

## Module 2

# Overview of EPA, the Clean Water Act, and Water Quality Standards

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- What will we we learn in this Academy?
  - Who plays what roles in protecting water quality?
  - What is the Clean Water Act?
  - What are Water Quality Standards?

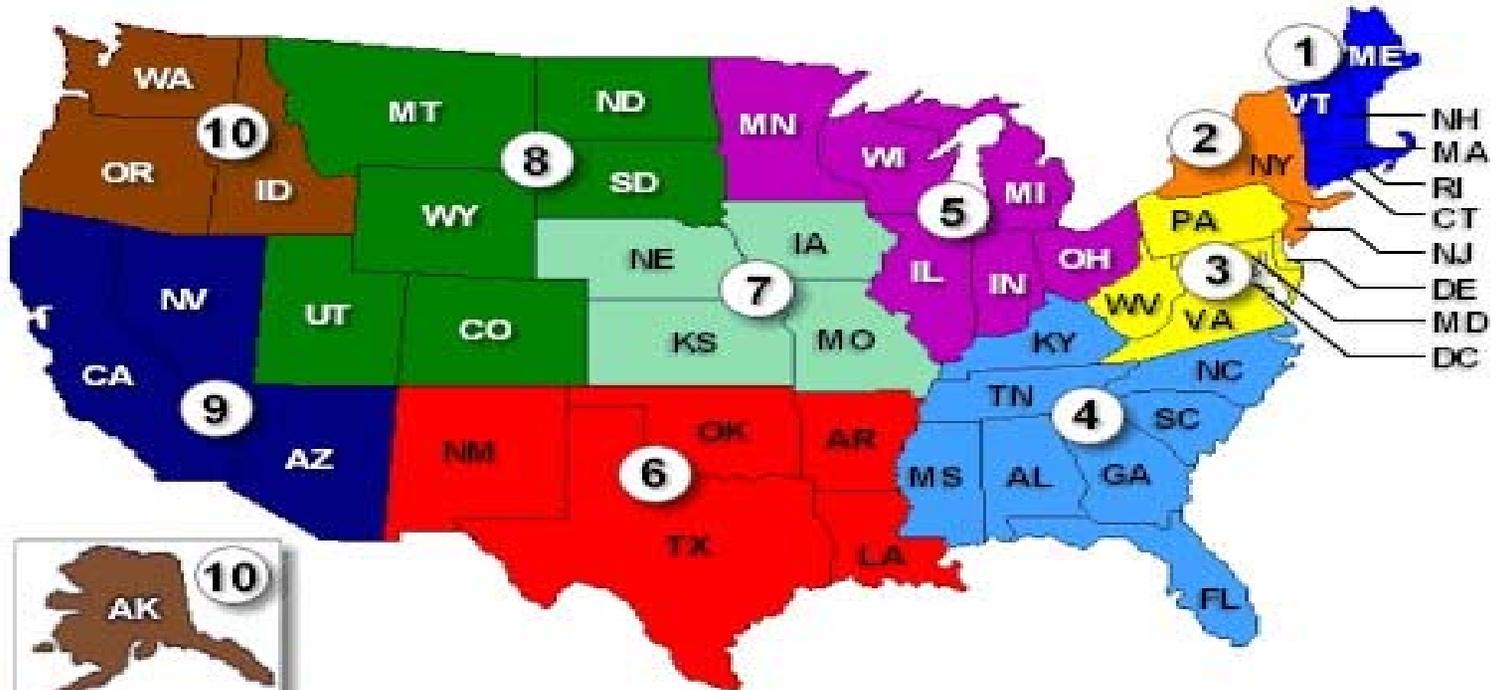
# Overview

- 
- EPA - Mission and Function
  - Key Environmental Laws
  - Office of Water - what we do
  - EPA Regions - what they do
  - What do states and tribes do
  - The Clean Water Act (CWA)
  - How are Laws, Regulations and Policy different?
  - Two approaches to water quality control
  - Water Quality Standards (WQS) Overview
  - Where do WQS apply?
  - California WQS

# What is EPA?

- 
- **Mission - Protect Human Health and safeguard the natural environment**
    - ◆ **Tools: Laws enacted by Congress and the implementing regulations**
  - **A Regulatory Agency**
    - ◆ **Regulatory Responsibilities in Air, Water, Solid Waste, Pesticides, Radiation, Toxic Substances and Hazardous Waste**
      - ▶ **No single "Environmental Statute"**
  - **A Science Agency**
    - ◆ **Laboratories, Office of Research and Development**

# EPA: Where ?



...other Region 9 sites

- ▶ Guam
- ▶ American Samoa
- ▶ Trust Territories
- ▶ Commonwealth of the Northern Mariana Islands

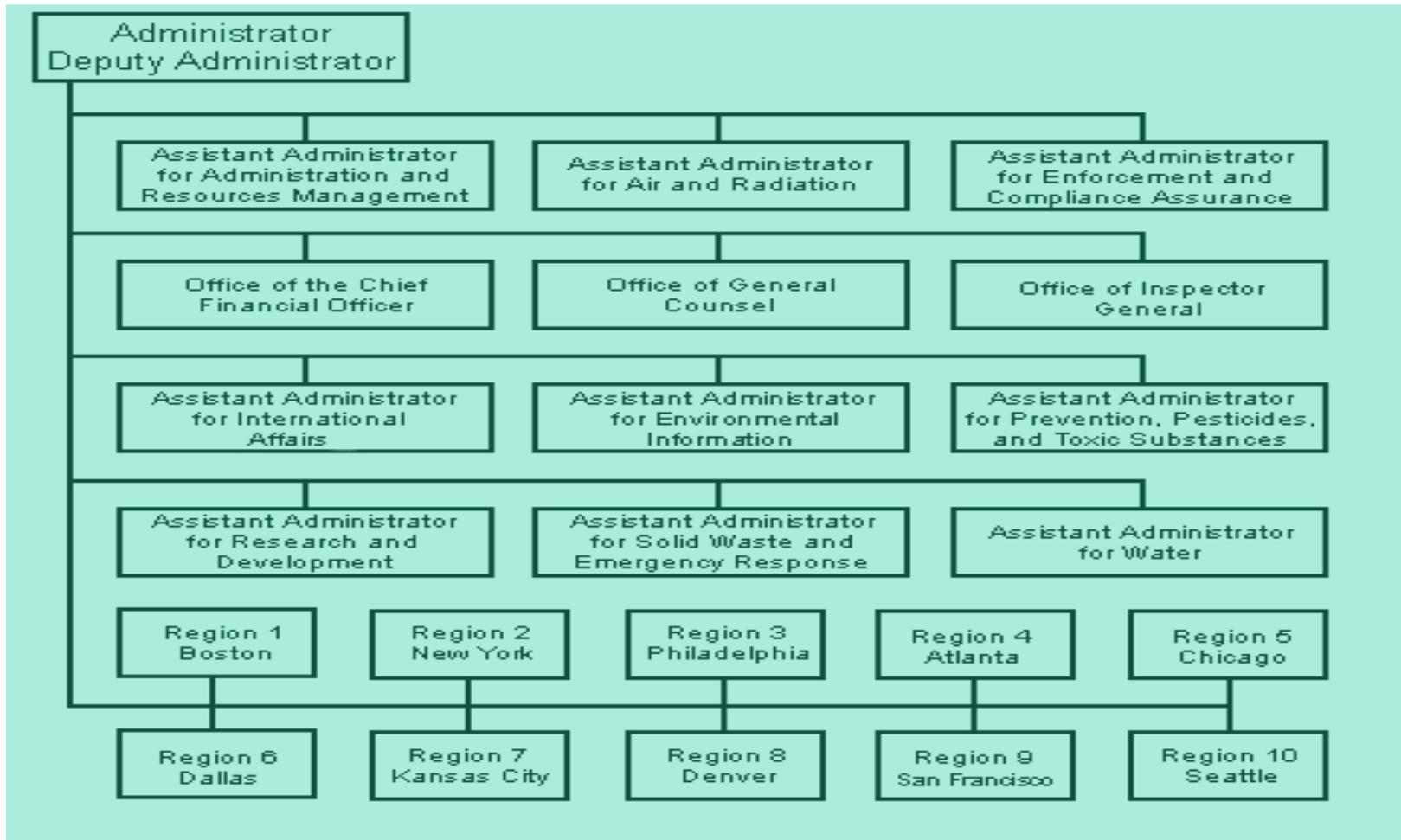
...other Region 2 sites

- ▶ Puerto Rico
- ▶ Virgin Islands

# EPA What?: Seven Major Environmental Statutes

- 
- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)
  - Clean Air Act (CAA)
  - Toxic Substances Control Act (TSCA)
  - Resource Conservation and Recovery Act (RCRA)
  - Comprehensive Environmental Response Compensation and Liability Act (CERCLA)
  - Safe Drinking Water Act (SDWA)
  - **Federal Water Pollution Control Act (FWPCA), or the Clean Water Act (CWA)**

# EPA Structure



# EPA HQ: Office of Water (OW)

- 
- Implements:
    - ◆ Clean Water Act
    - ◆ Safe Drinking Water Act
    - ◆ Others (portions)
  - Structure
    - ◆ American Indian Environmental Office
    - ◆ Office of Ground and Drinking Water
    - ◆ Office of Wetlands Oceans and Watersheds
    - ◆ Office of Wastewater Management
    - ◆ **Office of Science and Technology (OST)**

# WQS: Who Plays?

- 
- States, Territories and Indian Tribes with Program Authorization
  - EPA Regions
  - EPA Headquarters (Office of Science and Technology) (OST)

# WQS: States, Territories and Authorized Tribes

- Adopt, review and revise water quality standards and implementation procedures in a public process (Section 303(c))
  - ◆ May adopt standards more stringent than recommended by EPA (Section 510)
- May certify that federally licensed activities that may result in any discharge to their waters meet WQS (Section 401)

# States, Territories and Authorized Tribes, Continued

- 
- Monitor waters and assess status for 305 (b) and 303 (d) reports
  - Issue National Pollutant Discharge Elimination System (NPDES) discharge permits (generally)
  - Tribes: Obtain program authorization

# EPA Regions

- 
- Primary contacts with States and Tribes for Water Programs
  - Provide Technical Assistance
  - Consult with Services under Sec. 7 of ESA
  - Approvals, disapprovals under 303 (c)(4)(a)
  - Request Administrator “findings” under (4)(B)

# EPA Headquarters (OST)

- 
- ◆ Facilitates development of regulations and policies that guide regional review (with Regions and States)
  - ◆ Provides 304(a) recommendations
  - ◆ Provides informal concurrence on:
    - ▶ disapprovals
    - ▶ approvals that raise significant issues
  - ◆ Leads development and financing of promulgations
  - ◆ Coordinates with OMB

# The Clean Water Act

- 
- Objective: “restore and maintain the chemical, physical and biological integrity of the Nation's waters”
  - Interim goal: “water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water”, wherever attainable

# Clean Water Act: History

- 
- Rivers and Harbors Act of 1899
    - ◆ permits
  - Water Pollution Control Act of 1948
    - ◆ technical assistance to states
  - Water Pollution Control Act of 1956
    - ◆ financial assistance to states for treatment plants
  - Water Quality Act of 1965
    - ◆ first federal water quality standards program, for interstate water
  - Clean Water Restoration Act of 1966
  - Federal Water Pollution Control Act Amendments of 1972 (Clean Water Act)

# Clean Water Act: Provisions

- 
- Section 101 - Goals and Policy
  - Section 301 - Technology Based Effluent Limits
  - Section 302 - Water Quality Based Effluent Limits
  - Section 303 - WQ Standards and Implementation
  - Section 304 - Information and Guidelines
  - Section 305 - Water Quality Inventory
  - Section 306 - National Performance Standards
  - Section 307 - Toxics and Pretreatment Standards
  - Section 308 - Inspection, Monitoring and Entry
  - Section 309 - Enforcement

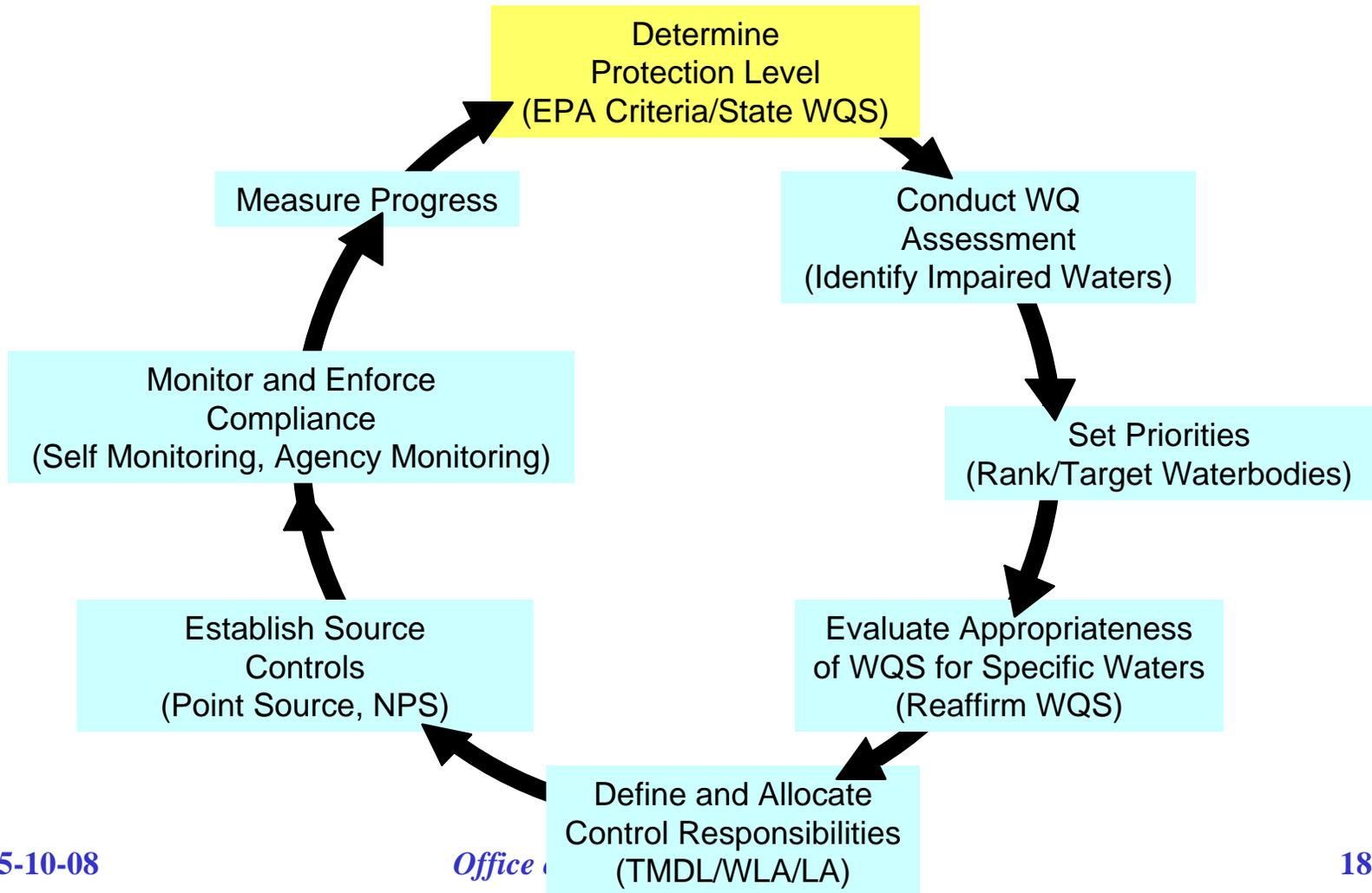
# Clean Water Act: Provisions (cont'd)

- Section 316 - Thermal Discharges
- Section 319 - Nonpoint Source Management
- Section 320 - National Estuary Program
- **Section 401 - State/Tribal Certification**
- **Section 402 - Point Source Permitting (NPDES)**
- Section 404 - Dredge and Fill Permitting
- Section 505 - Citizen Suits
- Section 510 - State/Tribal Authority
- Section 516 - Reports to Congress
- **Section 518 - Indian Tribes**

# CWA: Technology Based Approach (Section 301)

- 
- Effluent limits for industrial dischargers to surface waters and Publicly Owned Treatment Works (POTWs)
  - Effluent Limits for Publicly Owned Treatment Works (“secondary treatment”)
  - Based on performance of treatment and control technologies, not impacts to receiving waters

# Water Quality Based Approach



# What are Laws?

- 
- Passed by Congress, signed by the President
  - Published in the United States Code (U.S.C.) (<http://www.gpoaccess.gov/>)
  - Clean Water Act is 33 U.S.C. 1251-1587

# What are regulations? (1)

- 
- Have the force and effect of law
  - A “must”
  - Involves “notice and comment” rulemaking
  - May involve Office of Management & Budget (OMB)
  - Agency develops rationale and proposed regulation and publishes it and requests comment in the Federal Register (FR):  
<http://www.regulations.gov>

## What are regulations? (2)

- Agency considers all comments, revises proposed regulation accordingly, and publishes final rule
- Once regulation is published in Federal register as a Final Rule, it is Codified by being published in the Code of Federal Regulations (CFR)  
(<http://www.gpoaccess.gov/>)

# What are regulations? (3)

- 
- 50 volumes in the Code of Federal Regulations, called Titles, each focused on a particular subject
  - Almost all environmental regulations are at Title 40 "Protection of Environment"
  - <http://www.gpoaccess.gov/>
  - **Basis for disapproval of water quality standards**

# What is Guidance or Policy?

- 
- “should”
  - notice and comment not required
  - not binding on Agency or Public
  - may involve OMB Review
  - **not a basis for disapproval**
  - Governed by section 553 of the Administrative Procedure Act: <http://www.archives.gov>
  - example: <http://www.epa.gov/waterscience/standards/policy.htm>

# Water Quality Standards

(see 40 CFR 131.3)

- 
- Provisions of State/Tribal (or Federal) Law
    - ◆ Designated Uses
    - ◆ Criteria to protect those uses
    - ◆ Antidegradation policy
  - Water Quality Standards are to:
    - ◆ Protect public health or welfare
    - ◆ Enhance the quality of the water
    - ◆ Serve the purposes of the Act

# Water Quality Standards, cont'd

(see 40 CFR 131.3)



- **Water Quality Standards**

- ◆ **Establish water quality goals for a waterbody**
- ◆ **Provide a regulatory basis for controls beyond technology-based limits**

# Water Quality Standards

- 
- **Designated Uses** (40 CFR 131.10)
  - **Criteria to protect those uses** (40 CFR 131.11)
  - **Antidegradation Policies + Implementation Procedures** (40 CFR 131.12)
  - **Implementation Policies** (40 CFR 131.13)

# Designated Uses (40 CFR 131.10)

- 
- Protection and propagation of fish, shellfish and wildlife
  - Recreation in and on the water
  - Public water supply
  - Agriculture
  - Industry
  - Navigation
  - Others

# Water Quality Criteria (40 CFR 131.3, 131.11)

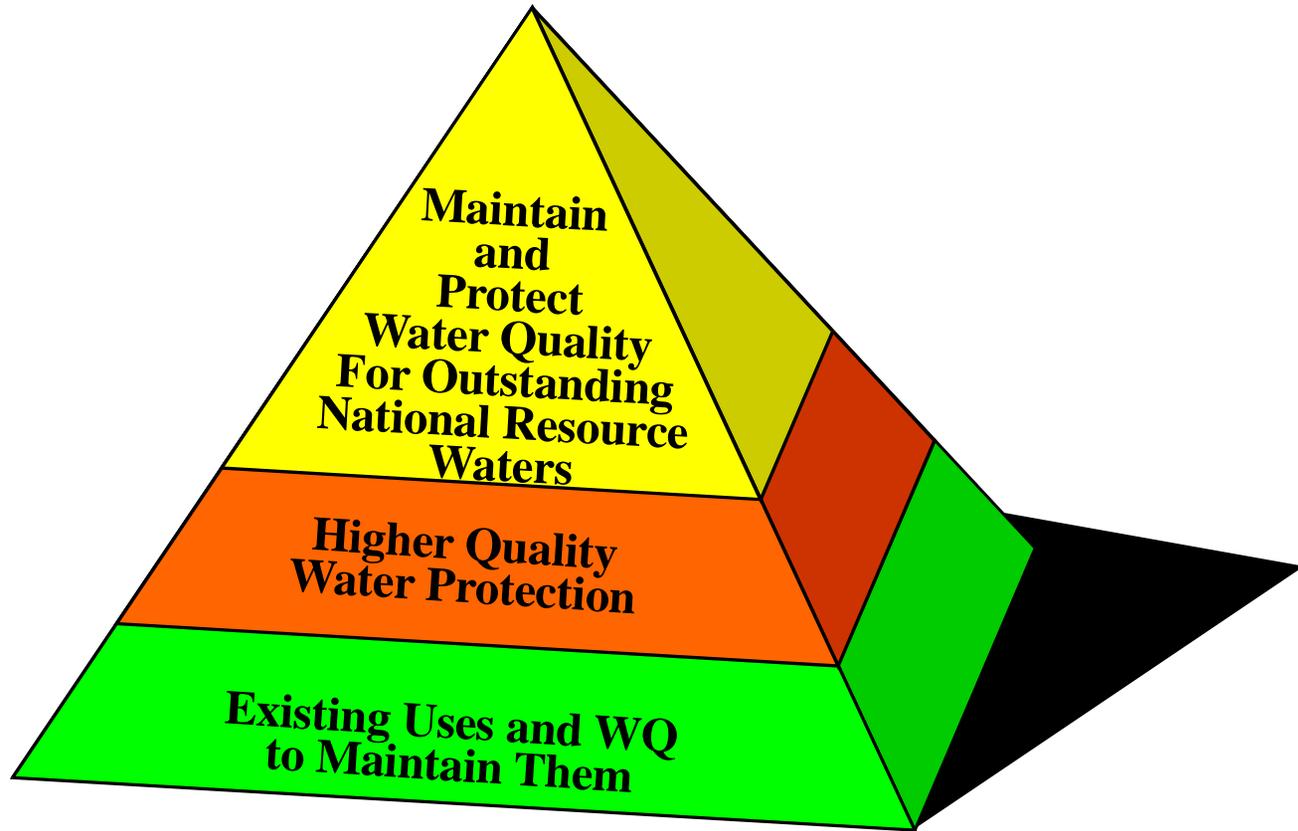
- 
- Discussed in Sections 304(a) and 303(c) of the Act
  - A concentration, level or narrative statement
  - Represent a level of water quality that supports a particular use
  - When criteria are met, water quality will protect the designated use

# Water Quality Criteria

## 1 Word - 2 Meanings

- 
- ◆ Scientifically defensible guidance developed and published by EPA per CWA § 304(a)
    - ▶ Basis for Federal promulgation when necessary
  - ◆ Adopted part of State/Tribal WQS
    - ▶ Section 303(c)

# Antidegradation Policies (40 CFR 131.12)



**Discussed in Module 14 (Antidegradation)**

# General policies (40 CFR 131.13)

- 
- States and authorized tribes may include in their standards policies affecting application and implementation, such as:
    - ◆ Mixing zones
    - ◆ Low flows
    - ◆ Variances
  - Subject to EPA review and approval

# WQS: States and Authorized Tribes

- 
- Have the primary authority to adopt, review and revise water quality standards (Section 303(c) of the CWA)
  - May adopt standards more stringent than recommended by EPA (Section 510 of the CWA)
  - May certify Federally licensed activities that result in discharge to waters of the US (Section 401 of the CWA)

# State/Tribal Submittal Must Include:

(40 CFR 131.20(c))

- 
- Use(s) for each waterbody
  - Criteria sufficient to protect those uses
    - ◆ With methodologies for any site specific criteria
  - An antidegradation policy and implementation methods consistent with 40 CFR 131.12
  - Certification that the standards were duly adopted according to state or tribal law
  - Other general supporting information

# Federal Promulgations (40 CFR 131.22)

- 
- If EPA disapproves AND
  - If state or tribe does not adopt specified changes within 90 days...
  - THEN the EPA Administrator must promptly propose and promulgate a replacement standard
  - OR in any case where the Administrator determines new or revised standards are necessary to meet the requirements of the CWA

# Waters of the U.S.

- 
- Used or maybe susceptible for use in interstate or foreign commerce
  - Interstate Waters
  - Other waters, the use, degradation or destruction of which could affect such commerce
  - Impoundments of waters so defined
  - Tributaries of the above
  - the Territorial Sea
  - Wetlands adjacent to the above

# Overview: Take Home Messages



- States, Territories and Authorized Tribes have important and unique roles in developing, adopting, reviewing and approving water quality standards.
- The Clean Water Act features both Technology Based and Water Quality Based approaches to pollution control.
- The Act itself, and regulations developed by notice and comment rulemaking, are the basis for EPA's review and approval of adopted state and tribal water quality standards.

# Overview: Take Home Messages (2)



- The Clean Water Act establishes a national goal of “water quality which provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water”, wherever attainable

# Overview: Take Home Messages (3)



- State/Tribal Water Quality Standards:
  - ◆ Establish water quality goals and targets for a waterbody
  - ◆ Are used to determine attainment and non-attainment
  - ◆ Provide the regulatory basis for controls beyond technology-based limits.