

SEPTEMBER 2014



SUMMARY OF THE DRAFT COMPREHENSIVE CONSERVATION AND MANAGEMENT PLAN UPDATE

INVESTING IN A REGIONAL ASSET

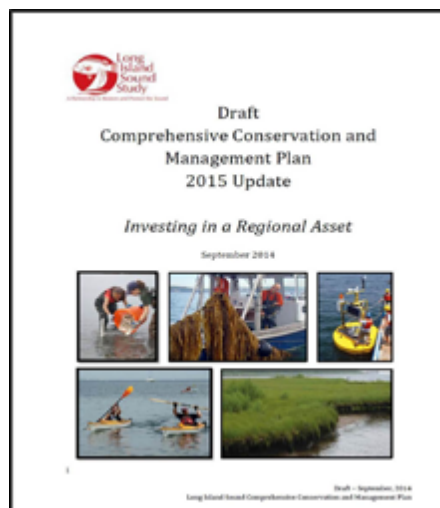
VALUE OF LONG ISLAND SOUND

Long Island Sound is a national treasure. Its sheltered waters are prized for recreational and commercial opportunities, and are home for abundant and diverse resources. More than nine million people live within the Long Island Sound watershed, while 24 million live and work within 50 miles of its shores. The health of the Sound and the waters that drain into it is intricately tied to the health of an economy that directly supports the people living in the basin. The financial value of goods and services provided to the region's economy by the Long Island Sound Basin's natural systems ranges between \$17 billion and \$37 billion annually.

Investing in these natural assets can bring real returns – clean water, healthy habitats, and sustainable and resilient communities. Natural, functioning habitats provide a variety of goods and services through provision of flood and storm protection, water filtration, recreation, fish and bird populations, carbon sequestration, and other functions. The result? Beaches open for summer fun, increased areas for shellfish harvesting, rivers open for ocean-going fish to return to spawn, and wetlands and eelgrass that support living resources and protect coastal communities from storms. These are just a few of the tangible benefits of a healthy Long Island Sound.

UPDATING THE PLAN

This document serves as a summary of the draft Comprehensive Conservation and Management Plan update as of September 2014. We encourage you to read the draft of the full plan at www.longislandsoundstudy.net/Planupdate, learn about Long Island Sound and its issues, and e-mail your comments to contact@watervisionllc.com to help us improve the final version. The public comment period ends on Saturday, November 8, 2014.



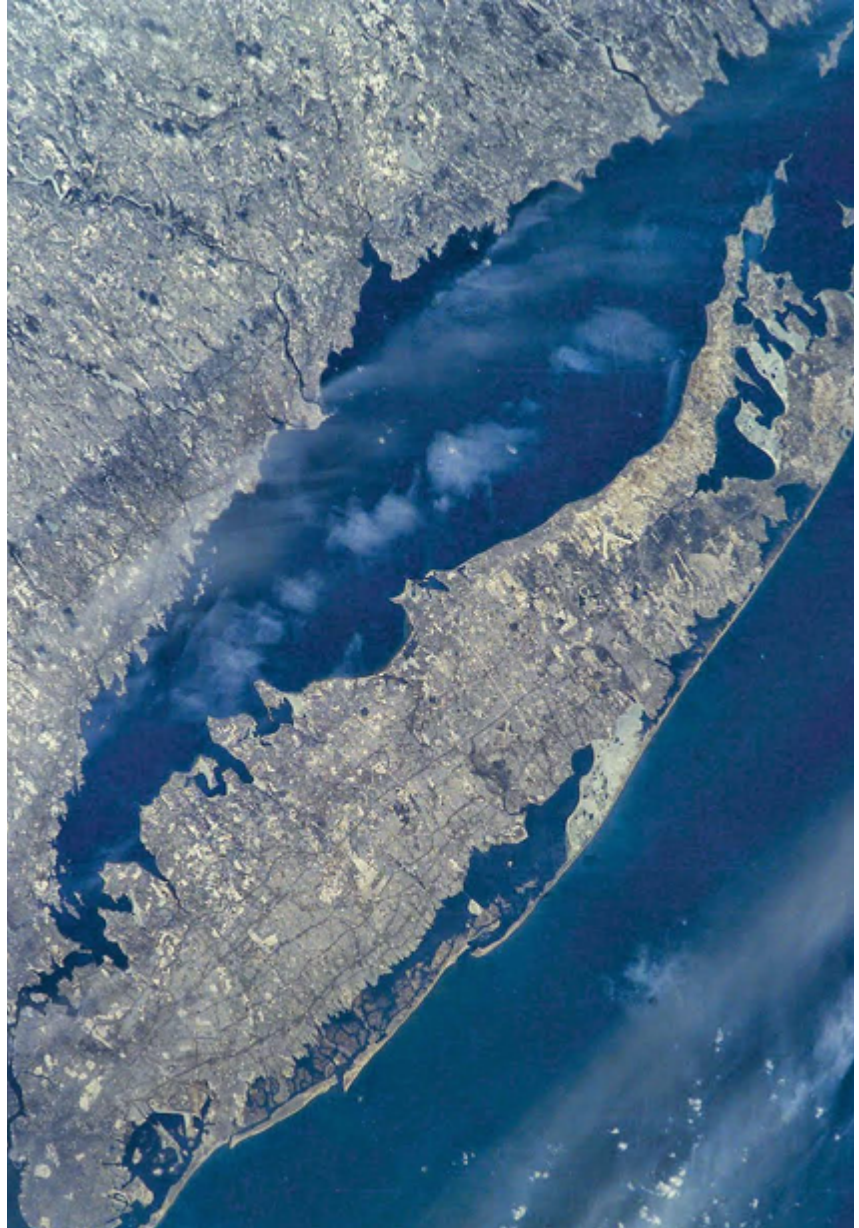
VISION

As stated in the 1994 Comprehensive Conservation and Management Plan (CCMP):

“The vision . . . for the Sound is of waters that are clean, clear, safe to swim in, and charged with life. It is a vision of waters nourished and protected by extensive coastal wetlands, by publicly accessible, litter-free beaches and preserves, and of undeveloped islands. It is a vision of abundant and diverse wildlife, of flourishing commercial fisheries, of harbors accessible to the boating public, and of a regional consciousness and a way of life that protects and sustains the ecosystem.”

This vision still holds true today and continues to guide the work of the Long Island Sound Study. To realize this vision, the CCMP is being updated to:

- Re-energize partnerships around shared goals and inclusive management;
- Set measurable ecosystem targets and management outcomes;
- Incorporate new strategies such as sustainability, climate change resiliency, and environmental justice;
- Maintain an integrated ecosystem perspective;
- Expand public engagement and collaboration; and
- Use strong science to continually adapt and improve management.



CREDITS PAGE 1: Suzy Allman (Rye Town Beach)

CREDITS PAGE 2: The Smith Family (Justin Smith); Charles Yarish (Sugar Kelp); Mark Dixon/NOAA Milford (Mussel Raft Installation); Kristin DeRosia-Banick (Oyster Harvest)

CREDITS PAGE 3: NASA-Johnson Space Center (Long Island Sound Aerial); Becky Wiseman (Cornell's Agricultural Stewardship Program/Claudia Purita, One Woman Wines & Vineyards); NYSDEC (Oyster Bed Installation); Richard Howard (CTDEEP's Fish Trawl Survey); Amy Mandelbaum/LISS (Bluff Point Field Trip)



CLEAN WATERS AND HEALTHY WATERSHEDS

GOAL: Attain water quality objectives by reducing pollutant and nutrient loads from the land and the waters impacting Long Island Sound.

Accomplishments

- Developed an innovative, bi-state pollution budget called a Total Maximum Daily Load (TMDL) to reduce nitrogen pollution comprehensively to Long Island Sound.
- Reduced by 35 million pounds per year the amount of nitrogen discharged from 106 wastewater treatment facilities by using a cap and trade approach.
- Established all of Long Island Sound as a 'No Discharge Zone' for vessel sewage, keeping more than a million gallons of recreational boat sewage out of the water each year.

Challenges

- Reducing nutrients from local, diffuse sources such as yards and farms.
- Involving states well north of the Sound, but within its large watershed. This includes Massachusetts, New Hampshire, and Vermont.
- Upgrading aging infrastructure and decreasing impervious land surfaces that contaminate waters with pathogens, which result in closed beaches and restrictions on shellfish harvest areas.

Desired Outcomes and Targets

- Reduce the area of waters with unhealthy oxygen levels.
- Implement all management actions necessary to attain established nitrogen reduction targets.
- Improve water clarity to support aquatic grass communities.
- Reduce the area of paved-over land through Smart Growth, Low Impact Development, and green infrastructure.
- Preserve open space and natural landscapes.

Top Actions to Meet Challenges

- Continue enhanced implementation of the Long Island Sound TMDL for nitrogen and evaluate revision of those TMDL targets.
- Prepare for sea level rise by improving efficiency and resiliency of existing or new wastewater treatment systems, including septic, wastewater treatment facilities and stormwater infrastructure.
- Identify and recommend removal or protection of sensitive infrastructure in the coastal zone and work to enact legislation to prevent future siting of such infrastructure in vulnerable coastal floodplains.
- Monitor and track occurrences and contributing factors of biotoxin and harmful algal bloom outbreaks.
- Complete sentinel monitoring pilot programs and evaluate results to guide strategy development and future implementation of a full-scale sentinel monitoring effort.



THRIVING HABITATS AND ABUNDANT WILDLIFE

GOAL: Restore and protect the Sound's ecological balance in a healthy, productive, and resilient state for the benefit of people and the natural environment.

Accomplishments

- Restored a total of 1,548 acres of habitat from 1998 to July 2014, 77% of the goal to restore at least 2,000 acres of habitat by 2020.
- Re-opened 300 miles of river and stream corridors to fish passage from 1998 to July 2014 by removing dams and obstructions or by creating bypasses and fish ladders in select areas.
- Protected a total of 2,580 acres of open space and coastal habitat since 2006 through easements and land acquisitions.

Challenges

- Providing areas for tidal marshes to build upward or migrate inland to keep up with sea level rise.
- Protecting and restoring valuable habitats in the face of increasing coastal development.
- Understanding the effects of climate change on habitats and wildlife and adapting management accordingly.

Desired Outcomes and Targets

- Maintain ecosystem services by protecting, restoring, and enhancing habitats.
- Maintain ecosystem resiliency and function through diverse, balanced and abundant populations of fishes, birds, and wildlife.
- Educate and involve the public in the restoration and protection of habitats and living resources.
- Increase the area of eelgrass habitat by 2,000 acres and the area of tidal wetlands by 532 acres.
- Reopen 200 miles of river to fish.
- Improve the quality of the seafloor to support marine life.

Top Actions to Meet Challenges

- Reconnect, protect, and restore rivers and coastal habitat.
- Develop and apply habitat quality metrics and assessment methodology across priority habitat types.
- Develop a habitat quality index for tracking habitat restoration projects and programs.
- Design, develop, and promote coupled habitat restoration and monitoring projects that incorporate meaningful citizen engagement and participation, particularly in urban areas.
- Conduct data collection and habitat restoration projects that target priority species.

Did you know...

...that in the 400 years since Adriaen Block's exploration of its shores, the lands around Long Island Sound have changed from forest to field, from agriculture to town and city, from industry to service economy?

Active efforts now have halted degradation of natural resources and initiated restoration to the point of considering a return to abundance. Not to a pristine past, but to an "Urban Sea," where humans enjoy both a healthy environment and a thriving economy.



CREDITS PAGE 4: Charles Weinstein/CSHH (Biodisk Cleanup at Hempstead Harbor); Amy Mandelbaum/LISS (Seaside Goldenrod); Amy Mandelbaum/LISS (Water Quality Testing); Rory MacNish (Cornell's Agricultural Stewardship Program/Marty Sidor, North Fork Potato Chips)
CREDITS PAGE 5: Katy Silberger (Onrust); Giles Rae (Hutchinson River Cleanup); Amy Mandelbaum/LISS (Volunteer Stewardship Day); Kimberly Graff/LISS (Port Jefferson Harbor); Amy Mandelbaum/LISS (Horseshoe Crab)



SUSTAINABLE AND RESILIENT COMMUNITIES

GOAL: Support vibrant, informed, and engaged communities that use, appreciate, and help protect Long Island Sound.

Accomplishments

- Created the 'Long Island Sound Sentinel Monitoring' program in 2008. The program identified six key flora/fauna native to the Sound as indicators of climate change, created a database of climate change science, and piloted projects to observe and document change over time.
- Developed local watershed management plans for more than half of the sub-basins in Connecticut and New York.
- Built local partnerships in underserved communities to involve students and citizens in initiatives to increase access to and the quality of urban waters.

Challenges

- Involving and responding to the needs of underserved communities, as communities around the Sound become more diverse.
- Protecting coastal properties, worth billions of dollars, from rising waters and more intense or frequent storm events.
- Minimizing environmental impacts of new development through Smart Growth, Low Impact Development, and the incorporation of green infrastructure.

Desired Outcomes and Targets

- Nurture leaders and stewards that protect the Sound by increasing their awareness and knowledge of Long Island Sound issues and solutions.
- Promote new and existing development that is sustainable and resilient through the development of plans for sustainable infrastructure and resilient shorelines.
- Enhance public access and sustainable economic activities along the waterfront by increasing the number of access points and shoreline length accessible to the public by 10%.
- Decrease the area of growing waters prohibited for shellfish harvesting, and increase the sustainable harvest of shellfish.
- Reduce by 50% the number of beach-day closures due to poor water quality.
- Decrease the amount of marine debris affecting the shoreline and waters.
- Maintain navigable channels in harbors and bays while protecting the environment.
- Reduce the levels of contaminants in finfish.

Top Actions to Meet Challenges

- Provide technical and grant assistance to support federal, state, and local initiatives that increase appreciation and understanding of the Sound for underprivileged and non-traditional audiences in urban areas.
- Provide natural landscaping guidance to communities and homeowners to encourage the use of alternatives to chemicals and nutrient intensive landscaping, and establishment of natural vegetated buffers near bodies of water.
- Develop and implement regional outreach programs for innovative and sustainable flood and erosion control for municipalities.
- Support communities as they develop and adopt coastal sustainability and resiliency plans.
- Increase the length of shoreline accessible to the public by developing a public access plan.



SOUND SCIENCE AND INCLUSIVE MANAGEMENT

GOAL: Manage Long Island Sound using sound science and cross-jurisdictional governance that is inclusive, adaptive, innovative, and accountable.

Accomplishments

- Developed and published a synthesis of available scientific information, *Long Island Sound: Prospects for the Urban Sea* (Springer Publishing, 2013).
- Developed, funded, and maintained a 28-year record of water quality monitoring data in Long Island Sound and expanded the network to include fixed real-time buoy data collection.
- Invested more than \$3.2 billion in federal, state, and local funding from 2006-2013 in cleanup and protection actions, a ratio of \$84 leveraged for every EPA Long Island Sound dollar in funding.

Challenges

- Managing resources through coordinated research, monitoring, assessment, mapping, and modeling.
- Developing diverse funding strategies that consider the social, environmental, and economic benefits of actions.

Desired Outcomes and Targets

- Increase the scientific understanding of Long Island Sound to support management through strengthened research, monitoring, assessment, mapping, and modeling.
- Implement actions through coordinated strategies by all levels of government and diverse stakeholders.
- Adapt and improve implementation through the application of new information and knowledge.

Top Actions to Meet Challenges

- Identify and communicate high priority science needs relating to the understanding and attainment of management objectives and ecosystem targets.
- Complete the seafloor mapping conducted under the Sound Cable Fund.
- Implement a strategy to coordinate and leverage scientific community and volunteer water quality monitoring programs, enhancing the utility and application of data.
- Integrate the LISS Sentinel Monitoring for Climate Change Program with regional and national efforts.
- Enhance water quality modeling of Long Island Sound to support nitrogen management and dissolved oxygen TMDL implementation.
- Support involvement of, and communication with, local governments in implementing many of the CCMP strategies.
- Reach out to traditionally underrepresented stakeholders and encourage them to participate in the Management Conference.
- Research and develop innovative, locally appropriate funding mechanisms to provide sustained, reliable sources of investment capital to restore and protect ecosystem services.

Did you know...

...that across Long Island Sound, water quality is monitored by interstate, state, and local agencies, academic institutions, and volunteers and community organizations? To date, the Long Island Sound Study developed, funded, and maintained a 28-year record of water quality monitoring data in Long Island Sound.



CREDITS PAGE 6: National Fish and Wildlife Foundation (Green Roof); Kierran Broatch/OnTheWater.com (Fisherman's Catch); Save the Sound (Girl at Brides Brook); Patrick Comins (Fishers Island Coastline)
CREDITS PAGE 7: Robert Burg/LISS (Volunteer Water Quality Monitoring); Jesse Allen/NASA Earth Observatory (Superstorm Sandy); Connecticut National Guard (Superstorm Sandy Damage); NYCDEP (Wards Island Water Treatment Plant); LISICOS (Buoy)



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WHAT YOU CAN DO COMMENT ON THE PLAN

We encourage you to read the draft of the full plan at www.longislandsoundstudy.net/Planupdate, learn about Long Island Sound and its issues, and e-mail your comments to contact@watervisionllc.com to help us improve the final version. The public comment period ends on Saturday, November 8, 2014.

FIND OUT MORE

For information on public meetings and the CCMP update process, visit www.longislandsoundstudy.net/Planupdate or contact:

- Amy Mandelbaum, NY LISS Outreach Coordinator, acb328@cornell.edu, Phone: (631) 632-9216
- Judy Preston, CT LISS Outreach Coordinator, judy.preston@uconn.edu, Phone: (860) 405-9303



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STAY INVOLVED

Once the CCMP is finalized, we will need your help implementing it. Whether it be through volunteering with a local organization or joining the Citizens Advisory Committee, your influence and actions can have a great impact on the health of the Sound. Together, we can work to protect and restore the Sound, and begin to realize our vision of a swimmable and fishable Long Island Sound for all.

This document was produced and printed by NYSG under a cooperative agreement with the USEPA #CE-962911-13.

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c/o New York Sea Grant
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