

Nutrients and the Next Generation of Conservation

Presented by:

Tom Porta, P.E.
Deputy Administrator
Nevada Division of Environmental Protection

President, Association of State and Interstate Water Pollution
Control Administrators

ASIWPCA

- **Founded 1961**
- **Water pollution control agencies**
 - 50 States
 - 6 Interstates
- **Work on national water policy with USEPA, Congress and other organizations**
- **Mission is to protect and restore our nation's watersheds**

Nutrient Innovations Task Group

- Senior water program managers from U.S. EPA, ASIWPCA and ASDWA partnered in 2008 to form the Nutrients Innovations Task Group (NITG)
- Synthesis of input from State and national water program experts
 - Clean Water Act
 - Safe Drinking Water Act
 - Point Sources
 - Nonpoint Sources
- Final report published by the NITG in August 2009

Surface Water Impacts

- **14,000 nutrient related impaired waters listings in 49 states**
 - 2.5 million acres of lakes and reservoirs
 - 80,000 miles of rivers and streams
 - 168 Hypoxic zones in the U.S.
- **Over 47% of streams in the U.S. have “Medium to High” phosphorus levels**
- **Over 53% of streams in the U.S. have “Medium to High” nitrogen levels**
- **78% of assessed continental U.S. coastal area exhibits eutrophication symptoms**

Drinking Water Impacts

- Increased treatment costs realize to both large and small water systems
- Major impacts on ground and surface drinking water supplies (Chippewa Falls, WI & Fremont, OH)
- Rate of nitrate violations in community water systems has doubled over past 7 years
- USGS study of 2,100 private wells in the U.S. found 74% with nitrate contamination (4% above MCL)

Major Sources of Nutrients

- **Municipal waste water treatment plants**
- **Atmospheric nitrogen deposition**
- **Urban stormwater**
- **Agricultural livestock**
- **Agricultural row crop**

Tools for Controlling Nutrients

■ Point Source

- NPDES Permits (Municipal plants, Stormwater, CAFO)
- State effluent limits for dischargers

■ Non-point Source

- Clean Water Act programs (319)
- Farm Bill programs (EQIP)
- Local planning and zoning

■ Point and Non-point Sources

- Water Quality Standards
- Total Maximum Daily Loads (TMDL)
- Water quality trading

Potential New Tools for Nutrients

- **Nonpoint source regulation**
- **Numeric water quality standards**
- **Update secondary treatment requirements**
- **Green labeling**
- **Market-based nutrient reduction**

NITG Findings

- Nutrient pollution is nationally significant, expanding, and likely to substantially accelerate
- Existing efforts and tools are not succeeding at improving water quality
- Knowledge, collaboration and incentives will fail absent joint accountability

NITG Findings

- Full use of existing and additional tools needed
- Current regulations disproportionately address certain sources in watershed to exclusion of others
- Localized aspects of state Nonpoint Source programs highly successful, *but* their broader application has been undercut

ASIWPCA Position

- **Develop technology-based nutrient removal standards for point sources greater than 1 MGD, where needed**
- **Work with USDA on changes to how conservation programs are administered**
 - Target conservation funds to nutrient reduction
 - Tie fund payments to performance
 - Share site information to assist with areas in need of reduction
- **Convince U.S. EPA to include assessments of air deposition of nitrogen to water bodies**
- **Consider alternative to water quality based standards**

Next Steps

- Brief and communicate findings to senior State and federal decision-makers and others
- Define alternative frameworks of accountability and look for opportunities at the State level
- Engage key stakeholders to help find solutions and effective accountability
- Establish 5 or 6 pilot programs to develop and implement nutrient management strategies

Questions?

