
Water



The Near Coastal Waters Program

Restoring and
Protecting the
Nation's Coastal
Areas

EPA's Near Coastal Waters Program is part of a long-range initiative by the Agency to restore and protect the water quality and natural resources of the nation's coastal areas. The Office of Marine and Estuarine Protection, in EPA's Office of Water, is working with other federal agencies, coastal states, and EPA regional personnel to design and implement a wide range of activities to achieve this goal. The major activities at present are the Pilot Project Program, the Near Coastal Waters Assessment, Technology Transfer activities, and Coordination Strategies.

WHAT ARE NEAR COASTAL WATERS?

Near coastal waters encompass inland waters influenced by tides and ocean areas impacted by land-based pollution. They include estuaries, bays, lagoons, salt ponds, coves, salt marshes, mangrove swamps, tidal creeks, sounds, gulfs, the coastal ocean, and the 1,600 mile long freshwater sea known as the Great Lakes.

WHY ARE THEY IMPORTANT?

Near coastal waters are highly productive, unique habitats forming dynamic interfaces between the land and the high seas. They are spawning and feeding grounds for many commercial and sport fish and they support the great bulk of the nation's clam, oyster, lobster, and mussel harvests. They are home to a wide variety of migratory birds and waterfowl, a number of endangered species, and other kinds of wildlife. At the same time, these areas are used extensively for tourism, shipping, recreation, and aquaculture. Additionally, the Great Lakes hold 90 percent of the nation's fresh water.

WHAT ARE THE PROBLEMS?

Despite their ecological and commercial importance, most of the nation's near coastal waters face major problems. Their location at the "end of the line" means that near coastal waters receive sewage and industrial effluent, urban and agricultural runoff, and contaminated groundwater from point and non-point sources upstream as well as on the coast. The toxics, sediments, pathogens, and nutrients from these sources tend to accumulate in near coastal waters, degrading water quality and impairing ecological functions. Waterfront construction and dredging for shipping channels also affect the coastal environment. The cumulative impacts of all these activities now threaten the ecological, economic, and aesthetic integrity of coastal water systems throughout the United States.

WHAT IS THE NEAR COASTAL WATERS PROGRAM?

The NCW Program was initiated as part of EPA's first strategic planning process in 1986. The Office of Marine and Estuarine Protection (OMEP) developed a 10-15 year strategic plan for EPA to improve its management of near coastal water environmental quality and identify ways to improve coordination with other federal, state, and local offices with responsibilities for coastal programs. The Program is now focused on

implementing and refining techniques for protecting and enhancing the environmental quality of near coastal waters, specifically to:

- identify threatened and impaired coastal waters
- encourage and assist managers to more efficiently use their existing regulatory authority and resources to solve environmental problems
- help federal, state, and local officials explore new management tactics and to achieve measurable improvements in near coastal water quality

WHO IS INVOLVED?

Planning and implementing the Near Coastal Waters Program involves a wide range of coastal experts and interested federal, state, and local managers, EPA regional and headquarters staff, scientists, environmental groups, and citizens.

WHAT IS THE RELATIONSHIP BETWEEN THE NEAR COASTAL WATERS PROGRAM AND THE NATIONAL ESTUARY PROGRAM?

The Near Coastal Waters Program is EPA's most recent and encompassing step in its continually evolving coastal waterbody management program. It has a broader scope than the National Estuary Program (NEP), in terms of both the physical definition of the waters to be protected and the levels of management effort.

The NEP, started by special Congressional appropriation in 1985 and reinforced by a new statutory authority under the Water Quality Act of 1987, supports five-year planning and management efforts for a limited number of estuaries. Estuaries, however, are only one type of near coastal waterbody, and while many NCWs require special management attention, it may not always be at the level supported by the NEP. Thus, EPA initiated the NCW Program to develop a broader framework within which to promote coastal water protection efforts. The Program is building on the lessons learned through the NEP and other EPA coastal management programs, such as the Chesapeake Bay Program and the Great Lakes Program; developing new techniques; and providing greater flexibility to tailor protection efforts to the needs of other coastal waters.

PILOT PROJECT PROGRAM

NCW pilot projects are joint EPA-State efforts that address environmental problems in selected near coastal waters. Their purpose is to demonstrate innovative management actions that can be applied in other areas of the country. Pilot projects were selected on the basis of innovativeness, action-orientation, applicability to other near coastal waters, likelihood of success, firm state and local commitment, strong public interest, and estimated completion within one to two years. The following three projects were chosen in 1988:

DECISIONMAKING INFORMATION SYSTEM FOR DELAWARE'S INLAND BAYS

This project will develop a computerized Advance Information System (AIS) to help officials quickly and accurately assess the impacts of proposed actions on natural resources. The AIS will integrate and graphically display technical, ecological, and regulatory information from a variety of sources, providing a comprehensive, readily accessible database. EPA expects that this system will serve as a model for managing conflicting coastal resource uses.

OREGON COASTAL RESOURCE ACTION PLAN

This project will develop a comprehensive action plan for Oregon's coastal watersheds, focusing on developing inter-agency management coordination to protect near coastal waters from point and nonpoint sources of pollution. This approach will be tested in the course of implementing different pollution control techniques in Coquille Estuary. EPA expects Oregon's comprehensive approach, which involves the public as well as many state and local agencies, will serve as a model watershed management program for other areas.

PERDIDO BAY COOPERATIVE MANAGEMENT PROJECT

This project will develop a framework for management action strategies for the protection and enhancement of Florida and Alabama's Perdido Bay. This will be accomplished through a cooperative effort with the U.S. Fish and Wildlife Service and an intergovernmental and community advisory task force. A coalition of local groups will organize a citizens monitoring

program to promote public awareness and actions needed to protect the bay. EPA expects the project to be a model for involving local interest groups, industry, and government agencies in cooperative, pro-active environmental management.

NEAR COASTAL WATERS ASSESSMENT PROJECT

The goal of the NCW Assessment is to identify near coastal waters needing management attention. To do this, EPA is working with other federal and state agencies to bring together all available information on near coastal waters.

WHAT ARE THE CURRENT ACTIVITIES?

■ Federal - State Coordination

The Water Quality Act of 1987 requires states to identify waters impaired or threatened by nonpoint source and toxic pollutants. Because states historically have focused mostly on fresh inland waters, the NCW Program is working with the states to ensure that they include near coastal waters in their assessments. This coordination includes ongoing information exchanges as well as technical assistance and guidance on near coastal waters.

■ Regional Assessment Reports

Although information is available on some near coastal areas, most of it is not organized to support management decisions. EPA's coastal regions are preparing reports that highlight problems in specific coastal areas. These reports will provide a foundation for future assessment activities by identifying data, management, and planning requirements. They will also be used to develop a national summary report on coastal problems.

■ Susceptibility Classification

The National Oceanic & Atmospheric Administration (NOAA) and the University of Delaware completed a preliminary assessment of the relative susceptibility of selected U.S. estuaries to nutrient and toxic pollutants. The study shows that estuaries can be grouped according to their susceptibility

to these pollutants. Additionally, when specific pollutant loadings are available, it is possible to estimate the expected pollution status of a waterbody. This kind of information will help officials to focus their monitoring and management strategies and to justify increased protection efforts.

■ Northeast Case Study

NOAA and EPA are working to complete a case study of near coastal waters in the Northeast United States. The study illustrates the kinds of data available for assessing coastal resources. Selected analyses of the toxics and nutrient data will demonstrate how these kinds of data can support water quality assessments required of each state under the Water Quality Act of 1987.

■ Defining NCW Segments

To organize information and data about water quality, many of the rivers and estuaries of the United States have been broken down for study into smaller sections or segments. Such segmentation allows studies to focus on specific areas of threatened or degraded bodies of water, and provides consistent, detailed information over time that can be very useful in making management decisions. Aside from estuaries, however, few near coastal waters have been segmented this way. To address this problem, each EPA coastal region is proposing a system for segmenting their NCWs. These segmentation systems will serve as the basis for future water quality reporting, which in turn will be used to support NCW management plans.

■ Federal Data Base Inventory

Currently, there is no single guide to federal data available to support near coastal water assessments. The NCW Program is conducting an inventory of federal data bases to identify sources of data on five major coastal problems, (eutrophication, toxics contamination, pathogens, changes in living resources, and habitat modification). Results of the inventory, including the sources of the data and appropriate contacts for more information, will be made available to coastal resource managers.

TECHNOLOGY TRANSFER

WHAT IS TECHNOLOGY TRANSFER?

Technology transfer is the exchange of information on the latest management techniques, technical developments, reports, or data. This process is especially important to the NCW Program because of the breadth of its activities and the diversity of participants.

HOW IS IT ACCOMPLISHED?

Together with other programs in OMEP, the NCW Program has established a network of federal, regional, and state water quality experts, scientists, public interest representatives, and industry representatives to provide a forum for information exchange. These network participants provide a wide range of expertise and perspectives and often suggest diverse and innovative approaches for implementing the NCW Program.

OMEP also organized a four day technology transfer conference in June, 1988 to promote discussion and sharing of techniques among EPA coastal regions concerning in-place toxics, water quality, and living resources. Participants included staff from regional and state coastal and estuary programs as well as other experts in coastal management issues.

WHAT ARE SOME TECHNOLOGY TRANSFER PRODUCTS?

- "The National Estuary Program Primer": This primer is intended to help the public understand and become involved in the planning and implementation of the National Estuary Program.
- "Saving Bays and Estuaries: A Handbook of Tactics": This handbook presents examples from around the country of successful management strategies used to improve or protect estuarine environmental quality.
- Alternative Financing Methods: OMEP and the Office of Policy, Planning and Evaluation developed and wrote "Financing Marine and Estuarine Programs: A Guide to Resources". This primer provides state near coastal waters managers with information concerning possible financing mechanisms to implement coastal programs.

COORDINATION STRATEGIES

WHY COORDINATE WITH OTHER EPA OFFICES?

The authority to control pollutants and conduct research in near coastal waters falls within the jurisdiction of other EPA offices. In many cases, the special needs of sensitive near coastal areas may not be recognized within these offices' existing framework. The NCW Program is working with the other offices to incorporate more protective measures in guidance and policy documents.

WHAT ACTIVITIES ARE OCCURRING?

- OMEP is identifying marine dischargers regulated by other offices and determining their potential impacts on coastal and marine environments.
- The Office of Water Regulations & Standards and OMEP have completed a draft report, "Overview of Methods for Assessing and Managing Sediment Quality", that describes biological measures of impacts from chemical mixtures in marine sediments.
- The Office of Water Regulations & Standards will be including a new section concerning estuaries and coastal waters in its 1988 national report that summarizes state water quality reports, (i.e., the 305(b) report). In addition, OWRS' guidance for preparing the 1990 water quality report emphasizes the need to report on quality in estuaries and other coastal waters.
- Under the guidance of the EPA Risk Assessment Council, OMEP, the Office of Water Regulations & Standards, and the Federal Food and Drug Administration developed a guidance manual for assessing human health risks from chemically contaminated fish and shellfish. The manual describes assessment and documentation procedures and summarizes assumptions and uncertainties.
- OMEP worked with the Office of Solid Waste & Emergency Response to revise the Superfund Hazard Ranking System to include potential impacts on marine and estuarine ecosystems.

- OMEP is participating in a Nonpoint Source (NPS) Task Force, sponsored by the Agency's Office of Water. This task force is setting the national agenda to address nonpoint source pollution and is helping states develop and implement nonpoint source programs required by the Water Quality Act.
- The Office of Research and Development has included near coastal waters in their five-year applied research plans. Currently, a major project is to develop a suite of efficient, cost-effective methods to monitor the marine environment for management purposes.

WHAT NEXT ?

EPA is planning a series of workshops around the county to explore the development of Near Coastal Water Regional strategies. The agency also expects to fund a new round of pilot projects for next year. The Office of Water has begun a new NCW workgroup to assess opportunities for incorporating protection of coastal water ecosystems into its current regulatory programs.

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