



# **Evolution of Clean Water Act Section 303(d) Listing and TMDL Program Vision**

2012 National Training Workshop on  
CWA Section 303(d) Listing & TMDLs

April 10, 2012



# Purpose

- Update on the development of the 10 year vision and goals for CWA Section 303(d) listing and TMDL program

# Content

- Context for vision effort
- Status of vision and goals development
- Interplay of the vision and this workshop



# Program History Recap

## Early years: 1972 – Mid/Late 90s (*Litigation Filing Era*)

- Limited State/EPA activity
- 40 lawsuits (constructive submission) drive TMDL development schedules, beginning in 1990s
- Emphasis on point sources, with slow progress on NPS

## Late 90s – Early 2000s (*Litigation Response & Attempted Rule Making Era*)

- Ten-fold increase in TMDLs with pace driven by litigation (70% of TMDLs)
- 1997 AA Perciasepe guidance to advance TMDL development: pace (8-13 years), reasonable assurance
- 1998 NACEPT Federal Advisory Committee report on national TMDL Program
- 2000 rule requiring implementation components and 10-15 year pace (blocked by Congress)



# History (cont.)

## Early 2000s – Present (*Implementation Era*)

- Role of TMDL pace litigation diminishes (from ~70% to ~25% of total TMDLs) but brisk pace continues
  - Over 49,000 TMDLs completed (~4,000/year)
  - Pace consent decrees will taper off by 2013
- Litigation continues but focuses on TMDL content
  - “Daily” load allocations
  - Climate change & MOS
  - Nutrient targets where no numeric criteria
  - Reasonable assurance
- TMDL pace is primary external measure of program performance
  - Exceeded measures (as well as 100% of pace) for past six years, but state-developed TMDLs decreasing
  - States responsible for >90% of TMDLs



## Early 2000s – Present (*Implementation Era*) (cont.)

### ■ Listing tools/guidance

- Biennial 303(d)/305(b) integrated reporting guidance; overhauled with States for 2006 reporting cycle
- Push for timely submissions & approvals
- Category 5m (mercury) & 4b (TMDL alternatives) options added
- Recent guidance on ocean acidification

### ■ TMDLs tools/guidance

- Completed: modeling tools & technical guidance for mercury, examples & guidance for stormwater sources and PCBs, options & guidance for expressing daily loads
- On-going:
  - Watershed TMDLs Handbook
  - TMDLs to Permits Handbook for Stormwater
  - Revise/withdraw expectations
  - MJ-TMDL handbook
  - Nutrient TMDL compendiums
  - Approaches for factoring in climate change
  - Refining expectations for reasonable assurance
- 319 Handbook for developing watershed plans & grant guidance linking funding to impaired waters



## Early 2000s – Present (*Implementation Era*) (cont.)

- Analyzed TMDL components and implementation results (e.g.):
  - Several statewide analyses indicate implementation activities after TMDL development are occurring
  - Region 5 statistical sample indicated large majority of TMDLs “partially” implemented
- Analyzed TMDL-influenced water quality improvements
  - Kent State University study of TMDLs in OH and WV:
    - 19% of waterbodies with TMDLs (partial recovery)
    - 3% of waterbodies with TMDLs (recovered)
  - TMDLs associated with 54% of published 319 Success Story waterbodies (partial/full recovery)
- Analyzed TMDL “drivers of success”
- Developed “recovery potential” tools to support restoration




# Key Emerging Program Realities

## [Listing/Integrated Reporting](#)

- Despite delisting successes, several challenging assessment issues persist and on horizon
  - Achieving comprehensive assessments (*see slide 8*)
  - Timely list/IR submittals & reviews (*see slide 9*)
  - Interpretation of narratives
  - Addressing antidegradation

## [TMDL development and implementation](#)

- >40,000 waters still need one or more TMDLs
  - Likely to continue to increase as more waters assessed
  - Pathogens, metals, nutrients, sediment, and PCBs are >60% of remaining waterbody-pollutant combinations
  - Includes larger share of complex TMDLs



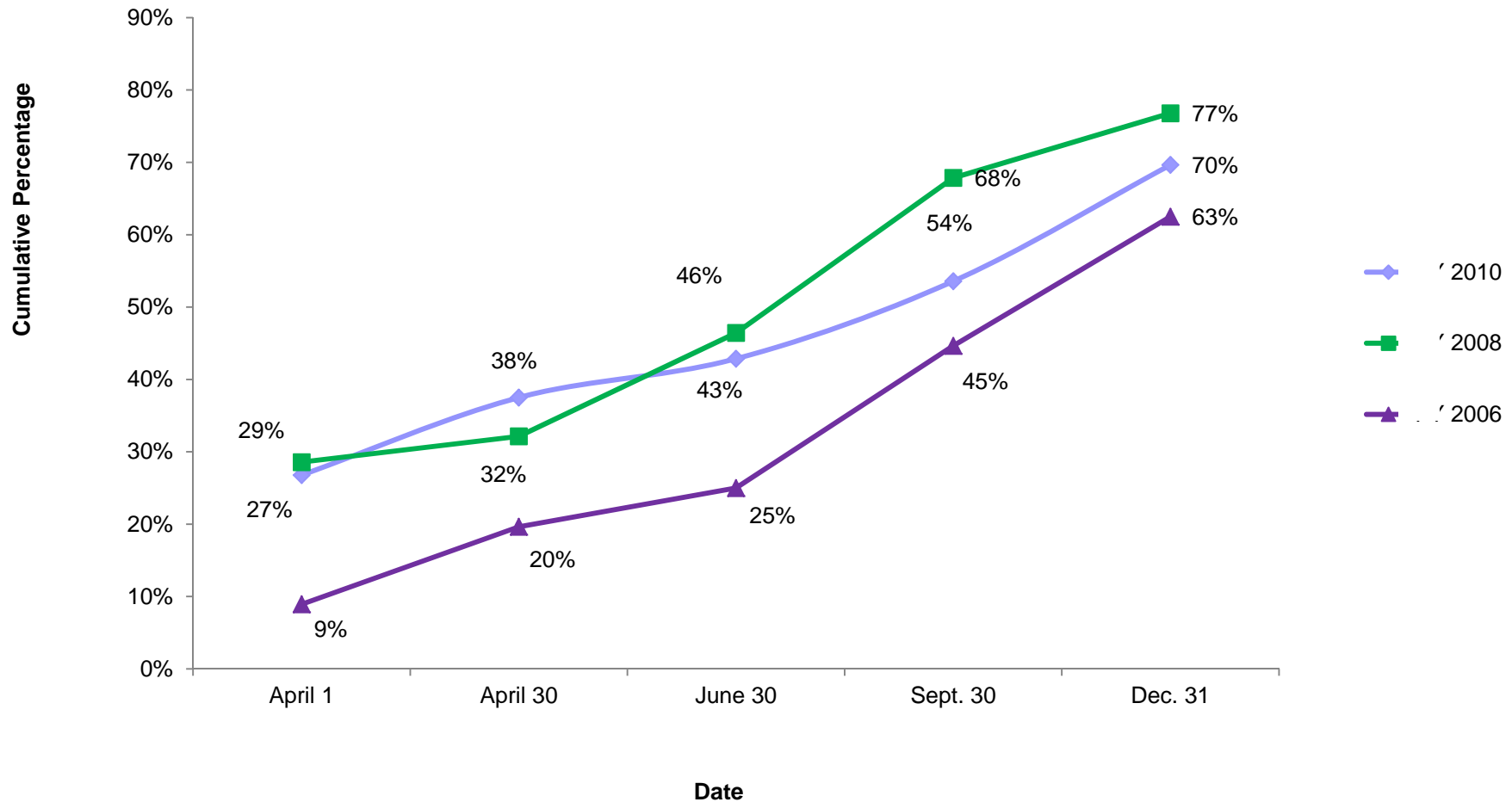
# National Water Quality Assessment Status (CWA Section 303(d)/305(b))

- Rivers/streams: 26%
- Lakes/ponds/reservoirs: 42%
- Bays & estuaries: 21%
- Coastal shoreline: 4%
- Ocean/near coastal: 11%
- Wetlands: 2%
- Great Lakes shoreline: 23%
- Great Lakes open water: 94%

*Source: ATTAINS (Aug 2011)*



## Comparison of 2006, 2008, and 2010 CWA 303(d) Impaired Waters List Submissions for 56 Jurisdictions



As of October 19, 2011, 51 IR/303(d) lists submitted and 39 approved



# Key Emerging Program Realities

## TMDLs (cont.)

- As TMDLs age, more will require revision
- Lawsuits/remands on individual TMDL components still require program attention
- As historic litigation driven TMDL pace consent decrees taper off, TMDL pace is diminishing
- States continue to use varying scales (segment vs. watershed)
- States and EPA program managers agree that, while important, pace does not
  - Reflect significant variability in types of TMDLs or State listing methods
  - Give credit for more robust TMDLs that better support implementation and water quality results; “implementation-ready”
  - Capture water quality improvement (output vs. outcome)



# Key Emerging Program Realities

## TMDLs (cont.)

- TMDL implementation is widespread; however, partial and full recovery lags
- TMDL CWA authority only extends to “the math and the path” – not implementation
- Lack of NPS load reductions remain key barrier to water quality restoration

## General

- State/Federal resources static or declining

# Emerging Program Goals

- Watershed Branch (WB) spearheading effort to position CWA Section 303(d) program for future
- In search of refined 10 year program vision and goals (by 2012)
  - Directed evolution, not revolution
- Seeking participation of States and other stakeholders to shape vision





# Framework

## ■ *Vision*

- Long-term view of what the program wants to become
- Stretch the program's capabilities and image of itself
- Range in length from a couple of words to a paragraph

## ■ *Goals*

- Multi-year planning to achieve vision
- Specific, measurable, achievable, realistic and time-based statements of intended future results

## ■ *Objectives*

- Annual planning/actions to achieve goals

## ■ *Mission*

- Description of what an organization does



# Schedule

- Dec 2010 – EPA Regional program discussion
- April 2011 – Current program issue identification & discussion with States
- July 2011 – EPA HQ distillation of State and Regional feedback
- Aug 2011 – Initiate formal State-EPA workgroup to develop 10 year vision and goals
- Dec 2011 – States submit program “wish list”
- February 2012 – Workgroup establish working draft vision & issue threads
- March through May 2012 – Workgroup converts issue threads to goals
- June 2012 – Finalize vision & goals



# Working Draft Vision Statement

- The Clean Water Act 303(d) Program provides seamless [integration](#) for activities to restore and protect the nation's aquatic resources where [all](#) the nation's waters have been assessed, restoration and [protection](#) objectives have been systematically [prioritized](#), and TMDLs and [alternative approaches](#) are being [adaptively](#) implemented to achieve water quality goals with the vibrant [collaboration](#) of States, federal agencies, tribes, stakeholders, and the [public](#).



# Vision Issue Threads

- *The Listing and TMDL program employs prioritization, adaptive management, and flexibility to inform the methods and location of actions*
- *The Listing and TMDL program focuses on the restoration of impaired waters and also on the protection of healthy waters*
- *The Listing and TMDL program advances TMDL and non-TMDL approaches tailored to specific circumstances to achieve water quality goals*
- *The Listing and TMDL program fosters seamless integration across CWA programs and other federal and non-federal efforts*
- *The Listing and TMDL program works collaboratively with States, federal agencies, tribes, stakeholders, and the public*
- *The Listing and TMDL program actions are informed by information derived from updated assessments that cover all the nation's waters*
- *The Listing and TMDL program tracks success and measures progress in ways that identify improvements in and maintenance of water quality and uses, in addition to attainment of water quality standards in previously degraded waters*





# Working Draft Goal Statements

## March 6 Call

1. “[Prioritize](#)” – For the [20XX] integrated reporting cycle and beyond, States review, systematically prioritize, and report watersheds or waters for restoration and protection in their biennial integrated reports to facilitate State strategic planning for achieving water quality goals
2. “[Protection](#)” – For the [20XX] reporting cycle and beyond, States identify not only TMDL development prioritizations/schedules for waters in Category 5 but also for healthy waters in their integrated reports in a manner consistent with their watershed prioritization



# Goal Statements (cont.)

## March 20 Call

3. “[Alternatives](#)” – By [20XX], States use TMDLs and alternative approaches that incorporate adaptive management and are tailored to specific circumstances where such alternative approaches are best suited to address priority watersheds or waters and achieve the water quality goals of each state, including identifying and addressing nonpoint sources of pollution
4. “[Coordination/Integration](#)” – By [20XX], EPA and the States identify and coordinate implementation of key actions that foster seamless integration across CWA programs, other statutory programs (e.g., CERCLA, RCRA, SDWA, CAA), and the water quality efforts of Federal land management agencies and USDA to achieve the water quality goals of each state.



# Proposed Goal Statements

## April 3 Call

5. “[Public Engagement](#)” – [20XX], EPA and the States engage the public and other stakeholders, as demonstrated by inclusive, transparent and consistent communication; requesting and sharing feedback on proposed approaches, and enhanced understanding of program objectives.
  
6. “[Assessment](#)” – By [20XX], XX% of the waters in each state have been assessed through statistical probability surveys and XX% of predicted impairments have been identified through an integrated monitoring approach that includes site-specific data and information and probability surveys.

# Topics for Remaining Calls

April 24

- [Issue Thread #7 \(“Measures”\)](#) – The Listing and TMDL program tracks success and measures progress in ways that identify improvements in and maintenance of water quality and uses, in addition to attainment of water quality standards in previously degraded waters

*TMDL production is currently the primary external measure of program performance – grounded in EPA policy to develop TMDLs 8-13 years after initial assignment to State 303(d) list*



# Topics (cont.)

May 8

## ■ Revisit appropriateness

- *proposed vision statement*
- *ability of collective set of goal statements to support achievement of the vision*
- *next steps for completing the vision effort*



# Teeing it up - Interplay of the Vision & this Workshop

- Discuss how the 10 year vision could address NPS- or nutrient-related impairment issues
- Discuss how addressing NPS- or nutrient-related impairment issues could support achievement of the 10 year vision

