



Water Quality Conditions in the United States

A Profile from the 2000 National Water Quality Inventory



In 2000, states, tribes, territories, and interstate commissions report that about 40% of streams, 45% of lakes, and 50% of estuaries that were assessed were not clean enough to support uses such as fishing and swimming (Figure 1). About 33% of U.S. waters were assessed for this national inventory of water quality. Leading causes of impairment in assessed waters include bacteria, nutrients, metals (primarily mercury), and siltation (Figure 2). Runoff from agricultural lands, municipal point sources (sewage treatment plants), and hydrologic modifications (such as channelization, flow regulation, and dredging) are the primary sources of impairment. Although the United States has made significant progress in cleaning up polluted waters over the past 30 years, much remains to be done to restore and protect the nation's waters.

Background

This fact sheet summarizes the findings of the *National Water Quality Inventory: 2000 Report*, prepared under Section 305(b) of the Clean Water Act. Section 305(b) requires that states, territories, and jurisdictions assess their water quality biennially and report those findings to the U.S. Environmental Protection Agency (EPA). EPA then summarizes the findings in a national water quality inventory. It is important to note that this report is no longer a Report to Congress, pursuant to Public Law 104-66, the Federal Reports Elimination and Sunset Act of 1995.

To assess water quality, states and other jurisdictions compare their monitoring results to the water quality standards they have set for their waters. Water quality standards consist of three elements: the designated uses assigned to waters (such as drinking, swimming, or fishing), criteria to protect those uses (such as chemical-specific thresholds that should not be exceeded), and an antidegradation policy intended to

keep waters that *do* meet standards from deteriorating from their current condition.

Findings

In their 2000 reports, states, tribes, territories, and other jurisdictions assessed approximately 700,000 miles of rivers and 17.34 million acres of lakes, slightly less area than in their 1998 reports. This decrease is largely due to the states' growing reluctance to use older qualitative data when making water quality assessments. More often, states are choosing to use only high quality monitoring data for the purpose of these assessments. States assessed about 31,000 square miles of estuaries, slightly more than in the last reporting cycle. Figures 1 and 2 summarize the quality of assessed river miles, lake acres, and estuary square miles.

In 2000, mercury was described as a leading cause of impairment in the nation's estuaries and lakes. Increasingly, states are moving toward more comprehensive

Figure 1. Summary of Quality of Assessed Rivers, Lakes, and Estuaries

| Waterbody Type | Total Size | Amount Assessed* (% of Total) | Good (% of Assessed) | Good but Threatened (% of Assessed) | Polluted (% of Assessed) |
|---|------------|-------------------------------|----------------------|-------------------------------------|--------------------------|
|  Rivers (miles) | 3,692,830 | 699,946 (19%) | 367,129 (53%) | 59,504 (8%) | 269,258 (39%) |
|  Lakes (acres) | 40,603,893 | 17,339,080 (43%) | 8,026,988 (47%) | 1,348,903 (8%) | 7,702,370 (45%) |
|  Estuaries (sq. miles) | 87,369 | 31,072 (36%) | 13,850 (45%) | 1,023 (<4%) | 15,676 (51%) |

*Includes waterbodies assessed as not attainable for one or more uses.

Note: percentages may not add up to 100% due to rounding.

Figure 2. Leading Causes and Sources* of Impairment in Assessed Rivers, Lakes, and Estuaries

| | Rivers and Streams | Lakes, Ponds, and Reservoirs | Estuaries |
|---------|---------------------------|------------------------------|-----------------------------|
| Causes | Pathogens (Bacteria) | Nutrients | Metals (Primarily mercury) |
| | Siltation (Sedimentation) | Metals (Primarily mercury) | Pesticides |
| | Habitat Alterations | Siltation (Sedimentation) | Oxygen-Depleting Substances |
| Sources | Agriculture | Agriculture | Municipal Point Sources |
| | Hydrologic Modifications | Hydrologic Modifications | Urban Runoff/Storm Sewers |
| | Habitat Modifications | Urban Runoff/Storm Sewers | Industrial Discharges |

*Excluding unknown, natural, and "other" sources.

examination of fish tissue and are issuing statewide advisories that restrict the consumption of some fish, especially for vulnerable segments of the population. Mercury, which originates from air transport from power-generating facilities and incinerators, mining, natural rock weathering, and other sources, was cited in 2,242 of the 2,838 fishing advisories reported by the states in 2000.

In addition, the states, tribes, territories, and jurisdictions assessed the quality of ocean and Great Lakes shoreline miles, wetlands, and ground water.

- Of the assessed ocean shoreline miles, 14% are impaired, primarily because of bacteria, oxygen depletion, and turbidity. Primary sources of pollution include urban runoff, storm sewers, nonpoint source runoff, and land disposal of wastes. States assessed only 6% of the nation's ocean shoreline miles.
- States also found that 78% of assessed Great Lakes shoreline miles are impaired, primarily due to pollutants in fish tissue at levels that exceed standards to protect human health. States assessed 92% of Great Lakes shoreline miles.
- The average annual loss of wetlands has decreased over the past 40 years to a current estimated loss of 58,500 acres per year. Nine states and tribes listed sources of recent wetland loss. Leading reasons for loss are filling and draining, conversion for agricultural uses, residential development, and road construction.
- Overall, the states found that ground water quality is good and can support many different uses. However, measurable negative impacts have been detected in some areas and are commonly traced back to sources such as leaking underground storage tanks, septic systems, and landfills.

Future Reporting

In an effort to improve the consistency and comprehensiveness of water quality reporting and to streamline the reporting process, EPA is providing states, territories, and tribes with guidance that recommends they submit a *2002 Integrated Water Quality Monitoring and Assessment Report* to satisfy the requirements for both Sections 305(b) and 303(d) of the Clean Water Act (Section 303(d) requires states to identify impaired waters and develop allocations of the maximum amount of a pollutant each impaired water can receive and still meet water quality standards). The guidance is available at <http://www.epa.gov/owow/tmdl/2002wqma.html>. EPA anticipates that the development of an *Integrated Report* will benefit the public by providing a clearer summary of the water quality status of the nation's waters and the management actions necessary to protect and restore them. The *Integrated Report* will also enhance the ability of water quality managers to display, access, and integrate environmental data and information from all components of the water quality program.

For Further Information

For a copy of the *National Water Quality Inventory: 2000 Report* (EPA-841-R-02-001), visit www.epa.gov/305b or call the EPA's National Service Center for Environmental Publications at 1-800-490-9198.