

# Freshman Orientation

NATIONAL CLEAN WATER ACT 303(d) WORKSHOP  
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# Disclaimers

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This presentation does not:

- Impose any binding requirements
- Determine the obligations of the regulated community
- Change or substitute for any statutory provision or regulation requirement
- Represent, change or substitute for any Agency policy or guidance
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# Overview

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- Program History & Basics (*Eric & Selena*)
  - Statute & Regulation development era (1972-early 1990s)
  - TMDL “Pace” litigation & attempted rule-making era (early 1990s – early 2000s)
  - Clean Water Act (CWA) Section 303(d) Program 101 Basics (*Selena*)
  - Implementation era (early 2000s to 2010)
  - Long-term Vision era (2011 to present)
- State perspective on the Program Vision (*Jeff*)
- Introduction to Training Workshop (*Jeff*)

# Statute & Regulation Development Era (1972 – early 1990s)





# The 1972 Clean Water Act Amendments

## Section 303(d)

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### Requires States to:

- From “time to time” identify waters where existing controls are not sufficient to meet applicable WQS (aka “303(d) List”)
- From “time to time” establish total maximum daily loads (TMDLs), for pollutants, at a level necessary to implement the applicable WQS

### Requires EPA to:

- Approve or disapprove State submissions within 30 days
- If disapprove, identify waters or establish TMDLs within 30 days

# 1972 – early 1990s

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- Generally speaking, EPA/State CWA efforts focused on controlling point sources of pollution
- 303(d) program activity picks up with regulation development:
  - 1985 – established at 40 CFR 130.7
  - 1992 – amended (currently applicable program regulations)
- Regulations include requirements for:
  - “List” and TMDL elements
  - Process for States and EPA to follow when submitting and reviewing lists and TMDLs
  - Lists – “time to time” specified as April 1 of every even numbered year
- TMDLs – “time to time” not further specified



# TMDL “Pace” litigation & attempted rule-making era (late 1990s – early 2000s)





# Late 1990s – Early 2000s

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- States focus more on developing Section 303(d) lists.
- “Constructive submission” (CS) lawsuits filed against EPA in >30 states yield 27 court orders, consent decrees & settlement agreements to develop TMDLs.
  - CS Theory: EPA needs to disapprove submission of no TMDL
  - Impact: When EPA disapproves, EPA is required to establish TMDL
- Issued “how to” TMDL guidance documents, including:
  - Compendium of tools for watershed assessment & TMDL development
  - Sediment, nutrients, and pathogen TMDL protocols

# Late 1990s – Early 2000s

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- Over the time period, ten-fold increase in TMDLs
  - About 10,000 TMDLs developed by early 2000s
  - Pace of TMDLs driven by constructive submission litigation (70% of all TMDLs nationally)
- 1997 EPA guidance (“Perciasepe memo”) issued to advance TMDL development
  - TMDL “pace” recommendation (8-13 years)
  - Reasonable assurance

# Late 90s – early 2000s

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- 1998 – Federal Advisory Committee report issued on national TMDL Program
  - Focused on recommending ways to improve the effectiveness and efficiency of the CWA 303(d) Program.
- 2000 – EPA amends 303(d) program regulations again, including deadlines for TMDL development and implementation plan requirements
  - Blocked by Congress and later rescinded by EPA
  - 1992 amendments to 40 CFR 130.7 become operative program regulations again

# Late 90s – early 2000s

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- 2002 - EPA issued first guidance recommending integration of CWA Sections 303(d) and 305(b) reporting requirements
  - Commonly referred to as “Integrated Reporting Guidance” (IRG)

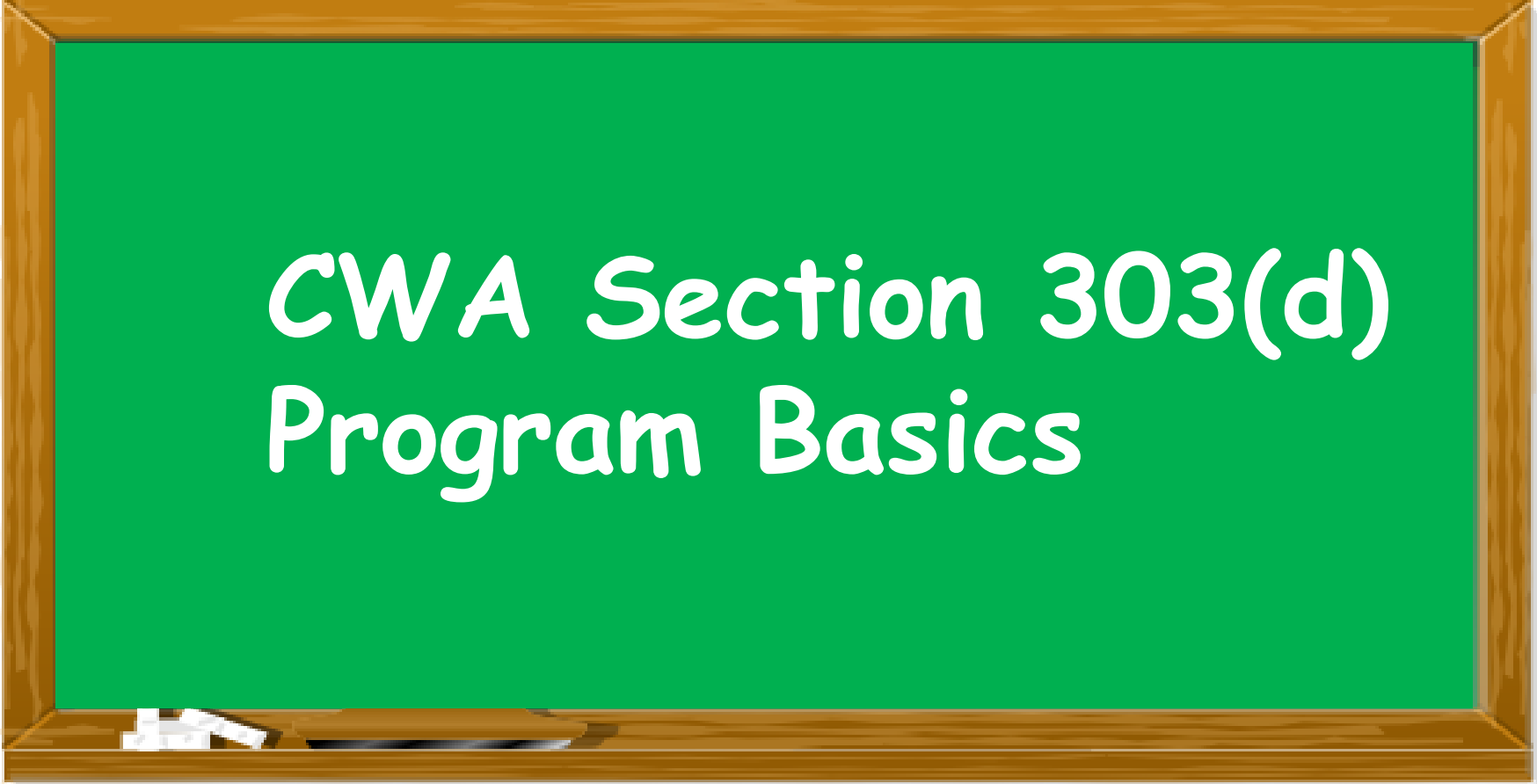
## Requirements include:

- **Section 305(b)** – by April 1 of all even numbered years, a description of the water quality of all waters of the state
- **Section 303(d)** – by April 1 of all even numbered years, a list of impaired and threatened waters still requiring TMDLs

## Guidance intended to promote:

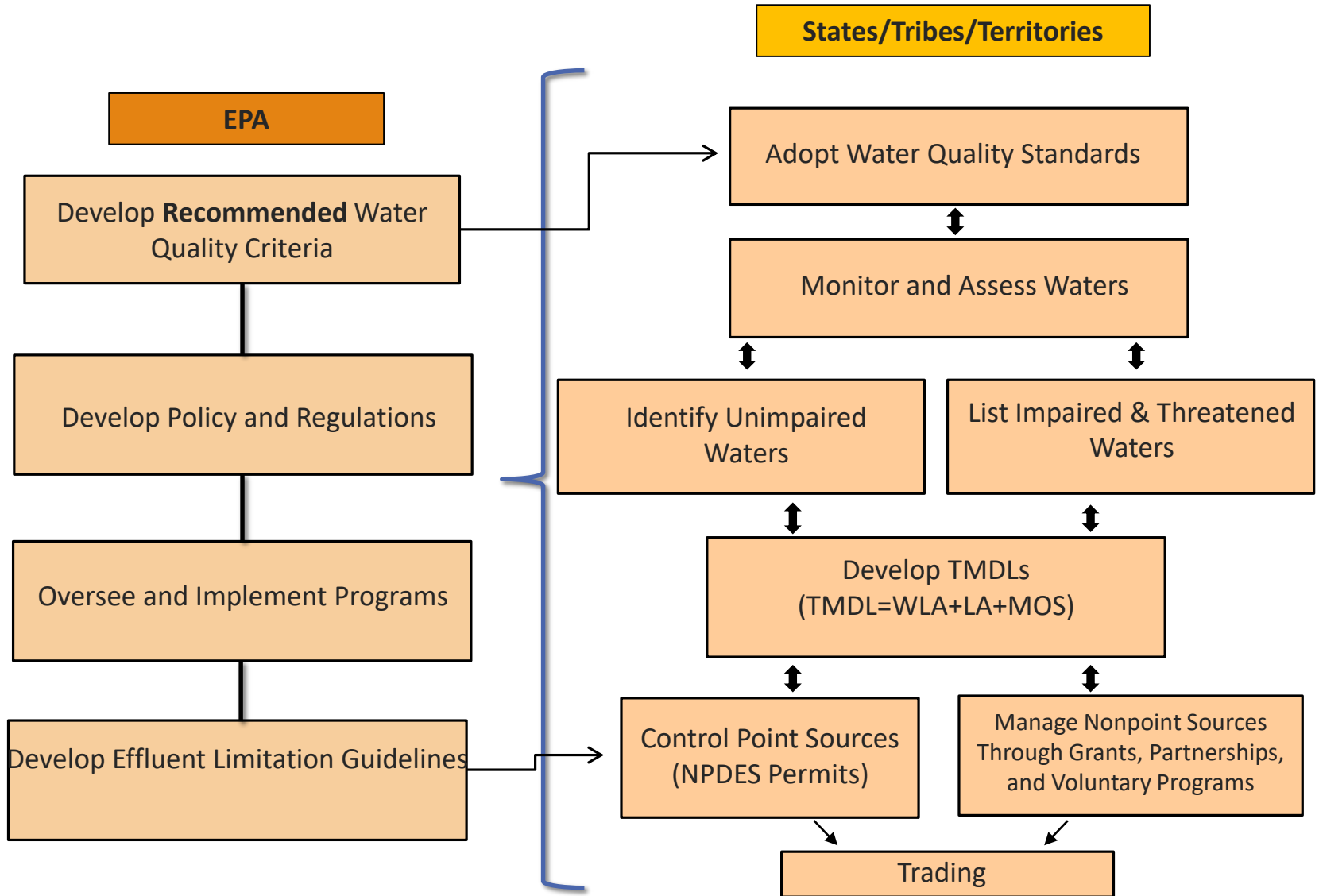
- Reporting efficiency, use of one assessment methodology, greater transparency on the water quality status of all waters through “five reporting categories”





CWA Section 303(d)  
Program Basics

# CWA Framework





# What is the 303(d) List?

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- States, territories, and authorized tribes required to develop lists of impaired waters and threatened waters.
- Impaired waters are water quality-limited segments that require TMDLs to be developed as technology-based regulations and other required controls are not stringent enough to meet the water quality standards set by states.
- For each water on the list:
  - Identify the pollutant causing the impairment and designated use not being supported.
  - Assign a priority for development of TMDLs

# Placing Waters on the 303(d) List

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## Monitoring

- Collect and evaluate monitoring data to determine condition of the waterbody.
- Assemble all readily available data and information.

## Assessment

- Use assessment methodologies and procedures, consistent with their WQS, to determine whether waters are impaired.

## Listing

- Develop a list of those impaired waters every two years with public participation and submit to EPA.

# Responsibilities for 303(d) List Development

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- States, authorized tribes and territories:
  - **Identify waters** not meeting WQS based on “all existing and readily available information.”
  - **Establish priorities** for TMDL development.
  - **Develop schedule** of TMDLs to be developed within 2 years.
  - **Request and Respond** to public comments on the draft 303(d) list.
  - **Submit** the final 303(d) to EPA on April 1st of each even year for review and action.
- EPA has 30 days to take action on the 303(d) list.

# How is the 303(d) List Submitted to EPA

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**303(d) list\*** (impaired/threatened waters)

**305(b) report** (overall health of waters)

**+** **314 report** (health of lakes/reservoirs)

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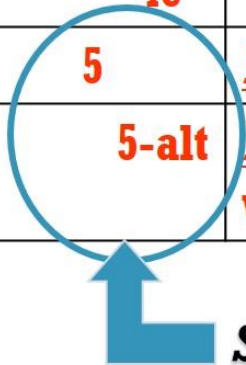
**= Integrated Report (IR)**

The 303(d) list and 305(b) report are both due April 1<sup>st</sup> of every even-numbered year. EPA has recommended an Integrated Report since the 2002 reporting cycle.

\*Requires EPA approval

# Integrated Report Categories

Category	Description
1	All designated uses (DU) met
2	Some, but not all, DUs met
3	Can not determine if any DUs met
<b>4</b>	<b><i><u>Impaired/threatened</u></i> –TMDL not needed</b>
<b>4a</b>	<b>TMDL completed</b>
<b>4b</b>	<b>TMDL alternative</b>
<b>4c</b>	<b>Non-pollutant causes</b>
<b>5</b>	<b><i><u>Impaired/threatened</u></i> by pollutant –TMDL needed</b>
<b>5-alt</b>	<b><i><u>Impaired/threatened</u></i>—TMDL needed but lower priority while alternative restoration approach is pursued</b>



***Section 303(d) List***

# What happens to Waters on the 303(d) List?

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For waters identified on the 303(d) list:

- TMDLs are established for all **pollutants** preventing or expected to prevent attainment of WQS.
- TMDLs are established at levels necessary to attain and maintain the **applicable narrative and numerical WQS**.

Applicable Regulations: 40 CFR 130.7



# What is a TMDL?

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- Maximum amount of a pollutant allowed to enter a waterbody so that the waterbody will meet and continue to meet water quality standards for that particular pollutant.
- Determines a pollutant reduction target and allocates load reductions necessary to the source(s) of the pollutant.

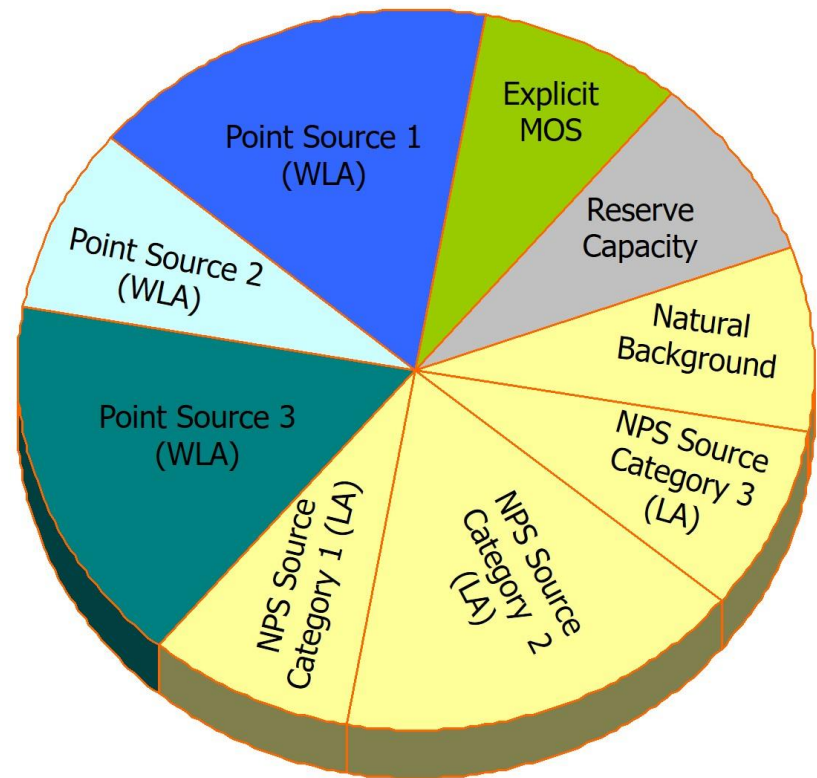
$$\text{TMDL} = \Sigma \text{WLA} + \Sigma \text{LA} + \text{MOS} + \text{FG}$$



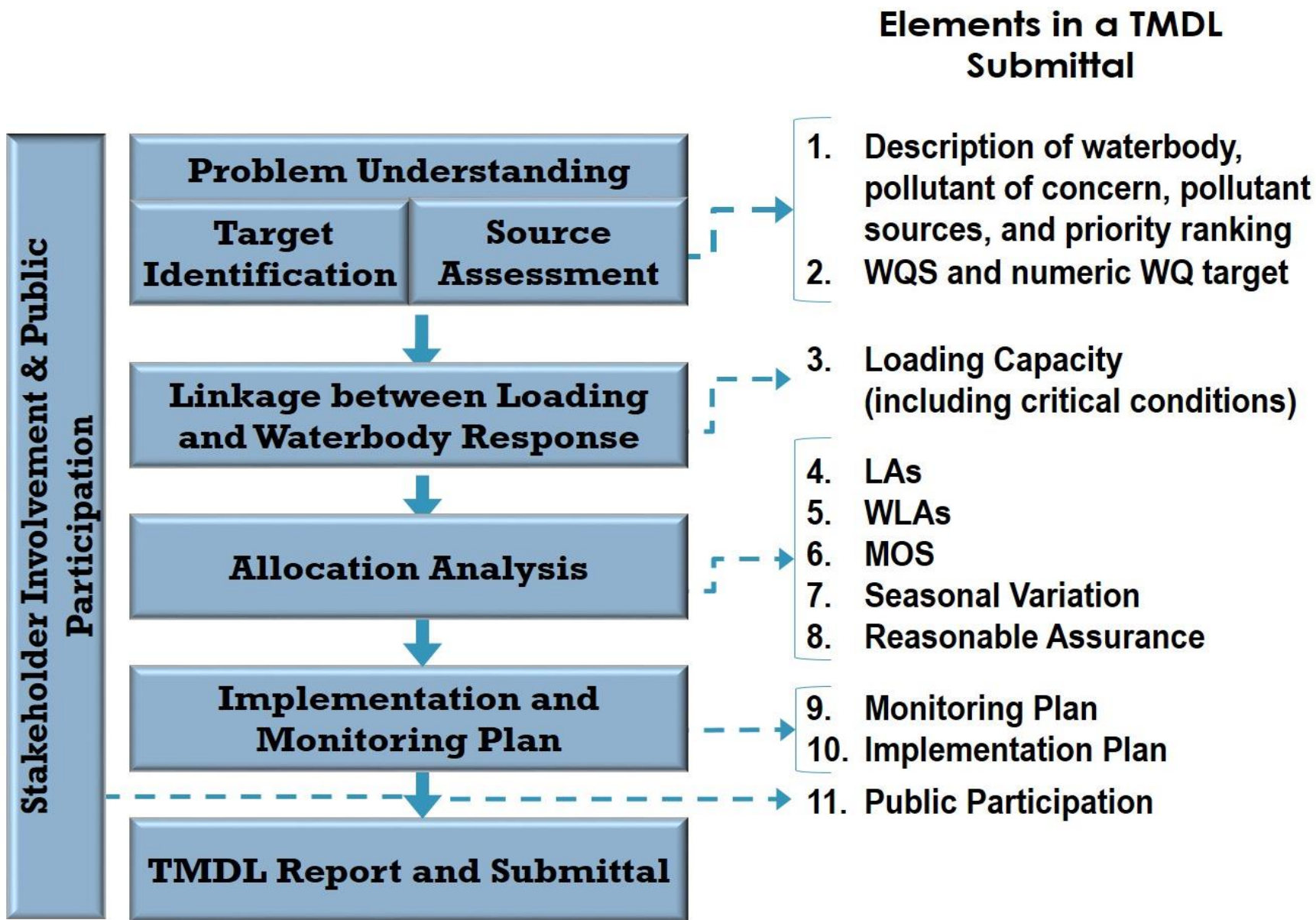
# Load Allocations

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- TMDLs are expressed as
  - Mass (e.g., pounds per day)
  - Energy (e.g., heat in temperature TMDLs)
  - Or “other appropriate measure” (CFR130.7)
- Emphasis on TMDLs expressed as daily loads



# TMDL Process



From *Guidelines for Reviewing TMDLs under Existing Regulations* issued in 1992 (May 20, 2002)  
[see Student Manual for website]

# TMDL Development Responsibilities

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- States, authorized tribes and territories:
  - **Develop** Draft TMDLs
  - **Request and Respond** to public comments on their draft TMDL.
  - **Submit** the final TMDL\* to EPA for review and action.
- EPA has 30 days to approve or disapprove the TMDL.
  - If EPA disapproves a TMDL, EPA has 30 days to develop a TMDL for the state, tribe, or territory.

\* Even if third parties assist in the development of the TMDL or its supporting analysis, such TMDLs must still be submitted to EPA by the state(s).

# Public Participation in TMDL Development

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Public/stakeholder roles in the TMDL process can include:

- Providing data and information to the states.
- Reviewing and commenting on impaired water list.
- Reviewing and commenting on draft TMDLs.
- Assisting in the development of TMDLs.



# What happens after a TMDL is Done?

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## Point Sources:

- Permit limits consistent with WLA are enforceable under CWA through National Pollutant Discharge Elimination System (NPDES).
- Issued by EPA or states w/ delegated authority.

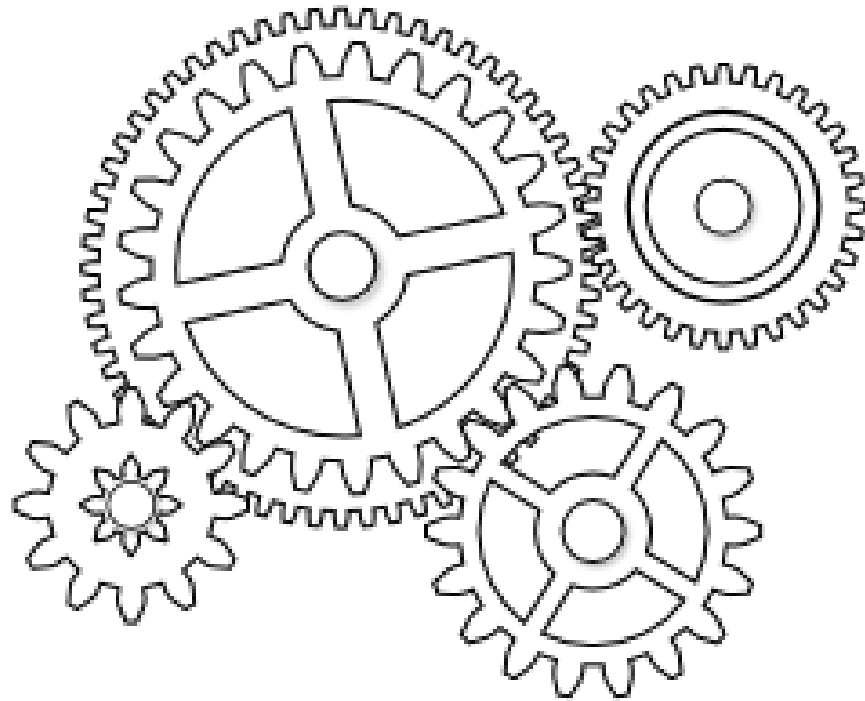
## Nonpoint Sources:

- No federal regulatory enforcement program.
- Primarily implemented through state/tribal/local NPS management programs (few w/ regulatory enforcement).

TMDLs are not self-implementing under 303(d).

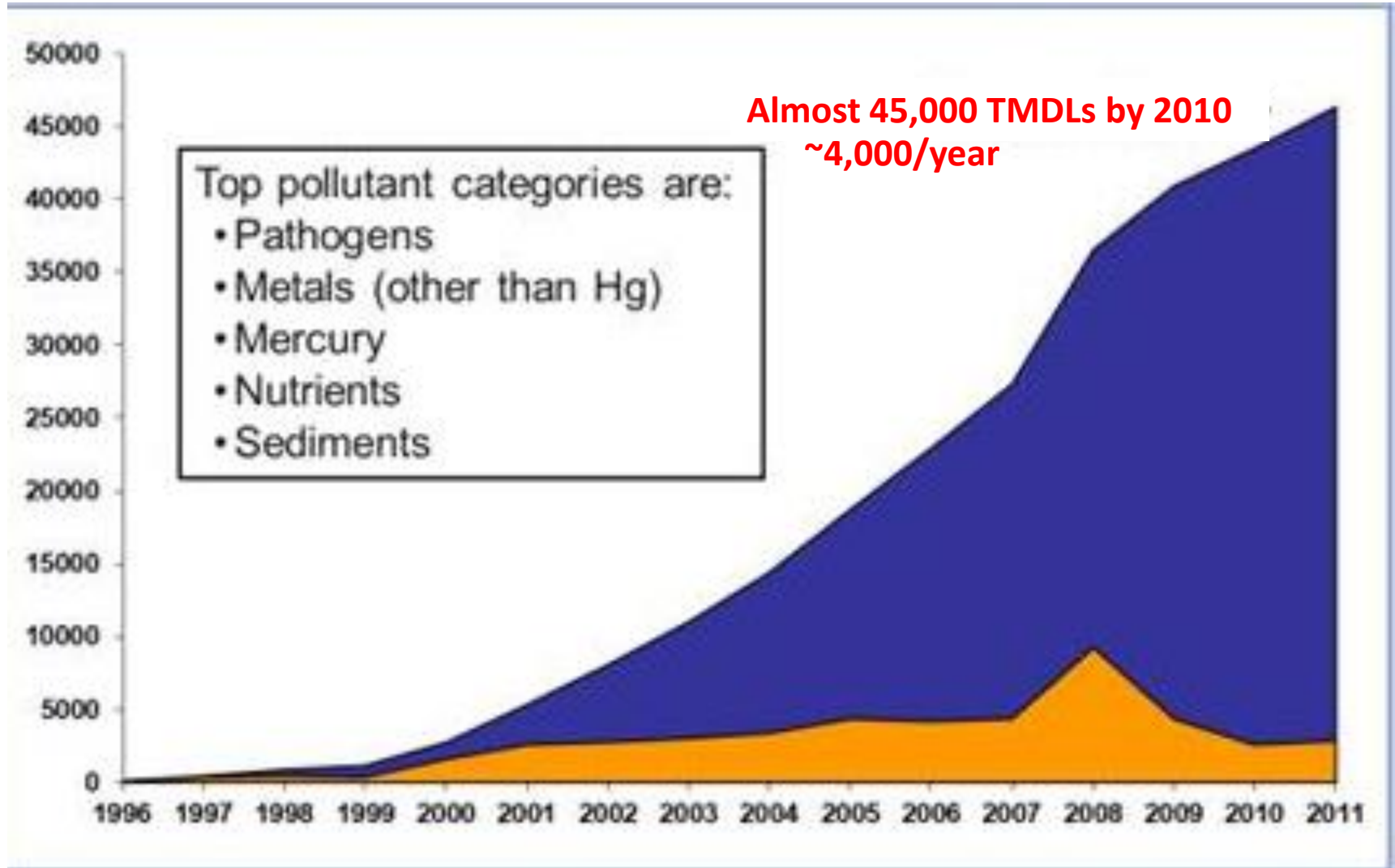


# Implementation Era (Early 2000s – 2010)





# Significant TMDL Development



# Program Measures

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- TMDL pace is EPA's primary external measure of program performance
  - EPA Strategic Plan measures for the Program drew attention and effort to tracking the number of TMDLs approved
  - EPA's TMDL "pace" guidance (i.e., 8-13 years) served as key basis for setting annual TMDL production expectations for the program
- Program routinely exceeds measures!
- States are developing 90% of the TMDLs

# Developed Tools & Guidance

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- Lists - Issued integrated 303(d)/305(b) reporting guidance (IRG) for each biennial reporting cycle
  - Major overhaul with 2006 IRG
  - Push for timely submissions & approvals
- TMDLs – completed or drafted (e.g.):
  - Modeling tools & technical guidance for mercury
  - Examples & guidance for stormwater sources
  - Watershed TMDLs Handbook
  - TMDLs to Permits Handbook for Stormwater
  - Revise/withdraw expectations
  - MJ-TMDL handbook
  - PCB TMDL compendium

# Analyzed TMDL Outcomes

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- Several statewide analyses indicate implementation activities after TMDL development are occurring
- TMDLs associated with >50% of published 319 Success Story waterbodies (partial/full recovery)
- TMDL “drivers of success”
  - Analytical framework, source assessments & watershed “champions” are key
- Developed “recovery potential” tools to support priority setting and restoration efforts

# Litigation Adjustments

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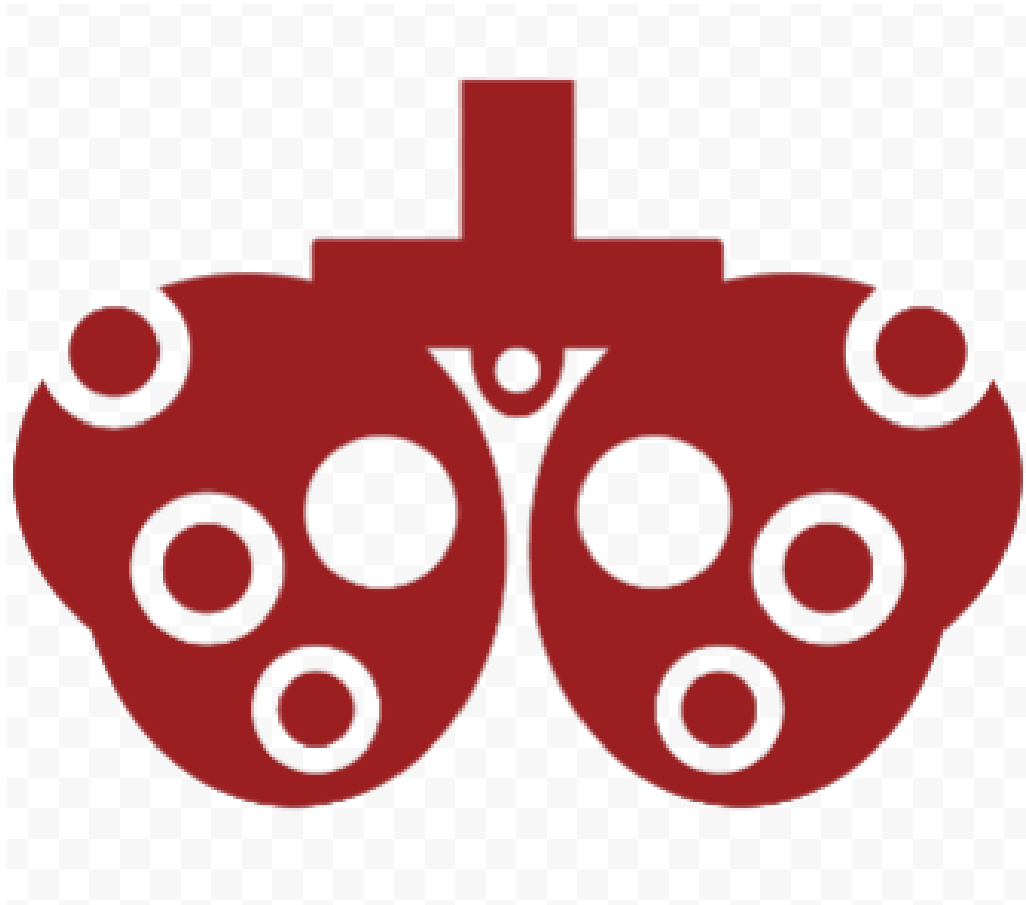
- Role of litigation driving TMDL development pace diminishes
  - ~70% (early 2000s) to ~25% (2010)
- TMDL Pace consent decrees scheduled to taper off by 2013
- State-developed TMDLs decreasing
- New litigation focuses on TMDL content (e.g.):
  - “Daily” load allocations
  - Climate change & MOS
  - Nutrient targets where no numeric criteria
  - Reasonable assurance





**2008 - First CWA 303(d) Training Workshop at NCTC!**

# Long-term Vision Era (2011 to present)





# Emerging Program Themes

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- States, Tribes, Territories want continued voice in shaping guidance & future direction of program
- Need to better engage public – ‘rebranding’ to emphasize load reductions & water quality improvements
- Balance budget realities with statutory obligation and achievement of environmental results
  - Restoration vs. protection
  - TMDL Development vs. TMDL implementation
  - State/Federal resources static or declining

# Emerging Themes (cont.)

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- Coordination with other EPA programs (WQS, monitoring, NPS, NPDES) & other agencies (esp. USDA) are important for future success
  - Critical in order to address NPS, nutrients, stormwater
  - CWA 303(d) does not have necessary authorities to fulfill all program expectations
- While important, EPA's key Strategic Plan measure of program performance (TMDL pace) does not:
  - Reflect significant variability in types of TMDLs or State listing methods
  - Give credit for more robust TMDLs that better support implementation & water quality results; "implementation ready"
  - Capture water quality improvement (output vs. outcome)

# Program Vision Effort Launched

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- USEPA HQ Watershed Branch spearheaded effort to help position CWA Section 303(d) program for future
- In search of refined long-term (10 year) program vision and goals
  - *“Directed evolution, not revolution”*
- Extensive coordination process over the course of two years between State and EPA program managers
  - 2011 (kickoff)
  - to December 2013 (Vision document finalized)

# Collaborative Process

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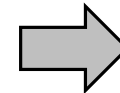
- Solicited “wish list” of desired program improvements
- Wishlist distilled to key “issue threads”
- From issue threads, formulated draft
  - Long-term Vision statement
  - Six supporting Goals
  - Implementation plans for each Goal (milestones & timelines)
- Adjustments made based on stakeholder comments
- Final product reflected discussions among almost every State, EPA, three Tribes, D.C., PR, and interstate organizations at 2013 NCTC workshop

# CWA 303(d) Program Vision

“The Clean Water Act Section 303(d) Program provides for **effective integration** of implementation efforts to **restore and protect** the nation’s aquatic resources, where the nation’s waters are **assessed**, restoration and protection objectives are **systematically prioritized**, and **Total Maximum Daily Loads** and **alternative approaches** are adaptively implemented to achieve water quality goals with the **collaboration** of States, federal agencies, tribes, stakeholders, and the public”

## Six Goals:

- Prioritization
- Assessment
- Protection
- Alternatives
- Engagement
- Integration



*Long-term Vision and associated Goals are not regulation, policy, or new mandates*

***Prioritization Goal** – For the 2016 integrated reporting cycle and beyond, States review, systematically prioritize, and report priority watersheds or waters for restoration and protection in their biennial integrated reports to facilitate State strategic planning for achieving water quality goals*

- States express CWA 303(d) Program priorities in the context of their broader, overall water quality goals
- Lead to more efficient and effective program management & faster progress toward water quality improvement & protection
- Share priority frameworks with the public to promote transparency

*Assessment Goal – By 2020, States identify the extent of healthy and CWA Section 303(d) impaired waters in each State’s priority watersheds or waters through site-specific assessments*

- Encourage understanding of water quality in State’s priority areas primarily through targeted monitoring
- Be strategic with limited monitoring and assessment resources
- Encourage development of plans to complete “baseline” and “effectiveness” monitoring to assess post-implementation conditions in priority areas

***Protection Goal** – For the 2016 reporting cycle and beyond, in addition to the traditional TMDL development priorities and schedules for waters in need of restoration, States identify protection planning priorities and approaches along with schedules to help prevent impairments in healthy waters, in a manner consistent with each State’s systematic prioritization*

- CWA objective to *restore and maintain the chemical, physical, and biological integrity of the nation’s waters*, but protection efforts have lagged
- Encourage more systematic consideration of management actions to prevent impairments
- Encourage identifying healthy waters as part of State priorities



*Alternatives Goal – By 2018, States use alternative approaches, in addition to TMDLs, that incorporate adaptive management and are tailored to specific circumstances where such approaches are better suited to implement priority watershed or water actions that achieve the water quality goals of each state, including identifying and reducing nonpoint sources of pollution*

- Encourage the most effective tool(s) to address water quality protection and restoration efforts
- Expect TMDLs to remain most dominant tool for address impaired waters, but alternatives may be appropriate in certain circumstances
- Identify, evaluate and promote other tools that may be more immediately beneficial or practicable to achieving water quality standards (e.g., Subcategory 5alt, Category 4b)

***Engagement Goal*** – By 2014, EPA and States actively engage the public and other stakeholders to improve and protect water quality, as demonstrated by documented, inclusive, transparent, and consistent communication; requesting and sharing feedback on proposed approaches; and enhanced understanding of program objectives

- Encourage working with stakeholders to educate and facilitate CWA 303(d) Program actions that work toward achieving water quality goals
- Promote engagement strategies at local (e.g., TMDL) and state (e.g., prioritization strategy) levels
- Improved Program “branding” would enable the public to more readily identify and support water quality restoration and protection.

***Integration Goal** – By 2016, EPA and the States identify and coordinate implementation of key point source and nonpoint source control actions that foster effective integration across CWA programs, other statutory programs (e.g., CERCLA, RCRA, SDWA, CAA), and the water quality efforts of other Federal departments and agencies (e.g., Agriculture, Interior, Commerce) to achieve the water quality goals of each state*

- Integrate the CWA 303(d) Program with other programs to collectively and more effectively achieve water quality goals
- Because TMDLs are not self-implementing, integration with other CWA programs is important to realize pollutant reduction goals (particularly for nonpoint sources)
- Cross-program education will be important

# New Program Measures

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- In parallel effort, developed new program measures to help track the Program's success in light of the new Vision
- Focused on putting plans in place according to state's identified priorities instead of sole focus on historic 8-13 year guidance for developing TMDLs
- Opportunity to also track program activities outside of priority areas
- Plans can include:
  - TMDLs
  - Alternatives
  - Protection plans

# The Vision: An Opportunity

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- EPA collaborative framework for implementing 303(d) with the states, territories and authorized tribes
- Enhances program efficiencies
- Encourages focus and attention on priority waters
- Promotes development of TMDLs tailored to the impairment & more readily support implementation activities
- Flexibility in using available tools beyond TMDLs to attain water quality restoration and protection
- No “one size fits all” approach

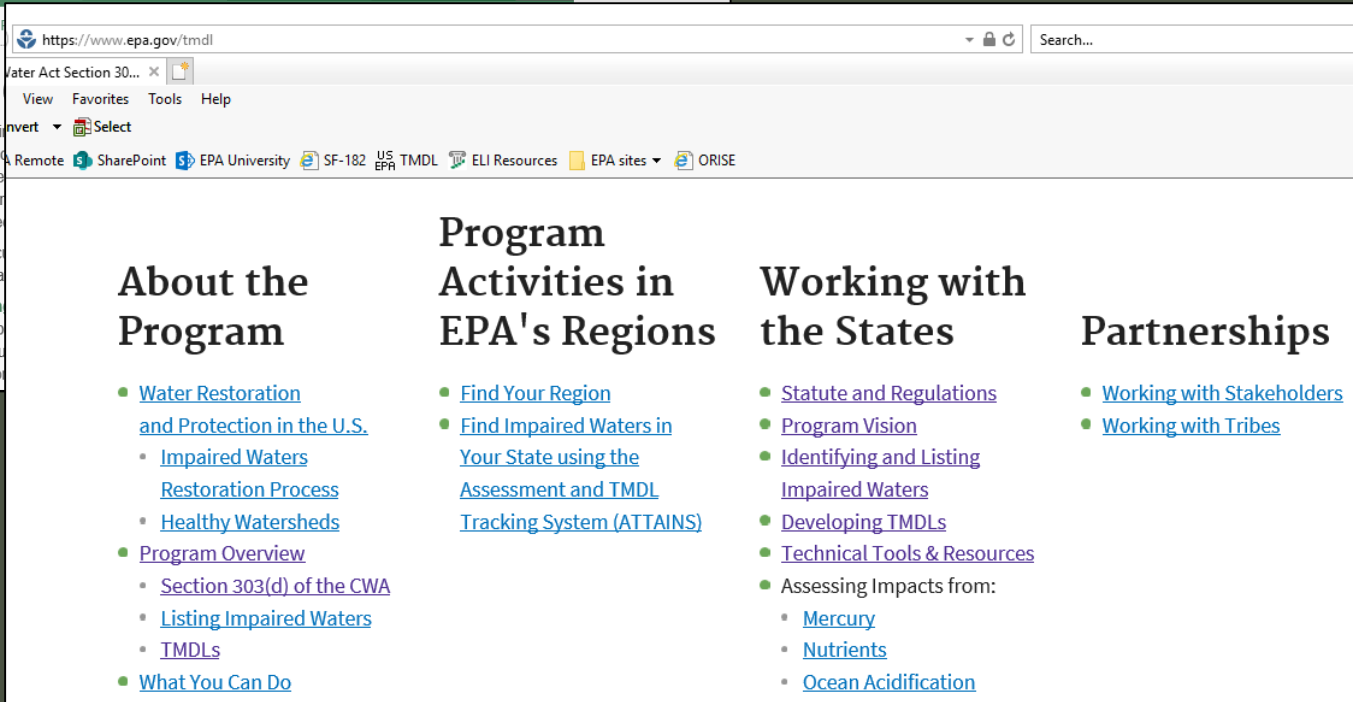
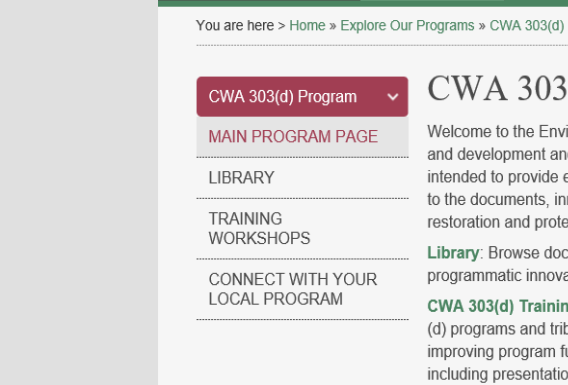
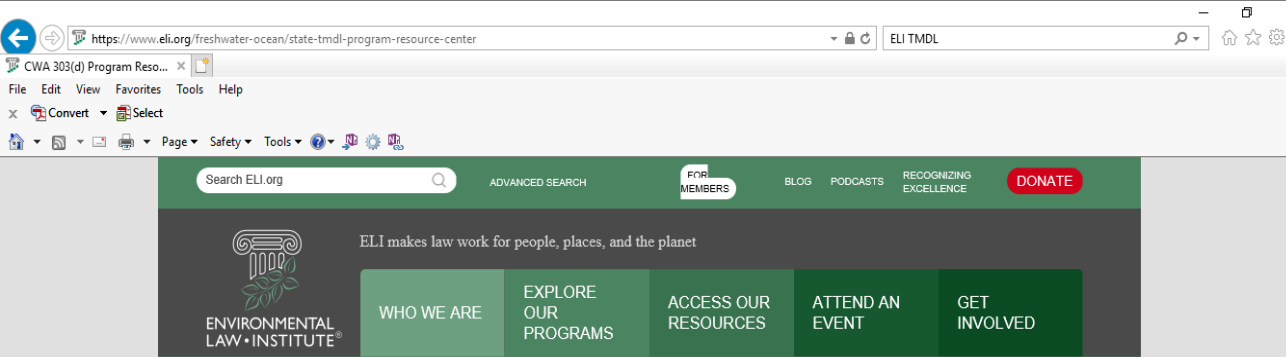
# Tribal Treatment in a Similar Manner as States (TAS) for 303(d) Program

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2016 - EPA published a regulatory process (40 CFR 130.16) for tribes to apply for authority to establish lists of impaired waters and TMDLs pursuant to section 303(d) of the CWA.

- Responsibilities tribes would have under CWA 303(d)
- Regulatory procedures for a tribe to apply for 303(d)TAS
- Regulatory procedures for EPA to review a TAS application
- Expectations regarding water quality standards (WQS) and WQS TAS for tribes seeking 303(d) TAS
- Availability of EPA support for tribes seeking 303(d) TAS
- Special circumstances regarding qualification for TAS for the 303(d) Program

# Additional Resources









**2018 – 10<sup>th</sup> CWA 303(d) Program Training Workshop at NCTC!**