United States Environmental Protection Agency
Office of Water (4501F)
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Office of Wetlands, Oceans, and Watersheds

"Water is the most critical resource issue of our lifetime and our children's lifetime.

The health of our waters is the principal measure of how we live on the land."

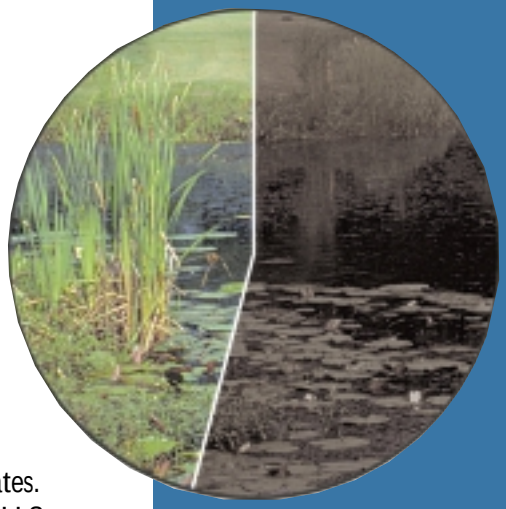
— Luna Leopold

The Office of Wetlands, Oceans, and Watersheds (OWOW) promotes a watershed approach to manage, protect, and restore the water resources and aquatic ecosystems of our marine and fresh waters. This strategy is based on the premise that water quality and ecosystem problems are best solved at the watershed level and that local citizens play an integral role in achieving clean water goals. Through its many programs, OWOW provides technical and financial assistance and develops regulations and guidance to support the watershed approach.

OWOW is one of four program offices within the Office of Water at EPA Headquarters in Washington, DC. The Office provides leadership, policy direction, and technical and financial support to 10 EPA regions and the states, tribes, and territories that implement aspects of our programs. OWOW also collaborates with other federal agencies with related missions as well as local government, the private sector, and non-profit organizations.

Some of our programs are described in this brochure; for more information on these and other programs, please visit our web site at *www.epa.gov/owow*.

Wetlands Protection



More than 50% of the wetlands in the contiguous United States have been lost since the time of European settlement.

Wetlands have been called the "nurseries of life" and are often the most ecologically productive and environmentally sensitive areas within a watershed. OWOW promotes the protection and restoration of the nation's wetlands through both regulatory and cooperative programs.

Regulatory Programs

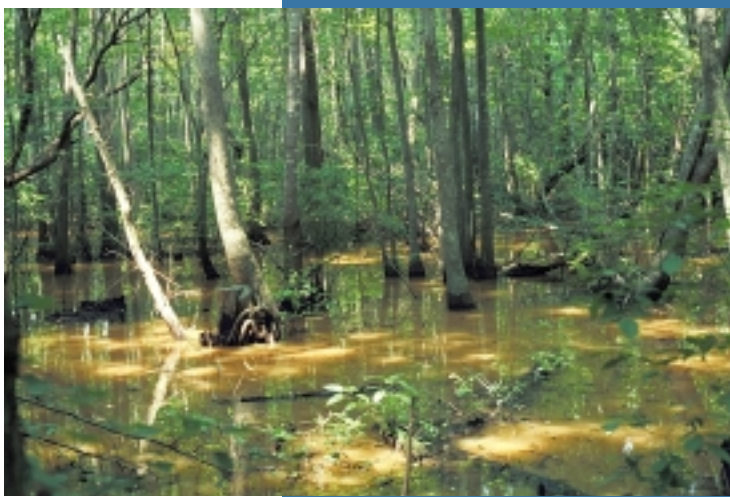
The Clean Water Act Section 404 establishes a permit program to regulate discharges of dredged or fill material into waters, including wetlands, of the United States. Section 404 outlines specific and coordinated responsibilities for both EPA and the U.S. Army Corps of Engineers (Corps). EPA is required, in conjunction with the Corps, to establish environmental standards for reviewing Section 404 permit applications for activities that would fill wetlands for residential development, roads, levees, and other projects. The Corps is charged with administering the Section 404 permit program, processing applications in accordance with EPA's standards, and issuing permits, where appropriate, after notice and an opportunity for public comment. Both EPA and the Corps have enforcement responsibility and routinely coordinate the review of Section 404 permit applications to ensure that permit decisions are made in a timely manner, while providing effective protection for human health and environmental quality. States can assume the 404 program for some waters and, as of 1999, New Jersey and Michigan had done so. Many states administer other programs to protect wetlands, some of which are recognized through Clean Water Act general permits.

Cooperative Programs

In addition to providing regulatory protection for wetlands, OWOW works in partnership with states, tribes, and local governments to conserve and restore these valuable habitats. For example, OWOW is helping states and tribes to develop wetland conservation plans and incorporate wetlands into watershed plans. To improve methods of evaluating wetland health, OWOW is working closely with states and tribes to develop biological assessment methods. We encourage states and tribes to incorporate wetlands into water quality standards to provide additional protection that other waterbodies commonly receive. EPA's Office of Enforcement and Compliance Assurance manages programs to ensure that discharges comply with legal requirements, and the Office of Research and Development helps OWOW administer wetlands programs in a scientifically sound manner. We also work with other federal agencies to develop national guidance on issues, such as constructed treatment wetlands and wetland restoration.

With the goal of a net increase of 100,000 acres of wetlands per year by 2005, EPA is working with its partners on community-based wetlands restoration projects in 500 watersheds from 1999 through 2004. This challenge will be met through OWOW's Five Star Restoration Program, which provides challenge grants, facilitates technology/information transfer and partner collaboration, and supports peer-to-peer communication programs. A web site (*www.epa.gov/owow/wetlands/restore/5star/*) serves as the information hub for the Five Star Restoration Program.

For more information, visit the wetlands web site at *www.epa.gov/owow/wetlands* or call the Wetlands Information Hotline (contractor-operated) at 1-800-832-7828.



Oceans and Coastal Protection

How important are our coastal and ocean resources? According to 1996 statistics, more than half the U.S. population lives in the Nation's coastal counties, which account for only 11% of the land area in the U.S. (excluding Alaska). Coastal waters support 28.3 million jobs and generate $54 billion in goods and services each year, and tourism-related businesses serve 180 million Americans visiting the coasts each year for recreation. For more information, please visit our web site at *www.epa.gov/owow/oceans*.

Protecting Coastal and Marine Environments

In addition to the programs highlighted below, OWOW provides leadership in programs to assess and reduce the extent of marine debris in waterways, and control pollution from ships and discharges to coastal waters from industry and municipalities. Furthermore, we work to limit the introduction of non-indigenous aquatic organisms in U.S. waters, assess and reduce the air deposition of nutrients and toxic pollutants into coastal waters, identify beaches that are environmentally friendly and safe to swim, and address *Pfiesteria* and other harmful algal blooms. OWOW works to protect coral reef ecosystems using a watershed protection framework and through the Coral Reef Task Force to address heightened concerns about coral reef degradation. In light of significant harm to water quality and ecosystems due to poorly planned growth and development, particularly along the coasts, we are working with communities to promote Smart Growth. Our office also promotes integrated coastal monitoring and research efforts, in part through surveys conducted by its 165-foot ship, the *Ocean Survey Vessel Peter W. Anderson.*

OWOW provides guidance to states regarding the effective control of nonpoint source pollution and in conjunction with NOAA, works with coastal states to develop and implement coastal nonpoint source programs.

National Estuary Program/Coastal Watershed Protection

The National Estuary Program (NEP) was established in 1987 to identify, restore, and protect nationally significant estuaries of the United States. Estuaries are biologically productive and valuable coastal areas where salt and fresh water mix. The primary focus of the NEP is to maintain the integrity of the whole estuarine system—its physical, chemical, and biological properties, as well as its economic, cultural, and aesthetic values. Active participation of communities and local groups through effective development and implementation of Comprehensive Conservation Management Plans is a hallmark of the NEP. Each plan identifies specific actions to control pollutants such as point and nonpoint sources of toxics and nutrients, restore or create wetlands and other habitats, control discharges from septic tanks, and undertake other activities. There are currently 28 estuaries in the United States designated as estuaries of national significance.

OWOW is also taking lessons learned from the 28 NEPs to support efforts to manage, protect and restore resources in other coastal watersheds in the U.S. Our office provides technical assistance and information sharing through training workshops, guidance manuals, fact sheets, technical reports and newsletters to support coastal watershed managers around the country.

Dredged Material Management and Ocean Protection Programs

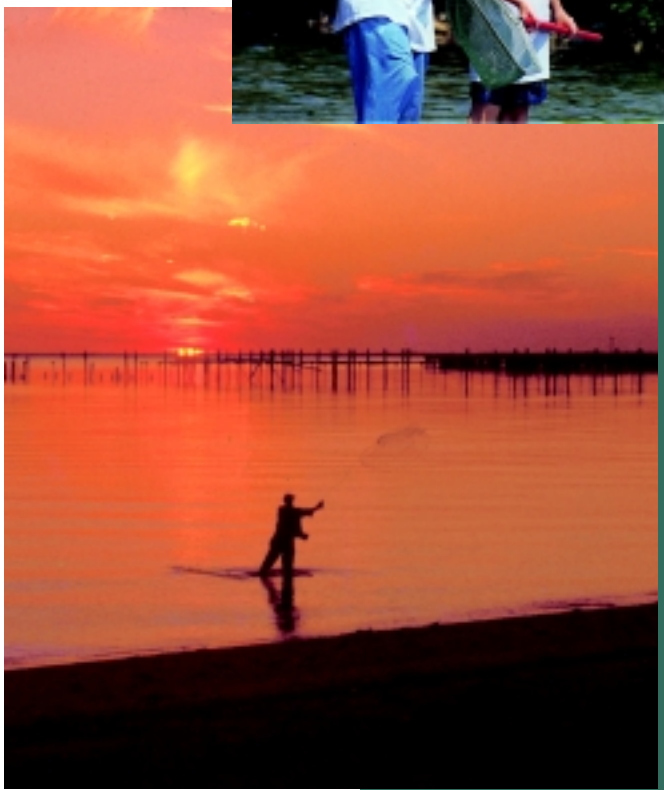
OWOW is responsible for ensuring that ocean dumping of dredged materials and other wastes is managed in an environmentally sound manner, and for developing the environmental criteria used in determining whether this material is suitable for ocean disposal. In addition, our office works closely with our partners to improve dredged material management planning and coordination efforts, promote beneficial uses of dredged material, and provide guidance to promote environmental stewardship in U.S. ports. OWOW works closely with several international treaty organizations to assure protection beyond U.S. waters, such as the London Convention of 1972, which controls ocean dumping of wastes.

Nearly 40% of the Nation's assessed waters do not meet the uses for which they have been designated by the states, due largely to polluted runoff.

Assessment and Watershed Protection

Water Quality Monitoring

OWOW works in partnership with states, interstate agencies, tribes and other federal agencies to improve water quality monitoring programs. This is accomplished by, for example, participating on a National Monitoring Council and developing national guidance on water quality assessment and reporting, biological monitoring and criteria, volunteer monitoring methods, and quality assurance. Using EPA guidance, states, tribes and interstate agencies monitor water quality and report this information to EPA as required by Section 305(b) of the Clean Water Act. EPA then summarizes these water quality assessment reports into a National Water Quality Inventory Report to Congress and maintains a variety of databases to facilitate the use of this wealth of water quality monitoring data.



OWOW encourages states, tribes and interstate agencies to use quality-assured water quality information collected by citizen volunteers, and supports the growth of the nation's volunteer monitoring network through technical, outreach, and networking tools. Currently, more than 770 volunteer monitoring groups around the country collect physical, chemical, and biological data on the condition of streams, lakes, estuaries, wetlands, beaches, and ground water. Information on volunteer monitoring and publications is available at *www.epa.gov/owow/monitoring*.

Water Quality Inventory - 305(b) Report

Section 305(b) of the Clean Water Act directs each state to prepare a biennial report to be submitted to EPA describing the quality of its waters. These reports identify which waters within the state support designated uses and which are impaired; for impaired waters the states are also required to describe the type and source of pollutants. OWOW then compiles these state assessments to prepare a national water quality inventory report for the Congress. The report focuses on the extent to which water quality meets goals and standards established to protect aquatic ecosystems, drinking water supplies, fish consumption, recreational activities and other uses designated by states. In addition, the Clean Water Act asks the states to report on their progress in controlling water pollution, including the costs and benefits of achieving designated use support. For more information, visit our web site at *www.epa.gov/305b*.

Nonpoint Source Pollution

Many water quality problems today are caused by diffuse, or nonpoint source pollution. This polluted runoff is largely responsible for nearly 40% of the nation's assessed waterbodies not meeting the uses for which they have been designated by the states, i.e., fishing, swimming, or as a drinking water supply. The Clean Water Act provides for the control of nonpoint source pollution through Section 319, the Nonpoint Source Management Program, to encourage greater state, tribal, and federal leadership to address this significant source of water quality degradation. Under Section 319, states, territories, and tribes develop and implement their own nonpoint source management programs tailored to their key nonpoint source pollution problems. EPA provides grants to help them administer their nonpoint source programs as well as guidance for improving best management practices to control runoff. In addition, under Section 6217 of the Coastal Zone Management Act Amendments of 1990, OWOW provides guidance to states regarding the effective control of nonpoint source pollution in coastal areas, and with NOAA jointly works with coastal states to develop and implement coastal nonpoint source programs.

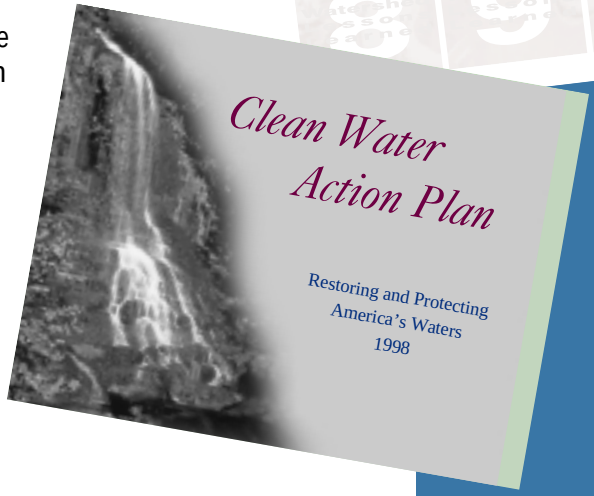
Total Maximum Daily Loads (TMDLs)

Despite national standards and required pollution controls, many of our waterways still do not meet the Clean Water Act goal of being "fishable and swimmable." The mission of the Total Maximum Daily Loads (TMDL) program is to work towards healthy watersheds by assisting states, territories, and tribes to meet their water quality standards. Under the program established by Section 303(d) of the Clean Water Act, states identify impaired waterbodies, or those not meeting standards, and develop TMDLs for these waters. A TMDL specifies the amount by which a specific pollutant must be reduced to meet water quality standards and allocates pollution control responsibilities among the sources in the watershed. EPA reviews and approves the lists of impaired waters and the TMDLs developed for them and develops the TMDLs if the state or territory does not. TMDLs are a critical analytic underpinning for watershed decisions and can serve to integrate solutions to water quality problems from point and nonpoint sources and to protect drinking water sources, wetlands, and endangered species.

Building Watershed Partnerships

Recognizing how important community action is in achieving clean water goals, OWOW promotes and supports watershed partnerships at all levels. For example, OWOW's Adopt Your Watershed and volunteer monitoring programs help a variety of community groups, such as scouts and PTAs, to get more involved in watershed protection. The Clean Water Action Plan (CWAP), announced by President Clinton in 1998, gave new impetus to this mission and calls for increasing our efforts to preserve and restore the nation's waters, both to protect human health and to ensure the integrity of aquatic ecosystems. The Action Plan promotes a collaborative effort to achieve goals by bringing both public and private sector stakeholders together in national watershed forums, regional roundtables, and watershed alliances.

OWOW also provides technical support and expertise for local and regional activities, often in cooperation with other federal agencies. Examples of interagency and intergovernmental efforts include the Stream Corridor Restoration Handbook, Gulf of Mexico Hypoxia Task Force, Everglades restoration, Pacific Northwest salmon recovery, and the President's American Heritage Rivers Initiative. The watershed approach is an effective means to get all interested parties involved and will contribute to the protection and restoration of our waters for current and future generations in the 21st century, and beyond.



Zone of hypoxia in 1999.

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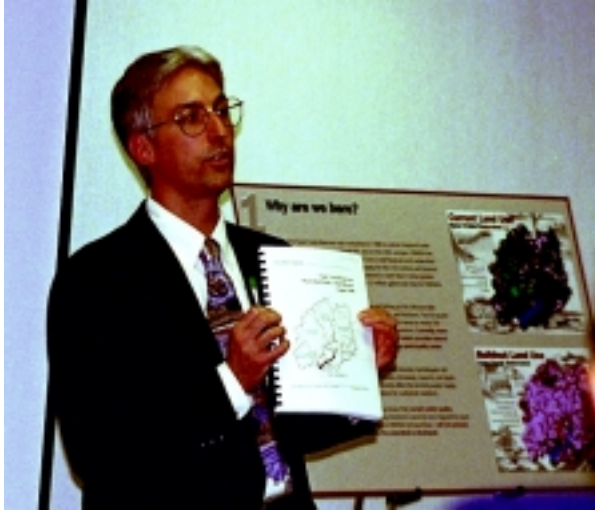

Watershed Training

EPA's *Watershed Academy* provides courses, publications, facilitation, and internet information on the watershed approach for local, state, tribal and federal officials, as well as private practitioners of watershed management. Examples of training topics include: establishing statewide approaches to watershed management; technical components for developing TMDLs; watershed assessment methods; watershed ecology; and stream corridor restoration. Watershed training courses are also available on the internet at *www.epa.gov/OWOW/watershed/wacademy/acad2000*.

Information Systems

In partnership with others, OWOW operates the Internet-based Watershed Information Network (WIN). WIN is a roadmap to consolidated watershed information and services that can help communities protect and restore water quality. WIN provides ready access to information on such topics as: what a watershed is, how to find your watershed, available training for watershed practitioners, and financing watershed protection and restoration activities. Included in WIN is the Index of Watershed Indicators, which compiles information on the health of aquatic resources in over 2,100 watersheds in the 48 contiguous states. Entering your "place" (such as ZIP code, county, tribe, or school) in *WIN* will bring up specific data about your watershed and how to get involved. You can access *WIN* at *www.cleanwater.gov/win*.

OWOW's Watershed Information Network provides consolidated watershed information and services that can help communities protect and restore water quality.

OWOW has modernized EPA's computerized STOrage and RETreival system for water quality data, STORET, so that it better meets the emerging information needs for watershed protection. New STORET will serve as EPA's principal repository for chemical data, biological community information, fish tissue analyses, and aquatic habitat evaluations for fresh and marine water. PC-based and user-friendly, new STORET requires quality assurance information to ensure the integrity of the data in the system. Data in new STORET will soon be accessible via the Internet. Our office is also developing a variety of tools to help states and other partners geographically display and manage their water information.

Legislative and Other Authorities for OWOW Programs

Clean Water Act (CWA)
Ocean Dumping Ban Act (ODBA)
Coastal Zone Act Reauthorization Amendments (CZARA)
London Convention (LC)
Marine Plastics Pollution Research and Control Act (MPPRCA)
Shore Protection Act (SPA)
Marine Protection, Research, and Sanctuaries Act (MPRSA)
Act to Prevent Pollution from Ships (APPS)
International Convention for the Prevention of Pollution from Ships (MARPOL)
Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA)