



## Bassett Creek Watershed Management Commission

### MEMO

To: Bassett Creek Watershed Management Commissioners  
From: Technical Advisory Committee  
Date: July 10, 2019

**RE: TAC Recommendations – 7/8/19 TAC Meeting**

TAC Members and Others attending 7/8/19 TAC Meeting:

Mark Ray, Crystal (TAC Chair)  
Eric Eckman, Golden Valley  
Erick Francis, St. Louis Park  
Marta Roser, Robbinsdale  
Sarah Schweiger and Phil Olson, Minnetonka  
Chris LaBounty, Plymouth  
Susan Wiese, Medicine Lake  
Gary Holter, Commission Liaison  
Laura Jester, Administrator  
Karen Chandler and Jim Herbert, Commission Engineers

At their April 18, 2019 meeting, the BCWMC directed the TAC to provide direction to the Commission and the Commission Engineer regarding review and acceptance of proprietary stormwater manufactured treatment devices (MTDs) proposed for use in development/redevelopment projects in the watershed. The BCWMC Technical Advisory Committee met on May 29<sup>th</sup> and July 8<sup>th</sup> to review information about MTDs, how they are currently tested and certified, and how the Commission should review these devices in development proposals.

At the June 20, 2019 meeting, the BCWMC approved an initial [TAC recommendation](#) regarding MTDs “that the Commission cooperate with other watersheds in sending a letter to the MPCA, formally requesting that the MPCA evaluate stormwater MTDs and include development protocols in the MN Stormwater Manual, and to copy the MN Board of Water and Soil Resources on that correspondence.”

The TAC continued their discussion on this topic at their July 8<sup>th</sup> meeting and forwards the following recommendations for the Commission’s consideration.

#### **BACKGROUND & TAC DISCUSSION:**

The Commission has seen an increase in the use of proprietary stormwater MTDs for development and redevelopment projects. Currently, there are not widely accepted levels of treatment or pollutant removal efficiencies associated with these devices. While most proprietary MTDs undergo

testing and third-party review, the conditions that they are tested under may not be consistent with the conditions in the Bassett Creek watershed.

The TAC reviewed an initial technical memo (dated May 22, 2019) from the Commission Engineer that provided information about conventional stormwater best management practices; various stormwater MTDs and projects with MTDs reviewed by the BCWMC; and third-party testing programs. The memo also included 6 options (and recommendations) developed by the Commission Engineer for future review of stormwater MTDs.

A second technical memo (dated July 2, 2019) from the Commission Engineer was reviewed at the July 8<sup>th</sup> meeting with additional information requested by the TAC on the following items:

- 1) State of Washington's Technology Assessment Protocol – Ecology (TAPE) program
- 2) two options to review projects with reliance on TAPE's certification/verification program
- 3) a process to coordinate Commission reviews with city review processes

The TAC discussed the pros and cons of two options for reviewing MTDs in proposed projects (Options 3 and 6 in the technical memos). A summary of each option is as follows:

Option 3: Rely on a third-party entity's certification/verification to set a blanket total phosphorus removal (i.e., 50% for the State of Washington's Technology Assessment Protocol – Ecology (TAPE) program). This would require applicants to provide verification or certification of stormwater MTDs from the TAPE program (i.e., General Use Level Designation – GULD; the highest level of TAPE certification). MTDs certified through the TAPE program remove at least 50% of total phosphorus (TP) and 80% of total suspended solids (TSS). MTDs that do not meet that threshold do not get certified by the TAPE program. The BCWMC would accept these pollutant removal efficiencies as applied to the development/redevelopment site, as long as the MTDs are designed in accordance with the manufacturer's recommendations.

Option 6: Rely on the data from a third-party entity's certification/verification to set phosphorus removals (i.e., additional data from the State of Washington's Technology Assessment Protocol – Ecology (TAPE) program). This option is the same as #3, but would also require that applicants provide the MTD testing data used for the verification or certification, including the particulate phosphorus loading, the particulate phosphorus removal efficiency, the dissolved phosphorus loading, and dissolved phosphorus removal efficiency. The BCWMC would review and accept the median pollutant removal efficiencies (which could be higher than 50% TP and 80% TSS) from the MTD testing data used for the verification or certification as applied to the respective particulate and dissolved phosphorus loading values for the development/ redevelopment site, as long as the MTDs are designed in accordance with the manufacturer's recommendations.

It was noted that the Washington State TAPE program certification is robust, but the program requires that testing be performed in the state of Washington or the Pacific Northwest, and thus reflects the weather/climate conditions in that region (not Minnesota). However, to the best of our knowledge, it is currently the only certification program in the United States and Canada that certifies TP removals (not just TSS), so it is the best program for the BCWMC to rely upon because TP information is needed for the MIDS calculator.

The TAC discussed the pros and cons of Options 3 and 6. A summary of the pros and cons is provided below.

Option 3:

- Easier and faster review by Commission Engineer due to defined pollutant removals for TP and TSS
- Allows city staff to inform project proposer early in the concept development process exactly what pollutant removal efficiencies would be used in calculations during review process
- Does not provide information on the amount of dissolved phosphorus vs. particulate phosphorus being removed
- May underestimate actual particulate phosphorus removal efficiencies and overestimate actual dissolved phosphorus removal efficiencies.

Option 6:

- Requires applicant to submit additional data (or may require the Commission Engineer to seek the additional data from TAPE Program)
- Requires analysis of testing data by Commission Engineer
- Would likely require discussion among city staff, Commission Engineer, and project proposer prior to submittal of application and review fee
- Uses more accurate data on the type of phosphorus being removed (dissolved vs. particulate) and may find higher pollutant removal efficiencies, allowing the applicant to take more pollutant removal credits for the MTD than Option 3
- Review would be more in-line with current review practices regarding level of information on pollutant removals for standard treatment devices (non-MTDs)

There was considerable discussion about how the options differ and how they could be integrated with city reviews, approvals, and early conversations with developers. It was noted there is a need to keep reviews as uncomplicated and efficient as possible, while accurately accounting for pollutant removals and allowing for flexibility, as warranted. Balancing these needs was the desired outcome of the ultimate recommendations below.

One additional item is that the Commission Engineer also recommended the Commission consider convening a work group comprised of other local watershed districts, watershed management organizations, municipalities, the MPCA, and the University of Minnesota (St. Anthony Falls Lab) to discuss MTDs. The purpose of the work group would be to share information and suggest procedures/best practices regarding MTD review and approval. The TAC agreed that while this might be something to consider in the future, they would rather wait to see how the BCWMC's new MTD review process plays out (if approved by the Commission) and if the MPCA begins a program to evaluate MTDs in the coming year.

#### **RECOMMENDATIONS:**

The BCWMC Technical Advisory Committee recommends the following:

1. The BCWMC require project applicants to provide verification that the proposed stormwater MTDs have achieved General Use Level Designation (GULD) certification from the State of Washington's Technology Assessment Protocol – Ecology (TAPE) program (Option 3). The

BCWMC will then accept and apply 50% TP and 80% TSS removals for the MTDs, as long as the MTDs are designed in accordance with the manufacturer's recommendations/guidelines.

2. The BCWMC allow project applicants to seek acceptance of higher pollutant removal efficiencies by submitting data from the TAPE program for analysis by the Commission Engineer (Option 6) using the following protocol:
  - a. Commission will develop a new "MTD pre-approval" review application form for these situations.
  - b. City staff would encourage the applicant to coordinate with the Commission Engineers early in the process. This would avoid a possible scenario where a project is almost entirely through a city review process only to need considerable site revisions due to differing analyses of MTD pollutant removals by Commission Engineers and negotiations therein.
  - c. Commission would require applicants to submit the "MTD pre-approval" form and a \$1,000 alternative BMP review fee. (The BCWMC already requires this \$1,000 review fee for projects involving review of alternative BMPs that are not in the MN Stormwater Manual.) The applicant would pay the remaining BMP review fees when they submit the full BCWMC application form.
3. The Commission Engineer will maintain a list of MTDs that have been approved through Option 6 for use by future applicants.
4. The BCWMC not allow the manufacturer of an MTD to apply for consideration through the Commission's review process without it being part of an actual development/redevelopment project and submittal of a formal BCWMC application. Currently the BCWMC's review process and fee structure is setup for development and redevelopment projects and not review of specific components of the projects.