

# **Total Maximum Daily Load (TMDL) and National Pollutant Discharge Elimination System (NPDES) Permit Training**

## ***Module 2: Understanding Wasteload Allocation (WLA) Implementation in NPDES Permits: A Primer for Total Maximum Daily Load (TMDL) Developers***

### **User's Guide (May 2013)**

The U.S. Environmental Protection Agency (EPA) has developed a 62-slide training module (approximately 2 hours for the self-guided module; 10 minutes to complete quiz) that addresses wasteload allocation (WLA) implementation through National Pollutant Discharge Elimination System (NPDES) permits. This module is the result of collaboration among EPA headquarters and EPA Region 10, with input from the other EPA Regions. This document provides key information on using this module.

This module can be used as a stand-alone training or in conjunction with EPA's other related training modules to provide a more in-depth training for TMDL and NPDES permitting staff. (The additional training modules are available at [www.epa.gov/npdes/tmdltraining](http://www.epa.gov/npdes/tmdltraining)). The goal of this module, and the overall training series, is to improve TMDLs and NPDES permits through cross-program education, as well as to promote frequent discussion and collaboration between the TMDL and NPDES programs.

*The material in this presentation should not be quoted or cited as official EPA policy.*

### **Intended Users and Target Audience**

This module is intended for use by EPA or state agency TMDL staff (and new NPDES permitting staff) who want to better understand the process for translating WLAs into water quality-based effluent limits (WQBELs) in NPDES permits.

### **Module Objectives and Summary**

The objective of this module is to address the following questions:

- What is the regulatory context for implementing TMDL requirements in NPDES permits?
- How are effluent limits developed from WLAs?
- How might other NPDES permit components be affected by a TMDL?
- What are some technical and policy challenges related to implementing TMDLs in NPDES permits?

The module begins by reviewing the definition of a TMDL, the typical components of a TMDL, and WLAs as a key element of the TMDL development process. After the TMDL review, the module focuses on the NPDES permitting process, starting with the regulatory framework of the NPDES program, the definition of a permit, and an overview of federal and state roles in the permitting process. The module then describes the components of a permit, the two types of NPDES permits, and the relationship between

water quality standards and effluent limitations. This background information sets the stage for the rest of the module, which focuses on the relationship between approved TMDLs and NPDES permit effluent limits. The module steps through the process for calculating WQBELs from WLAs, using two calculation examples. After the calculation examples, the module addresses some of the challenges associated with implementing WLAs through NPDES permits, including different WLAs for the same point source, seasonal versus annual WLAs, varying discharge and receiving water flows, translating WLAs in general permits, and new and expanding discharges. The module also addresses monitoring and reporting, standard conditions, and special conditions. The module wraps up with a series of tips for TMDL developers involved in the NPDES permitting process to promote better communication and coordination. An optional quiz is available to gauge participants' understanding of WLA implementation through NPDES permitting after the training.

### **How to Use This Module**

There are two potential options for using this module: 1) as a recorded self-paced module or 2) as a live training (where it is possible to tailor the Powerpoint to the specific needs of the targeted audience). In both options, a follow-up discussion with staff on mutual issues of concern in both programs is encouraged. Each option is described below.

#### ***Recorded Self-Paced Module***

This module is available as a recorded presentation to enable participants to review the material on demand in a self-paced environment. Click on the link for the self-paced module found at [www.epa.gov/npdes/tmdltraining](http://www.epa.gov/npdes/tmdltraining). When the module launches, tabs will appear on the left-hand side of the screen that allow the user to choose an outline, thumbnails, or notes view of the presentation, while the slides appear on the main screen. Users can pause or go back to a previous slide much like using a DVD player. Hitting the "UP ARROW" or "DOWN ARROW" will go back to the beginning of the previous slide or move to the beginning of the next slide.

#### ***Powerpoint Presentation for Use in Live Meetings***

In addition, this module is available as a Powerpoint presentation with slides and an associated script for use in live meetings. If necessary, a presenter can update the slide and script content to reflect regional or state specific TMDL issues. The recommended timeframe is approximately 2 hours for the presentation and 30 minutes for group discussion (see example discussion questions below). EPA and/or state staff may update and adapt the training module to reflect region-specific and state-specific issues and concerns, as well as incorporate new policy and legal considerations as they arise.

### **Discussion Questions**

After the presentation, the training facilitator can lead the participants in a discussion to further explore the training content. Potential discussion questions are provided below.

1. How does a permit writer take a seasonal or annual WLA from an applicable TMDL and then develop average monthly effluent limitations or daily maximum effluent limitations?

2. How does the permit writer determine whether the water quality based effluent limits are consistent with the assumptions and requirements of the WLA?
3. How does your state deal with wet weather discharges in calculating permit limits? Does the effluent limit provide flexibility and allow an appropriate expression of effluent limits that is source-specific?
4. How are new or expanding dischargers accommodated within an existing TMDL? Which one of the following are commonly used in your state?
  - ✓ Utilize reserve capacity if included;
  - ✓ Water Quality Trading (the state must first have a trading program/policy in place and then you have to ensure the TMDL addresses trading);
  - ✓ Revise TMDL to reassign allocations (TMDL revision may require EPA approval)
5. What is usually done in your state when you have a new discharger or an expanding discharge to an impaired water body prior to the issuance of a TMDL:
  - ✓ Establish effluent limits based on attaining the applicable water quality criteria at the point of discharge (criteria end-of-pipe) or
  - ✓ Establish zero discharge of the pollutant(s) causing the impairment or
  - ✓ Another approach?

### **Associated Resources**

For further information on implementing WLAs through NPDES permits, participants can review the following resources:

USEPA (U.S. Environmental Protection Agency). 1991. *Technical Support Document for Water Quality-Based Toxics Control*. Office of Wastewater Management, U.S. Environmental Protection Agency. Washington D.C. <http://www.epa.gov/npdes/pubs/owm0264.pdf>

USEPA (U.S. Environmental Protection Agency). 2010. *NPDES Permit Writers Manual*. Office of Wastewater Management, U.S. Environmental Protection Agency. Washington D.C. <http://cfpub.epa.gov/npdes/writermanual.cfm>