



Bassett Creek Watershed Management Commission

MEMO

To: BCWMC Commissioners and Alternate Commissioners
From: Laura Jester, Administrator and Commission Engineers
Date: January 9, 2023

RE: Standards and Requirements for Linear Standards – Considerations for 2025 Watershed Plan

As part of the work to address complex issues leading into development of the 2025 Watershed Management Plan, we have been reviewing current BCWMC standards for linear projects and developing options for possible adjustments to the standards. (The scope and budget for the overall “Phase 2” of the Watershed Plan development process is found here:

https://www.bassettcreekwmo.org/application/files/8716/6265/7633/Item_5A_WMP_Phase_2_Scoping_v3_09072022.pdf.)

Linear projects are those that involve a road, trail, rail, other transportation route, or utility and are treated differently from typical developments that encompass a property area such as a lot, building, residence, etc. Originally, the 2015 Bassett Creek Watershed Plan used the Minimal Impact Design Standard (MIDS) triggers and requirements for linear projects.

2015 BCWMC Linear Standards

- Trigger treatment at 1 acre of new/fully reconstructed impervious.
- Capture & retain the larger of 1.1 inches off the net increase in impervious – or – 0.55 inches off the new/fully reconstructed impervious.
- Follow flexible treatment options (FTOs) if volume reduction is not feasible or not allowed.

In 2017, the BCWMC requirements were revised due to significant difficulty and expense in meeting the original requirements within the limited confines of most linear project sites.

2017 (current) BCWMC Linear Standards

- Trigger treatment at 1 acre of net new impervious.
- Capture & retain 1.1 inches off the net new impervious area.
- Follow flexible treatment options (FTOs) if volume reduction is not feasible or not allowed.

FTO1 – Achieve 0.55” volume reduction and remove 75% annual TP load
FTO2 – Achieve volume reduction to max extent practicable and remove 60% annual TP load
FTO3 – Off-site mitigation (including banking or cash or treatment on another project) equivalent to the volume reduction performance goal

In the years since 2017, the Commission has twice reviewed a comparison between outcomes of the 2015 standards vs. the 2017 standards for linear projects and an analysis of how much pollution might have been

prevented if the 2015 standards had stayed in place. Those comparisons were often difficult to fully analyze because complete stormwater management/pollution abatement information was not furnished by applicants (because it was not required to be submitted with project plans).

It seems clear, however, that current BCWMC linear standards may not be sufficient to realize the potential pollutant removal that may be gained through these projects.

MPCA Standards

To further complicate things: the latest MS4 permit, which cities must follow, includes new requirements for linear projects.

Section 20.5 of the MS4 permit requires water quality treatment on any linear project “where the sum of the new impervious surface and the fully reconstructed impervious surface equals one or more acres.”

Section 20.7 of the MS4 permit states (emphasis added in underlined italics to note vague language):

For linear projects, the water quality volume must be calculated as the larger of one (1) inch times the new impervious surface or one-half (0.5) inch times the sum of the new and the fully reconstructed impervious surface. Where the entire water quality volume cannot be treated within the existing right-of-way, a reasonable attempt to obtain additional right-of-way, easement, or other permission to treat the stormwater during the project planning process must be made. Volume reduction practices must be considered first, as described in item 20.8. Volume reduction practices are not required if the practices cannot be provided cost effectively. If additional right-of-way, easements, or other permission cannot be obtained, owners of construction activity must maximize the treatment of the water quality volume prior to discharge from the MS4. [Minn. R. 7090]

TAC Input

At their meeting in December, the TAC reviewed comparison data again and were asked to consider different options for refining linear standards including:

- Revise requirements for linear projects to match the MS4 permit and consider developing and adopting criteria, thresholds, or definitions for “reasonable attempt” and “cost effective” to better define vague language in the MS4 permit.
- Revise the BCWMC FTO flowchart to include an FTO #4 option for achieving a “maximum” treatment (on- or off-site) between no treatment and treatment levels established in FTOs #2 and #3.

TAC members discussed these ideas and had several comments:

Regarding the new MS4 permit:

1. There was consensus that the current MS4 permit language strikes a good balance between requiring water quality treatment and allowing flexibility.
2. Cities requested (through the Minnesota Cities Stormwater Coalition) to keep some of the terminology in the new permit vague to allow for flexibility.
3. Cities were generally opposed to specific and quantifiable criteria or thresholds, noting the possibility of significant constraints placed on necessary projects.
4. It was noted that “cost effective” and “reasonable” mean different things to different cities.

5. It was noted that cities need to document compliance with the MS4 permit. Simple tools (e.g., a checklist) would be helpful for the cities to clearly and consistently relay the steps taken to reduce water quality impacts.
6. It was noted that some entities are already working on definitions for the vague terms within the permit, including the MN Cities Stormwater Coalition.
7. It was noted that the MS4 language requires a “reasonable attempt to....maximize the treatment of the water quality volume...” and “volume reduction practices are not required if the volume control practices cannot be provided cost-effectively”. Although vague, this language implies that some kind of cost analysis is required.
8. It was noted that a checklist, definitions, forms, worksheets, and other tools to provide guidance and consistent implementation and documentation among city projects may be advantageous. The group made a comparison to a street sweeping program checklist and documentation guidance that all cities use. The linear standards guidance could use that model.
9. It was noted that the receiving water should be considered for each project.
10. It was noted that if there are no criteria or definitions, regulators and others could continuously argue about what is considered “reasonable.”

Commission Engineers Recommendations

1. Revise the BCWMC’s linear project triggers and treatment requirements to match the MPCA’s 2020 MS4 permit.
2. Consider requiring a minimum amount of treatment if it is not “reasonable” or “cost-effective” to provide the full level of treatment required in the MS4 permit. The minimum amount of treatment would be determined later in the planning process.
3. Develop tools such as checklists, worksheets, or forms for the cities (and other applicants) to provide guidance for consistent implementation and documentation.