

# Module 14

## Antidegradation



- What do the antidegradation regulations require?
- What are the levels of protection?
- What are the elements of a high quality water review?
- Case Studies: Ohio and Alabama

# Background

## ❖ Water Quality Standards consist of:

- ◆ *designated uses* (e.g., protection and propagation of aquatic life, recreation in and on the water, public/agricultural water supply);
- ◆ *criteria* (numeric and/or narrative parameters) to protect the designated uses;
- ◆ *antidegradation policy and procedures* to maintain and protect existing water quality.

# A State/Tribal Antidegradation Policy...

- ❖ protects existing uses
- ❖ ...allows water quality that **exceeds CWA 101(a)** goals to be lowered **by regulated activities** only in certain prescribed conditions **and** after some type of public review...
- ❖ protects waters of national significance
- ❖ The Water Quality Standards regulations provide certain minimums for these policies...

# What Are The Elements Of An Antidegradation Policy Consistent With 40 CFR 131.12 ?



Water Quality for:



# Existing Uses

- ❖ Existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected.
- ◆ Existing uses are determined by considering data on both the use that has occurred and the water quality that has been achieved to support the use.

# High Quality Waters

- ❖ Water quality exceeding the CWA 101(a) goals.
- ❖ Water quality may be lowered:
  - ◆ Only after public involvement, and if
  - ◆ State finds lowering to be “necessary to accommodate important economic or social development”
- ❖ Existing uses must always be protected.
- ❖ States must assure the highest statutory and regulatory requirements for point sources and cost-effective and reasonable BMPs for non-point sources are achieved.

# Two Ways to Identify High Quality Waters

- ❖ “Designational”/“Waterbody-by-Waterbody”
  - ◆ Designate water bodies exhibiting certain high quality characteristics using biological, chemical and/or aesthetic quality data and information.
  
- ❖ “Pollutant-by-Pollutant”/“Parameter-by-Parameter”
  - ◆ Determine whether water quality is better than the criterion for each parameter using chemical or biological data.

# Antidegradation Reviews for High Quality Waters

- ❖ The review generally applies to point source dischargers requesting a new or increased load.
- ❖ States/Tribes make a determination to grant a request for new or increased loadings after public review and evaluating:
  - ◆ Alternatives to the request to lower water quality
  - ◆ The economic or social development and the benefits to the area that will be foregone

# Significance Thresholds

- ❖ EPA recognizes the need for states/tribes to target their antidegradation efforts.
- ❖ Significance Thresholds
  - ◆ EPA has approved applying antidegradation review requirements only to those activities that may result in significant degradation of water quality.
  - ◆ The significance thresholds must be applied at a level that can be demonstrated to be consistent with the purpose of EPA antidegradation requirements.

# Nonpoint Source Controls



- ❖ Federal antidegradation requirements do not require a State/Tribe to establish BMPs for nonpoint sources where such BMP requirements do not exist.
- ❖ However, where States/Tribes have established nonpoint control programs, the policy requires:
  - ◆ A program should ensure reasonable and cost-effective BMPs are implemented before allowing an increase in pollutant loads causing degradation.

# Outstanding National Resource Waters (ONRWS)

- ❖ Waters constituting an outstanding National resource, such as waters in National or state parks and wildlife refuges or waters of exceptional recreational or ecological significance.
  - ◆ A State or Tribe identifies ONRWS.
  - ◆ No degradation is allowed in ONRWS, except on a short term or temporary basis.
  - ◆ States/Tribes must have provisions protecting ONRWS, but there is NO requirement that States/Tribes designate ONRWS.

# Implementation Methods

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- ❖ In addition to adopting an antidegradation policy consistent with the federal regulations, a state or tribe must...
  - ❖ ...Identify implementation methods...
    - ◆ Should describe how state/tribe will implement the required elements of the antidegradation review
    - ◆ May be part of regulations or other documents

# EPA's Review Of Antidegradation Policies And Implementation Methods



- ❖ Is the antidegradation policy consistent with §131.12(a)(1)-(4)?
  - ◆ Are existing uses, high quality waters and ONRWs protected?
  - ◆ Are implementation methods identified?
  - ◆ Are the implementation methods consistent with State's own policy and with EPA's provisions?

# Case Study: Ohio

- ❖ Five categories of High Quality Waters, all with varying requirements
- ❖ Special provisions for Lake Erie
- ❖ Very detailed info included in antideg review
- ❖ Considerable public involvement procedures
- ❖ Several specific factors considered by Department for determining necessity of lowering

# Case Study: Alabama

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- ❖ Three-tiered system parallels 131.12
  - ❖ Tier 1- applies to impaired waters on 303 (d) list and waters less than fishable/swimmable
  - ❖ Tier 3- ONRWs
  - ❖ Tier 2- by default, all waters not Tier 1 or 3
  - ❖ Demonstration of necessity and alternatives analysis done concurrently with permitting process
  - ❖ Regulations include forms which must be submitted with application for permit