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# The National Water Quality Inventory: Report to Congress for the 2002 Reporting Cycle – A Profile

*In 2002, states reported that about 45% of assessed stream miles, 47% of assessed lake acres, and 32% of assessed bay and estuarine square miles were not clean enough to support uses such as fishing and swimming. About 30% of U.S. waters were assessed by the states for this report. Leading causes of impairment in assessed waters include excess levels of nutrients, metals (primarily mercury), sediment and organic enrichment. Top sources of impairment include agricultural activities, hydrologic modifications, atmospheric deposition, industry, and unknown or unspecified sources.*

The *National Water Quality Inventory: Report to Congress* for the 2002 reporting cycle summarizes water quality assessments submitted to the U.S. Environmental Protection Agency (EPA) by the states under Section 305(b) of the Clean Water Act.

This report is designed as a companion to electronically-submitted state water quality information already publicly available on EPA’s National Assessment Database website at

[www.epa.gov/waters/305b/index.html](http://www.epa.gov/waters/305b/index.html).

In addition to viewing the national summary and information by state at this Web site, users can click down to the individual waterbody level to find out more about water quality conditions.

To assess water quality, states, tribes 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 (such as drinking, swimming, or fishing) assigned to waters; criteria (such as chemical-specific thresholds that should not be exceeded) to protect those uses; and an anti-degradation policy intended to keep waters that *do* meet standards from deteriorating from their current condition.

Tables 1-3 (below) summarize key findings of the 2002 state water quality assessment reports.

**Table 1. Summary of the Quality of Assessed Rivers, Lakes, and Estuaries**

Waterbody Type	Total Size	Amount Assessed (% of Total)	Condition of Assessed Waters		
			Good (% of Assessed)	Good but Threatened (% of Assessed)	Impaired (% of Assessed)
<b>Rivers (miles)</b>	3,692,830	695,540 (19%)	358,035 (51%)	27,750 (4%)	309,755 (45%)
<b>Lakes (acres)</b>	40.6 million	14,831,882 (37%)	7,073,207 (48%)	810,775 (5%)	6,947,901 (47%)
<b>Estuaries (sq. miles)</b>	87,369	30,446 (35%)	19,916 (66%)	694 (2%)	9,836 (32%)

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

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

Rivers and Streams	Lakes, Ponds and Reservoirs	Estuaries
Sediments/siltation	Nutrients	Metals
Pathogens	Metals	Nutrients
Habitat alterations	Organic enrichment	Organic enrichment

**Table 3. Leading Sources of Impairment in Assessed Rivers, Lakes and Estuaries**

Rivers and Streams	Lakes, Ponds and Reservoirs	Estuaries
Agriculture	Unknown/unspecified*	Unknown/unspecified*
Unknown/unspecified*	Agriculture	Industrial discharges
Hydrologic modifications	Atmospheric deposition	Municipal discharges

\*Source unknown or undocumented due to insufficient information. In previous national 305(b) reports, EPA did not include this category in summary statistics.

The information summarized for the 2002 cycle should not be compared to past reports, for a variety of reasons. This report summarizes information reported by states for only a portion of their waters (e.g., 19% of total river and stream miles); the portion of waters assessed may vary from cycle to cycle. Data were collected by states to meet specific needs, using a variety of sampling methods and parameters, water quality standards, and time periods. The information in this report is most useful for summarizing the nature of water quality problems in assessed state waters, identifying those waters not meeting water quality standards, and helping states set priorities for restoration.

EPA is continuing to work with states to improve the quality of this Report to Congress in response to the Government Accountability Office and other independent organizations. One key effort is building state capacity to implement probability surveys of state waters in a nationally consistent manner. Probability surveys are a statistical

approach for selecting unbiased monitoring sites that represent the population of a water resource. This is a cost effective design for reporting on the condition of all waters, tracking whether waters are getting better or worse statewide, and identifying key stressors that are both widespread and pose a significant risk to water quality. EPA views these state surveys as a critical complement to, not a replacement for, the more traditional monitoring approach represented in this report.

The *National Coastal Condition Reports* and the *Wadeable Streams Assessment* are two such nationally consistent statistical surveys. EPA and its state and tribal partners are also planning statistical surveys of the nation's lakes, rivers, and wetlands. For more information on statistical surveys, visit [www.epa.gov/owow/monitoring/reporting.html](http://www.epa.gov/owow/monitoring/reporting.html).

For a copy of the *National Water Quality Inventory: Report to Congress*, 2002 Reporting Cycle (EPA 841-R-07-001) go to [www.epa.gov/305b](http://www.epa.gov/305b) or call 1-800-490-9198.