

# Long Island Sound's Health

Long Island Sound is an estuary, a place where salt water from the ocean mixes with fresh water from rivers draining from the land. Like other estuaries, Long Island Sound abounds in fish, shellfish, and waterfowl. It provides feeding, breeding, nesting, and nursery areas for diverse animal and plant life.

Long Island Sound also supports many recreational and commercial uses. More than 8 million people live in the Long Island Sound watershed and millions more flock yearly to the Sound for recreation. More than \$5 billion is generated annually in the regional economy from boating, commercial and sport fishing, swimming, and beachgoing. The ability of the Sound to support these uses is dependent on the quality of its waters, living resources, and habitats.

## An Estuary of National Significance

In 1985 the federal government and the states of Connecticut and New York initiated the Long Island Sound Study (LISS), a landmark cooperative endeavor designed to analyze and correct the Sound's most pressing environmental problems. In 1987, under the National Estuary Program (NEP) established by Congress, the Long Island Sound was designated an "Estuary of National Significance."

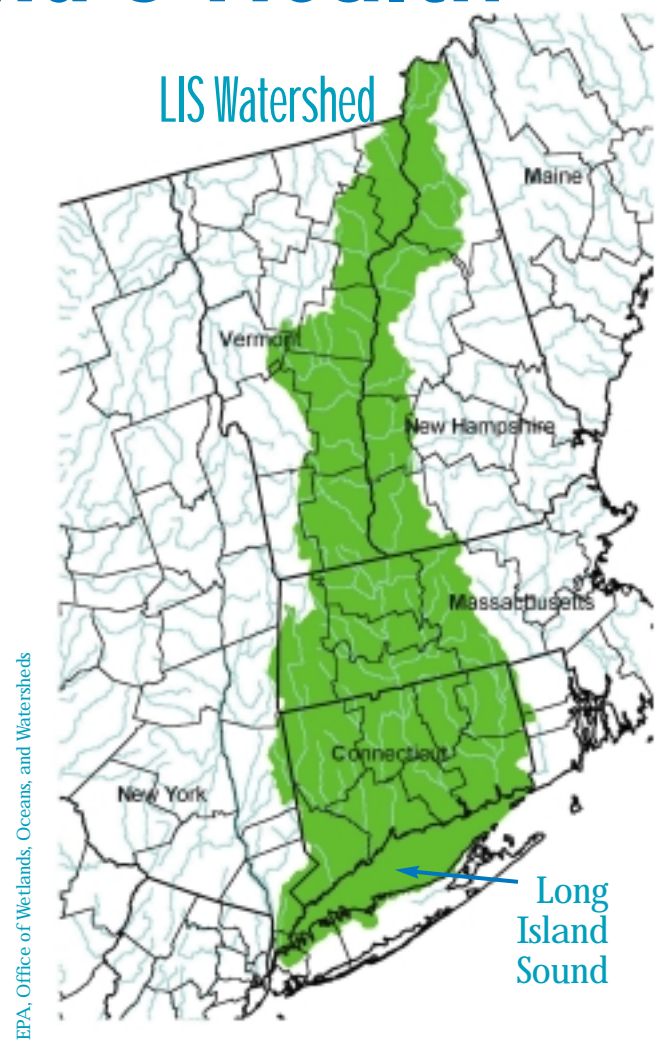
Collectively known as the LISS Management Conference, stakeholders representing citizen and environmental groups, businesses and industries, academic institutions, and local, state, and federal governments, are working together to implement the Comprehensive Conservation and Management Plan (CCMP) of 1994 to protect and preserve this vital estuary.

The Management Conference identified seven issues that merit special attention: (1) low dissolved oxygen (hypoxia), (2) toxic contamination, (3) pathogen contamination, (4) floatable debris, (5) living resources and habitat management, (6) land use and development, and (7) public involvement and education. The CCMP includes 232 action items that provide the framework for federal, state, local, academic, and citizen partners to combine their efforts to address these issues and achieve a common vision for the long-term health, restoration, and economic well-being of Long Island Sound, its watershed, and tributaries.

From colonial times until fairly recently, many uses of Long Island Sound and the surrounding watershed were made without considering the environmental impact on this great body of water. Since the federal Clean Water Act became law in 1972, investments in water pollution control programs have led to measurable improvements in water quality, in spite of increasing numbers of people and activities on the Sound and within its watershed. Obvious sources of pollution are now regulated and controlled through permit programs, tidal wetlands are protected, and major efforts to build and improve sewage treatment

plants and control industrial discharges have helped to restore degraded waters.

It's important to assess, on an ongoing basis, just how effective these efforts have been. Is the water cleaner and safer to swim in? Are contaminant concentrations decreasing? Are habitats being protected and restored? Are the fish and shellfish more abundant (and safe to eat)? Just what is the state of the ecological resources of Long Island Sound? And what new threats may be emerging



from contaminants or impacts that we currently know little about? Under a new initiative, the Long Island Sound Study (LISS) is working to develop indicators of the health of the Sound to answer these kinds of questions.

**Sound Health 2001** highlights water quality conditions, the status of living resources that call the Sound home, trends in land use and development, and other indicators of environmental health. By providing a snapshot of current conditions and trends, **Sound Health 2001** helps to assess the effectiveness of efforts to deal with issues such as nitrogen pollution, sediment contamination, habitat restoration, and the health and abundance of living resources.

Trying to briefly summarize the health of a body of water 110 miles in length is risky. Short sound bites (no pun intended) cannot capture the geographic variability of Long Island Sound. In addition, good news (reductions in nitrogen and toxic contaminant discharges) and bad news (a troubling die-off of lobsters) are part of the same, complex story. By putting the pieces side by side, we can better appreciate the complexity of the Sound and think about the links among issues.

We hope this report will pique your interest in further exploring Long Island Sound and its watershed and in making changes in your everyday life that will help the clean-up effort. Long Island Sound is a valuable resource - understanding how your activities can affect it will help us to restore and protect it.

If you are interested in obtaining more information, full citations for the data and findings contained in this summary are provided at [www.epa.gov/region01/eco/lis](http://www.epa.gov/region01/eco/lis).