

3rd Party TMDLs - What Do They Want?

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Legal underpinnings

■ Clean Water Act – 1972

- 1992 regulations

■ Guidance/Policy

- 1991 Guidance - *Guidance for Water Quality-based Decisions: The TMDL Process*
- 1997 Policy – scheduling and NPS
- 1999 – TMDL protocols
- 2002 WLA memo – numeric WLAs required
- 2002 TMDL review template
- 2007 Total Maximum Daily Loads with Stormwater Sources
- 2008 Draft Handbook for Developing Watershed TMDLs

In the beginning.....

Our philosophy...

- These are state/local projects
- There is no “right” way to do a TMDL
(however, there are “wrong” ways to do them!)
- Perfection need not be attained - do the best you can with what you’ve got
- Simple is good
- Just ask

Clean Water Act Requires . . .

■ Under §303(d) of the Clean Water Act States must:

- Identify waters not meeting State water quality standards 303(d) list
- Set priorities for TMDL development
- Develop a TMDL for each pollutant for each listed water

■ EPA to approve or disapprove State submissions, and if disapproved, then develop the list ourselves.

This is where you start

- It all begins with the 303d list/Category 5
- Make sure the TMDL is clear what pollutants/impairments are being addressed in the TMDL, and what are not.

Water Name	Segment ID	HUC 10	Priority	Miles/ Acres	Designated Use	Impairment(s)	TMDL Status
DuPage R.	IL_GB-01	0712000408	Medium	8.07	Aquatic Life	Phosphorus (Total)	
DuPage R.	IL_GB-01	0712000408	Medium	8.07	Fish Consumption	Mercury, Polychlorinated biphenyls	
DuPage R.	IL_GB-11	0712000408	Medium	10.06	Aquatic Life	Arsenic, Chloride, Methoxychlor, Polychlorinated biphenyls, Sedimentation/Siltation, Phosphorus (Total)	
DuPage R.	IL_GB-11	0712000408	Medium	10.06	Fish Consumption	Mercury, Polychlorinated biphenyls	
DuPage R.	IL_GB-11	0712000408	Medium	10.06	Primary Contact Recreation	Fecal Coliform	(TMDL Ongoing)
DuPage R.	IL_GB-16	0712000408	Medium	11.26	Aquatic Life	Phosphorus (Total)	
DuPage R.	IL_GB-16	0712000408	Medium	11.26	Fish Consumption	Mercury, Polychlorinated biphenyls	
DuPage R.	IL_GB-16	0712000408	Medium	11.26	Primary Contact Recreation	Fecal Coliform	(TMDL Ongoing)

Clean Water Act Requires . . .

- States must submit TMDLs to the EPA for approval/disapproval
 - For 3rd party TMDLs

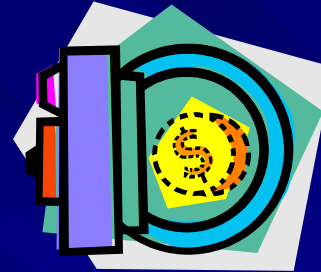
Must work with the state

- EPA to approve or disapprove State TMDL submissions, and if disapproved, then develop the TMDL ourselves.

What is the EPA role?

Disclaimer – in cooperation with the state

- Funding (maybe)
 - TMDL development
 - Implementation



- Resource
 - TMDL development
 - Implementation



- Ultimately, Final Approver



Definition of a TMDL

- A TMDL is the amount of a pollutant that a waterbody can receive and still meet water quality standards
- Goal of a TMDL is attaining water quality standards in a waterbody

Definition of a TMDL

- The sum of loads from point sources, nonpoint sources, and a margin of safety
- Determines sources of pollutants causing or contributing to impairment
- Allocates responsibility for reductions needed to achieve water quality standards

$$\text{TMDL} = \sum \text{WLA} + \sum \text{LA} + \text{MOS}$$

A TMDL Must Include:

- Description of waterbody, pollutant of concern, pollutant sources
- Description of the applicable Water Quality Standard and Numeric Water Quality target
- Total Loading Capacity
- Wasteload Allocation for permitted point sources
 - WWTPs - individual
 - CAFOs – can be group
 - Stormwater – can be group

A TMDL Must Include:

- Load Allocations from nonpoint sources
 - air deposition (if necessary)
 - natural background
- Seasonal Variation
- Critical Condition
- Margin of Safety
- Public Participation

Watershed info

- Watershed size and description
- Land use
- Population characteristics (i.e., rural, ag, urban, urbanizing, etc)
- Sources – known and suspected (including background and/or naturally occurring)



Water quality standards

- Need to clearly ID the State WQS that is violated
 - Provide the citation, and paste in the standard
- WQS $\neq$ assessment criteria – e.g., don't add a 10% exceedence unless it is in the WQS

What are you doing the TMDL for?

- TMDLs can only be done for pollutants

(C) Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the Administrator identifies under section 1314 (a)(2) of this title as suitable for such calculation...

- TMDL program uses the CWA-NPDES definition of pollutant (i.e., something added to the water)



So, what is a pollutant?

- Phosphorus? ✓ Yes
- Bacteria? ✓ Yes
- DO? ☒ No, it is an observed effect
- Habitat? ☒ No, it is an observed effect
- Temperature? ✓ Yes, because Congress says so
- Impaired biologic community? ☒ No, it is an observed effect
- Flow? ☒ No

Surrogate pollutants

- So, if you know the pollutant, and it exceeds the numeric WQS, you are good to go (chloride, fecal).
- But, what if it is an “observed effect” (DO, IBI, etc)?
 - First step, have to figure out the pollutant (surrogate)
 - This relationship needs to be laid out clearly (linkage between pollutant and impairment)

Where are we at now?

- Watershed info and background, 303d list
 - WQS – impairment being addressed
 - Pollutant identified
 - Linkage between impairment and pollutant clearly explained
 - Parts 1 and 2 of the TMDL template
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- We have laid out where we are, now we need to figure out where we need to be

