EPA Office of Water and Agriculture

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Outline

- Agriculture impacts on water quality
- Office of Water roles
  - Clean Water Act
  - Safe Drinking Water Act
- Biofuels and water quality
- Livestock
- Communicating across the agriculture sector

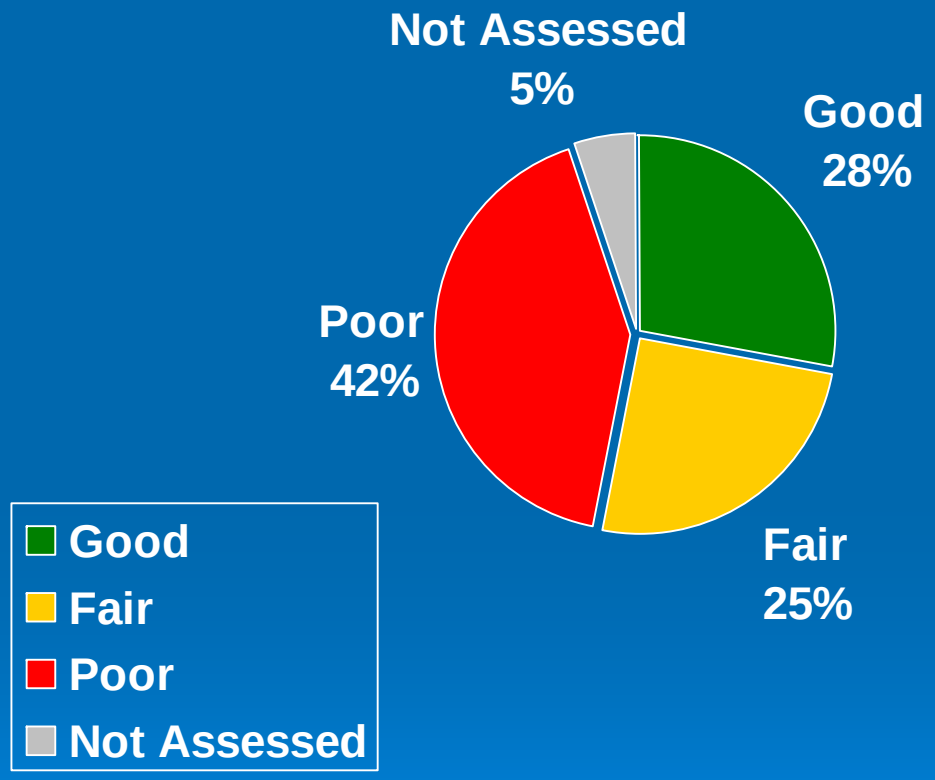
2002 National Water Quality Inventory "§305(b) Report"

- Agriculture is leading known source of pollution to lakes and rivers nationwide.
  - 37% of impaired rivers and streams
  - 30% of impaired lakes and reservoirs

- Pollutants

Sediment	Habitat alterations
Nutrients	Pathogens
Low dissolved oxygen	Metals (mercury)

2006 Wadeable Streams Assessment



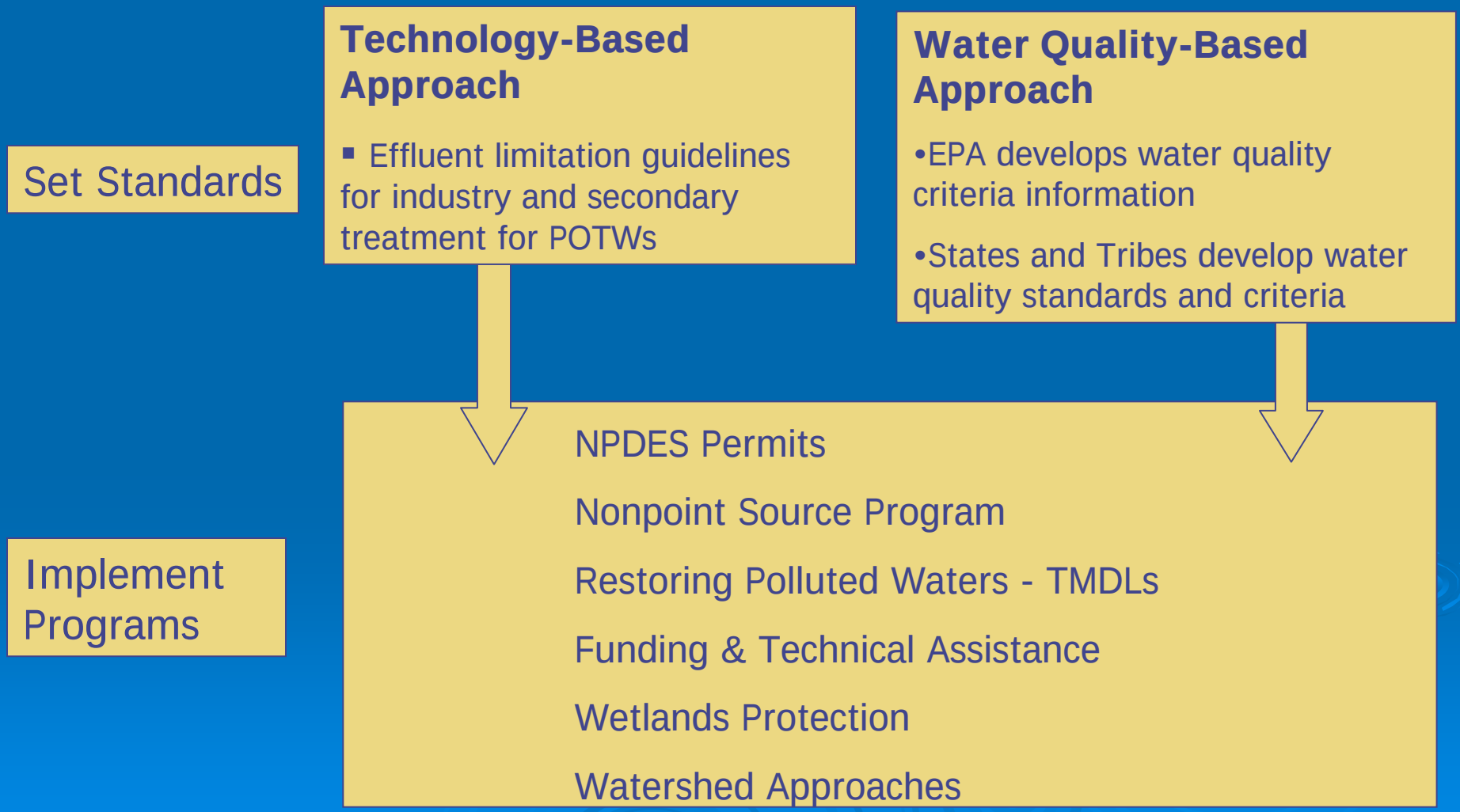
Biological Condition of Streams (Index of Biotic Condition)

- The WSA found 28% of streams in good condition, compared to least-disturbed reference condition.
- Across the US 25-30% of streams have high levels of nutrients or excess sedimentation. **These streams are twice as likely to have poor biology**.

Clean Water Act Goal

- "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters"

Clean Water Act Framework



Point Source Permit Program

- All point sources need a permit to discharge to waters of the U.S.
- Point sources: discrete conveyances (e.g. pipe, ditch, or CAFOs)
- Exempted
  - agricultural stormwater discharges
  - irrigation return flows.
- Technology-based limits
- Water quality-based limits

Water Quality Standards

- Goals and targets for each waterbody
- Three parts
  - designated uses (i.e. recreation, drinking water, cold water fishery, irrigation)
  - numeric or narrative water quality criteria
  - antidegradation policy
- Numeric water quality standards
  - quantitative targets to support trading
  - objective baselines to measure progress
  - easier and faster development of water quality-based permits, nutrient TMDLs.

Total Maximum Daily Loads

- Maximum amount of any pollutant from all sources that a waterbody can receive and still meet the water quality standards.
- States must develop TMDLs for all waterbodies that are “impaired”.
- Basis for strategies to improve and protect water quality.

Nonpoint Source Program (§319)

- Applies to non-regulated diffuse sources of pollution
- States, tribes administer NPS management programs
- EPA provides grants to states and tribes to:
  - Identify waters impaired or threatened by NPS, key categories of NPS, loadings
  - Implement programs to promote Best Management Practices– *e.g.*,streambank fencing, buffer strips.
  - Monitor and evaluate - update program every 5 years

Safe Drinking Water Act

- National, enforceable standards for public drinking water supplies
- Prevention of drinking water contamination
- Source Water Protection Program
  - States assess threats to drinking water supplies
  - delineate areas that could contribute water and pollutants
  - conduct an inventory of potential sources of contamination
  - determine the susceptibility of the water supply to contamination.

Water Quality Concerns from Biofuels

- Increased use of nutrients, pesticides
- Increased erosion
- Loss of habitat, soil carbon
- Loss of corn/soybean rotations
- Use of distillers' grain for animal feed -- high P content
- Increase runoff from marginal lands converted to corn production

- USDA voluntary programs
  - Higher per acre costs and/or fewer participants.
  - EPA relies on USDA conservation programs to help agricultural producers address water quality.

Livestock

Concentrated Animal Feeding Operation (CAFO) Rule

- Supplemental notice of proposed rulemaking
  - Voluntary CAFO certification that it does not discharge
  - Nutrient management plans: framework for incorporating rates of land applied manure
  - Plan implementation date remains: 2/27/09.
- As many as 75% of CAFOs may still need NPDES permits.

Other Livestock

- CAFO rule = majority of the livestock manure, but minority of livestock operations
- How do we work with the numerous smaller confined livestock and grazing operations that contribute to water quality problems?

EPA Partnerships with USDA

- Bimonthly meetings
- CAFO rule development
- Conservation Effects Assessment Program (CEAP)
- Chesapeake Bay
- USDA State Technical Committees
- Watershed level

Role of the Committee

- What are the best ways to communicate with the diverse parts of the agriculture community?
- How successful has EPA been in getting our message and information out to those disparate groups?
- How can we encourage agricultural producers to become engaged in local watershed activities -- watershed plans, TMDL implementation, source water protection?
- How can we work with producers to curtail the water quality impacts of corn production for biofuels in this era of high corn prices?
- How can we provide farmers with science and information on the impacts of agricultural production on water quality?
- What is needed to get producers to implement practices on the most vulnerable areas of their operations?
- How can the agriculture community demonstrate progress in meeting water quality goals?