



Memorandum

To: BCWMC & ECWMC
From: Barr Engineering Co.
Subject: Manufactured Treatment Devices (MTD's)
Date: April 1, 2020
Project: MTD Work Group Update

Following is a summary of the status of the MTD work group. Barr staff (Jim Herbert and/or Josh Phillips) are attending MPCA work group meetings on behalf of BCWMC and ECWMC and sharing costs between the organizations.

Background

Manufactured Treatment Devices (MTDs) are underground proprietary stormwater devices that typically include a filter system to enhance removal of trash, floatables, total suspended solids, phosphorus, and other contaminants. MTDs have been reviewed by WMOs and municipalities as alternatives to other practices due to space limitations or where stormwater ponds or infiltration and biofiltration systems may not be practical.

The Bassett Creek Watershed Management Commission (with support from Nine Mile Creek WD, Ramsey Washington Metro WD, Riley Purgatory Bluff Creek WD, Shingle Creek WMO, West Mississippi River WMO) sent a letter dated July 26, 2019 formally requesting the Minnesota Pollution Control Agency (MPCA) evaluate the performance of various stormwater MTDs and include protocols for MTDs in the Minnesota Stormwater Manual. The MPCA was requested to take one of the following actions:

- 1) Cooperate with and support the implementation of the Water Environment Federation's (WEF) Stormwater Testing and Evaluation of Products and Practices (STEPP) verification program, currently under development. We prefer this option because the STEPP verification program is already well along in its development, it will be a nationwide program, and we understand that MPCA staff are already engaged in the program. Once implemented, the STEPP verification program would validate MTD performance; it would be up to the states (e.g., the MPCA) to certify the MTDs.
- 2) Develop its own statewide program for evaluating and certifying stormwater MTDs.

In response to the letter, the MPCA scheduled a meeting on January 29, 2020 with several watershed management organization representatives to review the letter and discuss how MTDs are used and to establish a path forward. An outcome of the meeting was to form the MTD Work Group and meet with Seth Brown who is involved with STEPP.

MTD Work Group

The work group was formed and includes representatives from WMOs/WDs, Saint Anthony Falls Laboratory (SAFL), industry (MTD manufactures), and the MPCA. Following is a summary of MTD work group meetings:

Meeting No. 1: March 2, 2020:

A group of about a dozen folks met to discuss the upcoming March 12, 2020 meeting with Seth Brown and discuss issues for moving forward on addressing manufactured treatment devices. Mr. Brown is actively working with others on the STEPP effort. An agenda and questions to ask Mr. Brown was prepared. Key discussion points included:

- The preference for field-tested devices in Minnesota.
- Testing protocols/standards, particularly for phosphorus and with dissolved phosphorus.
- Maintenance is critical for performance of BMPS and must be considered in MTD evaluation.

Meeting No. 2: March 12, 2020:

The work group met with Seth Brown (STEPP) who gave the presentation *Overview of Stormwater Testing and Evaluation for Products and Practices* (STEPP). The goal of STEPP is to develop a national testing/evaluation and verification program for products and practices and to increase performance of BMPs. The focus of STEPP is on verification. Other entities, such as the MPCA, municipalities, WMOs or other agency, would be tasked with certification. Key discussion points included:

- Stormwater BMP testing and certification is costly and time intensive. Cost savings can be made through less sampling and/or lab sampling only (i.e. no field sampling).
- Work group is leery of lab-tested approval – need field verification. There was some discussion of approved testing sites. For example, the University of New Hampshire is approved as a testing site. Is this something we might want to pursue in Minnesota?
- Work group focus is on phosphorus removal. There was discussion of dissolved phosphorus, which is currently not required for Washington's TAPE and New Jersey's NJCAT programs.
- Operation and maintenance is critical in the evaluation of MTDs.
- Ideally, regional testing would be performed; can national testing be better used regionally?
- MTD verification testing can take several years.
- STEPP is not currently funded to take on regional verification of MTDs.

Next Steps

The MPCA and work group are compiling a list of items or issues we would like addressed regarding MTDs. Seth Brown (STEPP) will develop a pilot project for Minnesota in the context of STEPP. Ultimately, the MPCA will submit a letter of support and a list of items and a letter of support to Seth Brown.