

VIRTUAL WQS ACADEMY

CLEAN WATER ACT SECTION 303(d) LISTINGS AND TOTAL MAXIMUM DAILY LOADS (TMDLs)

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DISCLAIMERS

This presentation does not:

- Impose any binding requirements
- Determine the obligations of the regulated community
- Change or substitute for any statutory provision or regulatory requirement
- Change or substitute for any Agency policy or guidance
- Control in any case of conflict between this discussion and statute, regulation, policy or guidance

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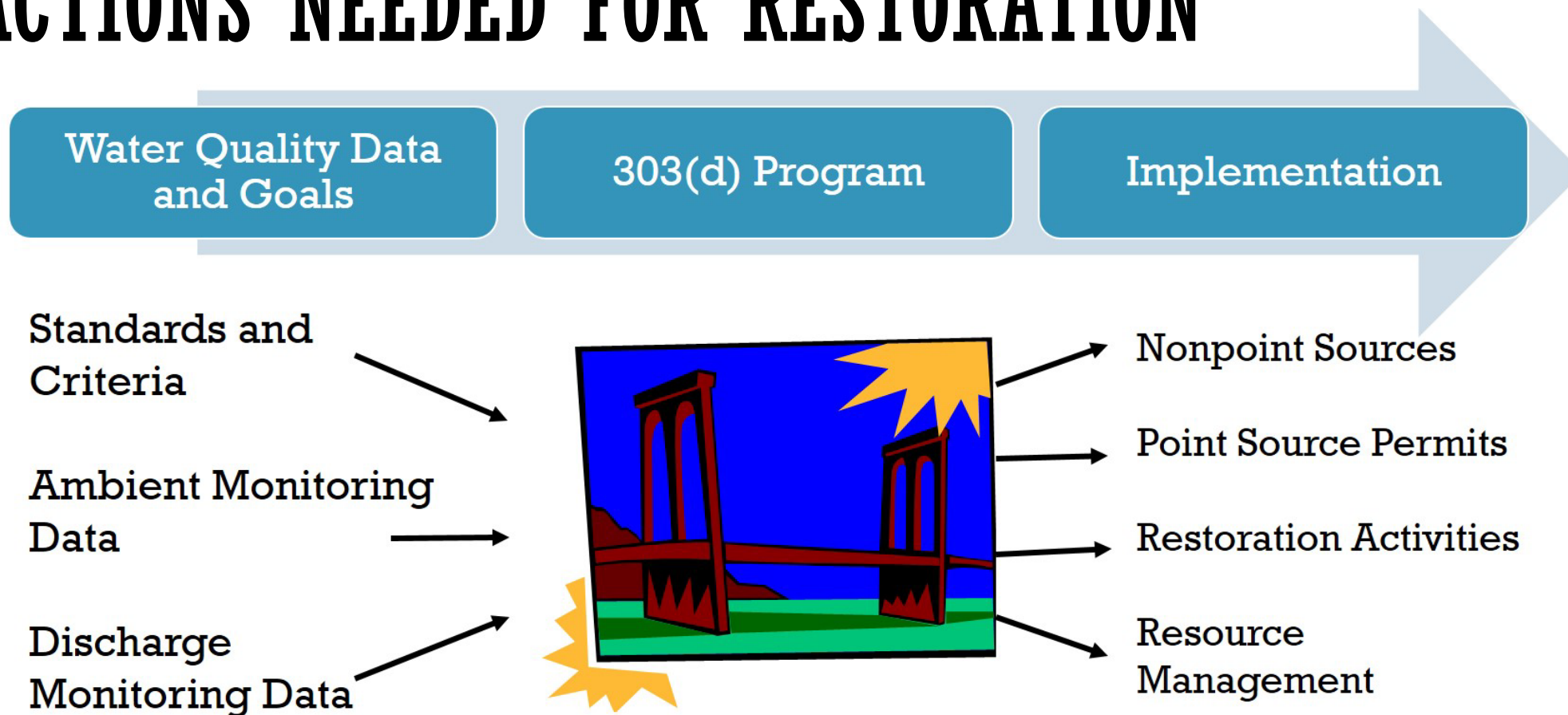
SESSION OVERVIEW

This session provides a brief introduction to the Clean Water Act (CWA) 303(d) Program.

Participants will learn about:

- Where the program fits in the CWA implementation framework
- What the regulatory background and requirements are for the program
- The process to developing Impaired Waters Lists & TMDLs
- Where to find reports and submissions

BRIDGING WATER QUALITY GOALS AND THE ACTIONS NEEDED FOR RESTORATION



WHAT IS THE 303(d) LIST?

The 303(d) list consists of waters that:

- Do not meet water quality standards even after the implementation of technology-based limitations or other pollution control requirements, often referred to as “impaired waters.”
- Are not expected to attain water quality standards in the next listing cycle (2 years), referred to as “threatened waters.”

Applicable Regulations: 40 CFR 130.7

WHAT ARE THE 303(d) LISTING ROLES?

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 their 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 approve or disapprove a submitted 303(d) list

- If EPA disapproves a list, EPA has 30 days to develop list for the state, tribe, or territory

HOW ARE WATERS PLACED ON A 303(d) LIST?

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.

INTEGRATED REPORTING CATEGORIES

IMPAIRED, BUT DOES NOT REQUIRE A TMDL:

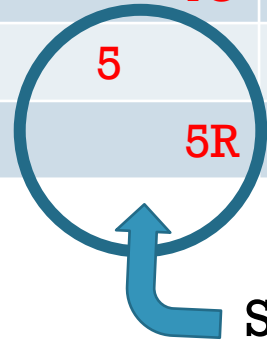
- **Category 4A:** A TMDL to address a specific segment/pollutant combination has been approved or established
- **Category 4B:** A use impairment caused by a pollutant is being addressed by the state through other pollution control requirements
- **Category 4C:** A use is impaired, but the impairment is not caused by a pollutant

IMPAIRED, REQUIRES A TMDL (this is the 303(d) list)

- **Category 5/303(d) Listed Waters:** Available data and/or information indicate that at least one designated use is not being supported or is threatened, **and a TMDL is needed**

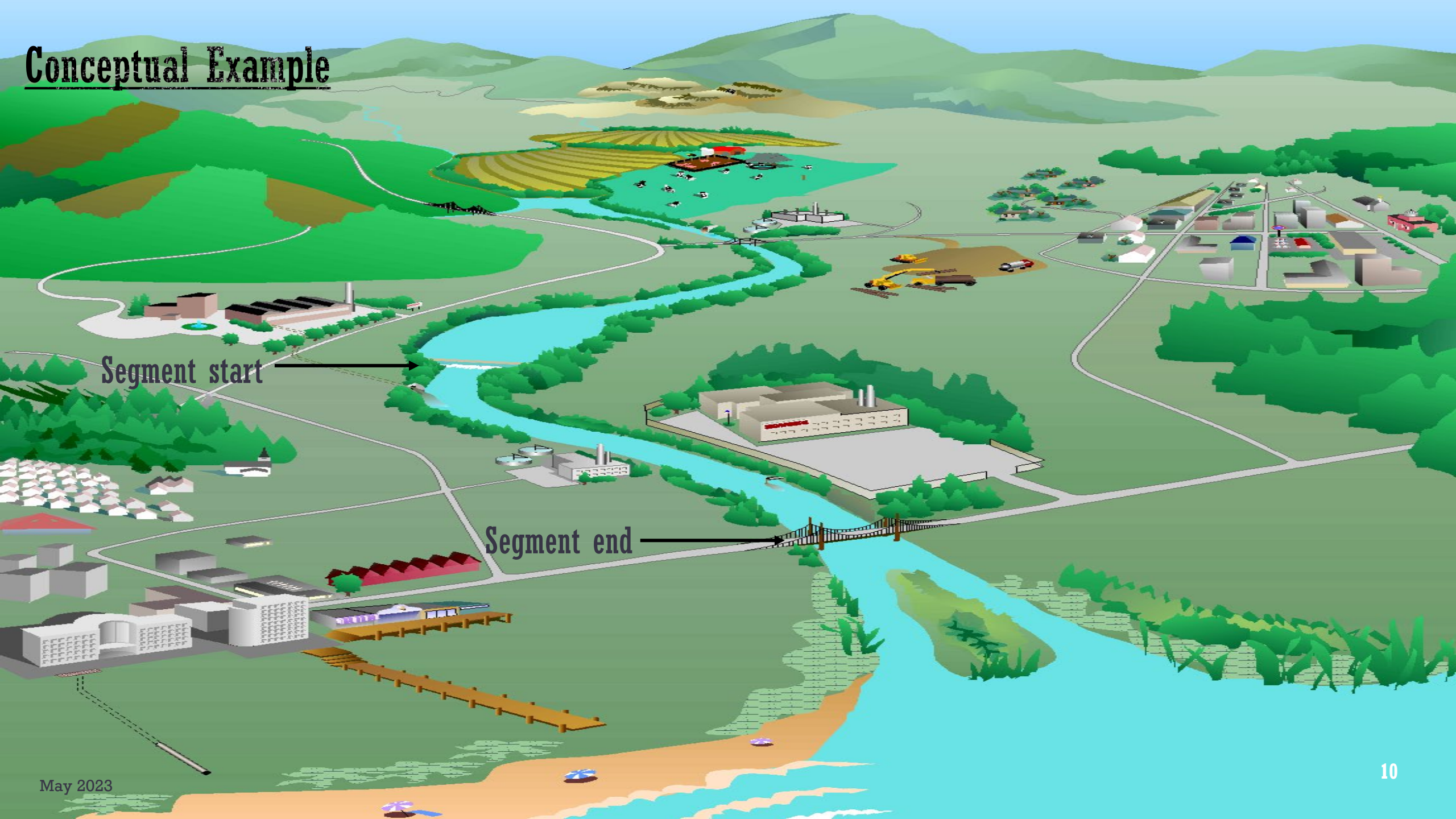
FIVE INTEGRATED REPORT CATEGORIES

Category	Description
1	All designated uses (DU) met
2	Some, but not all, DU met
3	Can not determine if DU are being met
4	Impaired/Threatened – TMDL not needed
4A	TMDL established
4B	TMDL alternative required
4C	Non-pollutant cause of impairment
5	Impaired/Threatened by pollutant – TMDL required
5R	TMDL required but lower priority assigned while restoration plan is pursued



Section 303(d) list / impaired waters list

Conceptual Example



ACCESS REPORTS AND DATA

Refer to state/territory/tribe website for Integrated Reports and information on comment periods.

Go to Assessment and Total Maximum Daily Load Tracking and Implementation System (ATTAINS) site to access reported data at different scales.

- <https://www.epa.gov/waterdata/attains>

“How’s My Waterway” provides access to data for multiple water programs in a user-friendly format at the national, state and local level.

- <https://www.epa.gov/waterdata/how-s-my-waterway>

WHAT HAPPENS TO WATERS ON THE 303(d) LIST?

For waters identified on the 303(d) list:

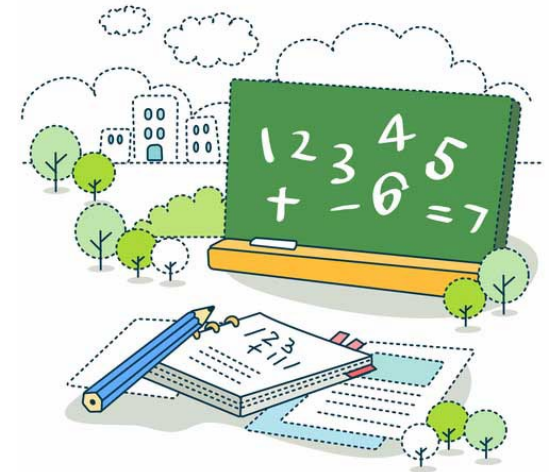
- TMDLs must be established for all **pollutants** preventing or expected to prevent attainment of WQS
- TMDLs must be established at levels necessary to attain and maintain the **applicable narrative and numerical WQS**

Applicable Regulations: 40 CFR 130.7

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.

The TMDL provides
the math and the path
for waterbody restoration.



TMDL CALCULATION

$$\text{TMDL} = \sum \text{WLA}_i + \sum \text{LA}_i + \text{MOS}$$

$\sum \text{WLA}_i$: Sum of waste load allocations (point sources)

$\sum \text{LA}_i$: Sum of load allocations (nonpoint sources and natural background)

MOS: Margin of Safety

This calculation is completed for each waterbody/pollutant combination

WASTE LOAD ALLOCATIONS FOR POINT SOURCES



Pipe



Concentrated Animal
Feeding Operation (CAFO)



Stormwater

LOAD ALLOCATIONS FOR NONPOINT SOURCES



Agricultural lands



Livestock



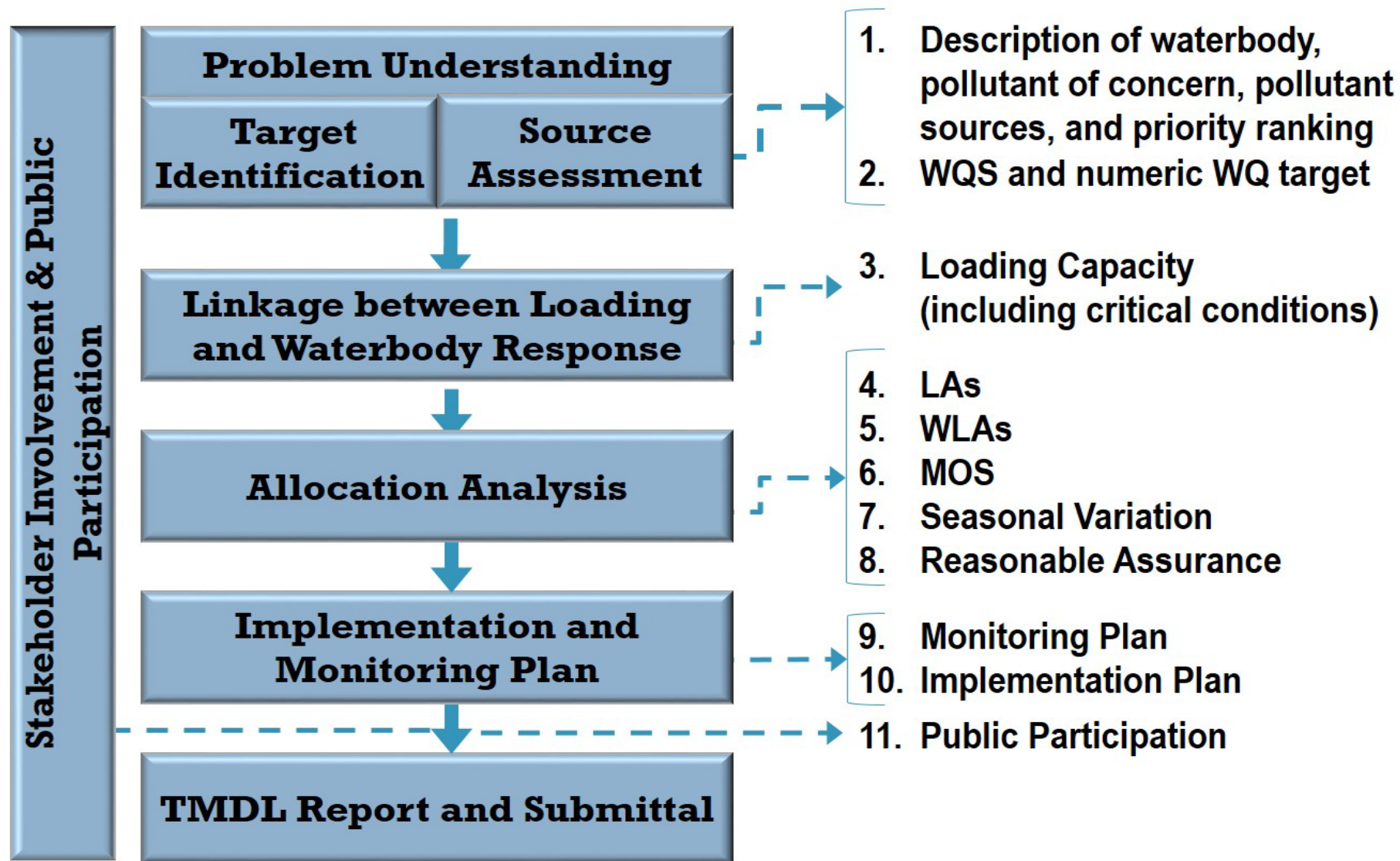
Forest land

Nonpoint sources are diffuse sources that do not need NPDES permits, but may be regulated under state programs.

MARGIN OF SAFETY

The margin of safety:

- Takes into account **lack of knowledge** concerning the relationship between effluent limitations and water quality (CWA §303(d)(1)(C), 40 C.F.R. §130.7(c)(1))
- Can be **explicit** (e.g., 10%) or **implicit** (conservative assumptions in modeling, etc.)



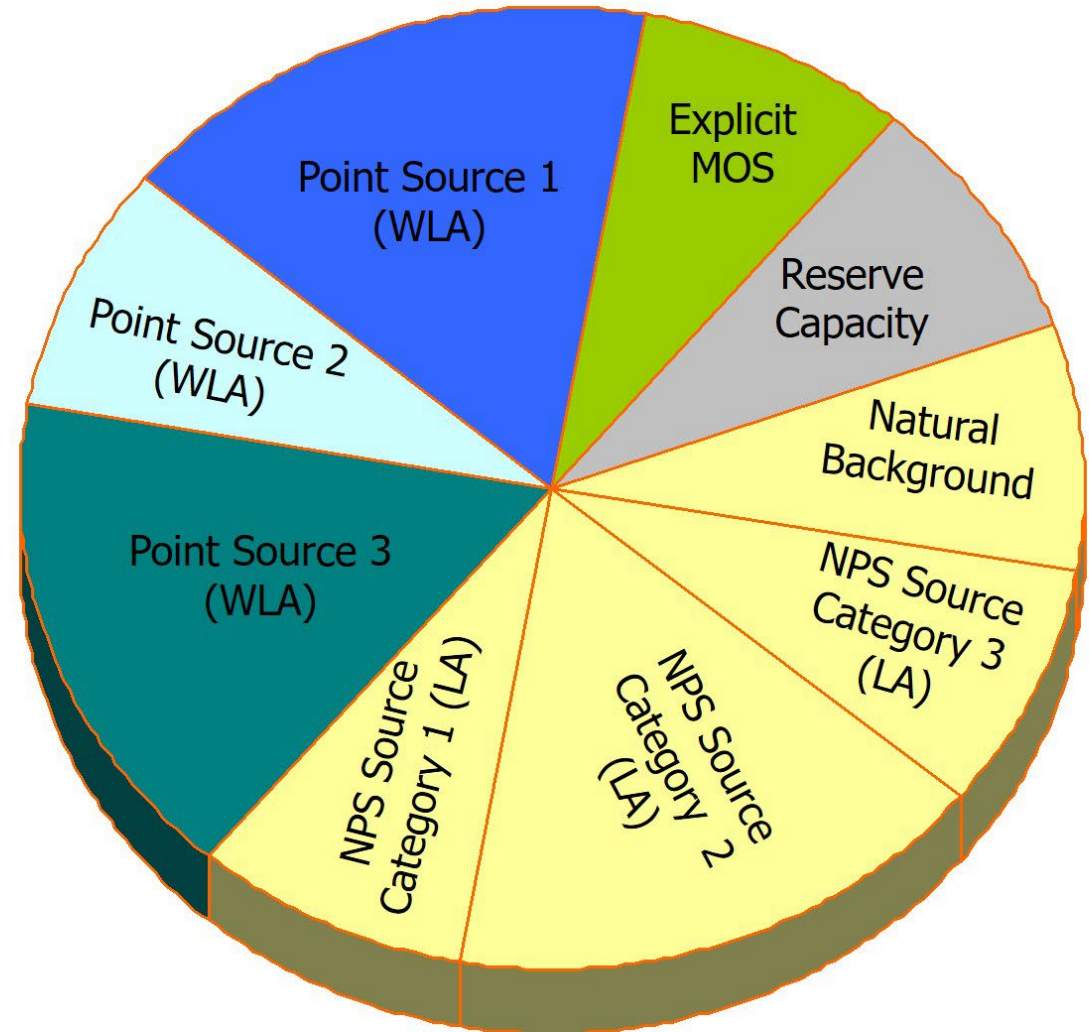
TMDL PROCESS

TMDL ALLOCATIONS

TMDLs are expressed as

- Mass (e.g., pounds per day)
- Toxicity (e.g., toxic units)
- Energy (e.g., heat in temperature TMDLs)
- Or “other appropriate measure” (CFR130.7)

There is an emphasis on TMDLs to be expressed as daily loads



WHAT HAPPENS AFTER A TMDL IS DONE?

TMDLs are not self-implementing under 303(d)

Point Sources:

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

Nonpoint Sources:

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

PUBLIC PARTICIPATION

Public/stakeholders can engage at different stages of the listing and TMDL process

- Provide data and information to the states
- Review and comment on draft 303(d) list
- Review and comment on draft TMDLs
- Assist in the development of 3rd party TMDLs

Building in time and attention to public participation can help in creating more comprehensive, robust, and defensible TMDLs

THE CWA 303(d) PROGRAM TODAY

Program Vision

In September 2022, EPA announced an update to its collaborative framework for implementing the Clean Water Act (CWA) Section 303(d) program with states — 2022-2032 Vision for the Clean Water Act Section 303(d) Program

- The Vision discusses several 303(d) program focus areas, including Planning & Prioritization, Data & Analysis, Protection, Restoration, and Partnerships

Treatment of Indian Tribes in a Similar Manner as States (TAS) Rule

On September 26, 2016, EPA published a final rule to establish a process for tribes to apply to EPA for authority to establish lists of impaired waters and TMDLs pursuant to section 303(d) of the CWA. See 81 FR 2791

QUESTIONS

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