

NONPOINT SOURCE POLLUTION AND COASTAL WATERS

PRESENTED TO THE COMMISSION ON OCEAN POLICY

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- Good morning. I am Bob Wayland, Director of the Environmental Protection Agency's Office of Wetlands, Oceans, and Watersheds in Washington, D.C. I want to thank you for this opportunity to represent EPA at the 9th and final regional public meeting of the Commission on Ocean Policy and to highlight some of the ocean and coastal challenges that our country's oceans and coastal waters will face during the next few years from nonpoint source pollution.
- During the course of your detailed deliberations during the past year, you have heard excellent presentations from EPA's Administrator, Governor Christine Todd Whitman; Associate Director with the Chesapeake Bay Program Office, Peter Marx; EPA's Regional Administrator for Region 4, James Palmer; and other senior EPA officials.
- All of those preceding presentations addressed the issue of nonpoint source pollution as well as the requested topic. That is because nonpoint source pollution is the most pervasive source of water pollution in the United States today. Let's consider some of the central facts:

Scope of Nonpoint Source Pollution

- According to State reports, 44% of all assessed estuaries are impaired; only 56% are of good quality.
- The leading pollutants of concern to coastal waters are pathogens, oxygen-depleting substances, metals, and nutrients. Many of these pollutants find their source in nonpoint sources of pollution.
- The leading nonpoint source (NPS) of coastal water pollution is urban runoff, which contributes to 28% of reported water quality problems in the impaired portions of estuaries. Other significant sources of pollution – nationwide or on a localized level – include atmospheric deposition, agriculture, septic tanks, and forestry operations.

- In addition to these sources of pollutants, some of our greatest coastal resource challenges stem from the modification of habitat and hydrological regimes. In our efforts to develop our cities and our farm fields, we have altered the natural flow regimes of the estuaries and of rivers and streams that feed the estuaries, and we have caused the loss or degradation of vast acreage of aquatic habitat.
- At the **watershed level**, we can see the impacts of NPS pollution throughout our nation's coastal waters:
 - Excess nitrogen has caused excessive algal growth in the Gulf of Mexico, thereby triggering the growth of the large hypoxic zone. The Gulf of Mexico Hypoxia Action Plan, developed by a consortium of Federal and State officials, states: "About 90% of the nitrate load to the Gulf comes from nonpoint sources."
 - Nutrients are also believed to be largely responsible for the outbreaks in recent years of *Pfiesteria* in mid-to-south Atlantic coastal waters.
 - On the West Coast, salmon stocks have been battered by a combination of stressors, including barriers to migration, temperature elevations, and destruction of spawning and rearing habitat. These in turn have been caused by dams, stream and streambank alteration, grazing, logging, and agriculture, among other sources.
 - Here in the Great Lakes, 20% of Great Lakes beaches were closed at least once during the 1999 season, mostly due to elevated bacteria levels and sewage caused by runoff, stormwater, wildlife, or sanitary and combined sewer overflows.
- Much of our NPS pollution today is the result of past activities. However, many of our biggest future challenges lie in preventing new problems that are resulting from the continued development and growth of our coastal communities. As communities develop, we continue to see new evidence of loss of habitat, destruction of high-quality fisheries, loss or impairment of recreational opportunities, and other highly adverse impacts.

National Nonpoint Source Pollution Program

- In 1987, Congress enacted Section 319 of the Clean Water Act (CWA) to address nonpoint source pollution. It did so through the development and implementation of State nonpoint source management programs, which receive grants from EPA.
- Grants cover a wide range of program implementation activities, including technical assistance, financial assistance, education, training, monitoring, watershed planning, technology transfer, demonstration projects, and regulatory programs.

- Section 319 grants have grown from \$40 million in FY 2000 to \$238 million in FY 2002.
- EPA believes that much has been accomplished to date. We have recently published “Nonpoint Success Stories Volume III”, which highlights two success stories from each State. These include on-the-ground projects that have resulted in the return of water quality to meeting standards; restoration of habitat; and large pollutant reductions. They have also resulted in the more subtle but equally significant abatement and prevention of pollution through training, education, and state and local regulations and ordinances.
- Despite the gains made to date, it is clear that far more needs to be done in the future if we are to successfully solve our NPS problems in the coastal areas. We discuss below some of the opportunities to improve our national efforts to abate NPS pollution.

Opportunities to Abate Nonpoint Source Pollution

State Coastal Nonpoint Source Pollution Control Programs

- In 1990, Congress enacted the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) to focus nonpoint source pollution control efforts on coastal waters.
- CZARA directed States to develop programs that implement technology-based NPS management measures published by EPA (working closely with Federal and State agencies in a multi-work group setting) and to have “enforceable policies and mechanisms” to assure implementation of those programs.
- Ten coastal States have full approval of their CZARA programs, and 19 others have conditional approval, with several poised to obtain full approval as I speak.
- This program, co-administered by EPA and NOAA and co-implemented by State coastal zone agencies and NPS agencies, provides, for the first time, a guide to the best available, economically achievable practices to address our coastal NPS problems. By promoting the implementation of these measures, States now possess many of the critical tools to address their NPS problems.
- State coastal NPS programs also contain a water-quality based component that fits very well with watershed planning and TMDL development and implementation, which is my next subject.

Watershed-based Planning and TMDL’s

- Like point sources, NPS are best addressed through a combination of technology-based approaches, like that in CZARA, with water quality-based approaches.
- It is not possible nowadays to say “water quality standards” without immediately getting

into a discussion about TMDL's, or "total maximum daily loads". TMDL's, properly viewed, can be seen as a component of a sound planning process conducted at the appropriate local level. The TMDL provides an overall pollutant reduction goal at the watershed level. But the real benefit comes from developing, at the watershed level, a plan for achieving the goal.

- EPA believes, and our experience in the CWA Section 319 nonpoint source program has corroborated, that sound watershed-based planning that is conducted at the community level can be a very powerful tool, not just for completing a plan that looks good on paper but also for engaging the active support of the people who live and work in the affected community.
- Indeed, virtually every Section 319-funded watershed project has a long list of partners who have helped to realize the goals of the project.
- A watershed-based plan thus becomes a vehicle for analyzing all significant stressors in the watershed and identifying the most effective approaches and practices to address those stressors in a manner that will solve the problem.
- Many of EPA's geographically-based water quality programs are based on similar local watershed planning processes, including the Chesapeake Bay Program, the National Estuary Programs, and the Great Lakes Program Office. For example in the Saginaw Bay Watershed, the largest watershed in Michigan, local farmers and partners set out to reduce soil erosion and improve soil health through conservation tillage. The result was up to a 70 percent reduction in the potential for soil erosion from water.
- In our recent guidance to States on the use of Section 319 funds, we have focused about one-half of the funds on restoring impaired waters, and the approach we have stressed is to develop and implement a watershed-based plan that identifies the problem and the source of the problem; selects appropriate practices to solve the problem; and includes processes for engaging the local community every step of the way.

Funding Solutions

- Solving coastal NPS pollution costs money. States, watershed groups, and others will need to take better advantage of potential funding mechanisms to expedite their progress.
- Two major sources of funding, in addition to Section 319 funds, warrant special attention:
 - **Farm Bill**: The recently enacted Farm Bill makes more conservation funding available than ever before. In particular, the Environmental Quality Incentives Program (EQIP) will provide approximately \$5.5 billion to agricultural producers during the next 6 years. It is by far the most significant economic tool this

country has ever had to address environmental problems.

- However, the Farm Bill does not require that the funds be focused thematically or geographically to do the most good for water quality. It will therefore be a challenge for the coastal water quality community to work with local producers to promote the use of Farm Bill funds where they will do the most good.
- Other Farm Bill programs can also help protect water quality, including especially the Conservation Reserve Enhancement Program and the Continuous Sign-up program, each of which focuses on setting aside land for buffers, filter strips and other water quality measures.
- **State Revolving Loan Fund**: This major Clean Water Act loan program has a capitalization of about \$1.4 billion in FY02 and is continuing to be increased in each year's appropriation.
 - Nonpoint source projects and National Estuary Program projects are eligible for SRF funding.
 - Only a few percent of SRF dollars have been used to fund nonpoint source projects to date; it is a potentially very large source of funding.
 - SRF loans are particularly applicable to and have been used for capital-intensive projects such as stormwater treatment; onsite wastewater treatment systems; and habitat restoration.

Conclusion

We have spent the past 30 years addressing pollution from point sources and have made great strides in reducing pollutant loads from these sources into our waterways, coasts, and oceans.

Ahead of us lies the great challenge of addressing pollution from more diffuse sources and activities. When the loads from nonpoint sources are combined into one waterbody, they can deliver pollutant loads capable of impairing the water quality and health of our natural water resources. Left unaddressed, nonpoint source pollution could actually erode away the gains made by controlling point sources of pollution.

Thank you.