Overview of the Nonpoint Source Program

ASDWA Webinar
Using Clean Water Act Funding For Source Water Protection
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What is Nonpoint Source (NPS) Pollution?

- Anything that isn’t “point source” pollution. ("Point source" is defined. NPS is not.)

- Some source categories could potentially be regulated as a point source in the future, but are currently managed in the NPS program, such as:
  - Smaller animal feeding operations
  - Smaller stormwater systems
  - Abandoned mines (acid mine drainage)
Sources of NPS pollution include:

- Excess fertilizers, herbicides and insecticides from agricultural lands and residential areas
- Oil, grease and toxic chemicals from urban runoff and energy production
- Sediment from improperly managed construction sites, crop and forest lands, and eroding streambanks
- Salt from irrigation practices and acid drainage from abandoned mines
- Bacteria and nutrients from livestock, pet wastes and faulty septic systems
- Atmospheric deposition and hydromodification
Nonpoint Sources Dominate State Lists of Impaired Waters

![Bar Chart]

**Percent of Impaired Stream Miles Affected**

Note: Percents do not add up to 100% because more than one source may impair a waterbody.

**Figure 3. Top 10 sources of impairment in assessed rivers and streams.**
Short History of Section 319

- While point sources were regulated under the 1972 CWA, the NPS program was established in 1987.

- Unlike the point source program and all other major environmental media programs, Section 319 neither authorized Federal regulation nor required State regulation.

- States were required to conduct NPS assessments and invited to develop NPS management programs, “including, as appropriate, nonregulatory or regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, and demonstration projects.”

- States with approved NPS assessments and management programs became eligible for 319 funding. All were approved by 1990.
## Section 319 Funding

<table>
<thead>
<tr>
<th>Years</th>
<th>Annual Appropriation</th>
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<tr>
<td>1990-1994:</td>
<td>$40, 51, 50, 52, 80M</td>
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<tr>
<td>Mid/late‘90’s</td>
<td>$100M</td>
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<tr>
<td>2001-04:</td>
<td>$237 – 238M</td>
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<tr>
<td>2005-10:</td>
<td>$199-207M</td>
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<tr>
<td>2011-12:</td>
<td>$175M - $165M (proposed)</td>
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- Since 2002 funds have been divided into ‘base’ and ‘incremental’ halves.
- Base funds support state and local staff, education, outreach, technical assistance, etc.
- ‘Incremental’ funds support development and implementation of NPS TMDLs or watershed based plans.
Typical Uses of 319 Funds

- Development of watershed-based plans to restore impaired waters
- Implementation of the plans through on-the-ground projects that address nonpoint source impairments in watersheds
- Demonstrate the effectiveness of innovative practices (e.g., innovative agricultural practices, low impact development, stream restoration)
- Promote good practices on a state-wide basis (e.g., nutrient management, soil conservation practices, installation of buffers)
- Project planning and coordination with other Federal/state/local agencies
- Leverage others state funds and USDA/other Federal funds
- Monitoring and reporting
- Staff and program administration
Watershed-Based Plans – a cornerstone of 319

- Before a state implements a 319-funded restoration project, it must develop a watershed-based plan.
- Our Section 319 Program and Grants Guidelines identify 9 Components that **must** be included in each “Watershed-Based Plan” to restore impaired waters.
- These include identification of causes and sources of impairment, load reduction estimates, and others.
Urban Runoff/Stormwater

- **MAJOR PARADIGM SHIFT:** Low Impact Development (“LID”) needs to be implemented virtually everywhere.
- Pollutant runoff from homes and streets (e.g., nutrients, heat) matters, but hydrology is the overwhelming driver and source of WQ problems in developing and developed areas.
- LID has many benefits in addition to water quality improvements, including augmenting water supply through aquifer and lake recharge, urban energy savings, and community health.
10% up to 20% Imperviousness

10% of the drainage area is impervious here.

At 20%, substrate quality has been reduced through frequent "flushing"
Low Impact Development

Systems and practices that use or mimic natural processes to:

- Infiltrate
- Evapo-transpirate, or
- Use stormwater or runoff where it is generated.
Healthy Watersheds

• Adding emphasis on preserving good quality waters and the landscapes that support them.
  • Recognizes the benefits of preserving natural ecosystems.

• Experience has shown it is expensive and technologically complex to restore compromised source water/groundwater and/or healthy watersheds to their former condition.

• Our goal is to support states in their efforts to assess where their HW’s are and develop/implement plans to protect them.
319 and source water protection

- Mills River, NC – source water for 50,000 threatened by ag runoff
  - Conservations easements, riparian buffers, logging road stabilization restored the waterway
- Charleston Side Channel Reservoir, IL – excess sediment, phosphorus, manganese
  - Shoreline stabilization, grassed waterways, on-farm conservation practices reduced Mn levels, algal blooms and odor.
- Lake Icaria, IA
  - Excess siltation addressed by conservation practices, prescribed grazing, manure management.
Recap

- CWA Section 319 program essential for addressing NPS pollution, albeit one with a huge set of water quality problems and declining budget
- Common between 319 and source water/groundwater protection efforts: program goals, pollution sources and control practices, reliance on engaged local stakeholders and voluntary actions.
- Clear opportunity for collaboration and synergy.
- State NPS Coordinators a good place to start
  - www.epa.gov/owow_keep/nps/contacts.html