

II. The Long Island Sound Study

A. Background

In recognition of the threats facing the nation's estuaries, Congress appropriated funds in 1985 for the U.S. Environmental Protection Agency (EPA) to research, monitor, and assess the water quality of Long Island Sound. With the Clean Water Act Amendments of 1987, Section 320 of the act officially established a *National Estuary Program*. Long Island Sound was designated an *Estuary of National Significance* upon the request of the states of Connecticut and New York, and a Management Conference for the Long Island Sound Study (LISS) was convened in March 1988.

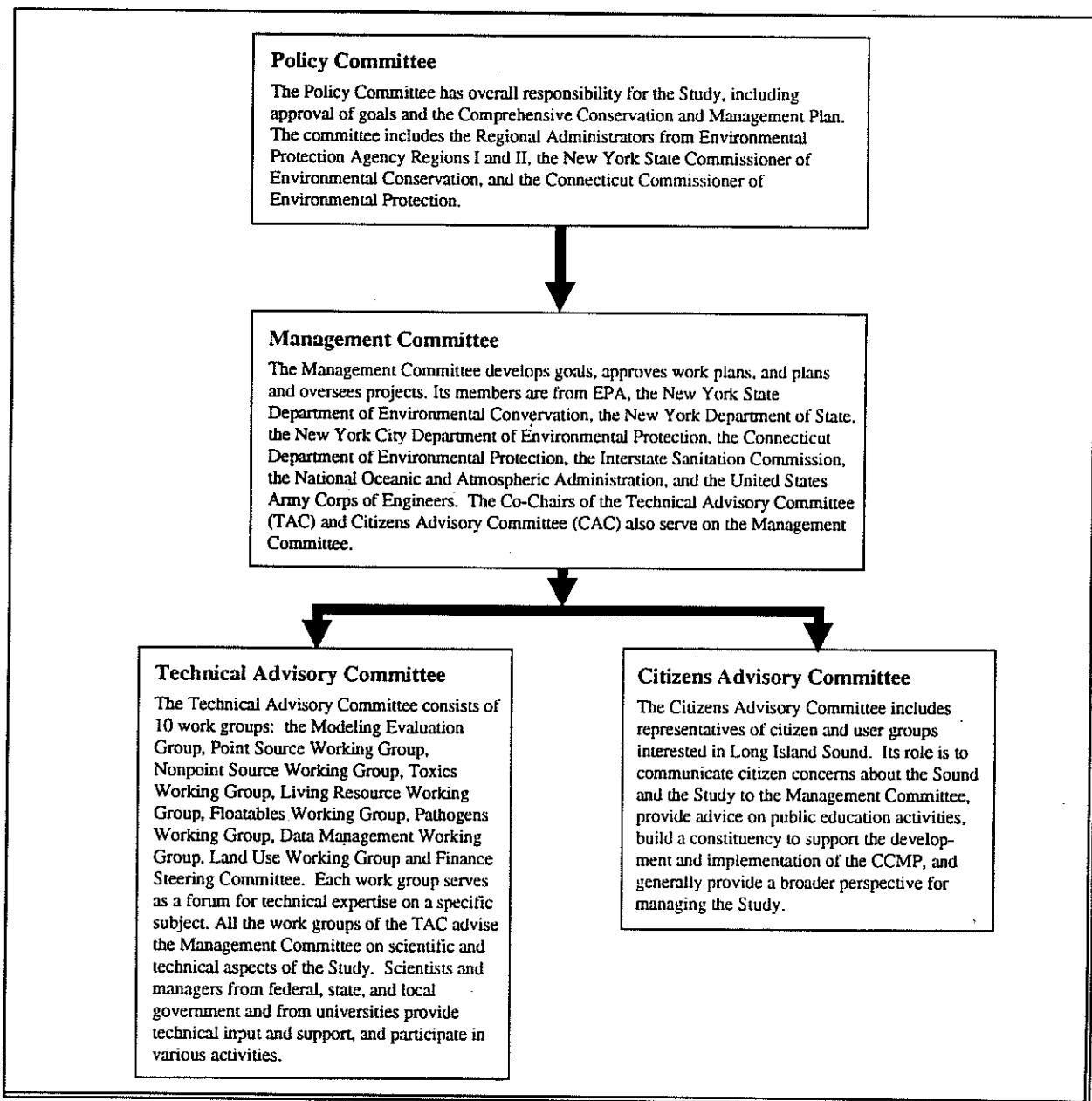


Figure 2 Committee functions and relationships.

The Management Conference is a cooperative effort involving federal, state, interstate, and local agencies, universities, environmental groups, industry, and the public. The conference consists of

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several committees, including a Policy Committee, Management Committee, Citizens Advisory Committee, and Technical Advisory Committee (Figure 2). The Policy Committee approves any action that represents a new policy initiative, such as managing nitrogen loadings to Long Island Sound. The Management Committee gives the study overall direction and annually determines how LISS funds will be spent.

Day-to-day management of the LISS planning and research activities is carried out cooperatively by staff coordinators from the EPA, the Connecticut Department of Environmental Protection (CTDEP) and the New York State Department of Environmental Conservation (NYSDEC). Much of the research, assessment work and public outreach activities have been conducted by university and state staff and private contractors funded by federal and state LISS funds. Between 1985 and 1993, the LISS received approximately \$11 million from the EPA, \$2 million from the states of Connecticut and New York and \$3 million from the National Oceanic and Atmospheric Administration (NOAA).

B. Goals for Long Island Sound

When the LISS was initiated, a strategy was developed to identify and investigate the most significant water quality problems affecting Long Island Sound; to identify feasible solutions to remedy these problems, incorporate them into a management plan and identify unfinished management actions for follow-up as funding becomes available. Based on this strategy, the goals of the LISS are:

- 1) Protect and improve the water quality of Long Island Sound and its coves and embayments to ensure that a healthy and diverse living resource community is maintained.
- 2) Ensure that health risks associated with human consumption of shellfish and finfish are minimized.
- 3) Ensure that opportunities for water-dependent recreational activities are maximized without conflict with ecosystem management.
- 4) Ensure that social and economic benefits associated with the use of the Sound are realized to the fullest extent possible, consistent with social and economic costs.
- 5) Preserve and enhance the physical, chemical, and biological integrity of the Sound and the interdependence of its ecosystems.
- 6) Establish a water quality policy that supports both the health and habitats of the living resources of the Sound and the active and passive recreational and commercial activities of people.

Achieving these goals will require difficult social, institutional, and political choices. Thus, it is necessary to move beyond technology-based controls (e.g., permit actions) and manage the Sound and its watershed as an ecosystem through the active participation of government and non-government agencies, and local and regional citizens.

C. Priority Areas of Concern

In its initial planning phase, the LISS identified three priority water quality and habitat protection problems in the Sound:

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- Low dissolved oxygen (hypoxia);
- Toxic substance contamination; and
- The impact of water quality problems and habitat degradation and loss on the health of living resources.

Early in the study, the LISS recognized the need for and initiated a strong program of public involvement and education and this has also been identified as a priority area of concern.

During the summer of 1988, beach closings resulted from microbial contamination and wash-ups of medically related floatable debris. The high level of public concern and the large economic loss resulting from these wash-ups led the LISS to adopt two additional water quality issues:

- Pathogenic contamination and
- Floatable debris.

In 1991, the LISS added another priority issue — the need to examine the relationship between land use and water quality.

The LISS has focused on hypoxia as its highest priority, concentrating staff and financial resources to understand and address this critical, costly and complex issue. By 1990, enough progress had been made to proceed with early implementation, as described in the Long Island Sound Study's Status Report and Interim Actions for Hypoxia Management. The next step in managing hypoxia is presented in this plan along with a long-term management strategy.

The plan proposes significant actions to address other complex issues, such as contamination from toxic substances and pathogens. Additional work and future actions to address these issues will be included in revisions to this plan.

D. Commitment to Act

As part of the formal designation ceremony of Long Island Sound into the National Estuary Program, a pledge was signed by elected officials and representatives of the EPA, the CTDEP, and the NYSDEC that declared:

Long Island Sound is an important natural resource that provides incomparable beauty and significant recreational and commercial benefits;

The Sound's living resources, water quality, and aesthetic character have suffered from rapid development and other human uses; and

Restoration and protection of the Sound's environmental quality require focused management by a partnership of federal, state, and local governments, affected industries, academia, and the public.

We therefore pledge to support the goals of the Long Island Sound Management Conference and we commit to restore and protect the environmental quality of Long Island Sound through the implementation of the Comprehensive Conservation and Management Plan.

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Reflecting that pledge, the plan commits government agencies, wherever possible, to take action. In some cases, where current staffing and funding are inadequate, recommendations for future action are presented. As a result, the plan presents what can be done now and what the priorities are for the future.