Monitoring Fast Facts

Did you know...

- Most water monitoring in the U.S. is conducted by states, territories, and interstate commissions, not by federal agencies.

- Under the Clean Water Act, EPA provides states with guidance and grants that help them establish and maintain their monitoring programs.

- Main objectives of water monitoring are to: characterize conditions and trends; identify water quality problems; assess progress in meeting clean water goals; and respond to emergencies.

- Scientists monitor water quality in many ways. They test levels of *chemical* constituents in water, fish tissue, and sediment; measure *physical* conditions such as habitat, temperature, and flow; and take *biological* measurements of the abundance and variety of plant and animal life.

Monitoring Fast Facts

About Water Quality Reporting

- To determine if waters are impaired, states compare monitoring data to their *water quality standards*. (State-adopted and EPA- approved ambient standards for water bodies prescribe the use of the water body and establish the water quality criteria that must be met to protect these uses).

- Under Section 305(b) the Clean Water Act, states report to EPA every two years on the findings of their monitoring programs, and EPA summarizes these findings in a National Water Quality Inventory report.

- According to the latest reports, only about 20% of U.S. stream miles and about 40% of estuaries and lake waters are monitored/assessed by the states.
  Source: Draft 2000 National Water Quality Inventory

- Under Section 303(d) of the Clean Water Act, states identify impaired waters needing Total Maximum Daily Loads (determinations of the maximum amount of a pollutant an impaired water can receive and still meet water quality standards).

- EPA has issued new guidance to states to develop an integrated report in 2002 and beyond that meets the needs of both Sections 305(b) and 303(d).

Monitoring Fast Facts

Volunteers Are Helping Out

- About half a million volunteers in over 800 organizations nationwide are regularly monitoring the quality of their local waters.

- Trained volunteers provide quality data that are used to screen for problems, establish baseline conditions, characterize watersheds, and build environmental awareness.

- Volunteers also restore degraded habitat, clean up debris, and work at the community level to protect our water resources.

- During the 2001 International Coastal Cleanup, nearly 143,000 U.S. volunteers collected 3.6 million pounds of debris from the nation's beaches.

Monitoring Fast Facts

RIVERS AND STREAMS

- About 700,000 river and stream miles – less than 20% of the nation's 3.7 million stream miles – are monitored/assessed.

- Nearly 40% of monitored miles are impaired and don't fully support all of their uses, such as swimming and fishing.

- The two leading pollution problems in impaired miles are excess levels of bacteria and siltation.

- Top sources of impairment include runoff from agricultural areas and hydrologic modification (e.g., flow regulation, channelization, and dredging).

Source: Draft 2000 National Water Quality Inventory

Monitoring Fast Facts

LAKES

- About 17.3 million acres – 43% of the nation's 40.6 million lake acres – are monitored/assessed.
- 45% of monitored acres are impaired and don't fully support all their uses, such as swimming and fishing.
- The two leading problems in impaired acres are excess levels of nutrients and metals (primarily mercury).
- Top sources of impairment are runoff from agricultural areas and hydrologic modifications such as flow regulation, dredging and dam construction.

Source: Draft 2000 National Water Quality Inventory

Monitoring Fast Facts

ESTUARIES

- About 31,000 square miles – 36% of the nation's 87,000 square miles of estuaries – are monitored/assessed.
- About 50% of monitored square miles are impaired and don't fully support all their uses, such as swimming and fishing.
- Top pollution problems in impaired square miles include excess levels of metals (primarily mercury), pesticides, and oxygen depletion from organic wastes.
- Top sources of impairment are sewage treatment plant discharges and runoff from urban areas and storm sewers.

Source: Draft 2000 National Water Quality Inventory