

What are my options? 303(d) planning for restoration

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You have choices...

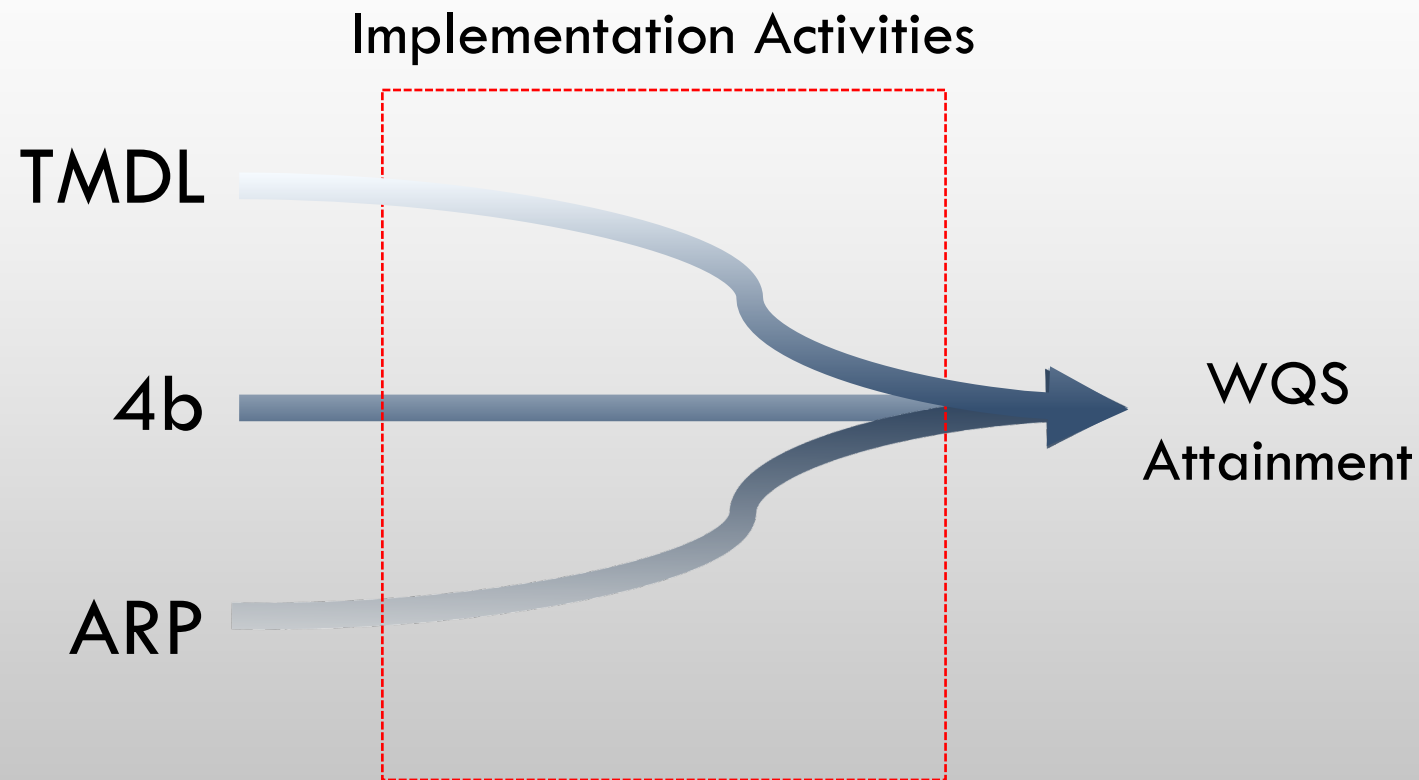
- We'll be talking about responding to waterbody impairments
 - Primarily Total Maximum Daily Loads (TMDLs), 4b Plans/Projects, and Alternative Restoration Plans (ARPs)/5-alt plans
- There are also protection plans and other ways to try to prevent future degradation, but that isn't the focus of this session (Nor are non-water programs like CERCLA, RCRA)
- Don't think of these options as having nothing in common or as being completely independent of one another



What do these options have in common?

- **Restoration!**
- The goal for all these options is removal of the impairment and restoration of water quality standards
- EPA Involvement – in varying levels and responsibilities
- Analysis of the impairment and development of an implementation plan to restore standards – in varying levels
- Stakeholder involvement – in varying levels

Think of it
this way...



What do the regulations say?

Total Maximum Daily Loads

- 40 CFR 130.7(c)(1)
 - **Each State shall establish TMDLs** for the water quality limited segments identified in paragraph (b)(1) of this section, and in accordance with the priority ranking.
 - ... TMDLs shall be established at **levels necessary to attain** and maintain the applicable narrative and numerical WQS with **seasonal variations** and a **margin of safety** which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.
 - Determinations of TMDLs shall take into account **critical conditions** for stream flow, loading, and water quality parameters.

What do the regulations say?

4b Plans

- 40 CFR 130.7(b) Identification and priority setting for water quality-limited segments still requiring TMDLs.
 - (1) Each State shall identify those water quality-limited segments still requiring TMDLs within its boundaries for which:
 - (iii) **Other pollution control requirements (e.g., best management practices) required** by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters.

What do the regulations say?

ARPs/5-alt Plans

- These are not discussed in the regulations.
- Because the waterbodies remain in Integrated Report category 5 (or a subcategory), they are still subject to 40 CFR 130.7(c)(1)
 - “Each State shall establish TMDLs for the water quality limited segments identified in paragraph (b)(1) of this section, and in accordance with the priority ranking”



What do other resources say?

TMDLs

- Guidelines for Review TMDLs Under Existing Regulations Issued in 1992

4b Plans

- 2006 and 2008 Integrated Reporting Guidance (IRG) Memos

ARPs/5-alt Plans

- 2013 Vision Memo for the 303(d) Program – “Alternatives” Goal
 - The purpose of this Goal is to encourage the use of the most effective tool(s) to address water quality protection and restoration efforts.
 - While TMDLs will remain the most dominant program analytic and informational tool for addressing impaired waters, a major focus of this Goal is to identify, evaluate, and promote (as appropriate) other tools (or “alternatives”) that may be more immediately beneficial or practicable to achieving applicable water quality standards under certain circumstances.

What do other resources say?

- The Vision also recognizes 4b projects as a long-standing program tool that can be pursued as a true alternative to a TMDL, so there is some overlap between “alternatives described in the vision” and 4b.
- However, it is useful to distinguish between 4b projects and other alternatives (ARPs) that remain in category 5. These ARPs are better thought of as “activities done in advance of a TMDL” and not “activities done instead of a TMDL”.



EPA's Role

TMDLs - *Review and Approval of TMDL Report*

- If EPA disapproves the TMDL, EPA must prepare a replacement TMDL.

4b Plans - *Review of 4b Plan*

- EPA approves of the omission from 303(d) impaired list of waters requiring TMDL.

ARPs/5-alt Plans - *Review and Acceptance of Plan*

- Not an EPA regulatory approval or action.



Completed Plans

- **> 74,000 approved TMDLs** (Assessment Unit/Pollutant combinations)
- **114 4b restoration Plans**
 - 694 Assessment Unit/Pollutant combinations
- **55 accepted ARPs/5-alt Plans**
 - > 600 Assessment Unit/Pollutant combinations
 - Primarily pathogens, nutrients, sediment, biological impairments

**Information based on final actions entered in ATAINS (2021)*

Where can I find more information on completed plans?

- epa.gov/waterdata/how-my-waterway
 - How's My Waterway was designed to provide the general public with information about the condition of their local waters based on data that states, federal, tribal, local agencies and others have provided to EPA.
 - Geolocated information on health of waterbodies as well as TMDLs and restoration plans, permitted discharges, drinking water, and more.
- epa.gov/tmdl/alternative-restoration-plans
 - A list of ARPs/5-alt Plans accepted by EPA to date and links to available plan information.

A closer look at TMDLs

“Guidelines for Reviewing TMDLs under Existing Regulations issued in 1992”

1. Identification of Waterbody, Pollutant of Concern, Pollutant Sources, and Priority Ranking
2. Description of the Applicable Water Quality Standards and Numeric Water Quality Target
3. Loading Capacity - Linking Water Quality and Pollutant Sources
4. Load Allocations (LAs)
5. Wasteload Allocations (WLAs)

A closer look at TMDLs

“Guidelines for Reviewing TMDLs under Existing Regulations issued in 1992”, cont.

6. Margin of Safety (MOS)
7. Seasonal Variation
8. Reasonable Assurances
9. Monitoring Plan to Track TMDL Effectiveness
10. Implementation
11. Public Participation

A closer look at 4b plans

2006/2008 IRG

States should address the following six elements in their Category 4b demonstrations:

1. Identification of segment and statement of problem causing the impairment;
2. Description of pollution controls and how they will achieve water quality standards;
3. An estimate or projection of the time when WQS will be met;
4. Schedule for implementing pollution controls;
5. Monitoring plan to track effectiveness of pollution controls;
and
6. Commitment to revise pollution controls, as necessary.

A closer look at 4b plans

2006/2008 IRG

- In general, the State's 4b demonstration should be submitted as a stand-alone document.
- In situations where data and information for a Category 4b demonstration are contained in existing documents developed under separate programs (e.g., NPDES permit, Superfund Record of Decision), the State should summarize relevant information in the Category 4b demonstration and reference the appropriate supporting documentation that provides that information.
- The supporting documentation should be included as part of the State's administrative record supporting the Category 4b determination.

A closer look at Alternative Restoration Plans

2016 IRG

States should consider the following elements in preparing their descriptions:

- **Identification of specific impaired water segments** or waters addressed by the alternative restoration approach, **and identification of all sources** contributing to the impairment.
- Analysis to support why the State believes that the implementation of the alternative **restoration approach is expected to achieve WQS.**



A closer look at Alternative Restoration Plans

- An Action Plan or Implementation Plan to document: a) **the actions to address all sources—both point and nonpoint sources, as appropriate—necessary to achieve WQS** (this may include e.g., commitments to adjust permit limits when permits are re-issued or a list of nonpoint source conservation practices or BMPs to be implemented, as part of the alternative restoration approach); **and, b) a schedule of actions designed to meet WQS with clear milestones and dates**, which includes interim milestones and target dates with clear deliverables.
- **Identification of available funding opportunities** to implement the alternative restoration plan.
- Identification of all **parties committed, and/or additional parties needed**, to take actions that are expected to meet WQS.

A closer look at Alternative Restoration Plans

- An estimate or projection of the time **when WQS will be met**.
- **Plans for effectiveness monitoring** to: demonstrate progress made toward achieving WQS following implementation; identify needed improvement for adaptive management as the project progresses; and evaluate the success of actions and outcome.
- **Commitment to periodically evaluate the alternative restoration approach** to determine if it is on track to be more immediately beneficial or practicable in achieving WQS than pursuing the TMDL approach in the near-term, and if the impaired water should be assigned a higher priority for TMDL development.

Some considerations for selecting a Plan

- Level and type of work already done and/or being done.
- Proportion of point source/nonpoint source loading.
- Type of pollutants and responsiveness to restoration activities.
- How localized are the impairments or contributing sources?
- Are there “requirements required” in place or proposed to address the impairment?
- Is there an implementation plan for restoration activities, milestone, timeframe for success?
- Level of profile, controversy, litigation.
- Are there engaged local stakeholders?
- Level of prioritization (303(d) list or otherwise) for action.

Benefits of each type of Plan

- TMDLs/4b Plans
 - Regulatory certainty for agencies and permittees
- 4b Plans
 - Likely a smaller scope of analysis
 - Potentially fewer stakeholders involved
- ARPs/5-alt Plans
 - Ability to leverage existing and ongoing work efforts and stakeholder interest
 - Potentially reduced technical resources required from modeling/sampling/watershed characterization
 - Recognition of activities going on the ground while agency resources can be focused on higher priority actions

If you
have...

- High level of technical information/watershed characterization/modeling
 - Consider TMDL or ARP
- Strong local interest in implementation activities and ongoing engagement
 - Consider TMDL or ARP
- Limited pollutant sources with existing state/local requirements for clean-up
 - Consider TMDL or 4b
- High confidence in success and likelihood of restoration activities being implemented in the near term
 - Consider ARP



If you have...

- Complex or toxic pollutants
 - Consider TMDL or 4b
- High-profile waterbodies or high litigation risk
 - Consider TMDL
- Biological/Habitat impairments that will respond quickly to restoration projects
 - Consider ARP
- Funding available and interested stakeholders, but state staff and resources are unavailable
 - Consider ARP

If you
have...

- Integrated/well-coordinated nonpoint source and 303(d) programs
 - Consider developing SOP for reviewing incoming 319 watershed-based plans as potential ARPs
- Strong interest in getting implementation activities underway as soon as possible
 - Consider ARP
- Higher levels of uncertainty and a need for adaptive management of the issues
 - Consider ARP
- Significant/Majority point source loadings
 - Consider TMDL or 4b

Key Messages

- There are options available for addressing listed waters – one action doesn't have to fit all situations.
- All options all have the same goal – restoration!
- There are different expectations and requirements for each, and may require different resources, stakeholder engagement, and information.
- Keeping EPA and the public updated on which options are being selected and why is strongly recommended.



QUESTIONS & DISCUSSION

Contacts & Links

- Chris Hunter, EPA HQ – Hunter.Christopher@epa.gov
- Amy Feingold, EPA Region 4 – Feingold.Amy@epa.gov
- epa.gov/tmdl/developing-total-maximum-daily-loads-tmdls
- epa.gov/tmdl/integrated-reporting-guidance-under-cwa-sections-303d-305b-and-314
- epa.gov/tmdl/new-vision-implementing-cwa-section-303d-impaired-waters-program-responsibilities