

Total Maximum Daily Loads (TMDLs): A Watershed Planning Tool for Counties



Sarah Furtak and Menchu Martinez
U.S. Environmental Protection Agency
November 12, 2009



This Presentation Covers...

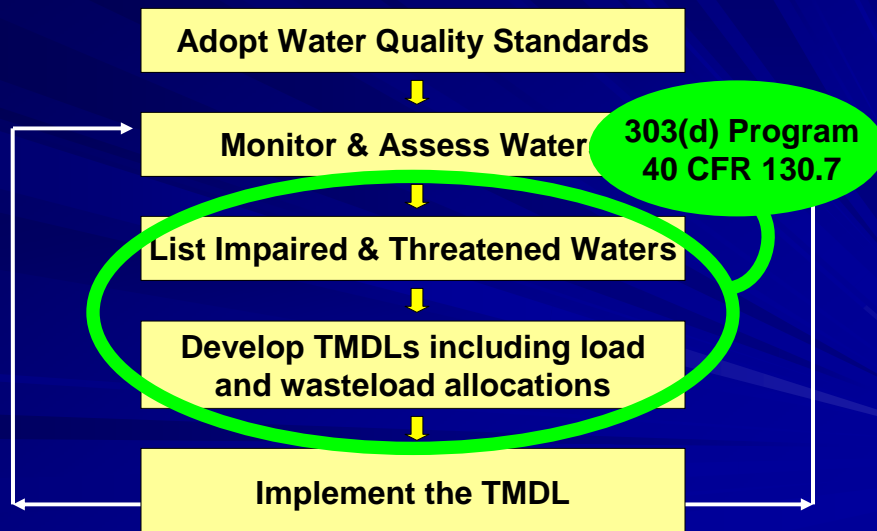
- National Association of Counties (NACo) / Environmental Protection Agency (EPA) partnership
- Basics of the Impaired Waters Listing and Total Maximum Daily Load (TMDL) Programs
- Overview of TMDLs to Stormwater Permits Draft Handbook

NACo / EPA Partnership Highlights

2005	<ul style="list-style-type: none"> ■ TMDL Outreach Kickoff ■ Western Interstate Region and National Conference Meetings
2006	<ul style="list-style-type: none"> ■ "Tools for Protecting and Improving Water Quality" Workshop ■ County issue brief with TMDL case studies
2007	<ul style="list-style-type: none"> ■ NACo wins EPA grant for water quality capacity-building project
2008	<ul style="list-style-type: none"> ■ "Tools for Rural Counties to Protect Water Quality," ■ "Safeguarding Our Most Precious Resource," and ■ "Water Quality: Total Maximum Daily Load" Workshops
2009	<ul style="list-style-type: none"> ■ "Stormwater and Urban Runoff" Webinar

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Clean Water Act Framework for Restoring Polluted Waters



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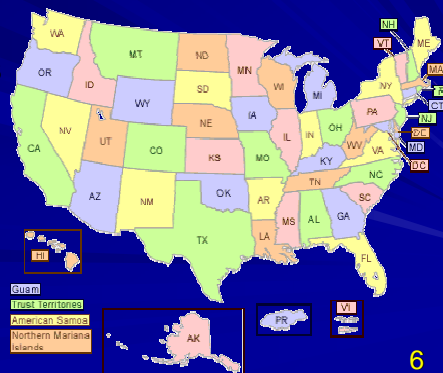
What are the Impaired Waters Listing and TMDL Programs?

- The Clean Water Act's section 303(d) requires states to:
 - Solicit and compile existing and readily available water quality data and information
 - Develop lists of impaired waters every two years (2006, 2008, 2010...)
 - Establish TMDLs for waters on the list

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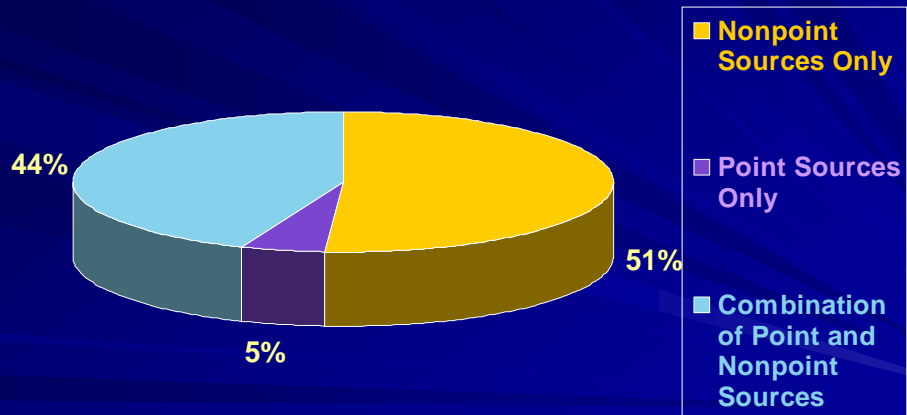
The National Picture

- ~ 43,000 waters listed as impaired
- Top causes of impairments:
 - Pathogens
 - Mercury and other metals
 - Nutrients
 - Low dissolved oxygen
 - Sediment



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Types of Sources Causing Impairment as of 2009



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What is a TMDL?

- A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

➤ "Pollutant Diet"



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TMDL Requirements

- States develop TMDLs for waters on 303(d) list, and in accordance with priority ranking
- EPA provides an 8-13 year time frame to complete the development of a TMDL once a water body is listed
- TMDL alternatives may exist in some circumstances

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How Can Counties Get Involved?

Clean Water Act Process

Adopt Water Quality Standards

Monitor & Assess Waters

List Impaired Waters

Develop TMDLs

Implement TMDLs
(Point Source/Nonpoint Source)

Counties:

Comment on proposed water quality standards

Submit monitoring data to state

Comment on list of impaired waters

Participate in TMDL development;
Develop 3rd party TMDLs

Review/implement point source permits;
Implement nonpoint source controls;
Broker water quality trading;
Monitor water quality response;
Review TMDLs

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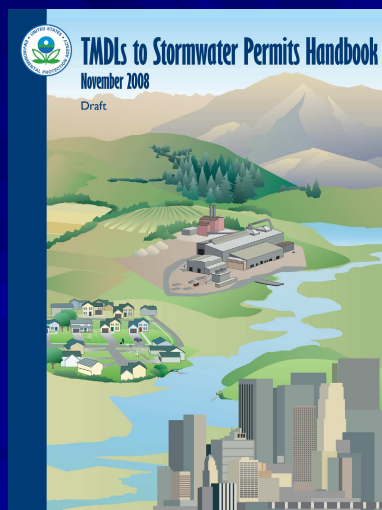
TMDLs and Stormwater

- Thousands of waters listed for stormwater-related impairments
- Pollutants commonly associated with stormwater:
 - Pathogens
 - Sediment
 - Nutrients
 - Toxics (PCBs, metals)
- Difficult to know total number of stormwater-source TMDLs needed for all listed waters

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TMDLs to Stormwater Permits Draft Handbook (November 2008)

- Technical reference for TMDL practitioners and permit writers on current methods used to develop:
 - Detailed stormwater-source TMDL allocations
 - TMDL implementation plans including best management practices
 - Translating TMDL allocations into National Pollutant Discharge Elimination System (NPDES) stormwater permit requirements



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TMDLs to Stormwater Permits Draft Handbook , cont.

- ◆ Identifying TMDL Water Quality Target → Stormwater Challenges:
 - Sometimes hard to identify specific pollutant
 - Impairment → result of cumulative effects of pollutant loading and physical effects from stormwater
 - Use of surrogate targets for stormwater-related pollutants
 - e.g., flow or impervious cover

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EPA TMDL and Stormwater Web site <http://www.epa.gov/owow/tmdl/stormwater/>

- ◆ Draft *TMDLs to Stormwater Permits Handbook* (November 2008)
- ◆ TMDL-Stormwater Examples
 - *TMDLs with Stormwater Sources: A Summary of 17 TMDLs*
- ◆ TMDL-Stormwater Permit Case Studies
- ◆ Innovative TMDLs using Surrogates for Stormwater Pollutants
 - Impervious Cover
 - Hydrology (Flow)
- TMDL-Stormwater Technical Resources
 - *Incorporating Green Infrastructure into TMDLs*
 - *Establishing TMDL Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs*

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For More Information

Contacts for Partnership:

Sarah Furtak / EPA
(202) 566-1167 or furtak.sarah@epa.gov

Carrie Clingan / NACo



References:

- U.S. Environmental Protection Agency (USEPA). "Impaired Waters Listing and Total Maximum Daily Loads" Home Page. Available at <http://www.epa.gov/owow/tmdl/>. Accessed October 28, 2009.
- USEPA. "Watershed Assessment, Tracking and Environmental Results: National Summary of Impaired Waters and TMDL Information." Available at http://iaspub.epa.gov/waters10/attains_nation_cy.control?p_report_type=T. Accessed October 28, 2009.
- USEPA. Draft *TMDLs to Stormwater Permit Handbook* (November 2008). Available at http://www.epa.gov/owow/tmdl/pdf/tmdl-sw_permits11172008.pdf. Accessed October 28, 2009.
- Cover images: <http://geography.about.com/library/misc/ncounties.htm>, http://cfpub.epa.gov/hpdes/home.cfm?program_id=6. Accessed October 28, 2009.