

TMDL to Permits Integration Workgroup

Jenny Molloy, EPA
Water Permits Division

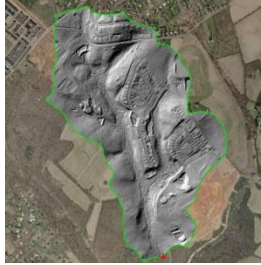
ELI's 303(d) Training Workshop, Shepherdstown, WV
April 7, 2015

Presentation Overview

- Summary of TMDL to Permits Integration Workgroup efforts
- Permit challenges workgroup is tackling
- Region 9 Integration efforts between TMDLs, NPDES, and NPS/Watersheds

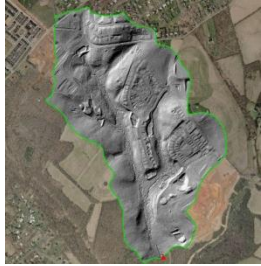
Workgroup Origin

- Regions noting the difficulty of translating TMDL WLAs into WQBELS in NPDES permits
- Work group convened in January 2013
- Objectives:
 - Find solutions for permit writers that do not generally require TMDL modifications
 - Ensure the future development of “permit-friendly” TMDLs through improved collaborations among programs
- Participants:
 - NPDES Program (Water Permits Division)
 - TMDL Program (Assessment and Watershed Protection Division)
 - Consultation with Regions originally; subsequent regional representation by interested individuals
 - Office of General Counsel



What We Found...

- General acknowledgement that TMDL and Permit writers need to identify opportunities for coordination early and often
- The workgroup identified 15 specific challenges that permit writers experience when trying to interpret WLAs and develop WQBELs
- A number of other “associated” issues such as data availability, calculation methodologies, process inefficiencies and confusion over definitions/terms were also identified



General Framework

Translating Old/Existing TMDLs into Permits

- Older TMDLs present most of the challenges faced by permit writers
- Looking for legally defensible, water quality effective solutions for establishing WQBELS/permit provisions
- Acknowledgement that some TMDLs will need to be re-done

Developing Permit-Friendly TMDLs

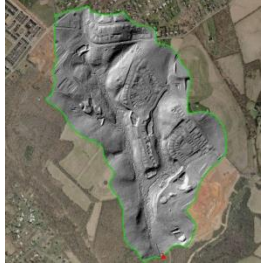
- Fewer issues with recently developed TMDLs
- Deriving sets of recommendations for the ways in which new TMDLs will meet the needs of permit writers
- Collaboration between TMDLs and permit writers is essential

Permits for Pre-TMDL impaired waters

- Opportunities for data collection and coordination for pre-TMDL discharges to impaired waters

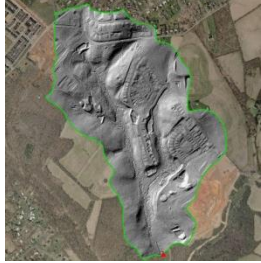
TMDL to Permits Challenges

- TMDL does not include a WLA for a point source
- TMDL recognizes the point source, but includes the WLA as *de minimus*
- TMDL doesn't realistically distinguish among point sources, and sets WLAs equivalent to each other
- Permittee is meeting numeric criteria, so there's no development of a WLA for that specific pollutant of concern
- TMDL makes no provision for new and/or increased discharges, i.e., no growth allocation



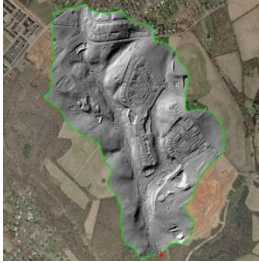
TMDL to Permits Challenges (cont'd)

- TMDL is vague about the averaging period or maximums
- TMDL WLA usually in mass, but WQS are concentration-based making assumptions unclear and translation difficult
- TMDL doesn't fully account for effluent variability
- TMDL doesn't specify points of compliance or sets them for the receiving water rather than end-of-pipe





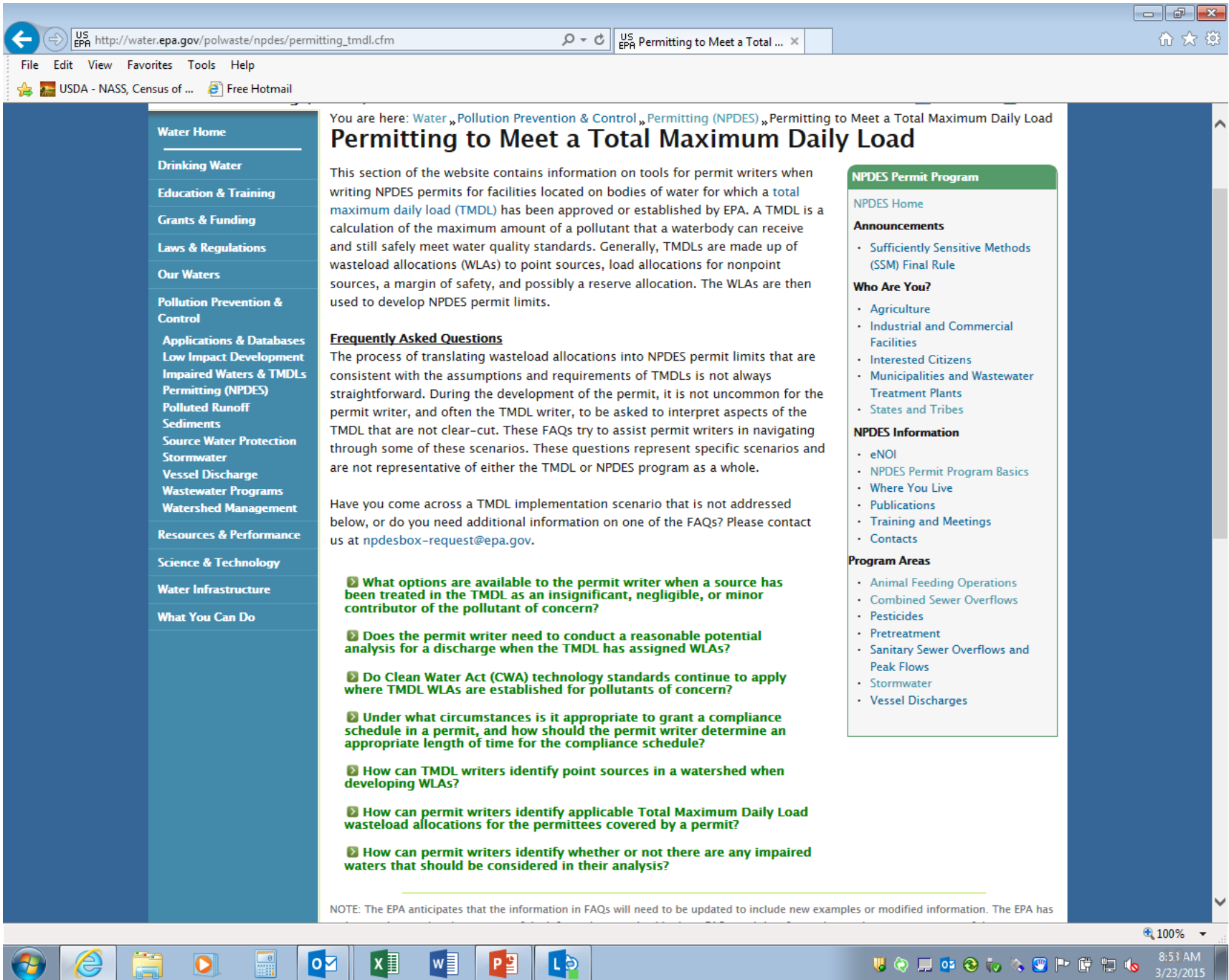
TMDL to Permits Challenges for Stormwater

- 
- WLAs are aggregated, and it's difficult/impossible to discern an allocation for individual point sources
 - WLA is based on design-flows for wastewater, NCCW and fails to consider co-mingled flows such as stormwater
 - Load is in the form of a % reduction without a specified baseline; WLAs are not based on relevant information/data
 - How to accurately characterize contributions with limited data, including pre-TMDL permitting



Workgroup Efforts to Date

- Held a day-long workshop at the State Permit Writers Conference in 2013
- Created a website, “Permitting to Meet a TMDL” with FAQs covering issues related to:
 - Negligible, insignificant pollutant sources
 - Compliance schedules in permits
 - How to search for TMDLs, facilities and discharge data--Website includes links to relevant EPA databases and tools
- Monthly Forum with Regions
- Ad hoc support for regional efforts



- Water Home
- Drinking Water
- Education & Training
- Grants & Funding
- Laws & Regulations
- Our Waters
- Pollution Prevention & Control
- Applications & Databases
- Low Impact Development
- Impaired Waters & TMDLs
- Permitting (NPDES)
- Polluted Runoff
- Sediments
- Source Water Protection
- Stormwater
- Vessel Discharge
- Wastewater Programs
- Watershed Management
- Resources & Performance
- Science & Technology
- Water Infrastructure
- What You Can Do

You are here: [Water](#) » [Pollution Prevention & Control](#) » [Permitting \(NPDES\)](#) » Permitting to Meet a Total Maximum Daily Load

Permitting to Meet a Total Maximum Daily Load

This section of the website contains information on tools for permit writers when writing NPDES permits for facilities located on bodies of water for which a total maximum daily load (TMDL) has been approved or established by EPA. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. Generally, TMDLs are made up of wasteload allocations (WLAs) to point sources, load allocations for nonpoint sources, a margin of safety, and possibly a reserve allocation. The WLAs are then used to develop NPDES permit limits.

Frequently Asked Questions

The process of translating wasteload allocations into NPDES permit limits that are consistent with the assumptions and requirements of TMDLs is not always straightforward. During the development of the permit, it is not uncommon for the permit writer, and often the TMDL writer, to be asked to interpret aspects of the TMDL that are not clear-cut. These FAQs try to assist permit writers in navigating through some of these scenarios. These questions represent specific scenarios and are not representative of either the TMDL or NPDES program as a whole.

Have you come across a TMDL implementation scenario that is not addressed below, or do you need additional information on one of the FAQs? Please contact us at npdesbox-request@epa.gov.

- 2 What options are available to the permit writer when a source has been treated in the TMDL as an insignificant, negligible, or minor contributor of the pollutant of concern?
- 2 Does the permit writer need to conduct a reasonable potential analysis for a discharge when the TMDL has assigned WLAs?
- 2 Do Clean Water Act (CWA) technology standards continue to apply where TMDL WLAs are established for pollutants of concern?
- 2 Under what circumstances is it appropriate to grant a compliance schedule in a permit, and how should the permit writer determine an appropriate length of time for the compliance schedule?
- 2 How can TMDL writers identify point sources in a watershed when developing WLAs?
- 2 How can permit writers identify applicable Total Maximum Daily Load wasteload allocations for the permittees covered by a permit?
- 2 How can permit writers identify whether or not there are any impaired waters that should be considered in their analysis?

NOTE: The EPA anticipates that the information in FAQs will need to be updated to include new examples or modified information. The EPA has

NPDES Permit Program

- NPDES Home
- Announcements**
 - Sufficiently Sensitive Methods (SSM) Final Rule
- Who Are You?**
 - Agriculture
 - Industrial and Commercial Facilities
 - Interested Citizens
 - Municipalities and Wastewater Treatment Plants
 - States and Tribes
- NPDES Information**
 - eNOI
 - NPDES Permit Program Basics
 - Where You Live
 - Publications
 - Training and Meetings
 - Contacts
- Program Areas**
 - Animal Feeding Operations
 - Combined Sewer Overflows
 - Pesticides
 - Pretreatment
 - Sanitary Sewer Overflows and Peak Flows
 - Stormwater
 - Vessel Discharges

What options are available to the permit writer when a source has been treated in the TMDL as an insignificant, negligible, or minor contributor of the pollutant of concern?

Where the TMDL considers the contribution of the pollutant of concern from a regulated source to be insignificant, the permit for that source must still include a QWBEL that is consistent with the assumptions of the relevant WLA as per 40 CFR 122.44(d)(1)(i) and (d)(1)(vii)(B). To the extent that the source is contributing some amount of the pollutant of concern to the impaired water body and has "reasonable potential" to cause or contribute to the impairment, a QWBEL must be included in the permit, as per 40 CFR 122.44(d)(1)(i), even if the loading is minimal. Some TMDLs that address insignificant sources do so in a way to suggest that current loads from particular discharges do not warrant more restrictive effluent limits to implement the applicable WLA. In these situations, the permit writer's task is to establish a QWBEL that keeps pollutant discharges at levels consistent with the assumption in the TMDL that the load from this source is insignificant.

Here are some of the available QWBEL options that the permit writer may have depending on the way the TMDL is worded:

- Set the QWBEL equal to the existing effluent limits, or if known, the current actual discharge of the pollutant from the source. In some instances, where the TMDL considers some sources to be negligible based on their current loadings, the TMDL will recommend that the appropriate WLA is for these sources to maintain that level. Therefore, including a QWBEL in the permit that is essentially the same as the current effluent limit or actual discharge level will be consistent with the assumptions of the WLA on which it is based, i.e. that discharges at this negligible level do not need to be further controlled in order to meet water quality standards. Note that this is not the same as saying that there is no QWBEL. A QWBEL is still needed in the permit to ensure that the facility continues to discharge no more of the pollutant of concern than the current performance level, consistent with the assumptions of the WLA.

Examples of TMDLs where this approach might be appropriate:

- Guyandotte River Watershed, West Virginia TMDL (2004), Section 5.4.1 (PDF) (154 pp, 3MB, About PDF)
- Bear Creek, Missouri TMDL for Total Suspended Solids, Total Nitrogen, and Total Phosphorus (2010), Section 8 (PDF) (111 pp, 2MB, About PDF)
- Kiskiminetas-Conemaugh River, Pennsylvania Metals TMDLs (2010), Section 6.4.4 (PDF) (89 pp, 8MB, About PDF)

- Develop a QWBEL based on water quality criteria at the "end-of-pipe"

- Animal Feeding Operations
- Combined Sewer Overflows
- Pesticides
- Pretreatment
- Sanitary Sewer Overflows and Peak Flows
- Stormwater
- Vessel Discharges



Region 9 Integration Efforts

- Organizational Changes to Restore Water Quality
 - May 18, 2012 MOU signed by 3 Offices--TMDL & Standards/Permits/NPS--to enhance coordination and integration to promote TMDL implementation to restore water quality
- Encouraging Permit-Friendly TMDL Development
 - Recommendations for both TMDL writers and permit writers
 - Identifies and explains very detailed issues and situations with TMDL examples
- Commenting on draft TMDLs to ensure Implementation
 - Questions to ensure point source WLAs can be implemented
 - Questions to ensure that nonpoint source LAs can be implemented
 - Considerations to ensure water quality restoration can be adequately tracked

“Promoting TMDL Implementation to Restore Water Quality”


TMDLs approved are included into all permits undergoing re-issuance.

2011-2012 informal integration between programs.

Staff saw value, avoidance of future problems

May 18, 2012 signed by 3 Offices:

- TMDL & Standards
- Permits
- NPS Program



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

May 18, 2012

MEMORANDUM

SUBJECT: Promoting TMDL Implementation to Restore Water Quality

TO: Standards and TMDL Office (WTR-2), Watersheds Office (WTR-3), NPDES Permit Office (WTR-5)

FROM: Janet Hashimoto, Safi Ziegler, and Dave Smith

We want to reinforce our commitment to the implementation of TMDLs and identify our expectations for staff and programs to more effectively restore water quality. TMDLs are important catalysts for restoring impaired waters because they identify pollutant reductions and activities to achieve water quality improvements and beneficial uses. They provide needed information for strengthening permits and improving the implementation of nonpoint source controls. However, TMDL implementation to achieve water quality standards is fraught with many challenges. These challenges present us with some unique opportunities to improve our efforts to implement TMDLs.

Implementing TMDLs to achieve water quality results will require working together more effectively to share goals, data, resources, expertise and ideas (Attachment A: Coordination Guidelines). Many of us are already regularly coordinating with our peers to discuss and resolve issues that arise in developing and implementing TMDLs through NPDES permits, watershed plans, and technical and financial assistance programs. We greatly appreciate that! We encourage you to continue and expand these efforts focused on achieving specific water quality results, and look forward to hearing your ideas on how best to advance water quality restoration.

In the coming months and beyond, we expect you to advance TMDL implementation by working together through our programs (Attachment B: Geographic Liaisons) and in priority watersheds (Attachment C: Priority Watersheds). We want you to work together on TMDLs, watershed plans, and related projects (e.g., monitoring, decision and tracking tools, etc.) particularly in priority watersheds. Due to the extent of the problem, and resource and authority limitations, our success should not be judged on restoring all our impaired waters, but rather by restoring some of our impaired waters, demonstrating progress in others, developing tools to foster more widespread implementation, and expanding our knowledge and expertise.

We know this is a challenging assignment, but we are confident that by working together our combined contributions can lead to significant successes. Understanding you have large workloads, we encourage you to ask for our assistance in balancing assignments and seeking resources to further TMDL implementation. We will work with you to discuss, clarify and strengthen our described approach. We invite your feedback on the attached guidelines as we expand our activities in support of TMDL implementation to restore impaired waters and maintain healthy aquatic ecosystems.

Attachments

Printed on Recycled Paper

Questions Review Document

- **TMDLs**

Are specific WLA/LA and compliance points clearly identified? Are target date and milestones (short, medium, long term) for achieving water quality restoration identified?

- **NPDES Implementation**

Does TMDL provide clearly defined and justified WLAs for each point source, as well as justify which point source(s) do not get/need a WLA?

- **Nonpoint Source Implementation**

Are the highest environmental/health priorities identified/targeted for implementation? Milestones? Partners? Funding?

Permit Friendly TMDL Development

- Address all point sources in the watershed
- Disaggregate WLAs as much as possible
- Clarify Where and When WLAs Apply
- Will Mass and/or Conc.-based WQBELs be needed?
- WLA for Future Growth
- Consider unique issues w/Stormwater WLAs &WQBELs
- Can existing permit limits be used as WLAs for some sources? Can it be left as status quo?

Interpreting Existing TMDLs when Developing NPDES Permits

- Check for / Review TMDLs before renewing/writing the NPDES permit
- Address TMDLs that do not include a WLA for your NPDES permit
- Translating WLAs into Wastewater NPDES Permit WQBELs
- Considerations in Stormwater Permitting

Potential Pitfalls / Roadblocks

- WLAs \neq WQBELs
- Implementation Plan \neq Compliance Schedule
- Omitted WLAs for point source (WLA = 0)
- De minimus
- Expanding sources / future growth

Discussion and Questions

- We look forward to hearing your success and challenges with integration efforts
- What types and forms of information is most useful to share with states?
- Ideas for how EPA can support broader integration efforts?