



Course Welcome and Introduction

TMDL Academy – Foundations Training

U.S. EPA Office of Wetlands, Oceans, and Watersheds



Welcome to TMDL Foundations!

Mission of the TMDL Academy

- Build participant knowledge and skills needed to develop TMDLs that:
 - include all required elements for EPA approval; and
 - support successful restoration of impaired waters

Objective of the TMDL Foundations Training

- Introduce basic TMDL concepts and enable participants to understand the process for developing TMDLs











Course Activities and Exercises

- **Activities** are spread throughout the course and are designed to:
 - Reinforce key concepts
 - Allow for direct participation
- **Exercises** are included in each module for attendees to:
 - Work through the components of a TMDL in an example scenario
 - Understand best practices and important factors for drafting TMDLs



8-Session Agenda

	Tuesday	Thursday
Week 1	Define TMDL Purpose and Scope 	Understand the Impairments and Establish Targets 
Week 2	Inventory Pollutant Sources 	Plan the Linkage Analysis 
Week 3	Execute the Linkage Analysis 	Allocate Pollutant Loads 
Week 4	Determine Implementation & Monitoring Needs 	Prepare and Submit the TMDL Document 



Prepare and Submit the TMDL Document

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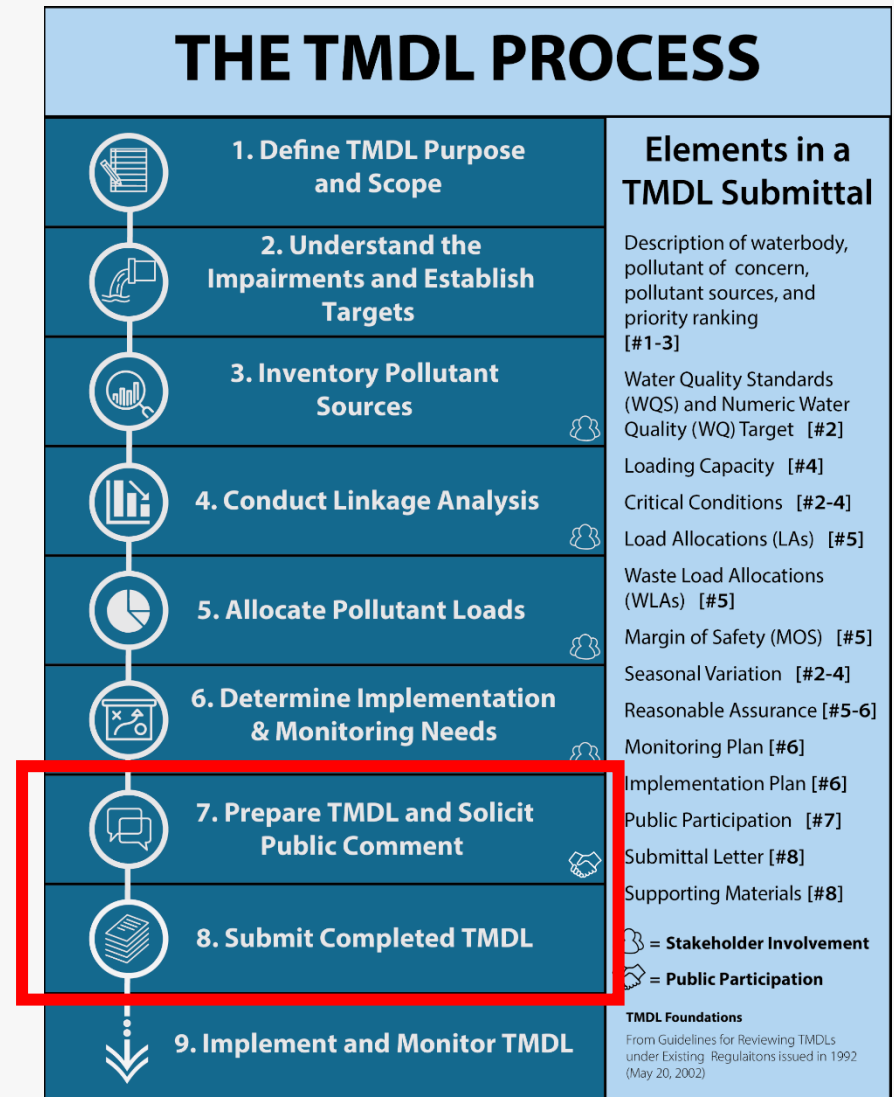
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Prepare and Submit the TMDL Document

Objectives:

- Learn approaches and benefits of collaborating with EPA during TMDL development
- Understand required public participation and review stakeholder involvement opportunities highlighted in previous steps
- Understand the requirements of a TMDL submittal package and the submittal process





Today's Agenda – Session 8

Training Session #8

Module

Presentations

Exercises/Activities

Prepare and
Submit the
TMDL
Document



Draft TMDL Report and EPA
Collaboration (10 minutes)

Public Participation and Stakeholder
Involvement (25 minutes)

TMDL Submittal Package and EPA
Review (15 minutes)

Closing Comments
(10 minutes)

EPA Collaboration Q&A
(20 minutes)

Public Participation Exercise
(30 minutes)

TMDL Trivia
(15 minutes)

Feedback and Final Learning
Assessment

EPA Collaboration and Draft TMDL Report

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Lesson Overview – EPA Collaboration and Draft TMDL Report



Introduction

Describe the benefits of collaborating with EPA and example collaboration approaches



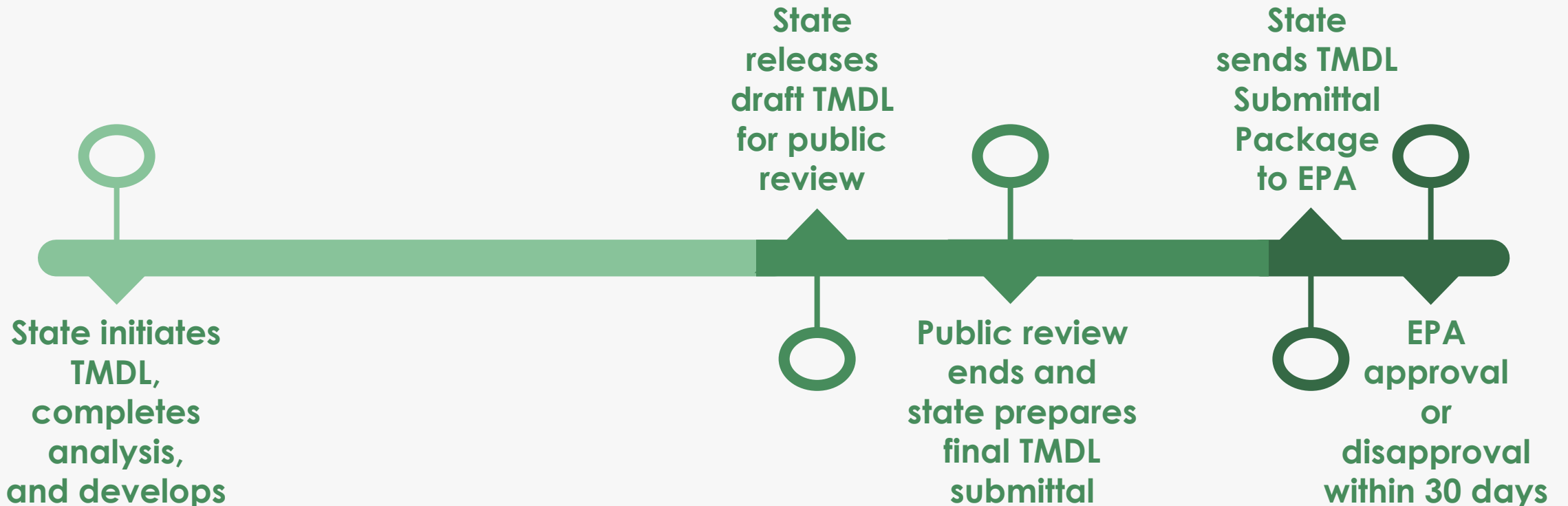
Activity 8.1

EPA collaboration Q&A



Collaborating with EPA

- EPA encourages states to collaborate with EPA prior to final TMDL submittal to request feedback on draft TMDL methods and results





Benefits of Collaborating with EPA

- Early and frequent collaboration with EPA during TMDL development offers many benefits for states:
 - States save time by focusing on methods that are acceptable to EPA
 - Avoids the challenge of making significant revisions late in the process
 - EPA can help states overcome difficulties by suggesting approaches that have been used successfully in other TMDLs
 - EPA staff may have technical expertise to help solve problems related to modeling, data analysis, etc.
 - EPA may be able to provide financial or other assistance to support TMDL development





Collaborating with EPA – Introductory Meeting

Collaboration Tip

- After defining the scope of the TMDL project, consider holding an introductory meeting with EPA Regional staff to discuss:
 - Project background
 - Anticipated challenges, if known
 - TMDL development schedule
 - Roles and expectations
 - Potential technical assistance from EPA

THE TMDL PROCESS



1. Define TMDL Purpose and Scope



2. Understand the Impairments and Establish Targets



3. Inventory Pollutant Sources



4. Conduct Linkage Analysis



5. Allocate Pollutant Loads



6. Determine Implementation & Monitoring Needs



7. Prepare TMDL and Solicit Public Comment



8. Submit Completed TMDL



9. Implement and Monitor TMDL





Collaborating with EPA – Continued Communication

Collaboration Tip

- Continue holding regular check-in meetings with EPA throughout the process
- More frequent meetings may be helpful when new/unique approaches are planned or when the TMDL schedule is compressed
- Additional communication may be needed as challenges arise

THE TMDL PROCESS



1. Define TMDL Purpose and Scope



2. Understand the Impairments and Establish Targets



3. Inventory Pollutant Sources



4. Conduct Linkage Analysis



5. Allocate Pollutant Loads



6. Determine Implementation & Monitoring Needs



7. Prepare TMDL and Solicit Public Comment



8. Submit Completed TMDL



9. Implement and Monitor TMDL

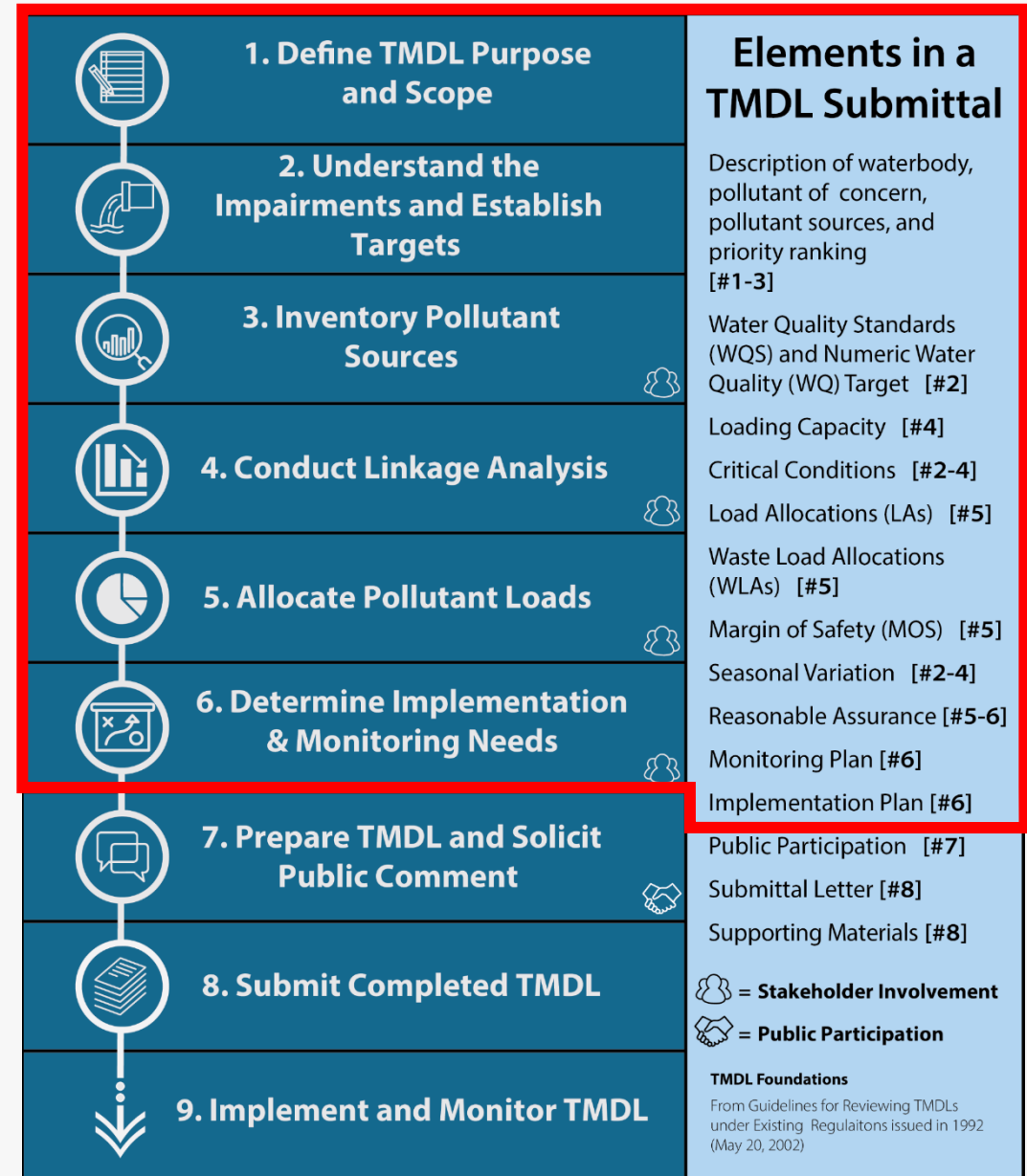




Collaborating with EPA – Draft TMDL Report

Collaboration Tip

- States can submit a draft TMDL report to EPA before public review
- A draft TMDL report would summarize steps 1 through 6 of the TMDL process
- Technical details of modeling or other analysis methods can be included in the draft report or in appendices





Collaborating with EPA – Draft TMDL Report

Collaboration Tip

- When sharing a draft TMDL report:
 - Communicate with EPA to understand the time frame for EPA review of the draft
 - Hold calls to note any challenges, areas of significant uncertainty, or stakeholder concerns where EPA input may be helpful
 - Consider discussing revisions with EPA to ensure comments are adequately addressed and avoid miscommunication before the final submission





Activity 8.1: EPA Collaboration Panel Discussion



Public Participation and Stakeholder Involvement

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Lesson Overview – Public Participation and Stakeholder Involvement



Introduction

Define public participation, explain regulatory requirements, and review additional stakeholder involvement opportunities



Exercise 8.1

Stakeholder involvement and public participation in the Opal River TMDL





Public Participation

Definition: Public Participation

- Federal regulations require states to hold a public review of a TMDL
 - "... incorporating the approved loads into the State's WQM plans and NPDES permits; and involving the public, affected dischargers, designated areawide agencies, and local governments in this process shall be clearly described in the State Continuing Planning Process (CPP)."(40 CFR 130.7(a))
 - "Calculations to establish TMDLs shall be subject to public review as defined in the State CPP ."(40 CFR 130.7(c)(1)(ii))





Public Participation Requirements

- States should provide full and meaningful public participation in the TMDL development process
- The state's TMDL submittal should:
 - Describe the public participation process, including a summary of significant comments and responses to those comments
 - Explain how the public comments were considered in the final TMDL(s)





Public Participation Requirements

- EPA reviewers will assess public participation as part of the overall TMDL review; inadequate public participation can result in EPA disapproval of the TMDL
- Ways in which states conduct this process often include:
 - Public notice press release, website posting, or emails
 - Public meetings
 - Public comment period





Preparing for Public Participation

- If needed, discuss public participation with other TMDL program staff to understand your state's requirements
- Preparing for public participation includes:
 - Ensuring the draft TMDL report is ready for public review
 - Identifying a contact person within your state's TMDL program to address questions and comments
 - Developing a public notice document, web posting, or email
 - Scheduling public meetings and developing presentation slides, if required by state policies or regulations





Preparing for Public Participation

- Compile contact information for key stakeholder groups

Federal Agencies	State Government	County and Local Government	Additional Groups
<ul style="list-style-type: none">• US Geological Survey• Natural Resources Conservation Service• US Army Corps of Engineers• US Fish and Wildlife Service• US Forest Service• Natl. Oceanic and Atmospheric Administration	<ul style="list-style-type: none">• Drinking Water Programs• Departments of Health, Transportation, Agriculture, Natural Resources	<ul style="list-style-type: none">• Land and Water Conservation Districts• Agricultural Extension• Planning Departments• Stormwater and Wastewater Utilities	<ul style="list-style-type: none">• Tribal Governments• Watershed Groups• Lake Associations• Land Trusts• Universities





Public Participation – Issuing Public Notice

- Post an electronic version of the public notice document and the draft TMDL report online
- Generally, public review and comment must be at least 30 days; additional time may be required by your state
- Hold meetings to present the TMDL to the public, if required by state policies or regulations
- Follow any other state-specific procedures





Public Participation – Response to Comments

- Prepare written responses to public comments and include responses as part of the TMDL documentation
- For public comments that request changes to the TMDL or may otherwise necessitate revisions:
 - Revise the TMDL analysis and report as appropriate and document the revisions in the written response; or
 - Explain the rationale for not revising the TMDL as the commenter requests





Public Participation – Documentation

- TMDL developers should include a description of the public participation activities that were completed in the final TMDL submittal, such as:
 - When and where public meetings were held
 - Date range of the comment period
 - When and how the TMDL report was shared with the public
 - Approach to communicating the draft TMDL release





Additional Stakeholder Involvement

- TMDL developers may conduct additional stakeholder involvement beyond required public participation
- Benefits of additional stakeholder involvement:
 - Supports public understanding of the TMDL purpose, methods, and results
 - Identifies potential issues before a TMDL is released for public comment
 - Encourages public acceptance and buy-in for TMDL implementation





Additional Stakeholder Involvement

Opportunities for additional stakeholder involvement have been highlighted throughout this training



Stakeholder Involvement

- Contact watershed groups and other stakeholders for data and information on pollutant sources
- Hold meetings or webinars to introduce the analysis approach, describe input data, and present draft results
- Contact watershed groups and other stakeholders to understand existing nonpoint source management and monitoring efforts



TMDL Submittal Package and EPA Review

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Lesson Overview – TMDL Submittal Package and EPA Review

Introduction



Describe the elements of a TMDL submittal package and EPA review

Activity 8.2



TMDL Trivia





TMDL Submittal Package

- The TMDL submittal package is delivered by the state to EPA and establishes EPA's duty to review the TMDL under federal regulations
- A TMDL submittal package consists of:
 - TMDL Report
 - Submittal Letter
 - Supporting Materials





TMDL Submittal Package – TMDL Report

- The TMDL submittal package includes a final version of the TMDL report that addresses comments on previous drafts from EPA and the public
- Describe public participation, provide written responses to public comments, and explain how public comments were considered in the final TMDL(s)
- If modeling was completed, the modeling Quality Assurance Project Plan (QAPP) and any modeling report should be included in appendices

Elements in a TMDL Submittal

Description of waterbody,
pollutant of concern,
pollutant sources, and
priority ranking

[#1-3]

Water Quality Standards
(WQS) and Numeric Water
Quality (WQ) Target* [#2]

Loading Capacity* [#4]

Critical Conditions* [#2-4]

Load Allocations (LAs)* [#5]

Waste Load Allocations
(WLAs)* [#5]

Margin of Safety (MOS)* [#5]

Seasonal Variation* [#2-4]

Reasonable Assurance [#6]

Monitoring Plan [#6]

Implementation Plan [#6]

Public Participation* [#7]

Submittal Letter [#8]

Supporting Materials [#8]





TMDL Submittal Package – Submittal Letter

- Clearly identifies the waterbody and pollutant(s) of concern addressed by the TMDL
- Expresses that the submittal is a final TMDL for EPA review and approval
- Establishes EPA's duty to review the TMDL

Elements in a TMDL Submittal

Description of waterbody,
pollutant of concern,
pollutant sources, and
priority ranking
[#1-3]

Water Quality Standards
(WQS) and Numeric Water
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Seasonal Variation* [#2-4]

Reasonable Assurance [#6]

Monitoring Plan [#6]

Implementation Plan [#6]

Public Participation* [#7]

Submittal Letter [#8]

Supporting Materials [#8]





TMDL Submittal Package – Supporting Materials

- Additional documents submitted by the state to support the TMDL
- Examples may include:
 - Scientific/technical references
 - Records of correspondence with EPA or stakeholders
 - Data files
 - Modeling files
 - Spreadsheet calculations

Elements in a TMDL Submittal

Description of waterbody,
pollutant of concern,
pollutant sources, and
priority ranking
[#1-3]

Water Quality Standards
(WQS) and Numeric Water
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Public Participation* [#7]

Submittal Letter [#8]

Supporting Materials [#8]





Delivering the TMDL Submittal Package

- States can send the TMDL submittal files to EPA:
 - Via email
 - By uploading documents to EPA ATTAINS (Assessment, TMDL Tracking and Implementation System)
 - See <https://www.epa.gov/waterdata/attains-how-enter-tmdl-action> for instructions





EPA Review of the TMDL Submittal Package

- Federal regulations allow up to 30 days for EPA to review the TMDL submittal package
- During this time, EPA will verify several items, including that:
 - Elements of the TMDL meet regulatory requirements and are adequately documented
 - Meaningful opportunities for public participation were provided that satisfy state requirements
 - Responses to public comments are provided and, if changes are needed, these are reflected in the final TMDL





EPA Decision Document and Letter

- A final decision document is prepared by EPA to describe the findings of the review
- If EPA approves the TMDL, an approval letter is also prepared and delivered to the state
- If EPA disapproves the TMDL, EPA must establish a TMDL for the disapproved waterbody-pollutant combinations (per 40 CFR 130.7(d)(2))





Following EPA Approval

- TMDLs don't have an "end date" following EPA approval
- TMDLs remain in effect even if waters are restored and attaining water quality standards
- TMDLs can be revised over time for specific reasons
 - To account for allocation changes, new sources, etc.
- TMDL implementation should be adaptive
 - Review and improve management strategies as needed
 - Water Quality Management Plans and Continuing Planning Process can be used to track implementation



Closing Comments

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Q&A Session

