PRP/TMDL Mapping

MS4 Workshops – Pollutant Reduction and TMDL Stormwater Plans

Fall 2016

Training Goal

1. Describe the content required in maps submitted with Pollutant Reduction Plans (Appendices D and E)
2. Discuss the pros and cons of parsing
3. Describe where BMPs may be located

Importance of Mapping to PRPs

Storm sewershed delineation used in:
- Determining the planning area
- Calculating pollutant loads
- Determining necessary pollutant reductions
- Determining BMP size and placement to meet the necessary pollutant reductions
PRP Map Content

- Land uses and/or impervious/pervious surfaces
- Storm sewershed boundary associated with MS4 outfall discharges to impaired surface waters or surface waters draining to the Chesapeake Bay
- Location(s) of proposed structural BMP(s)

Map Scale

The map must be sufficiently detailed to:

- Identify the "planning area" relevant to Appendix D and/or Appendix E
- Demonstrate that BMPs will be located in appropriate storm sewersheds

Watershed Delineation
Storm Sewershed Delineation

What are some methods used to delineate storm sewersheds?

- Manually - paper topo maps or other
- Tools in a GIS platform (e.g. ESRI's Arcmap)
  - Generate contour lines from DEM data and "draw" the sewershed
  - Multi-step DEM data processing to delineate sewershed "automatically" (not really)
**Mapping Examples**

**What is your planning area?**

Within the boundaries of your municipality

AND

Within your MS4-regulated storm sewershed

AND

Within your Urbanized Area

OR

Upstream of your Urbanized Area

**Where may BMP's be located?**

Within the Planning Area

OR

Area outside of the planning area that drains the Urbanized Area

BMP’s may only be outside of the municipality if there is a written agreement.
Some Basic Requirements...

- Multiple PRPs require a map that addresses each PRP
- Joint PRPs require a combined storm sewershed for all of the MS4 permittees

Load Calculation Exclusions

Once storm sewersheds are delineated:
- Area outside the MS4-regulated storm sewershed
- Area downstream of the UA (optional)
- Area within the MS4-required planning area, but has a stormwater permit (optional)

Outside the MS4 Regulated Sewersheds
Load Calculation Exclusion/Parsing

Load Calculation Rule

BMPs may only be located in areas used to calculate load

Summary

- Features to be included in maps
- Area to map
- Parsing
- Delineation
- Map examples
- Strategy for combined PRPs