Minnesota Pollution Control Agency

Meeting Requirements of a TMDL

wq-strm7-85a

Stormwater Module 5a
Minnesota Pollution Control Agency

Training Goals

Understand

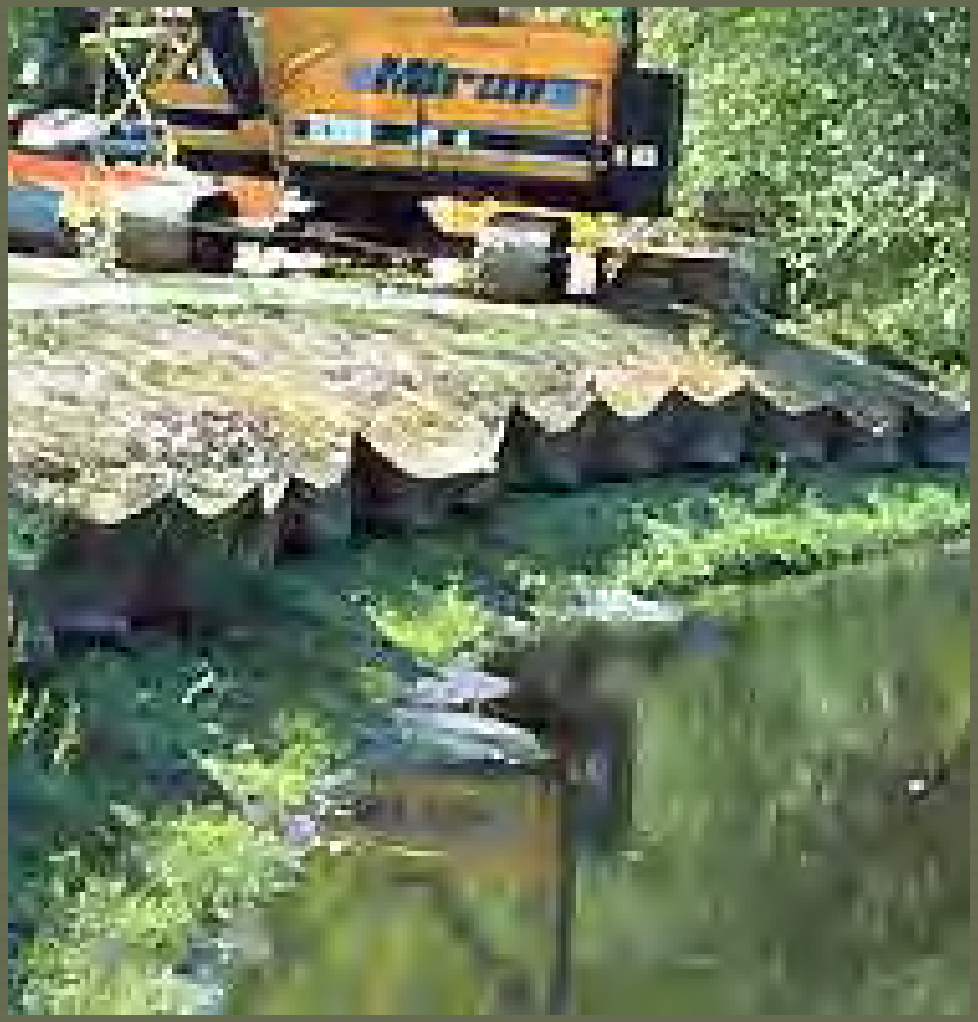
- TMDL language in construction, industrial, and municipal general permits;
- how TMDL requirements will be met; and
- how to address TMDL requirements in a SWPPP

Acronyms

TMDL	total maximum daily load
MS4	municipal separate storm sewer system
WLA	waste load allocation
LA	load allocation
NPDES	National Pollutant Discharge Elimination System
SWPPP	stormwater pollution prevention plan (construction) OR stormwater pollution prevention program (municipal)
BMP	best management practice
WMO	Watershed Management Organization

1. Construction Stormwater

The construction stormwater permit was issued in 2008.



Impaired water but the TMDL is not completed

- Clean Water Act prohibits activities that cause or contribute to an impairment
- MPCA assumes that following conditions of the permit meets applicable requirements
- Permittee must implement extra BMPs if
  - project is located within one mile of and discharges to an impaired water and
  - the impairment is for phosphorus, turbidity, dissolved oxygen, or biota

See Appendix A in the construction General Permit for extra BMPs

Terms for impairments can be confusing. See permit and MPCA fact sheets for additional guidance and language.

An EPA-approved TMDL

- If TMDL provides a WLA for construction stormwater and includes specific BMPs, then permittee must implement those BMPs
- Under all other conditions, permittee must follow conditions of the permit
- SWPPP describes all applicable BMPs

2. Industrial stormwater

The industrial stormwater permit was issued in April, 2010.

Impaired water but the TMDL is not completed

- Clean Water Act prohibits activities that cause or contribute to an impairment
- Permittee must identify all downstream impaired waters it discharges to within one mile of facility boundary
- For existing facilities, MPCA assumes that following conditions of the permit meets applicable requirements
- New or expanding facilities must demonstrate no discharge, no exposure, or that water quality standard is met at point of discharge
- Applies to all pollutants

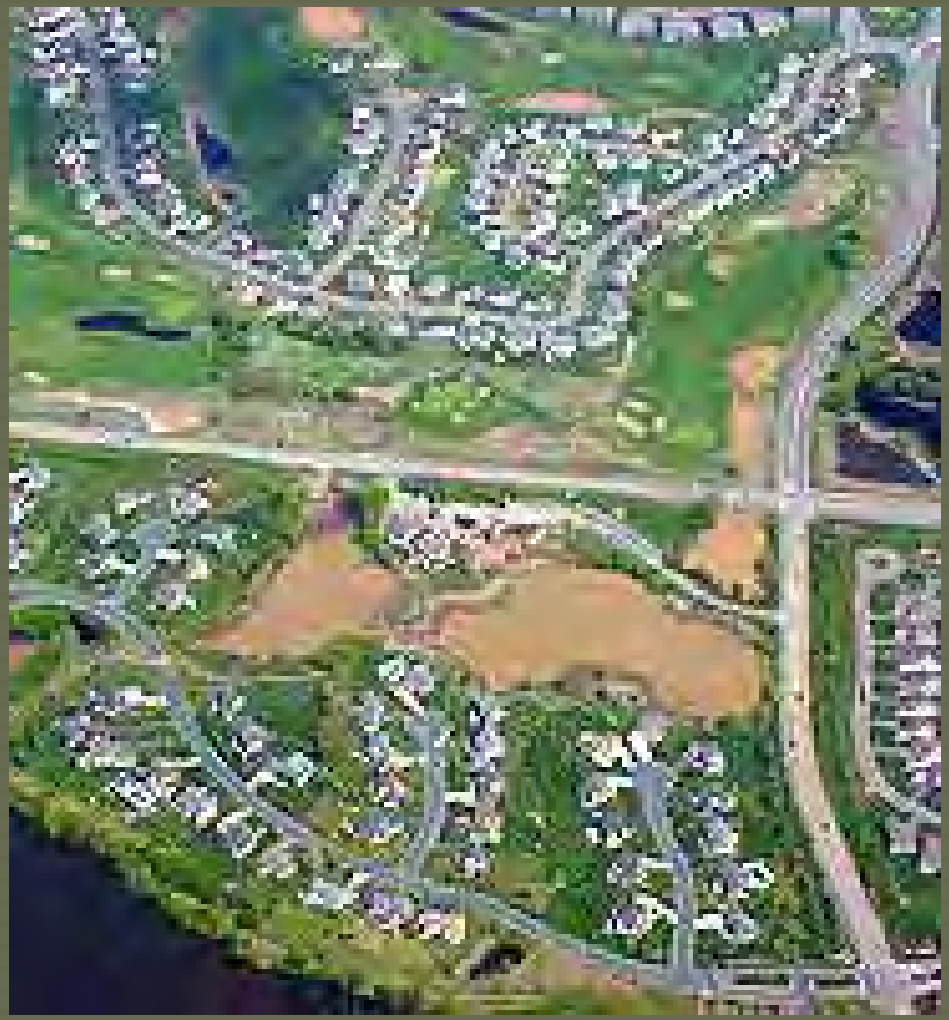
An EPA-approved TMDL

- No discharge allowed if WLA = 0
- If a WLA is established, permittee must incorporate the WLA into their SWPPP
- Permittee must comply with TMDL schedule, any BMPs included in the TMDL, and monitoring requirements
- No WLA – permittee must follow conditions of the permit

Monitoring requirements

- No WLA for industrial stormwater
  - Must monitor for pollutant of impairment for 2 years
  - If not detected, monitoring requirement waived
  - If detected below benchmark or effluent limits, two additional years of limited monitoring
  - If exceeds benchmark or effluent limits, must evaluate and if necessary, modify SWPPP
- WLA established for industrial stormwater
  - Must follow monitoring requirements in TMDL
  - If TMDL has no monitoring requirements, must follow conditions of the permit

3. Municipal (MS4) Stormwater



MS4 has an impaired water but the TMDL is not completed

- MS4 must review if changes in SWPPP are warranted
- Complete Impaired Waters Inventory
  - List impaired waters affecting MS4
  - Provide maps of impaired waters affecting MS4
  - Identify impaired waters with TMDL study started
  - Discuss involvement of MS4 in TMDL development

MS4 has an EPA-approved TMDL

- MS4 must review the adequacy of SWPPP to meet TMDL Waste Load Allocation set for Storm Water sources.
- If SWPPP is not meeting the applicable requirements of the TMDL, must modify the SWPPP within 18 months after the TMDL Waste Load Allocation is approved.

How will a MS4 meet TMDL requirements?

- **Two approaches**
  - ***Meet water quality based effluent limits*** – runoff from a MS4 meets water quality standards
  - ***Implement Best Management Practices (BMPs)*** – BMPs achieve a certain level of pollutant reduction. When enough are implemented, standards are met.
- **Preferred approach is through implementation of BMPs**

How to meet a WLA

- MS4s will need to calculate current loading
- MS4s compare current loading to WLA
- If current loading exceeds the WLA, MS4 will implement BMPs to decrease its load until it comes into compliance with the WLA

How to Meet a WLA

- Specifics of how to achieve the WLA are complicated and include many factors
  - Method for calculating loads (model)
  - Specifics of BMP selection (cost, removal efficiency, maintenance requirement, etc.)
  - Method for tracking progress
  - Regulatory, resource, funding needs
  - Etc. etc. etc.
- MPCA is preparing modules to address these issues
- TMDL Implementation Plan can serve as a guide for MS4s in meeting the WLA

Meeting requirements in SWPPPs

- Construction and industrial stormwater – SWPPPs must include BMPs described in TMDL plus BMPs described in permit
- MS4 stormwater
  - MS4s select BMPs and include them in their SWPPP
  - Associated load reductions must be included in SWPPPs