



Dec. 6, 2021

Submitted via electronic mail to: DEOWPBPUBLICCOMMENTS@MT.GOV

Ms. Haley Sir
Water Protection Bureau
Montana Dept. of Environmental Quality

RE: Comments on PN-MT-21-25, 5th Iteration of MDEQ MS4 General Permit

Dear Ms. Sir and DEQ:

On behalf of Upper Missouri Waterkeeper I write to share constructive comments, ideas, and priorities for continued improvements to the Montana DEQ Municipal Separate Storm Sewer System (MS4) General Permit. I appreciate the ability to review and contribute to workgroup meetings over the past two years prior to the release of this 5th permit version, and the opportunity to submit this letter outlining our thoughts and concerns for the direction of the MS4 program.

About Us

Upper Missouri Waterkeeper is a not-for-profit, Montana clean water advocacy organization working to protect fishable, swimmable, drinkable water and healthy waterways throughout the 25,000 sq. miles of the Upper Missouri River Basin. As part of this work we emphasize both lawful governance and implementation of the federal Clean Water Act and promises of the Montana Constitution's guarantee to a "clean and healthful environment." As many in the Department know, Waterkeeper seeks to promote in effective stormwater management in the face of exponential population growth and unprecedented development pressure in Montana's river valleys. We view MS4 permits as a critically important component in protecting and restoring receiving waters, and waterways downstream, from the impacts of new and redevelopment.

Comments on Noted Changes in the Draft Permit

1. Comprehensive General Permit Approach & Public Participation Opportunities

We recognize the Department's revisions to the GP to reflect the Remand Rule Order and appreciate its efforts to provide clarity in how the GP is offered and how and when mandated public participation opportunities occur. We appreciate revised MCM 1 requirements for a permittee to provide regulatory documents, including the GP and SWMP and Annual Reports, on

its website for public review and input. We request that DEQ consider requiring permittees to post the last 5 (5x) Annual Reports on its website as the iterative nature of those reports should, theoretically, provide a complete picture of the progress – or lack thereof – that a permittee has made in fulfilling the MEP standard, in restoring impaired waters, and in implementing critical components of MCM 5 (LID code revisions). We also encourage DEQ to explicitly require permittees to perform outreach to an iterative stakeholder list concerning (a) availability of Annual Report, (b) revisions to the SWMP, and/or (c) opportunities for public comment. Put another way, the onus should lie on the permittee to use easily available electronic means to both inform and encourage stakeholder participation under the MS4 program.

2. Deadlines/Implementation Schedule Removed Instead of Revising

We are concerned that removal of the deadline/implementation schedule, without addition of some corollary tracking and assessment mechanism, is a disservice to permittees and the public and therefore strongly encourage DEQ to include dates by which activities and plans are to be completed. To the extent that DEQ believes a combination of monitoring, Annual Report, and Assessment Evaluations fulfill this purpose, we encourage DEQ to ensure that such plans and reports are available to the public through easily identified electronic means (i.e., websites) and that permittees have a regulatory duty to affirmatively solicit stakeholder review and input consistently across permit terms.

3. Progress in Including Clear, Specific, Measurable and Enforceable Terms

We use this space to specifically encourage DEQ to be more pedantic in incentivizing the use of LID/GI strategies as means for permittees to best satisfy the MEP standard and to make progress restoring impaired water quality. As DEQ is aware, despite decades of efforts attempting to control municipal stormwater under the Clean Water Act, stormwater continues to negatively impact our local waterways. The current regulatory approach has proven to be generally ineffective at preventing excessive stormwater volumes and pollutants from degrading local waterways in urbanized and developed areas.

The National Research Council (NRC) conducted a comprehensive and authoritative examination of EPA's stormwater permitting and regulatory program, which it documented in a 2009 report, "Urban Stormwater Management in the United States." The NRC report identified two significant shortcomings:

- First, the stormwater permit program's over-reliance on general permits, most of which contain vague, subjective, and unenforceable permit terms and,
- Second, the relative lack of permits that require stormwater management practices that will actually reduce runoff volume rather than simply convey or detain it.

On the first point, Phase II permits in particular tend to rely on "narrative" requirements that permittees adopt programs or control measures to reduce stormwater discharges to the "maximum extent practicable." Montana is taking action to translate this flexible legal standard into numerical or objective permit limits, yet we note that permittees retain tremendous

discretion to self-identify and self-police their own stormwater control practices, including the level of control applied to new development and redevelopment projects within their jurisdictions. In our initial review of MS4 jurisdictions within Montana, this level of control is expressed in mostly superficial terms.

Open-ended, generalized approach to expressing permit requirements has given rise to the second shortcoming identified by the NRC panel: a long-standing preference for stormwater management practices that are designed to control the rate of water delivered by storm sewers to local waterways. This preference for detention of stormwater volumes often does little to address the impacts of the large amounts of concentrated runoff that are created and discharged from our built environments. Equally troubling from a water quality perspective, even though on-site or regional detention basins have evolved to reduce peak flows rates following rain events, they provide only some measure of water quality treatment, doing little to significantly reduce the *amount* of pollutants carried by runoff from developed areas.

In response, the NRC panel affirmed the stormwater community's emerging shift towards runoff control measures that "harvest, infiltrate, and evapotranspire stormwater," and which allow a site to be developed while maintaining as much of the natural hydrology as possible. Achieved through practices that are commonly referred to as Low Impact Development (or LID) or "green infrastructure," these approaches reduce pollutants and excessive volume by using natural processes or similar approaches that capture, infiltrate, and reuse precipitation, better approximating the natural hydrologic cycle. Green infrastructure prevents stormwater from accumulating and running off developed properties by reducing impervious areas, allowing rain to infiltrate into the soil, to be taken up by plants, or captured for later use in cisterns or rain barrels. In addition to water quantity and quality gains, many of these practices provide additional benefits such as improved groundwater recharge, increased energy efficiency, and improved air quality.

As a result, green infrastructure practices are increasingly recognized as one of the most effective solutions to the water quantity and quality problems associated with polluted stormwater runoff. While these curbs, gutters, tunnels and culverts served the flood control and public health needs of the past, they are now significantly challenged by the sheer volume of runoff that has been produced by the dramatic conversion of open space into paved surfaces and rooftops that dominate modern communities. Indeed, the increased volumes, discharge rates and pollutant concentrations common to these systems are now among the leading stressors of water quality in the United States.

In contrast, the green infrastructure approaches recommended by the NRC and supported by Waterkeeper, reduce volumes, flow rates, and pollutants by managing precipitation on-site, before it has a chance to flow into storm sewers and surface waters. In doing so, these green infrastructure approaches represent a significant advance in water quality protection and an increasingly feasible solution in stormwater management technology.

As DEQ is aware, in the wake of the NRC research and report, EPA has emphasized the need for stormwater permits that require dischargers to take steps that reduce the volume, duration, and velocity of runoff by integrating flow or volume based restrictions into permit terms. 5

Recognizing that the state of knowledge and expertise surrounding green infrastructure is continually progressing, EPA guidance stresses that “CWA NPDES permits and enforcement agreements that incorporate green or gray infrastructure solutions require enforceable performance criteria, implementation schedules, monitoring plans and protocols, progress tracking and reporting, and operation and maintenance requirements.” Focusing on just one of these criteria, EPA notes that NPDES permits can foster green infrastructure implementation in a number of ways, including:

- Establishing performance standards for post-construction stormwater volume control for sites undergoing development/redevelopment. Performance standards to control the volume of discharges and to mimic the pre-construction hydrology of a site will lead to implementation of BMPs and green infrastructure to infiltrate, evapotranspire, and/or harvest and beneficially use stormwater.
- Requiring that green infrastructure/low impact development measures be considered/implemented as part of local building and site development approval processes.
- Establishing ceilings on effective impervious area.

While simply requiring, as the Draft Permit does, that green infrastructure measures be considered by permittees is a significant step forward, as a permit term this approach retains some of the weakness of a discretionary, narrative standard. Far preferable is the incorporation of an objective, readily identifiable and enforceable performance standard that can be most effectively met through green infrastructure practices. As EPA notes in its broadly phrased list, even objective standards can reflect a range of preferred approaches, expressing limits on effective impervious area, requirements to manage designated runoff or precipitation volumes on-site, or mandates to evaluate and match pre-development hydrology characteristics.

In the 2010 MS4 Permit Improvement Guide, EPA echoed its list of preferred permitting approaches with specific recommendations for state permit writers. The Guide details the Agency’s own selection of model performance standards that would add objectivity to post-construction stormwater management permit requirements by pulling language from permits, related documents, or EPA guidance that reflected then current best thinking about prescriptions for on-site management.

We note that DEQ has chosen the percentile precipitation event and retention standard, which constitute a first step towards clarity in post-construction stormwater BMPs. We strongly encourage DEQ to add upon this first step by adding specified green infrastructure practices and hydromodification protections. Doing so would utilize the precipitation volume tied to the objective, onsite management standard, and supplement this basis with additionally stringent retention or treatment requirements designed to prevent hydromodification of streams or provide additional pollutant removal. Complementary to this work could be, as discussed below, a “credit” system for smart growth projects, allowing certain permittees to meet more relaxed performance criteria, and extending the full performance standard requirements to road construction (one of the traditional leading sources of harmful stormwater discharges across all MS4 permittees).

We encourage DEQ to consider revising MCM 5 to include an overview of more explicit terms and strategies to protect water quality, including the following categories. We have drafted suggested language for consideration under several of these categories for DEQ consideration and draw reviewer's attention specifically to the dates for planning, implementation, and enforcement, all of which create increased transparency, accountability, and enforceability for DEQ's MS4 Program.

A. Post-Construction Measures. Permittees shall regulate development to comply with the following Sections:

- i. Site Design Measures
- ii. Regulated Projects
- iii. Source Control Measures
- iv. Low Impact Development Standards
- v. Hydromodification Measures
- vi. Enforceable Mechanisms
- vii. Operation and Maintenance of Stormwater Control Measures
- viii. Post Construction BMP Assessment
- ix. Planning and Development Review Process
- x. Post Construction Stormwater Management Requirements Based on Assessment and Maintenance of Watershed
- xi. Alternative Post-Construction Stormwater Management Program

Site Design Measures

(i) **Task Description**—Within the second year of the Permit, the Permittee shall require implementation of site design measures for all projects that create and/or replace (including projects with no net increase in impervious footprint) between 2,500 square feet and 5,000 square feet of impervious surface, including detached single family homes that create and/or replace 2,500 square feet or more of impervious surface and are not part of a larger plan of development. Site design measures as specified in this section are not applicable to linear underground/overhead projects (LUPs).

(ii) **Implementation Level** - Projects shall implement one or more of the following site design measures to reduce project site runoff:

- a. (a) Stream Setbacks and Buffers — a vegetated area including trees, shrubs, and herbaceous vegetation, that exists or is established to protect a stream system, lake reservoir, or coastal estuarine area;

- b. (b) Soil Quality Improvement and Maintenance — improvement and maintenance soil through soil amendments and creation of microbial community;
- c. (c) Tree Planting and Preservation — planting and preservation of healthy, established trees that include both evergreens and deciduous, as applicable;
- d. (d) Rooftop and Impervious Area Disconnection — rerouting of rooftop drainage pipes to drain rainwater to rain barrels, cisterns, or permeable areas instead of the storm sewer;
- e. (e) Porous Pavement — pavement that allows runoff to pass through it, thereby reducing the runoff from a site and surrounding areas and filtering pollutants;
- f. (f) Green Roofs — a vegetative layer grown on a roof (rooftop garden);
- g. (g) Vegetated Swales — a vegetated, open-channel management practice designed specifically to treat and attenuate storm water runoff;
- h. (h) Rain Barrels and Cisterns — system that collects and stores storm water runoff from a roof or other impervious surface.

(iii) Reporting - The Permittee shall submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program.

Regulated Projects

(i) **Task Description** – Within the second year of the effective date of the permit, the Permittee shall implement standards to effectively reduce runoff and pollutants associated with runoff from Regulated Projects as defined below.

(ii) **Implementation Level** - The Permittee shall regulate all projects that create and/or replace 5,000 square feet or more of impervious surface (Regulated Projects). The Permittee shall require these Regulated Projects to implement measures for site design, source control, runoff reduction, storm water treatment and baseline hydromodification management as defined in this Order.

Regulated Projects do not include:

- Detached single family home projects that are not part of a larger plan of development;
- Interior remodels;
- Routine maintenance or repair such as: exterior wall surface replacement, pavement resurfacing within the existing footprint.
- LUPs - Unless the LUP has a discrete location that has 5,000 square feet or more of newly constructed contiguous impervious surface. When the LUP has a discrete location that

has 5,000 sq-ft or more of new contiguous impervious surface, only that specific discrete location is subject to this Section.

Regulated Projects include development projects. Development includes new and redevelopment projects on public or private land that fall under the planning and permitting authority of a Permittee. Redevelopment is any land-disturbing activity that results in the creation, addition, or replacement of exterior impervious surface area on a site on which some past development has occurred. Redevelopment does not include trenching, excavation and resurfacing associated with LUPs; pavement grinding and resurfacing of existing roadways; construction of new sidewalks, pedestrian ramps, or bike lanes on existing roadways; or routine replacement of damaged pavement such as pothole repair or replacement of short, non-contiguous sections of roadway. The following (a-c) describe specific Regulated Project requirements for redevelopment, road projects and LUPs:

(a) Where a redevelopment project results in an increase of more than 50 percent of the impervious surface of a previously existing development, runoff from the entire project, consisting of all existing, new, and/or replaced impervious surfaces, must be included to the extent feasible.

(b) Where a redevelopment project results in an increase of less than 50 percent of the impervious surface of a previously existing development, only runoff from the new and/or replaced impervious surface of the project must be included.

(c) Road Projects and LUPs - Any of the following types of road projects and LUPs that create 5,000 square feet or more of newly constructed contiguous impervious surface and that are public road projects and/or fall under the building and planning authority of a Permittee shall comply with Section E.12.e. Low Impact Development Standards except that treatment of runoff of the 85th percentile that cannot be infiltrated onsite shall follow U.S. EPA guidance regarding green infrastructure to the extent feasible. Types of projects include:

1) Construction of new streets or roads, including sidewalks and bicycle lanes built as part of the new streets or roads.

2) Widening of existing streets or roads with additional traffic lanes.

a) Where the addition of traffic lanes results in an alteration of more than 50 percent of the impervious surface of an existing street or road, runoff from the entire project, consisting of all existing, new, and/or replaced impervious surfaces, must be included in the treatment system design.

b) Where the addition of traffic lanes results in an alteration of less than 50 percent (but 5,000 square feet or more) of the impervious surface of an existing street or road, only the runoff from new and/or replaced impervious surface of the project must be included in the treatment system design.

1. 3) Construction of linear underground/overhead projects (LUPs)
2. 4) Specific exclusions are:
 1. a) Sidewalks built as part of new streets or roads and built to direct runoff to adjacent vegetated areas.
 2. b) Bicycle lanes that are built as part of new street or roads that direct storm water runoff to adjacent vegetated areas.
 3. c) Impervious trails built to direct stormwater runoff to adjacent vegetated areas, or other non-erodible permeable areas, preferably away from creeks or towards the outboard side of levees.
 4. d) Sidewalks, bicycle lanes, or trails constructed with permeable surfaces.
 5. e) Trenching, excavation and resurfacing associated with LUPs; pavement grinding and resurfacing of existing roadways and parking lots; construction of new sidewalks, pedestrian ramps, or bike lanes on existing roadways; or routine replacement of damaged pavement such as pothole repair or replacement of short, non-contiguous sections of roadway.

Effective Date for Applicability of Low Impact Development Runoff Standards to Regulated Projects: By the second year of the effective date of the permit, the Permittee shall require these Post-Construction Standards be applied on applicable new and redevelopment Regulated Projects, both private development requiring municipal permits and public projects, to the extent allowable by applicable law. These include discretionary permit projects that have not been deemed complete for processing and discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals.

Permittee's Development Projects - The Permittee shall develop and implement an equivalent approach, to the approach used for private development projects, to apply the most current version of the low impact development runoff standards to applicable public development projects, to the extent allowable by applicable law.

Source Control Measures

(i) **Task Description** – Regulated Projects with pollutant-generating activities and sources shall be required to implement standard permanent and/or operation source control measures as applicable.

(ii) **Implementation Level** - Measures for the following pollutant generating activities and sources shall be designed consistent with recommendations from [MT Stormwater BMP Handbook] or equivalent manual, and include:

- (a) Accidental spills or leaks
- (b) Interior floor drains
- (c) Parking/storage areas and maintenance
- (d) Indoor and structural pest control
- (e) Landscape/outdoor pesticide use
- (f) Pools, spas, ponds, decorative fountains, and other water features

- (g) Restaurants, grocery stores, and other food service operations
- (h) Refuse areas
- (i) Industrial processes
- (j) Outdoor storage of equipment or materials
- (k) Vehicle and equipment cleaning
- (l) Vehicle and equipment repair and maintenance
- (m) Fuel dispensing areas

Low Impact Development (LID) Design Standards

(i) **Task Description**—The Permittee shall require all Regulated Projects to implement low impact development (LID) standards designed to reduce runoff, treat storm water, and provide baseline hydromodification management to the extent feasible, to meet the Numeric Sizing Criteria for Storm Water Retention and Treatment under this Section.

(ii) **Implementation Level** – The Permittee shall adopt and implement requirements and standards to ensure design and construction of development projects achieve the following LID Design Standards.

(a) Site Assessment

At the earliest planning stages, the Permittee shall require Regulated Projects to assess and evaluate how site conditions, such as soils, vegetation, and flow paths, will influence the placement of buildings and paved surfaces. The evaluation will be used to meet the goals of capturing and treating runoff and assuring these goals are incorporated into the project design. The Permittee may adopt or reference an existing LID site assessment methodology. Permittee shall required Regulated Projects to consider optimizing the site layout through the following methods:

- 1) Define the development envelope and protected areas, identifying areas that are most suitable for development and areas to be left undisturbed.

- 2) Concentrate development on portions of the site with less permeable soils and preserve areas that can promote infiltration.
- 3) Limit overall impervious coverage of the site with paving and roofs
- 4) Set back development from creeks, wetlands, and riparian habitat.
- 5) Preserve mature vegetation.
- 6) Conform the site layout along natural landforms.
- 7) Avoid excessive grading and disturbance of vegetation and soils.
- 8) Replicate the site's natural drainage patterns.
- 9) Detain and retain runoff through the site.

(b) Drainage Management Areas

The Permittee shall require each Regulated Project to provide a map or diagram dividing the developed portions of the project site into discrete Drainage Management Areas (DMAs), and to manage runoff from each DMA using Site Design Measures, Source Controls and/or Storm Water Treatment and Baseline Hydromodification Measures.

(c) Numeric Sizing Criteria for Storm Water Retention and Treatment

The Permittees shall require facilities designed to evapotranspire, infiltrate, harvest/use, and biotreat storm water to meet at least one of the following hydraulic sizing design criteria:

- 1) Volumetric Criteria:

Or

- 2) Flow-based criteria (as in MCM 5).

(d) Site Design Measures

The Permittee shall implement Site Design Measures (as defined in Section E.12.b. Site Design Measures and Section XX (Site Assessment), site layout and design measures, based on the objective of achieving infiltration, evapotranspiration and/or harvesting/reuse of the 85th percentile 24-hour storm runoff event. Site design measures shall be used to reduce the amount of runoff, to the extent technically feasible, for which retention and runoff is required. Any remaining runoff from impervious DMAs may then be directed to one or more bioretention facilities as specified in Section (f), below.

(e) Source Controls

The Permittee shall implement Source Controls as defined in Section d.

(f) Storm Water Treatment Measures and Baseline Hydromodification

Management Measures

After implementation of Site Design Measures, remaining runoff from impervious DMAs must be directed to one or more facilities designed to infiltrate, evapotranspire, and/or bioretain the amount of runoff specified in Section e(ii)(c) Numeric Sizing Criteria for Storm Water Retention and Treatment. The facilities must be demonstrated to be at least as effective as a bioretention system with the following design parameters:

- 1) Maximum surface loading rate of 5 inches per hour, based on the flow rates calculated. A sizing factor of 4% of tributary impervious area may be used.
- 2) Minimum surface reservoir volume equal to surface area times a depth of 6 inches.
- 3) Minimum planting medium depth of 18 inches. The planting medium must sustain a minimum infiltration rate of 5 inches per hour throughout the life of the project and must maximize runoff retention and pollutant removal. A mixture of sand (60%-70%) meeting the specifications of American Society for Testing and Materials (ASTM) C33 and compost (30%-40%) may be used.
- 4) Subsurface drainage/storage (gravel) layer with an area equal to the surface area and having a minimum depth of 12 inches.
- 5) Under drain with discharge elevation at top of gravel layer.
- 6) No compaction of soils beneath the facility, or ripping/loosening of soils if compacted.
- 7) No liners or other barriers interfering with infiltration.
- 8) Appropriate plant palette for the specified soil mix and maximum available water use.

(g) Alternative Designs — Facilities, or a combination of facilities, of a different design than in Section e.(ii)(f) may be permitted if all of the following measures of equivalent effectiveness are demonstrated:

- 1) Equal or greater amount of runoff infiltrated or evapotranspired;

- 2) Equal or lower pollutant concentrations in runoff that is discharged after biotreatment;
- 3) Equal or greater protection against shock loadings and spills;
- 4) Equal or greater accessibility and ease of inspection and maintenance.

(iii) **Reporting** – The Permittee shall submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the storm water program.

Enforceable Mechanisms

(i) **Task Description** – Within the third year of the effective date of the permit, the Permittee shall develop and/or modify enforceable mechanisms that will effectively implement the requirements in Section b through f (if necessary).

(ii) **Implementation Level** - The Permittee shall develop and/or modify enforceable mechanisms that will effectively implement the requirements in Section b through f and may include municipal codes, regulations, standards, and specifications. The Permittee shall:

1. (a) Conduct an analysis of all applicable codes, regulations, standards, and/or specifications to identify modifications and/or additions necessary to fill gaps and remove impediments to effective implementation of project-scale development requirements.
2. (b) Approve new and/or modified enforceable mechanisms that effectively resolve regulatory conflicts and implement the requirements in Sections b through f (if necessary)
3. (c) Apply new and/or modified enforceable mechanisms to all applicable new and redevelopment projects. Develop and make available specific guidance for LID BMP design
4. (d) Complete a Tracking Report indicating the Permittee's accomplishments in education and outreach supporting implementation of LID requirements for new and redevelopment projects.

Post-Construction Best Management Practice Condition Assessment

(i) **Task Description**– Within the third year of the effective date of the permit, the Permittee shall inventory and assess the maintenance condition of structural post- construction BMPs (including BMPs used for flood control) within the Permittee's jurisdiction.

(ii) **Implementation Level** – The Permittee shall develop and implement a plan to inventory, map, and determine the relative maintenance condition of structural post- construction BMPs. Maintenance condition shall be determined through a self- certification program where Permittees require annual reports from authorized parties demonstrating proper maintenance and operations. The plan shall include:

- (a) An inventory and map of existing structural post-construction BMPs, in GIS if available.
- (b) Assessments of the self-certification program annual reports. Assessment shall include a ranking of structural BMPs and verification that BMPs are operating to remove pollutants as designed. Regional BMPs should receive higher priority than lot-scale BMPs, and BMPs designed to remove pollutants for which receiving water is impaired should receive priority attention over other BMPs.
- (c) Appropriate escalating enforcement based on the Permittee Enforcement Response Plan to ensure proper maintenance of BMPs and submittal of self- certification annual reports.
- (d) Self-Certification Annual Reports. At a minimum, the self-certification annual reports shall include:
 - 1) Field observations to determine the effectiveness of the structural post construction BMPs in removing pollutants of concern from storm water runoff and/or reducing hydromodification impacts as designed.
 - 2) Long-term plan for conducting regular maintenance of BMPs, including the frequency of such maintenance.

(iii) **Reporting** – The Permittee shall submit a summary of the past year activities and certify compliance with all requirements of this program element. The summary shall also address the relationship between the program element activities and the Permittee's Program Effectiveness Assessment and Improvement Plan that tracks annual and long- term effectiveness of the storm water program.

Planning and Development Review Process

(i) **Task Description** – The Permittee shall review their planning and permitting process to assess any gaps or impediments impacting effective implementation of these post- construction requirements specified in Section XX, and where these are found to exist, seek solutions to promote implementation of these requirements within the context of public safety and community goals for land use. The Permittee shall prioritize review of the landscape code (code detailing landscaping requirements and considerations which should be implemented to

protect environmental quality) to correct gaps and impediments impacting effective implementation of post-construction requirements.

(ii) **Implementation Level** – During years 1–3, the Permittee shall conduct the review using an existing guide or template already developed for MS4s. By the fourth year of the effective date of the permit, any changes to the planning and permitting process will be completed to effectively administer these provisions.

(iii) **Reporting** – By the second year Annual Report and annually thereafter, complete and have available a summary of the review process, and any proposed or completed changes to the Permittee’s program.

4. Requirement to Develop & Implement Program Effectiveness Assessment

The Draft Permit contemplates a Program Effectiveness Assessment in the 4th year of the Permit term. We strongly encourage the DEQ to make this an annual requirement. Permittees have now been part of the MS4 program for two decades and received more than fair notice of their obligations and responsibilities. As development pressures continue to increase there is a distinct need for permittees to document and reflect on successes and shortcomings of their programs, and to do so transparently with the public.

In addition, we strongly encourage DEQ to include the requirement that annual assessments (including plans, programs, maps, and reports required by the Permit) are made available to the public on each permittee’s website. Doing so would significantly advance the public participation goals of MCMs 1-2, as well as do much to practicably increase public awareness and engagement/support of municipal stormwater projects. We also strongly encourage the Dept. as the State lead overseeing the MS4 Permit program to make each permittee’s NOI and all reports available on its website for public review as doing so puts rubber to the road in terms of making good on the promises of transparency and accountability in stormwater pollution control efforts.

General Comments on Draft Permit

1. Establish Long-Term and Incrementally Increasing Targets for Pollution Reduction, Commensurate with Stated Goal of Attaining Water Quality Standards

Pollution reduction targets should be based on a clear standard that is linked to the long-term goal of attaining water quality standards statewide within a reasonable timeframe. Each phase of the permit, including the present 5th iteration, should require incremental reductions in permitted pollution. Pollution reduction targets should not be reduced from one permit term to the next unless a consistent and lasting improvement in water quality has been observed.

Our perspective on this issue is guided by our interest in long-term sustainability of the waters of the State of Montana. It is also informed by our understanding that municipalities and counties face significant challenges in planning for and financing stormwater improvements, and that to effectively incorporate stormwater needs into the capital improvement budget takes years of planning, outreach, grants research, partnership building, and more. Expecting municipalities to proactively invest in clean water projects without a clear understanding of what permit expectations will be in the 10-20 year timeframe seems unrealistic. Furthermore, uncertainty about long-term permit expectations is a disincentive to the kind of up-front investment required for innovation, collaboration, and creative planning at the local level.

2. Build on Momentum of Prior General Permit by Establishing Incentives and Disincentives for Timely Compliance

Many permittees are in the process of making progress toward pollution reduction goals established for the prior General Permit term. Others have repeatedly submitted deficient plans, and have been effectively rewarded by deferring the timeframe to begin compliance. This inconsistency needs to be addressed without halting progress towards the long-term goal of restoring Montana's impaired waters. At the same time, we recognize that enforcement actions are time-consuming and take up valuable staff time. Therefore, we suggest that DEQ consider additional options to incentivize compliance, such as:

- Scheduled, cumulative increases in the pollution reduction targets over time (see above), such that targets not implemented during each five-year permit period are added to the targets associated with the next permit term.
- Selection criteria for state-sponsored grant programs that prioritize municipalities/counties that have implemented pollution reduction activities and documented pollution control improvement within the assigned timeframe.
- Establishment of a formal pollution reduction plan credit system that assigns bonuses for early implementation, and penalties for delays.

3. Explicitly Prioritize Green and Natural Infrastructure BMPs to Promote Water & Climate Resilience

As discussed above, green and natural infrastructure – essentially, systems that use trees, plants, and the processes of evapotranspiration and infiltration – can benefit communities far beyond improvements in water quality. In particular, these practices can improve climate resilience by capturing carbon, by reducing runoff volumes, and by increasing local groundwater recharge. The Department has a great deal of influence on the design of pollution-reducing practices through both formal and informal rules and guidance.

We see the following as opportunities to create a nuanced credit policy for MS4s, with the goal of promoting and incentivizing the increased and prioritized use of green infrastructure for satisfying both Post-Construction duties and restoration mandates for impaired waterways:

- Perform an inventory of studies and EPA guidance to inform a credit policy supplementing the MS4 GP.
- Credit incentives for volume-reducing, vegetated BMPs, including temporal element giving increasing credits for BMPs that mature over time.
- Credit disincentives for tree/natural flora removal in both development/redevelopment projects, especially within a riparian zone (100' or less from a surface water).
- Increase Dept. resources to assist permittee programs regarding waterway assessments in high-growth watersheds
- Strengthen MCM 4 and MCM 5, and impaired waterways, requirements to ensure documentation of ongoing performance of BMPs.

4. Consider Permitting Incentives for Regional Collaboration

We believe that collaborative implementation of permit requirements can improve environmental outcomes while reducing costs and administrative effort for the municipality and for the Department. While some communities may have launched collaborative efforts, many others have struggled to take the first step. We suggest the following policy changes to enhance permit incentives for regional collaboration, especially given the reasonably foreseeable likelihood that many counties in high-growth river valleys will become non-traditional MS4 permittees in the near future:

- *Communicate long-term program goals and performance requirements.* As noted above, a clear understanding of the long-term investment required to meet water quality targets would be helpful to municipalities that are evaluating the costs and benefits of any kind of up-front investment of effort (such as establishing a collaborative).
- *Increase permit coverage.* Patchwork permit coverage is a disincentive to regional collaboration. The Department should make it a priority project to, on its initiative, assess what other regions and/or entities must become MS4 permittees under this Permit. We also suggest developing a tiered permit that establishes coverage for non-urbanized areas that have significant water quality impairment. This could also establish a means for allowing municipalities more flexibility in terms of where pollution reducing projects are located.
- *Consider other regulatory and nonregulatory incentives.* There may be additional opportunities to create policy incentives for collaboration, from expedited review, to enhanced technical assistance, to priority grant awards, to longer-term crediting strategies.

5. Establish a Robust Framework for Monitoring and Evaluating Pollution Reduction Projects

It is indisputable that MS4 Permittees have an important and strategic role to play in cleaning up Montana's urban and suburban waterways. The time is right to establish, through the MS4 GP, a public-facing program to assess and share progress, both toward permitting requirements and toward ultimate attainment of water quality standards. The Department is in a unique position to evaluate what works and what doesn't in the aggregate across permittees, and to share this information with permittees consistently to reduce costs and ensure that the desired outcomes are achieved. We see three areas of focus as regards monitoring and evaluation:

- **MCM 5:** As one proverbial lynchpin of the MS4 GP's pollution control mandate, including the means by which permittees can and should be advancing necessary green infrastructure policies at the local level, we strongly encourage DEQ to require as a permit term that practices and actions taken pursuant to MCM 5 be inventoried, assessed, and certified annually by the permittee. We recognize that limited capacity or permittee appetite for inspections and enforcement at the local level means there is little accountability for ensuring that chosen MCM 5 actions and plans adequately reflect GP priorities (*i.e.*, increasing use of LID/GI practices and strategies), and making progress in this arena will be critical to the long-term success of MCM 5 actions. We suggest the Department increase annual MS4 permittee inspections with a focus on new and redevelopment projects over the most recent permit term to assess if chosen BMPs on the ground reflect adequate priorities and whether such BMPs have been constructed and maintained consistent with their original design. Establishing this iterative baseline for MCM 5 achieves the regulatory goals of transparency, accountability, and enforceability while properly daylighting successes and failures of permittee MS4 programs.
- **Monitoring & Assessment of Projects Addressing Impaired Waterways:** Increasingly permittees will need to develop portfolios of projects aimed at eliminating harmful pollution discharges causing or contributing to the impairment of local receiving waters. It is critical that projects addressing impaired waterway contributions are adequately inventoried and monitored, both for ongoing maintenance and to ensure performance is consistent with design. For some types of installations, such as stream restoration, monitoring approaches may be new or unfamiliar to permittee staff. While we recognize that there is a significant body of technical guidance available, we also recognize the challenges permittees face in funding inspection and maintenance activities, and see the permit as the proper means providing a strong incentive for ensuring that financial commitments are made. Therefore, we encourage DEQ to include more specific requirements for inspections and reporting on impaired waters projects beyond the annual reporting and evaluation requirements. For instance, there exists a critical opportunity for permittees to use the existing requirement to evaluate and improve local code to support LID/GI practices, and the implementation of such new code revisions and projects thereunder should be qualified and quantified.
- **Monitoring, Generally:** In addition to monitoring that BMPs have been constructed and maintained, water quality monitoring is essential to ensuring that they are working

towards the ultimate goal of attaining water quality standards. Owing to the complexity of watershed systems and the challenges of drawing conclusions from monitoring data, we encourage the Department to increase monitoring required under the Permit. Presently, semi-annual (twice yearly) monitoring of four (4x) locations, two of which could potentially be the same, raises serious questions about the adequacy or representative nature of such a plans' results, particularly given the sprawling and diverse land uses most permittees encompass. We encourage DEQ to consider improving Permit monitoring elements in terms of scope, frequency, and intensity as follows:

- Are MS4 permittee monitoring locations helpful to characterizing known existing or near-term pollution reduction projects? Arguably each project should require at least an upstream and downstream monitoring location and monitoring frequency of pre-project and post-project discharges during wet weather events over time.
- Are chosen monitoring frequency or locations sufficient to document any water quality improvements in Urbanized Areas? If as we believe existing requirements cannot provide such clarity, at minimum increased monitoring should be required across jurisdictions and watersheds sufficient to provide such data.
- Are monitoring requirements sufficient to qualify a measurable improvement in the water quality of wet weather flows from MS4 outfalls from pre- to post-impaired waterway restoration project(s) implementation? (if any baseline data has been collected since TMDLs or impairment designation) Here again, project specific monitoring of a more intense and frequent nature is required for a short-term, and then periodic monitoring to assess project pollution reductions as compared to technical design criteria.
- Is monitoring for an MS4 permittee sufficient to establish new baseline data for comparison of future permitting requirements? E.g., the Permit should require permittees to establish baseline – or renewed baselines – for areas that will experience development and the proliferation of impervious surfaces in the reasonably foreseeable future. At present no such requirement or consideration exists in the permit, which is solely focused on existing conditions.

6. DEQ Must Use Census Population Data and Best Available Water Quality Data to Affirmatively Bring Appropriate New Entities Into the MS4 Permit Program

We take a moment here to specifically urge DEQ to invest the necessary resources into proactively inventorying high-growth areas across the State, and cross-referencing those areas with maps of existing MS4 permittees. In short, the Department should be taking the bull by the horns in recognizing growth trends and making the necessary outreach and permit designations affirmatively to bring appropriate new entities into the permitting program. Waiting, or

hesitancy, to do so will inevitably further stymie regulatory clarity and result in serious lost opportunities to ensure science-based practices are on the books and actually being implemented in urbanizing areas across Montana. Put another way, with water quality data demonstrating that most receiving waterways in urbanized or developing regions of Montana are already experiencing pollution issues, the onus is on DEQ to be anticipatory, to bring developing regions into the permit program, and to set clear expectations for land use development that protect and improve local water quality.

Conclusion

In conclusion, we applaud the advances made in the draft permit and recognize the Department's work to improve Permit terms and, in turn, to improve local water quality. At the same time, we see critical gaps in long-term goal setting, technical requirements, and monitoring that have the potential to jeopardize the success of the program. As clean water advocates with a shared goal of preserving and restoring the water resources of Montana, we are eager to work with the Department to support your efforts and help improve environmental outcomes for people and nature.

Thank you for your time and for the opportunity to share our comments on this important work.

For Clean Water-

[/s/ Guy Alsentzer](#)

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