PROGRESS MADE IMPLEMENTING THE 2015 CCMP

REPORT PURPOSE

Clean Water Act Section 119 requires the Partnership to biennially submit a report to Congress that summarizes and assesses progress made in implementing the CCMP. These reports are an important part of the program's performance assessment and reporting practices. In 2020, the Partnership published *Returning the Urban Sea to Abundance: A five-year review of the 2015 Comprehensive Conservation and Management Plan,* which evaluated the program's five-year progress in meeting the performance goals and milestones of the plan. In 2022, the Partnership published *Returning the Urban Sea to Abundance: A Two-Year Review (2020-2021) of Implementation of the Comprehensive Conservation and Management Plan.* Building upon the *Returning the Urban Sea to Abundance* reports, this section summarizes the overall progress made implementing the 2015 CCMP.

The 2015 CCMP established 20 ecosystem targets that incorporated environmental data and performance objectives to help track progress toward restoration and management goals. The 2015 CCMP also included 139 specific Implementation Actions (IAs), for the period 2015 to 2019, to support achievement of ecosystem targets and overall goals and objectives. These actions were organized around four major themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. In 2020, the Partnership updated the IAs in the CCMP, which resulted in 136 IAs for the period 2020 to 2024.

The following sections summarize the progress made toward meeting the goals of the 2015 CCMP through an overview of the Ecosystem Targets and IAs. The Partnership's website provides a full assessment of each Ecosystem Target.

OVERVIEW OF 2015 CCMP
Ecosystem Targets

As part of the Partnership's effort to assess progress made on the 2015 Ecosystem Targets, program staff met with local subject matter experts to identify and communicate the strengths, weaknesses, and lessons learned from the 2015 Ecosystem Targets. During these meetings, the Partnership gleaned important information to help frame the conversation and expectations for the 2025 CCMP.

The following recommendations were identified and incorporated into the 2025 CCMP:
• Do not set targets that cannot be tracked.
• Develop and implement clearly defined ways to track each target.
• Identify the people, organization, and office that will be responsible for providing the tracking information.
• Prioritize the development of tools to track Ecosystem Targets where methods do not exist.
• Use the SMART framework for each target: Specific, Measurable, Achievable, Relevant, and Time-Bound.

Implementation Actions

The Partnership used its tracking and reporting tool to assess progress in implementing the 2020-2024 IAs. These findings were used to inform the 2025 CCMP. Each IA was categorized with one of the following labels: Significant Progress, Partial Progress, or No Progress. The Partnership reviewed the key activities and supporting projects of each IA and assigned categories for each action:
• Significant Progress: The projects and efforts supporting these IAs had substantial financial investments. Many projects listed under these IAs were either completed or making considerable progress.
• Partial Progress: The projects and efforts supporting these IAs were still underway.
• No Progress: The projects supporting these IAs did not have significant, or any, financial investments. There were no projects that were supporting IAs, or there was no approach identified to track progress.

HIGH SCHOOL STUDENTS PLANT NATIVE SPECIES at Great Meadows Marsh in Stratford, CT as part of Audubon's WildLife Guard program. Since 2019, a joint effort led by USFWS and other conservation partners and supported by the Long Island Sound Partnership has helped to restore 34 acres of the marsh, resulting in reduced mosquito populations, the return of native plants, and greater biodiversity. Photo by Maya Ray.

The Partnership compiled key lessons learned through this assessment and considered these lessons during development of the 2025 CCMP:
• Projects that are directly funded by the Partnership can be tracked but there is no consistent way to track projects funded by other sources.
• Performance tracking for Partnership-funded projects does not provide sufficient information to determine whether an IA has made significant, partial, or no progress. As a result, the Partnership has limitations to comprehensively evaluating the success of an individual IA.
• The Partnership should emphasize tracking objectives as opposed to IAs to determine program success.

2015 CCMP PROGRESS BY THEME
The following sections provide an overview of the 2015 CCMP Ecosystem Targets and 2020-2024 IAs by theme.

CLEAN WATERS AND HEALTHY WATERSHEDS

Status of Priority Implementation Actions		
WW-2	Continue to collaborate with municipalities, local partners, and stakeholders to strategically plan for and implement capital improvements, Best Management Practices (BMPs), and improved operation and maintenance to mitigate point and nonpoint source pollution loadings, incorporating the analysis of potential future changes in loading (WW1).	C
WW-7	Enhance implementation of the 2000 Dissolved Oxygen TMDL, particularly for nonpoint sources.	P
WW-8	Conduct studies and research to better understand the ecosystem's response to nitrogen reductions to support an evaluation of the 2000 Dissolved Oxygen TMDL.	N
WW-10	Develop a nonpoint source and stormwater tracking system tool for the Long Island Sound watershed.	P
WW-12	Improve understanding, management, design, and implementation of denitrifying decentralized and residential, on-site wastewater treatment systems.	P
WW-13	Improve efficiency and resiliency of existing/new waste treatment systems including septic, WWTP and stormwater infrastructure to be resilient to sea level rise, storm surge, and intense storms and flooding.	P
WW-15	Increase permanent land protection of riparian corridors and wetland buffers at the municipal level.	N
WW-16	Promote establishment and protection of riparian corridors and wetland buffers at the municipal level through development of local ordinances.	N
WW-25	Evaluate challenges to implementation of bioextraction in Long Island Sound, including use conflicts, economic viability, permitting and testing requirements and potential environmental impacts and make recommendations to overcome them.	P
WW-27	Improve ability of models and/or studies to estimate contaminant and nutrient loads to embayments and evaluate the effectiveness of remedial actions.	P
WW-28	Maintain and enhance the management utility of water quality monitoring of watershed nutrient loads and ecosystem responses to Long Island Sound and its embayments.	C
WW-32	Improve the monitoring needed to assess the risk of climate change impacts including acidification on water quality.	C

Out of the seven Ecosystem Targets, two are meeting goals (Extent of Hypoxia and Nitrogen Loading); one is on track (Approved Shellfish Areas); and four are behind schedule (Water Clarity, Sediment Quality Index, Riparian Buffer Extent, and Impervious Cover). Some targets, such as the Extent of Hypoxia, were readily quantifiable with robust monitoring programs in place. There were challenges to meeting other targets that were subject to many variables outside of program management. To illustrate this point, the Partnership could easily track nitrogen loading but had difficulty quantifying changes in nonpoint source loading (where data remains unavailable).

Out of the 40 IAs, 17.5 percent had Significant Progress, 47.5 percent had Partial Progress, and 35 percent had No Progress. The status of the 12 priority IAs are listed in the table.

Implementation Action Status
- 🟢 Complete/significant progress **17.5%**
- 🟡 Progress **47.5%**
- 🔴 No progress **35%**

THRIVING HABITATS AND ABUNDANT WILDLIFE

Status of Priority Implementation Actions		
HW-1	Complete projects that result in restoration of coastal habitat.	C
HW-3	Complete projects that restore or maintain habitat connectivity (i.e., river miles reconnected and/or contiguous acres of coastal habitat protected or restored). Generate supporting GIS data to help measure extent of connectivity enhanced.	P
HW-4	By 2024, agree upon an applicable habitat connectivity model and apply metrics for all restoration and protection projects.	P
HW-5	Use remote sensing, mapping tools, modeling, and field verification to determine sites that are likely to be impacted by sea level rise, and which sites are ideal for habitat migration.	P
HW-6	Develop and apply standardized habitat quality metrics and assessment methodology across targeted habitat types.	P
HW-7	Use leading-edge design tools to prioritize future conservation investment and management plan development for Long Island Sound's most significant and imperiled terrestrial and intertidal coastal habitats.	N
HW-8	Conduct an ecological assessment of lands and waters surrounding Long Island Sound Stewardship Sites and design green infrastructure/low-impact development pilot projects that minimize negative impacts and enhance beneficial ecosystem services of lands and waters within or surrounding the Sites.	N
HW-9	Protect high-priority coastal habitat from development through property acquisition and other means, support sustainable use of these properties, without discouraging wildlife use, and create a registry of protected areas in Connecticut and New York, which encompasses both existing protected properties and future acquisitions.	C
HW-11	In lieu of hard armoring, develop and promote the use of living shoreline habitat protection methods (e.g., dunes, shorelines, and coastal marshes) and standardized living shoreline monitoring protocols while considering the habitat needs of Species of Greatest Conservation Need, including forage species, and reducing wildlife conflicts.	P
HW-14	Develop and implement invasive/non-native species management plans for priority terrestrial and aquatic sites.	P
HW-16	Collect and analyze data on, and restore habitat for, Species of Greatest Conservation Need, including forage species.	C
HW-25	Continue Long Island Sound eelgrass abundance surveys and promote eelgrass management.	P

Out of the seven Ecosystem Targets, two are ahead of schedule (River Miles Restored and Protected Open Space); one is meeting goal (Coastal Habitat Extent); three are behind schedule (Shellfish Harvested, Tidal Wetlands Restored, and Eelgrass Extent); and one has no data available (Habitat Connectivity). While targets such as Coastal Habitat Extent were successful in meeting goals, some of the tracking could be misleading to the public. Coastal Habitat Extent is reported as restored habitat in acres rather than total existing habitat extent. This target also included 12 habitat types.

Out of the 27 IAs, 29.6 percent had Significant Progress, 40.7 percent had Partial Progress, and 29.6 percent had No Progress. The status of the 12 priority IAs are listed in the table.
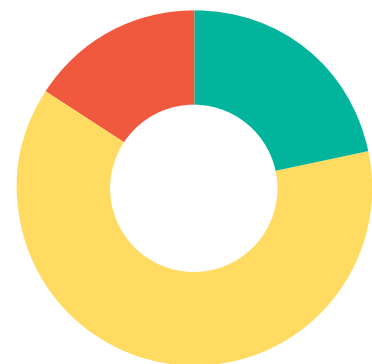

Implementation Action Status
- 🟢 Complete/significant progress **29.6%**
- 🟡 Progress **40.7%**
- 🔴 No progress **29.6%**

SUSTAINABLE AND RESILIENT COMMUNITIES

Status of Priority Implementation Actions		
SC-1	Support festivals, celebrations, events, campaigns and materials that reach priority audiences through multiple communication channels to promote education and encourage appreciation, responsible use, and stewardship of the Sound's natural, cultural, historical and maritime resources.	P
SC-5	Support or develop tools (e.g., training modules, websites, regulations, best practices, etc.) and conduct region-wide and town-specific workshops to assist municipalities in incorporating environmental justice in projects that implement CCMP actions.	P
SC-6	By 2024, develop and implement a 5-year coordinated communications plan that engages multiple audiences (e.g., elected officials and municipalities) in ongoing efforts to improve the health and resilience of Long Island Sound.	C
SC-14	Promote landscaping guidance, practices and policies to property owners and communities that encourage alternatives to chemical and nutrient-intensive landscaping, including establishment of natural vegetated buffers near waterbodies.	C
SC-15	Support efforts through technical and grant assistance to develop behavior change campaigns that result in measurable environmental improvements to the Sound's ecosystem.	P
SC-20	Provide support to municipalities on low-impact development and green infrastructure.	C
SC-22	Use the best available social science research methods to understand the public's role in the Long Island Sound ecosystem and use that information to help support campaigns to reduce pollution, improve water quality and steward healthy habitats and resilient communities.	P
SC-23	Develop tools (e.g., training modules, websites, regulations, best practices, etc.) and conduct region-wide and town-specific workshops to assist municipalities in the development of sustainability and resiliency plans and their integration into comprehensive plans.	P
SC-24	Support community development, adoption, and implementation of new or updated Municipal Sustainability Plans and Coastal Resiliency Plans.	P
SC-26	Identify and recommend removal and, or, protection of sensitive infrastructure in the coastal zone (e.g., oil tanks, pump, power stations, etc.) and work to prevent future siting of such infrastructure in vulnerable coastal floodplains.	N
SC-27	Implement standards, best practices, and educational materials for Green Infrastructure/Low-Impact Development planning and implementation.	P
SC-31	Support planning and implementation to increase the number of points and the length of the Sound's shoreline and rivers that provide equitable public access while also protecting and balancing the health and resilience of sensitive wildlife habitats and breeding areas.	P

Out of the six Ecosystem Targets, three are meeting goals (Waterfront Community Resiliency and Sustainability, Marine Debris, and Public Access); one is behind schedule (Public Beach Closures); and two have no data available (Public Engagement and Knowledge and Harbor and Bay Navigability). The Partnership was able to track the development of resilience plans under the Waterfront Community Resiliency and Sustainability target, but had little to no ability to track degree or quality of implementation of these plans. The Public Engagement and Knowledge target did not have available data, as it is difficult to measure knowledge gained through public engagement.

Out of the 32 IAs, 21.9 percent had Significant Progress, 62.5 percent had Partial Progress, and 15.6 percent had No Progress. The status of the 12 priority IAs are listed in the table.

Implementation Action Status
- 🟢 Complete/significant progress **21.9%**
- 🟡 Progress **62.5%**
- 🔴 No progress **15.6%**

SOUND SCIENCE AND INCLUSIVE MANAGEMENT

Status of Priority Implementation Actions		
SM-1	Regularly update and refine the high-priority science needs relating to the understanding and attainment of management objectives and ecosystem targets.	C
SM-8	Coordinate and leverage community water quality monitoring programs, enhancing the utility and application of data.	C
SM-11	By 2024, complete the Integrated Systemwide Modeling Tool to support nitrogen management and Dissolved Oxygen TMDL assessment.	P
SM-12	Link watershed and groundwater nutrient loading models to Long Island Sound water quality models to better elucidate the sources and contributions of nitrogen and support their management.	C
SM-17	Establish and implement practices to effectively engage underrepresented stakeholders and communities in CCMP implementation and LISS Management Conference decision-making.	P
SM-18	Convene senior EPA and State management to help direct, inform, and coordinate policy relevant to Long Island Sound.	C
SM-20	Support the refinement and application of the Long Island Sound Blue Plan to more comprehensively manage Long Island Sound resources.	P
SM-21	Conduct primary valuations of the critical ecosystem goods and services supported by Long Island Sound and its coastal habitats.	P
SM-24	Research and develop innovative, locally appropriate funding mechanisms to provide sustained, reliable sources of investment capital to restore, and protect ecosystem services.	N
SM-30	Refine the ecosystem metrics and targets based on the underlying science of the Long Island Sound ecosystem to clearly identify the characteristics of a "restored" Long Island Sound.	C
SM-36	Every five years develop a comprehensive, specific, target-oriented implementation plan engaging all Long Island Sound partners.	C
SM-37	In 2021, develop a Sustainable and Resilient Communities five-year plan that identifies specific actions, which, when approved by the Management Conference, will be added to the 2020 CCMP update.	C

There were no Ecosystem Targets for this theme. Out of the 37 IAs, 54.1 percent had Significant Progress, 32.4 percent had Partial Progress, and 13.5 percent had No Progress. The status of the 12 priority IAs are listed in the table.

Implementation Action Status

- 🟢 Complete/significant progress **54.1%**
- 🟡 Progress **32.4%**
- 🔴 No progress **13.5%**