

# INTRODUCTION

## THE LONG ISLAND SOUND

Long Island Sound is an estuary, a body of water where salt water from the ocean mixes with fresh water from rivers flowing from the land. It abounds in fish, shellfish, and waterfowl—providing feeding, breeding, nesting, and nursery areas for diverse wildlife. For thousands of years, Long Island Sound has also been a home to humans, treasured for its protected waters, diverse shoreline habitats, and abundant natural resources. Indigenous Peoples built thriving communities along reliable trade routes here, followed by European colonists whose economies focused on agriculture and natural resource extraction, and, over time, intense industrial activity. The Sound has become a combination home, nature refuge, recreation center, agricultural zone, and commercial and industrial district for the millions that live along its shores and in its watershed today. The Sound enriches the economy through a variety of water-dependent industries and uses, including recreational and commercial fishing, boating, beachgoing, and nature walks, benefiting coastal communities and visitors alike.

The history of Long Island Sound is the story of America. In the foreword to Tom Andersen's environmental history of Long Island Sound, *This Fine Piece of Water* (Andersen, 2002), Robert F. Kennedy, Jr., describes "a region of mythical productivity" observed by the first European explorers.

*They smelled aromas from Long Island's flowers before sighting land and found four hundred bird species, many of which are gone today. Henry Hudson's lieutenant Robert Juett described rivers choked with salmon (probably striped bass) and mullet. Giant dolphin pods schooled in the East River and New York Harbor. F. Scott Fitzgerald, one of Long Island's most*

*faithful chroniclers in recalling its legendary abundance, suggested that the Sound appeared to the first Dutch sailor as the "fresh green breast of the new world," compelling him to hold his breath in "an aesthetic contemplation he neither understood nor desired, face to face for the last time in history with something commensurate with his capacity for wonder."*

The settlement and development of the coastline and watershed was a societal success story of human opportunity and adaptation; it also gave rise to pollution from agriculture, industry, and human populations. The urbanization of the Sound's lands, initiated in the nineteenth century, expanded quickly in the twentieth century. At the Sound's western border, New York City evolved into the world center of commerce and its associated economic and social developments ultimately sprawled eastward along the Westchester County, Long Island, and Connecticut shorelines. Called the "American Mediterranean" (Weigold, 2004) and the "Urban Sea" (Koppelman et al., 1976), human habitation is inherent to Long Island Sound's character. After decades of neglect, public and private efforts to protect and restore Long Island Sound have succeeded to the point of returning this urban sea to abundance, where humans enjoy a healthy environment and thriving economy.

## ABOUT THE PARTNERSHIP

In 1985, Congress appropriated funds for the U.S. Environmental Protection Agency (EPA) and the states of Connecticut and New York to research, monitor, and assess the water quality of Long Island Sound. The Partnership was formalized and expanded in 1987, when Congress created the National Estuary Program under Section 320 of the Clean Water Act. The Act authorized the EPA, in cooperation with Connecticut and New York, to form a Management Conference to develop a Comprehensive Conservation and Management Plan (CCMP) for protecting and improving the health of Long Island Sound. The Management Conference, involving federal, state, interstate, and local agencies, universities, stakeholder groups, and

**A STEEP WOODEN STAIRCASE descending to Long Island Sound from Horton Point Lighthouse in Southold, Long Island. Photo by Randy Duchaine / Alamy Stock Photo.**

the public, called itself the Long Island Sound Study. The name appropriately captured the need for more research and data to better understand and improve the conditions in Long Island Sound.

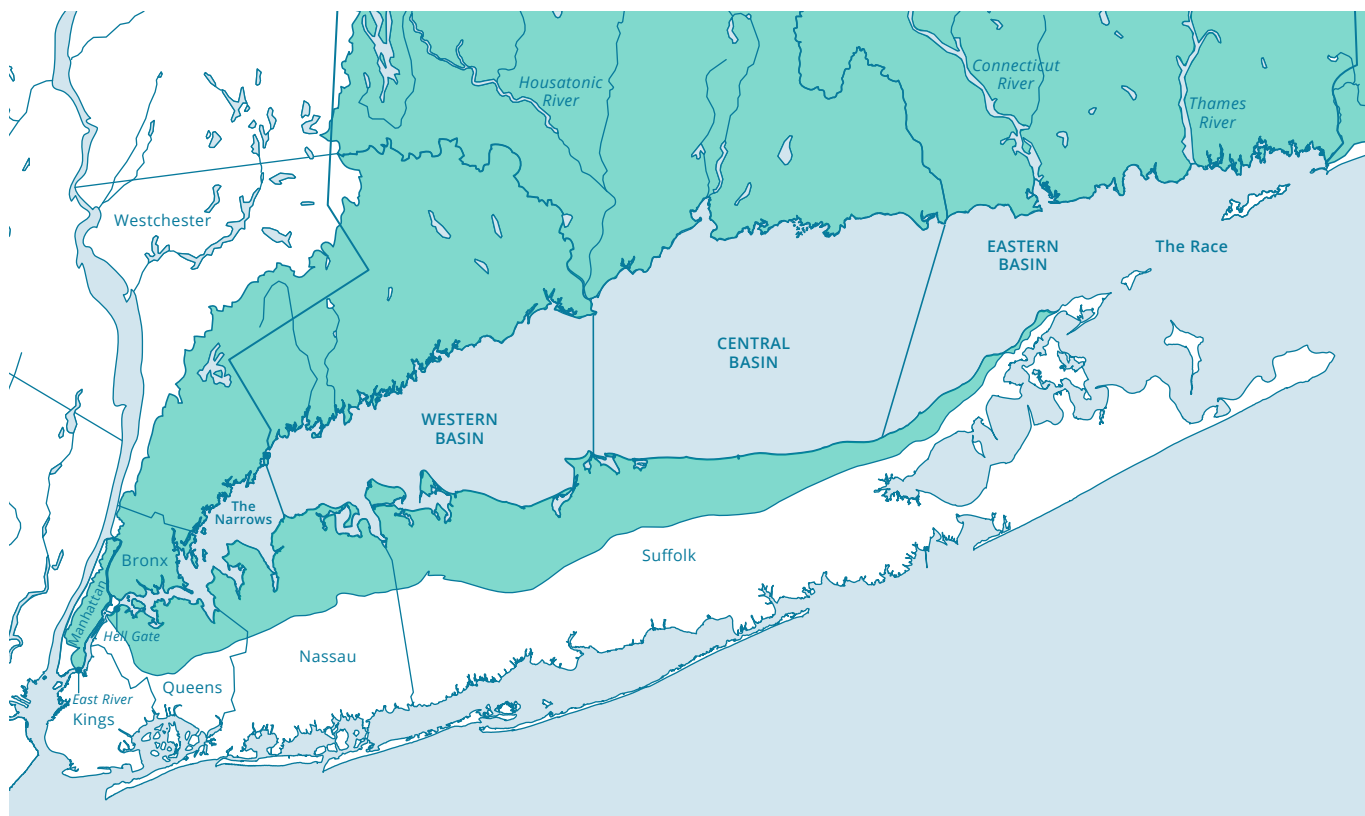
The Long Island Sound Management Conference is fundamentally a partnership of independent organizations sharing a common goal and purpose. The foundation of the Management Conference is a commitment to regional collaboration to protect and restore the health of the Long Island Sound ecosystem by fostering resource conservation and sustainable use. The Management Conference partners collaborate on research, governance, and planning of Long Island Sound and its living resources, including humans, in an approach called ecosystem-based management (Hartig et al., 2024).

The Management Conference produced its first comprehensive plan in 1994 and revised it in 2015. Coordinated action among multiple levels of

government, the private sector, and the public has accomplished much in the past 30 years. Cooperating partners have translated the plan, year-by-year, into actions that have resulted in a Long Island Sound with cleaner water, healthier habitats, and a more aware and engaged public. Nitrogen pollution from Connecticut and New York wastewater treatment plants has been reduced effectively to a third of pre-management levels; the flow-normalized discharge of nitrogen from the rivers draining to Long Island Sound has been cut in half. As a result, water quality is improving—the average maximum summertime area of unhealthy levels of dissolved oxygen has shrunk in half. Partners have restored 2,400 acres of coastal habitat, of which 1,150 are tidal wetlands important for storm and flood protection, and reconnected 448 miles of rivers and streams to Long Island Sound for fish passage, contributing to healthier fish communities and recreationally and economically valued fisheries.

Despite this progress, many challenges remain along with new challenges such as emerging contaminants and coastal resiliency. To respond to the changing needs of communities, incorporate scientific and

**FIGURE 1. Long Island Sound watershed and its basins and channels.**



**FIGURE 2. Land Area Draining to Long Island Sound –**

- |                        |                    |
|------------------------|--------------------|
| 1. Connecticut River   | 6. Pawcatuck River |
| 2. Housatonic River    | 7. Southeast Coast |
| 3. Thames River        | 8. New York City   |
| 4. South Central Coast | 9. Long Island     |
| 5. Southwest Coast     |                    |

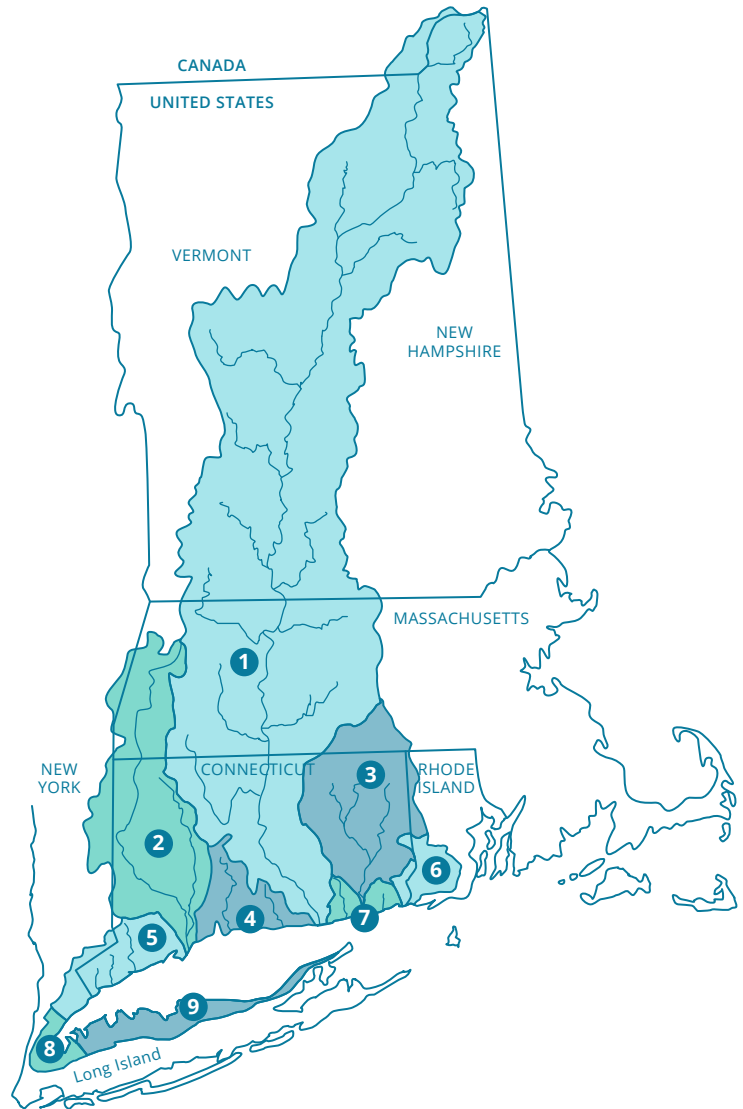
technological advances, and address new environmental challenges, the Management Conference has produced the 2025 CCMP. It provides a blueprint for collaboration and establishes goals, objectives, and actions for the next ten years to further restore and protect the Sound. It reinforces existing goals for cleaner water, healthier habitats, and more resilient communities while setting a new goal to inform and engage people in the effort. Detailed characterization of environmental conditions or program history published in prior CCMPs have been omitted here in favor of a concise action plan. Readers interested in further background are encouraged to visit Appendix A and the Partnership website.

The new plan is being released under a new organizational name. While the Management Conference has operated as the *Long Island Sound Study* for nearly 40 years, public feedback increasingly communicated that the name was misleading and confusing, emphasizing study rather than action. While scientific research and environmental monitoring are still integral to the program, the Management Conference believes that such studies should inform action and coordinated implementation. Therefore, after soliciting public input on name options, the Management Conference has selected *Long Island Sound Partnership* to better reflect the commitment to coordinate actions by all levels of government and diverse stakeholders.

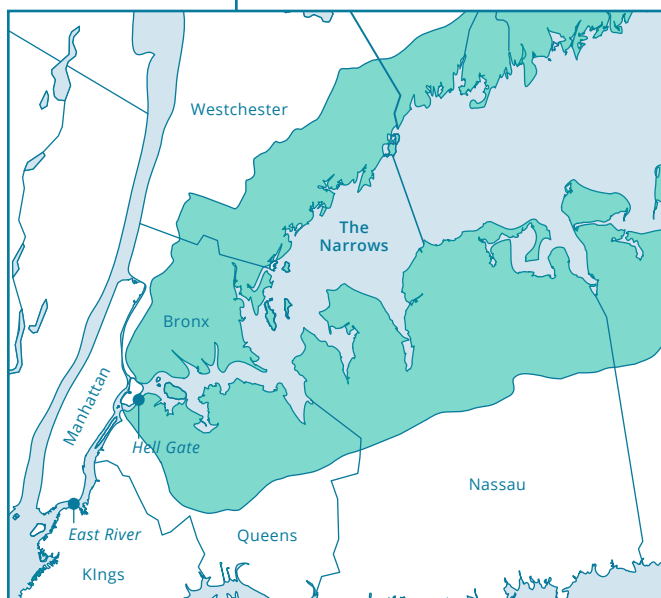
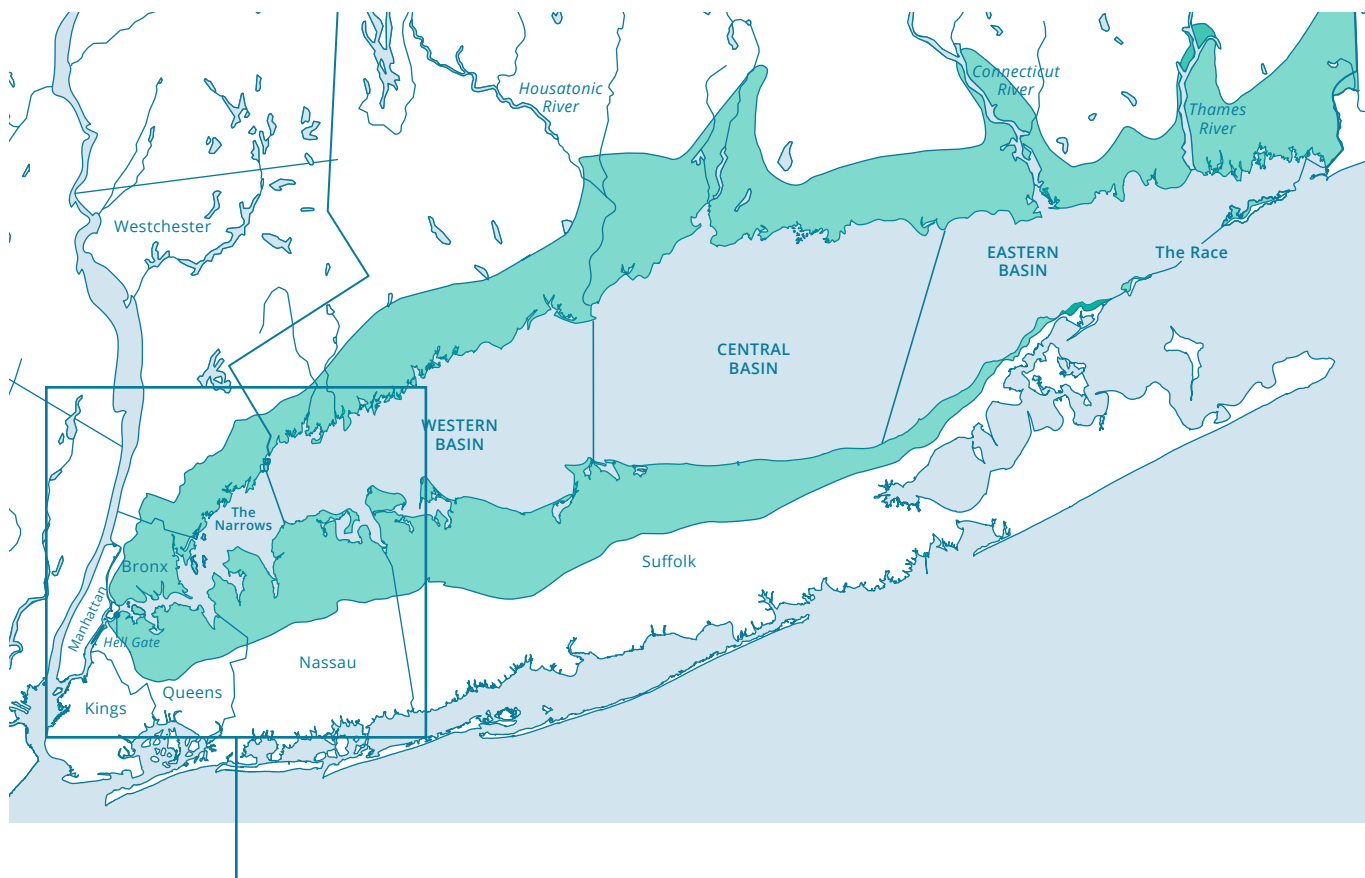
## GEOGRAPHY AND PROGRAM SCOPE

The Sound is characterized as having four regions: the Narrows, Western Basin, Central Basin, and Eastern Basin (Figure 1). Through the connection with the East River to the waters of New York-New Jersey Harbor, the Sound is influenced by the New York City metropolis.

Through south-flowing rivers, large portions of New England also affect the Sound. In total, the Long Island Sound watershed covers an area of more than 16,000



square miles, including virtually the entire state of Connecticut, portions of New York, Rhode Island, Massachusetts, Vermont, and New Hampshire, as well as a small area at the source of the Connecticut River in Canada (Figure 2). The original study area of the program when established under the National Estuary Program in 1987 included only the portions of the watershed in Connecticut and New York. The Partnership is now expanding the study area into the full watershed. The expanded study area is in support of the statutory directive to develop and implement plans to protect and restore Long Island Sound. It reflects the need for the planning and action on the whole watershed scale to meet that directive and emphasizes the Partnership's commitment to expanding communication, cooperation, and



**FIGURES 3 AND 4.** The Long Island Sound Coastal Boundary Area.

engagement. Priorities for actions within the watershed will continue to be guided by the relative benefits to Long Island Sound, consistent with the legislative authority governing the program. The study area change does not require the formal addition of new entities to the Management Conference.

For purposes of environmental management, the Partnership has also established a coastal area boundary (Figures 3 and 4). The coastal area boundary is based on climatological and topographical features, and political jurisdictions. In Connecticut, the boundary is the coastal hardwoods zone ecoregion (Dowhan and Craig, 1976). The northern extent of this ecoregion represents the inland range of coastally influenced vegetation. In New York, the Partnership boundary follows the Harbor Hill moraine through Queens, Nassau, and Suffolk Counties where groundwater flows north to Long Island Sound. The western extent of the boundary is the Robert F. Kennedy Bridge span that crosses the East River between Queens and the Bronx. The western boundary in the Bronx and Westchester Counties follows the Hutchinson River Parkway.