge Detection and Elimination)

Missoula County shall develop, implement and enforce a program to detect and eliminate illicit discharge (as defined in ARM 17.30.1102(7) in the permitted Small MS4.

BMP 3.1 <u>Storm Sewer System Geographic Database</u>

Description: The geographic database of storm system components allows the creation of maps in order to better visualize possible sources of contamination or detail the area of a water body that an accidental spill may affect. Its formation and use will accommodate the provisions of a comprehensive Illicit Discharge Detection and Elimination (IDDE) program. A map of storm drainage piping, sumps, inlets, outfalls, open channels, subsurface conduits, dry wells, along with the names and locations of receiving waters has been placed on the county's website in order to educate citizens about the effects of illegal dumping by illustrating the direct connection between inlets and outfalls located at rivers and streams.

High Priority areas of the County's MS4 will also be determined and appropriately documented in the geographic database. 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 portion of MS4 storm sewer infrastructure, any areas with onsite sewage disposal systems, and areas that discharge to an impaired waterbody.

The map will identify stormwater infrastructure located in Public Right of Way and Private Property to determine accessibility to the investigation and maintenance by Public Works staff and other pertinent County personnel. Updating of the map with pertinent information regarding the maintenance and effectiveness of stormwater infrastructure will occur on an on-going basis as information continues to be gathered and new infrastructure is installed. On-site updating of infrastructure through ESRI Collector has been developed, along with the ability to upload images to infrastructure points.

Rationale: The Map's accuracy will ensure the effectiveness of other BMPs in the SWMP; Illicit Discharge Detection and Elimination and Enforcement Response Plans. The map will be subject to frequent renewal through review and update as practices and activities are carried out in the MS4, ensuring BMPs are effectively carried out.

Personnel: GIS / Public Works

Annual Reports: Updates to the Map will be recorded and documented

BMP 3.2 Regulatory Mechanism

Description: In 2000, the Missoula City Council and the Board of County Commissioners amended the Missoula Aquifer Protection Ordinance, originally adopted in 1993, which is intended to protect the public health, safety, and general welfare of those who depend upon the Missoula Valley Aquifer and surface waters in the Missoula Valley for drinking water, recreation, and other beneficial uses. The provisions of the ordinance were deemed to be a health ordinance and as such are to be applied to an area within five miles outside of the city limits, covering most of Missoula County's MS4.

The ordinance establishes prohibitions and/or restrictions on regulated substances and activities which have the potential of causing surface or groundwater contamination. Facilities that store Regulated Substances above the specific quantities are required to obtain a permit from the Water Quality District. This requires facilities to report chemical quantities and steps taken to reduce the likelihood of spills to the District every two years. Regulated Substances are those found in 40 CFR Part 261; regulated substances listed in Superfund Amendments and Reauthorization Act (SARA) Title III; any petroleum product; any hazardous waste; deicers; or any other substances that may threaten contamination of surface water or the Missoula Valley Aquifer, excluding substances used for personal household use. Further, it is unlawful for any person to "cause contamination or to place, cause to be placed, or allow remaining in place any substance in a location where it is likely to cause contamination".

The Missoula Valley Water Quality Ordinance also gives Water Quality District staff the authority to perform inspections and enforce the provisions of the ordinance. A Notice of Violation may be written, after which corrective action must be taken within five working days, unless the alleged violator requests an administrative review. Any person who violates any of the provisions of the ordinance is guilty of a misdemeanor and can be fined up to five hundred dollars and/or imprisoned in the county jail for up to sixty days.

This ordinance was chosen because it has been successfully used for years by the Water Quality District to protect Missoula's groundwater and surface water quality. Water quality complaints are registered with the District and staff follows up on each complaint that is received. In addition, the District maintains a 24/7 call scheduled to respond to spills within the MS4. The staff is reached through 911. Additional information on how to report an incident is found on the Missoula County Stomwater Webpage.

In addition to the Missoula Valley Water Quality Ordinance, the Missoula City-County Health Code regulates illicit wastewater discharges listed in Federal regulations. Regulation 1 (A)(3) states "a person may not discharge wastewater onto the surface of the ground except for a permitted system designed for surface application and licensed septic tank pumpers discharging septic wastes onto disposal sites approved by the Department." Missoula City-County Health Department's definition of wastewater is quite broad and includes "liquid waste which may include chemicals, household, commercial or industrial wastes, human excreta, animal and vegetable matter in suspension or solution, discharged from a dwelling, building, establishment, vehicle, or container. Gray water and non-liquid carried toilet waste are considered wastewater. Non-contact cooling water is not wastewater."

The Montana Water Quality Act, Missoula City-County Health Code, and Uniform Plumbing Code all prohibit on-site sewage disposal systems that flow into the storm drainage system. The majority of Missoula's stormwater is managed by stormwater injection wells, rather than piped systems. In nearly every location that there is storm sewer in Missoula, there is also sanitary sewer.

Rationale: Use of existing enforcement provisions allows the County to efficiently respond to illicit discharge issues without duplicating efforts.

Personnel: Missoula Valley Water Quality District, Missoula City-County Health Department

Annual Reports: The success of this BMP is measured by the percentage of complaints to which the District responds and resolves. This measurable goal is response to 100% of complaints and full compliance with each violation notice that is issued.

BMP 3.3 <u>Illicit Discharge Monitoring/Screening</u>

Description: Missoula County's Illicit Discharge Monitoring Program includes a dry weather screening program; a citizen reporting hotline, where citizens may report suspected illegal dumping; and hazardous spill response.

Dry-weather screening will be conducted July – September when surface water levels and rainfall rates are low. During the first permit cycle, all rivers and streams within the MS4 (outside City of Missoula limits) will be walked and outfall inventories verified or edited. Dry weather flows will be screened for fecal coliform during the 1st permit year. 20% will be visually screened and sampled for fecal coliform annually following the initial inventory. Monitoring will be conducted annually on at least four outfalls, which will be determined and reported after the first permit year, consistent with the options listed in the General Permit. Data will be recorded and documented coinciding with the Enforcement Response Plan

Monitoring will be conducted semi-annually following January 2018, where sampling will be conducted between the dates of January 1st-June 30th and July 1st-December 30th during a storm event with a measurable amount of discharge. Monitoring results will be submitted to the DEQ with each annual report with an evaluation including:

- Comparisons between monitoring locations
- Determination for trends and outliers in monitoring results compared to the calculated long-term median, and results outside pH range of 6.0-9.0 standard units
- A schedule and rationale for BMPs planned to improve water quality of storm water discharges based on Monitoring results

Monitoring Records shall include:

- Date, exact place, and time of sampling
- Estimated duration (in hours) of storm event sampled
- Total rainfall measurements or estimates (in inches) of the storm event which generated sample runoff
- Name(s) of individuals which performed the sampling or measurements
- Analytical laboratory test result data:
    - Date(s) analyses were performed
    - Time analyses were initiated
    - The initials or name(s) of individual(s) who performed the analyses
    - Reference and written procedures for analytical techniques or methods used
    - The results of such analyses, including benchsheets, instrument readouts, computer disks or tapes, etc. used to determine these results

Rationale: Verifying outfalls will enable the county to quickly and efficiently conduct random (at least annual) inspections of outfalls. Field observations of flow conditions during dry weather discharge provide insight into what is causing the discharge (color, turbidity, temperature, pH, odor, surrounding land-use). Groundwater spring locations are well-known and the most-likely source of a dry-weather discharge in our community. A simple and relatively cheap screening tool to further screen discharges is a fecal coliform test. These tests can be conducted locally and provide a quick turnaround of results (24 hrs.). This will determine whether or not there is a stream of wastewater contributing to the dry-weather discharge.

Personnel: Missoula Valley Water Quality District, Public Works Staff

Annual Reports: Monitoring data will be reported in each annual report, as well as assessments of priority outfalls and pollutants of concern that may enter the MS4's waterways.

BMP 3.4 <u>Enforcement Response Plan</u>

Description: Leading to the 2nd year of the General Permit the MS4 Committee, with the personnel responsible, will develop an Enforcement Response Plan to the extent allowable under State rules and procedures for the County. The County will then implement the devised plan by the end of the 2nd permit year. Rationale:

Personnel: MS4 Committee will develop with personnel pertaining to the ERP

Annual Reports: Development in 1st permit year

BMP 3.5 <u>Illicit Discharge Investigation and Corrective Plan</u>

Description: Missoula County will develop an Illicit Discharge Investigation and Corrective Plan during the first permit year in order to identify sources of contaminates to the Missoula Urbanized area. Once a problem area is located, the upstream system is evaluated and various areas chosen to perform additional sampling. These locations are chosen to sample each branch of the system and various places along stretches with no branches in order to isolate the area of discharge. Once the source is identified, the process of removing the discharge will begin using the procedures outlined in Title 13.26 - Missoula Valley Water Quality Ordinance. All actions taken during the process will be documented in the asset management software.

Potential stormwater pollution can be reported to this number 24 hours a day. Office hours are 8:00 AM to 5:00 PM Monday through Friday and messages can be left after hours. The messages are checked daily. Calls can be made anonymously. The hotline number can be found on the County's webpage, Missoula Valley Water Quality District's webpage, and Missoula Valley Water Quality District's education publications. Illicit discharges may also be reported through 911.

Illicit connections identified within the County's portion of the MS4 will be addressed by either the Missoula City-County Health Code or the Missoula Valley Water Quality Ordinance. Missoula County Public Works Staff will periodically conduct outfall inspections. Further, the Health Department will field illicit discharge complaints and route them to the appropriate staff. All illicit discharges will be investigated within 3 working days. The goal is to respond within 1 business day.

Rationale: By following these investigative guidelines the County can properly address illicit discharges

Personnel: Public Works - Missoula Valley Water Quality District

Annual Reports: Incidents of Investigation will be documented in each annual report

Minimum Measure		BMP	Implementation
3.a) Address the list of frequent categories of non-stormwater discharges or flows listed in MCM.3.a of the General Permit (pg.14), if identified as significant contributors of pollutants to the Small MS4	i.) Evaluate and include, in each Annual Report: • A List of non-stormwater discharges that the permittee has identified as significant contributors of pollutants • The pollutants associated with each non-stormwater significant contributor; and • Document any local controls or conditions placed on these discharges	3.3	Annually

b.) Develop a list of other similar occasional incidental non-stormwater discharges that will not be addressed as illicit discharges	i.) Evaluate and include in each Annual Report: • A List of non-stormwater discharges that the permittee has identified as significant contributors of pollutants • The pollutants associated with each non-stormwater significant contributor; and • Document any local controls or conditions placed on these discharges	3.2, 3.3	Annually
	ii.) Include a provision prohibiting any occasional incidental non-stormwater discharges that is determined to be contributing significant amounts of pollutants to the Small MS4 in appropriate ordinances, regulatory mechanism or memoranda of agreements	3.2	2nd Permit Year
c.) Inventory stormwater 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 portion of MS4 storm sewer infrastructure, any areas with onsite	i.) Update existing map showing: • The location and number of outfalls (as defined in ARM 17.30.1102(14) and Part VIII of General Permit • Names and location 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: o Inlets o Open channels o Subsurface conduits/pipes o Dry wells o Other similar discrete conveyances - List, label, or highlight determined high priority areas (update regularly)	3.1	1st Permit year

sewage disposal systems, and areas that discharge to an impaired waterbody.			
d.) To the extent allowable under State, or local law, effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the regulated storm sewer system and implement appropriate enforcement procedures and actions	i.) If not done previously, adopt an ordinance or other regulatory mechanism to prohibit illicit discharges	3.2	2nd Permit Year
	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 (Memoranda of Understanding)	3.4, 3.5	2nd Permit Year
	iv.) Develop a formal ERP for illicit discharges, describing: o Legal Authority- through ordinance, formal policies or memoranda of understanding- to eliminate and abate illicit discharges o Identify staff with enforcement authority o Enforcement actions available o Enforcement escalation process o 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. • Informal responses may include: o Telephone notification o Verbal Notice o Notice of Violation o Meetings • Formal responses may include: o Administrative order o Compliance schedule o Order to show cause o Monetary penalty (administrative)	3.4	2nd Permit Year

	○ Suspended Service • Judicial responses may include ○ Injunctive relief ○ Consent decree ○ Civil penalties ○ Criminal penalties		
	v.) Implement ERP	3.4	2nd Permit Year
e.) Proactively inspect, during dry weather, all outfalls to detect illicit discharges and connections into the MS4 and identify high priority outfalls.	i.) 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	3.3	Annually
	ii.) 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: ○ Which drain industrial areas ○ 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 ○ Which discharge into an impaired water body	3.1, 3.3	2nd Permit Year, Reevaluate 3rd-5th Year
	iii.) Inspect and screen high priority outfalls during dry weather a minimum of once per year (summary of results)	3.3	3rd-5th Permit Years

f.) Consistently and effectively investigate suspected illicit discharges and connections and track subsequent compliance actions	i.) Develop an Illicit Discharge Investigation and Corrective Action Plan. This plan will describe the process that will be used to: • Locate the source of an illicit discharge • Select the appropriate corrective action, i.e. enforcement action, abatement, etc. • At a minimum, this plan shall include processes to: o Investigate all illicit discharges o Prioritize non-stormwater discharges suspected of being sanitary sewage and/or significantly contaminated for investigation first o Notify Montana DEQ and appropriate agencies of dry weather flows believed to be an immediate threat to human health or the environment o 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 o Resolve and document the conclusion of all investigations - The Plan should refer to the Permittee's ERP for execution of appropriate enforcement actions	3.5	1st Permit Year
	ii.) Implement an Illicit Discharge Investigation and Corrective Action Plan	3.5	2nd Permit Year
	iii.) Maintain Documentation which describes the investigations conducted and corrective actions taken per the Illicit Discharge Investigation and Corrective Action Plan by the permittee or a neighboring MS4 for all illicit discharges – detected on the permittees property that originates outside of the permittee's property – during dry weather screening or through other detection methods	3.3, 3.5	2nd-5th Permit Years

MCM 4 (Construction Site Stormwater Management)

Missoula County shall develop, implement, and enforce a program to reduce pollutants in stormwater runoff to the permitted MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater 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 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.

BMP 4.1 Construction Site Plan

Description: Missoula County requires that site plans are submitted for all construction projects, but legally can only require grading and drainage plans for zoned areas, or land proposed to be subdivided. Although the area is small a careful review of properties inside the entire MS4 boundary shall be conducted for compliance with Missoula County Zoning Regulations. Properties found to be exempt from these regulations will not be subject to the review process. With this sole exception, the following is a list of criteria that should be followed when determining at a minimum if a grading plan is required:

1. Residential projects on slopes between 5% and 9% (may be submitted by the owner or their contractor).
2. Residential projects on slopes greater than 10% (requires professionally engineered plans).
3. All commercial or industrial projects (require professionally engineered plans regardless of grade).
4. All preliminary and approved subdivision (as required by Missoula County Subdivision Regulations).
5. All excavation projects in the public right-of-way that disturbs one acre or more (RES NO. 2010-033).

Rationale: Contractors are accustomed to acquiring Grading, Drainage, and Erosion Control Permits. By adding another similar permit to this chapter, contractors can easily assimilate this into their routines. Another convenience of this permit is that it uses the State SWPPP Permit, so contractors don't need to fill out multiple applications.

Personnel: Public Works -Engineering

Annual Reports: Updates to the Construction site regulations will be reported. Cases of non-compliance or public scrutiny will also be reported.

BMP 4.2 <u>Subdivision Regulations</u>

Description: The Missoula County Subdivision Regulations (MCSR) contains development provisions that address storm water impact mitigation. The MCSR require preservation and enhancement of topsoil, trees, and natural vegetation the maximum extent possible (Sections 3.1 and 3.7). Subdivisions with average lot sizes under one acre are required to install full curb and gutter in the Missoula urban areas. All subdivision roads are reviewed for proper storm drainage in conjunction with Section 9 of the Public Works manual (Sections 3.4 and 3.7). In conjunction with the Public Works Manual, subdivisions are required to detain/retain the 100 year, 24 hour design storm, and subdivisions within 500 feet of storm drainage systems are required to connect to those systems (Section 3.7). Storm water easements may be required to maintain facilities, and regular maintenance of such facilities is memorialized through a maintenance agreement (Section 3.7). Erosion control is required in accordance with Public Works Manual Section 17, "Seeding and Management," and ongoing maintenance of these areas can be required (Section 3.7).

MCSR grading, drainage, and erosion control requirements are reinforced by conditions of subdivision approval. Drainage design, including detention/retention facilities, swales, etc. are reviewed for final construction by Public Works, or bonded for prior to the filing of a final subdivision plat.

Offsite runoff impacts are required to be mitigated per MCSR standards (Section 3.1). Subdivisions are required to prevent storm water runoff from subdivision lots and roads, and lawn watering from draining into agricultural water user facilities or onto agricultural land.

MCSR standards require riparian resource management plans (Section 3.2). These are intended to protect water quality. Riparian areas are required to be protected, typically with a buffer of varying width (Section 3.2). Road construction is tightly regulated adjacent to riparian areas to address issues of sedimentation. Side casting and erosion control must be addressed, and riparian areas can only be crossed/accessed by roads in such a way as to minimize impacts. At the conceptual level, riparian vegetation is prohibited from damage or removal prior to the submittal of a subdivision application (Section 1.7).

Secondary to water quality preservation and enhancement are updated restrictions to development in flood hazard areas (Section 3.1). Impacts to flood hazard areas are required to be minimized. Lots in major subdivisions cannot be platted in flood hazard areas, and road construction is prohibited in these areas.

Rationale: Missoula County has adopted certain subdivision regulations in an attempt mitigate the damage that can be caused by poorly managed storm water. The regulations require review and approval of all plans for grading, drainage and erosion control from the point a preliminary plat is submitted for governing body review to the point the plat is recorded with the County. Standards include mitigation of natural landscape impacts in order to be proactive about issues related to runoff and water quality.

Personnel: Public Works -Engineering / Community and Planning Services

Annual Reports: Updates to the regulations will be reported. Cases of non-compliance or public scrutiny will also be reported.

BMP 4.3 <u>Standard Drawings/Checklist</u>

Description: In March of 2010 the Missoula County Board of County Commissioners passed Resolution NO. 2010-33. The Resolution commonly known as the Public Works Manual illustrates seven standard drawings for pre-and post-construction activities. These drawings can be found in Appendix A of the Public Works Manual and can be used for either public or private construction projects, or developments.

Checklists have also been adopted by the Public Works Department for construction projects that either change the original building envelope, or have plans for new construction. This checklist requires that intake personnel review the submitted information for specific criteria i.e., site plan, approach/address, and acceptable building plan sheets. Once the criteria are met the information will be routed to Community and Panning Services for their review and determination as to who shall review the plans for additional requirements. If the project is in the MS4 area and is zoned Public Works-Engineering reviews the projects for hillside grading and drainage standards, or for Commercial/Industrial stormwater requirements. All projects that are subject to the hillside standards or Commercial/Industrial development requirements will be required to meet the criteria listed in Section 9 of the Public Works Manual. In addition, if the construction site disturbs one acre or more the County will require that the owner provides a copy of their SWPPP and authorization letter from the Montana Department of Environmental Quality.

In June of 2017 Section 9, Titled “Storm Drainage, of the Public Works Manual was revised to increase clarity and ensure storm water controls and management practices on construction activity are properly executed within

the Missoula County MS4. Revisions emphasize zoning compliance for grading and drainage plans as well as allow for the proper tacking of storm water controls installed on private properties in drainage plan designs. Further revisions occurred in November 2017, and comment periods throught the public have allowed for ample opportunity for stakeholder input.

Rationale: The adoption of the Public Works Manual and development of the checklists assist developers and Missoula County staff in addressing illicit discharge at County construction projects and at construction projects that are under Missoula County zoning regulations.

Personnel: Community and Planning Services/ Public Works -Engineering

Annual Reports: Updates to the Checklist will be reported

BMP 4.4 <u>Construction Enforcement Response Plan</u>

Description: Missoula County does not have legal authority to enforce stormwater violations as it relates to construction activities on private properties. The County does regulate projects that commence in the public rights-of-ways as well as all Missoula County approved subdivisions. Regulations for construction activities subjected to approval by the County can be found in Section 2 and 11 in the Public Works Manual, and in Chapter 3 of the County Subdivision Regulations.

Under the above-mentioned authorities, the Public Works Department tracks all relative construction related projects, to include subdivision activities within the MS4 boundary. Projects disturbing one or more acres are required to provide copies of their SWPPP, and authorization letter from MDEQ. These documents will give the County the ability to conduct periodic inspections from the public rights-of-ways and note any deficiencies. If deficiencies are observed written notices will be sent to the responsible parties listing the complaint. Once the complaint is received the notices shall give the responder an allotted time to make the correction, or protest the complaint. If corrective action has not been met by the allotted time Missoula County will consult with MDEQ for possible enforcement action.

Rationale: To assist MDEQ with additional oversight for construction sites with authorized SWPPP permits.

Personnel: Public Works -Engineering

Annual Reports: Access to Public Works Department's tracking is available and will be provided to MDEQ if desired.

BMP 4.5 <u>Inspection Frequency Protocol</u>

Description: Missoula County does not have legal authority to mandate inspection on private development which creates inspection frequency challenging. The County will conduct periodic and complaint driven inspections for construction sites that have been permitted and can be found within the MS4 boundary. These inspections are generally conducted monthly, or after rain events producing .5 inches of precipitation in a 24-hour period. Missoula County construction projects disturbing 1 acre or more are subject to the same permitting requirements that are mandated by MDEQ. Once granted authorization the typical inspection frequency is bi-weekly, or is in accordance authorized SWPPP permit.

Rationale: By the county inspecting permitted construction sites within the MS4 boundary and working with the contractors, together we can help reduce potential pollutants from leaving the construction sites.

Personnel: MS4 Committee / Public Works -Engineering

Annual Reports: The finalized protocol procedure and implementation will be documented in the first annual report, and subsequent updates will be reported

Minimum Measure		BMP	Implementation
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	i.) If not completed previously, adopt an ordinance or other regulatory mechanism to require stormwater controls on private and permittee-owned regulated projects - At a minimum, the ordinance must require the construction stormwater management minimum standards described as Non-Numeric Technology-Based Effluent Limits in the most current Montana DEQ General Permit for Stormwater Discharges Associated with Construction Activity to be implemented on all regulated construction projects	4.1, 4.2	3rd Permit Year

other construction related pollutant sources on regulated construction Projects and implement appropriate enforcement procedures and actions	iii.) Develop a formal ERP to ensure compliance with the construction stormwater 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: o Eliminate and abate illegal construction discharges o Identify staff with enforcement authority o Enforcement actions available and enforcement escalation process and include a schedule to be utilized to quickly, and consistently eliminate the source of the discharge o Abate any damages and prevent recurrence - The ERP must include informal, formal, and judicial responses. o Informal responses may include telephone notification, verbal notice, notice of violation, and meetings o Formal responses may include administrative order, compliance schedule, order to show cause, monetary penalty (administrative), and suspended service o Judicial responses may include injunctive relief, consent decree, civil penalties, and criminal penalties - 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	4.4	3rd Permit Year
	iv.) Implement ERP	4.4	4th Permit Year
b.) Require that all regulated construction projects submit a construction stormwater management plan prior to construction which is consistent with state and local requirements and which incorporates	i.) Develop a construction stormwater management plan review checklist that documents, at a minimum, that the requirements described in the Non-Numeric Technology-Based Effluent Limits in the most current Montana DEQ General Permit for Stormwater Discharges Associated with Construction Activity have been included on all regulated project construction stormwater management plans - Checklist shall be used to ensure consistent review of submitted plans and to determine and document compliance with state and local requirements	4.1, 4.2, 4.3	1st Permit Year

consideration of potential water quality impacts including stormwater pollution prevention through appropriate erosion, sediment, and waste control BMPs	ii.) Implement construction stormwater management plan review checklist	4.1, 4.2, 4.3	1st Permit Year
c.) Ensure that all construction stormwater management controls are installed, operated and maintained in order to function as designed	i.) Develop an inspection form or checklist to ensure consistent and thorough regulated project inspection - Checklist shall include, at a minimum, that the requirements described in the Non-Numeric Technology-Based Effluent Limits in the most current Montana DEQ General Permit for Stormwater Discharges Associated with Construction Activity	4.3	1st Permit Year
	iii.) Implement inspection form	4.1, 4.2, 4.3	1st Permit Year
	iv.) 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 Stormwater Discharges Associated with Construction Activity and associated authorization number, the location, size, topography of site and proximity to waterbodies for each project	3.1, 4.1	1st Permit Year

	v.) Develop an inspection frequency determination protocol based upon the priority of the project.
	- Priority to be determined using specific criteria to include, at a minimum:
	  o Project Size
	  o Proximity to a water body
	  o Steepness of project site slope
	  o Discharge to waterbodies impaired for pollutants expected from active construction projects
	  o Pat record of non-compliance by the operator of the construction site
	- Protocol shall establish the following minimum inspection frequency for all high priority projects:
	  o Once at commencement of construction after BMPs have been implemented;
	  o Once within 48-hours after a rain event of 0.25 inches or greater
	  o 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:
	  o Recidivism reduction measures such as incentives
	  o Disincentives
	  o Increased inspection frequency at non-compliant operator's sites
		4.5	1st Permit Year

MCM 5 (Post-Construction Site Stormwater Management in New and Redevelopment)

Missoula County shall develop, implement, and enforce a program to address stormwater 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.

BMP 5.1 <u>Asset Management Software</u>

Description: In conjunction with the storm sewer system geographic database, the long-term operation and maintenance of stormwater BMPs will be ensured using the County's asset management software. BMPs are entered into the systems upon receipt of as-built drawings. BMPs located on public property or within public rights-of-way are added to a regular County maintenance schedule. By the end of the second permit year the development of an inventory of all newly constructed permittee owner and privately-owned post construction (permanent) BMPs will be maintained.

By the end of the third permit year development of an inventory of all existing permittee-owned and *high priority* privately owned permanent BMPs will be maintained. Rationale: It is important to the health of the MS4 that structural BMPs are catalogued and monitored in order to ensure that the are fulfilling their intended purpose in preventing illicit discharge from entering the small MS4s waterways

Personnel: Water Quality District/ Public Works/ MS4 Committee

Annual Reports: Development of the Inventory will begin in the second permit year, and will include the provisions required of it through the general permit in the subsequent years

BMP 5.2 <u>Post-Construction Stormwater Management Controls Enforcement Response Plan</u>

Description: In the 4th year of the General Permit the MS4 Committee, with the personnel responsible, will develop an Enforcement Response Plan to the extent allowable under State rules and procedures for the County. The County will then implement the devised plan by the 5th permit year.

Rationale: Missoula County has limited authority to conduct inspections on private properties under the current regulatory framework of the State. In order to meet this requirement, the MS4 Committee will need to establish contact with personnel from the MTDEQ to establish a method to meet compliance with this section of the General Permit

Personnel: MS4 Committee / Public Works –Engineering Staff

Annual Reports: In formation of the ERP, meetings and adjustments to the plan will be documented.

BMP 5.3 <u>Inspection Frequency Protocol</u>

Description: Missoula County is very limited by state law in its ability for post construction inspection frequencies on private property. To this point, it is illegal for County staff to trespass on private property to inspect stormwater facilities. However, any project that requires an engineered design on private property requires that the completed improvements be certified by the design engineer. Further, Missoula County monitors its own projects typically monthly, or after a significant rain event. If any deficiencies are located, then crews are scheduled to make the corrective action.

For Stormwater infrastructure located on Missoula County property or Public Right of Way, protocol for maintenance and inspection of infrastructure will be developed. Most inspection/maintenance is based on need and prevalence of public input regarding the stormwater control.

Rationale: Inspection of Missoula County projects ensures timely correction of any deficiencies thereby reducing illicit discharge.

Personnel: MS4 Committee / Public Works -Engineering

Annual Reports: The finalized protocol procedure and implementation will be documented in the first annual report, and subsequent updates will be reported

Minimum Measure		BMP	Implementation
a.) To the extent allowable under State, or local law, effectively require, through ordinance, or other regulatory mechanism, post-construction stormwater management controls and on regulated projects and implement appropriate enforcement procedures and actions	i.) If not completed previously, adopt an ordinance or other regulatory mechanism to require post-construction stormwater management controls on regulated projects, that, at a minimum include the performance standard described in Part II.A.5.b.iv.	5.1, 5.2, 5.3	4th Permit Year
	iii.) Develop a formal ERP to ensure Compliance with installation, operation and maintenance requirements for post-construction stormwater management controls on regulated projects including private property. - The ERP must include informal, formal, and judicial responses. o Informal responses may include telephone notification, verbal notice, notice of violation, and meetings o Formal responses may include administrative order, compliance schedule, order to show cause, monetary penalty, and suspend service o Judicial responses may include injunctive relief, consent decree, civil penalties, and criminal penalties - The ERP must describe: o Legal authority to require inspection and maintenance of controls o Identify Staff with enforcement authority o The enforcement action available o Enforcement escalation process o Schedule to be utilized to quickly and consistently ensure compliance with post-construction requirements	5.2	4th Permit Year
	iv.) Implement ERP	5.4	5th Permit Year

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 stormwater management controls	i.) 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	5.3	1st Permit Year
	iii.) Require that all regulated projects implement post-construction stormwater 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: a. Treated onsite using post-construction stormwater management controls to remove 80 percent total suspended solids (TSS) b. Managed offsite within the same sub-watershed using post-construction stormwater management control(s) that are designed to infiltrate, evapotranspire, and/or capture for reuse c. Treated offsite within the same sub-watershed using post-construction stormwater management control(s) expected to remove 80 percent TSS - Permittees allowing offsite treatment shall do the following: a. 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 • High groundwater	3.1	1st Permit Year

	• Groundwater contamination • Poorly infiltrating soils • Shallow bedrock • Prohibitive costs • A land use that is inconsistent with capture and reuse o Determination may not be based solely on the difficulty and/or cost of implementation o The permittee must develop a formal review and approval process for determining projects eligible for offsite treatment o The offsite treatment option is to be used only after all onsite options have been evaluated and documented through the permittee's developed formal review and approval process b. Create and maintain an inventory of regulated projects which utilize offsite treatment of post-construction stormwater runoff. The inventory must include the following information pertaining to each approved project o Geographic location of the project o Location of offsite treatment facility which the project drains to o Documentation of the rationale for approval of offsite treatment		
c. Ensure that all post-construction stormwater management controls are installed, operated and maintained in	i.) Develop and implement an inspection form or checklist to ensure consistent and thorough inspections of post-construction stormwater management controls	5.3	2nd Permit Year
	iii.) Develop and maintain/update an inventory of all **new** permittee-owned and private post –construction stormwater management controls	5.1	2nd Permit Year

order to function as designed	iv.) Develop and maintain/update an inventory of all **existing** permittee-owned and private high priority post –construction stormwater management controls - Priority is to be determined by the permittee and should be based on potential water quality impact using specific criteria which may include: o Operation and maintenance needs of the practices o Proximity to water body o Drainage area treated o Land use type o Location within an impaired waterbody watershed	5.1	3rd Permit Year
	vi.) Develop and Inspect frequency determination protocol based upon the priority of the post-construction stormwater management control - Priority is to be determined by the permittee and should be based on potential water quality impact using specific criteria which may include: o Operation and maintenance needs of the practices o Proximity to water body o Drainage area treated o Land use type o Location within an impaired waterbody watershed	5.3	2nd Permit Year
	vii.) Develop a program to either: o Conduct inspections of high-priority post-construction stormwater management controls at least annually, OR o To require self-inspection and reporting by owners at least annually	5.3	2nd Permit Year
	viii.) Inspect permittee-owned high priority post-construction stormwater management controls annually and document findings and resulting compliance actions	5.1, 5.3	3rd, 4th, and 5th Permit Years

	ix.) Inspect or have inspected all high priority privately-owned post-construction stormwater management controls annually - Document findings and resulting compliance actions	5.1, 5.3	3rd, 4th, and 5th Permit Years
d.) Incorporate recommendations and requirements into plans , policies and ordinances which allow and support the utilization of LID concepts on public and private property	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: o Parks and Recreation o Public Works o Planning o Environmental Protection o Utilities o Transportation	MS4 Committee	4th Permit Year

MCM 6 (Pollution Prevention / Good Housekeeping for Permittee Operations)

Missoula County shall develop and implement an operation and maintenance program which includes a training component, and has the ultimate goal of preventing or reducing pollutant runoff from Missoula County operations.

BMP 6.1 <u>County Employee Training and Education Program</u>

Description: Training and education of employees in Missoula County is accomplished on a department-by-department or division-by-division basis with input from the County's stormwater management coordinator and team. Each department/division creates its own training program which includes standard operating procedures that incorporate stormwater BMPs for activities common to the individual department/division and goals of the County's overall stormwater management program. Input is gathered from both managers and field personnel within each department/division to determine the most appropriate and effective BMPs for each activity and/or pollutant. Once a year, key personnel receive training geared toward their respective maintenance responsibilities. These trainings discuss the importance of proper handling, storage, and disposal of potential contaminants. Employees are educated about various forms of illicit discharge and asked to look for them during the course of their work days. Other topics include construction site storm water runoff control. This training is designed to show users the proper use of selected BMPS, installation practices, and new technologies to prevent unwanted erosion conditions.

Employees responsible for reviewing construction projects shall have adequate training to interrupt plans, read specifications, and check for compliance with State Law and local regulations (if applicable). At a minimum, the responsible employee(s) shall have a valid Stormwater Pollution Prevention Plan Administrator Certificate. This certificate provides the skills and knowledge necessary to complete any tasks associated with storm water plan review.

Other associated activities with this BMP are periodic inspections of county owned facilities. These inspections are conducted by the Water Quality District and the only facility in the MS4 area is the Public Works Department. When these inspections are conducted, the inspector will look for proper materials handling, and other potentially unwanted pollutants leaving the site. If any deficiencies are found the inspector will use this opportunity to educate Public Works staff on proper procedures and can possibly issue correction notices.

Rationale: Each department knows of its procedures that may affect stormwater quality. The MS4 Committee is familiar with requirements of the MS4 permit and of goals of the County's program.

Personnel: MS4 Committee/ Missoula Valley Water Quality District/ Public Works Department

Annual Reports: Dates and attendance of training

BMP 6.2 <u>Pollution Prevention Plans/ Standard Operating Procedures</u>

Description: Pollution Prevention Plans for County divisions are created on a division-by-division basis. Each division creates its own plan based on activities and commonly handled pollutants. Input is gathered from both managers and field personnel within a department or division to determine the most appropriate and effective BMPs for each activity and/or pollutant. Pollution Prevention Plans are reviewed periodically to ensure they are up to date and contain the most effective BMPs. This BMP shall focus its applicability to County Employees that carry out services with potential harms to stormwater runoff, such as but not limited to; hazardous material storage/management, spill response and prevention, waste handling and disposal, vehicle fueling/washing/maintenance/storage, landscaping, equipment maintenance, roadway and bridge maintenance, road salt application, overwater activities, and Storm Drain System cleaning.

Rationale: Creation and implementation of Pollution Prevention Plans is an attempt to increase awareness and decrease discharge of pollutants by Missoula County employees involved in activities that could result in illicit discharge.

Personnel: MS4 Committee

Annual Reports: Significant updates to prevention plans and incorporations of Departmental activity will be shown in Annual reports. The Development of Standard Operating Procedures (SOP's) will coincide with the required schedule expressed in the General Permit.

Minimum Measure		BMP	Implementation
a.) Identify the operation and maintenance program to prevent or reduce pollutant runoff from permittee-owned/operated facilities and field activities	i.) Create an Inventory of permittee-owned/operated facilities and activities that have the potential to release contaminants to the MS4. The Inventory should include the following: 1. Facilities: • Maintenance and storage yards • Waste handling and disposal areas • Vehicle fleet or maintenance shops with outdoor storage areas • Salt/sand storage locations • Now or dredge material disposal areas operated by the permittee 2. Activities: • Park and open space maintenance • Parking lot maintenance • Building maintenance • Road maintenance/deicing • Storm sewer maintenance including catch basin cleaning - List the possibility of contaminant(s) from each facility/activity and list the local department(s) and position(s) responsible for pollution prevention with each facility/activity.	3.1	1st Permit Year
	ii.) Develop a map that identifies the locations of facilities and known locations of activities.	3.1	2nd, 3rd, 4th, and 5th Permit Years

	iii.) 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 SOPs must include documented inspection and communication with relevant departmental personnel of 2 facilities/activities per category prior to SOP category completion - The SOPs must identify stormwater pollution controls (structural and non-structural controls, and operating improvements) to be installed, implemented, and/or maintained to minimize the discharge of contaminants - Permittee must complete, at a minimum, the required SOPs according to the following schedule: o One-fourth by the end of 2nd permit year o One-Half by end of 3rd permit year o Three-fourths by the end of 4th permit year o All by the end of the 5th permit year	6.2	2nd, 3rd, 4th, and 5th Permit Years
	iv.) Develop and internally document stormwater pollution prevention training in conjunction with the development of the SOPs for each category	6.1, 6.2	2nd, 3rd, 4th, and 5th Permit Years
	v.) Conduct annual stormwater pollution prevention training for all permittee staff directly involved with implementing SOPs. - Trainings conducted during next permit year after the development of each SOP - Retain records of completed trainings and attendance	6.1, 6.2	3rd, 4th, and 5th Permit Years