

LONG ISLAND SOUND FUTURES FUND METRICS AND IMPLEMENTATION ACTION TRACKING GUIDANCE

Instructions: The LISFF Full Proposal Narrative will ask you to identify Comprehensive Conservation and Management Plan (CCMP) Implementation Actions (IAs) associated with individual CCMP Themes. Select no more than three (3) CCMP Implementation Actions associated with primary project activities and outcomes at the close of the project. Recommended metrics are also shown relative to a variety of project activities. Please note you may find a relevant IA within different themes. Make sure to review the entire list of IAs. Example 1- CCMP Theme: Clean Waters and Healthy Watersheds; Implementation Action: 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. Metric: Lbs. of N avoided annually, Volume of stormwater prevented. Example 2 - CCMP Theme: Thriving Habitats and Abundant Wildlife; Implementation Action: 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). Metric: Miles of stream opened. [See full list of Implementation Actions - longislandsoundstudy.net/2021/01/ccmp-implementation-actions-supplemental-documents/](https://longislandsoundstudy.net/2021/01/ccmp-implementation-actions-supplemental-documents/)

THEME: CLEAN WATERS & HEALTHY WATERSHEDS - IMPLEMENTATION ACTION WW

Potential CCMP Implementation Actions	Examples of Project Activities	List of Potential Project Metrics Depending upon Project Activities
<ul style="list-style-type: none"> • WW-1: Evaluate how drivers of pollutant loads and management responses will affect current and future pollutant loads from point and nonpoint sources. • 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. • WW-4: Pursue opportunities to further improve nitrogen removal including low-cost retrofits at WWTFs throughout the watershed but particularly in the upstream states. • WW-9: Improve and enforce pesticide/herbicide/fertilizer regulations and other Best Management Practices for agriculture and urban turf. • WW-12: Improve understanding, management, design, and implementation of denitrifying decentralized and residential, on-site wastewater treatment systems. • WW-14: Support collaborative and inclusive development of new and updated restoration/protection plans for Connecticut and New York embayment subwatersheds with pollution load reduction targets. • WW-16: Promote establishment and protection of riparian corridors and wetland buffers at the municipal level through development of local ordinances. • WW-20: Support activities to achieve trash-free waters. • 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. • WW-35: Assess sources of pathogens and nutrients and work with communities to abate or alleviate those sources. 	<ul style="list-style-type: none"> • Living shorelines • Floodplain restoration • Marine habitat restoration- eelgrass & reefs • Coastal forest restoration • Beach and dune habitat restoration • Wetland restoration • Riparian restoration • Fish passage, restoration of riverine migratory corridor • Terrestrial habitat restoration • Invasives control and planning • Species Conservation- BMP implementation to mitigate recreational disturbance 	<ul style="list-style-type: none"> • Lbs. N avoided annually • Lbs. P avoided annually • Lbs. of sediment avoided annually • # septic system upgrades • Gallons volume of stormwater prevented • Acres with BMPs • # septic system upgrades • Acres with Best Management Practices • Miles restored for erosion control to reduce N and P • Lbs. of marine debris removed • Square miles of riparian restoration • Sq. ft. impervious surface removed • Sq. ft. of green infrastructure

CCMP THEME: THRIVING HABITATS AND ABUNDANT WILDLIFE

Potential CCMP Implementation Actions	Examples of Project Activities	List of Potential Project Metrics Depending upon Project Activities
<ul style="list-style-type: none"> • HW-1: Complete projects that result in restoration of coastal habitat. • 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. • 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. • HW-10: Promote management practices that limit human disturbance and protect functional availability of coastal and marine habitats for Species of Greatest Conservation Need, including forage species and other wildlife. • HW-11: In lieu of hard armoring, develop and promote the use of living shoreline habitat protection methods (dunes, shorelines, 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. • HW-12: Promote the conversion of existing armored shorelines (seawalls, riprap, bulkheads, etc.) to softer, nature-based living shorelines to enhance habitat and habitat connectivity. • HW-13: Promote directed volunteer-driven invasive species reconnaissance and removal work • HW -14: Develop and implement invasive/non-native species management plans for priority terrestrial (no aquatic) sites. • HW-16: Collect and analyze data on, and restore habitat for, Species of Greatest Conservation Need, including forage species. • HW-17: Reduce and manage threats to populations of Species of Greatest Conservation Need, including forage species. • HW-20: Develop and support programs to engage landowners in understanding the importance of habitat protection and management methods and in implementing them on their properties. • HW-22: Engage local communities in design, development, implementation, and promotion of habitat restoration, stewardship and monitoring projects. • HW-23: Collect and analyze data on LISS 12 targeted coastal habitat types in order to improve habitat assessment and adaptive management. • HW -25: Continue Long Island Sound eelgrass abundance surveys and promote eelgrass management. 	<ul style="list-style-type: none"> • Living shorelines • Floodplain restoration • Marine habitat restoration- eelgrass & reefs • Coastal forest restoration • Beach and dune habitat restoration • Wetland restoration • Riparian restoration • Fish passage, restoration of riverine migratory corridor • Terrestrial habitat restoration • Invasives control and planning • Species Conservation- BMP implementation to mitigate recreational disturbance 	<ul style="list-style-type: none"> • (Marine Habitat) Enter the number of acres restored. In the NOTES: describe the specific type of habitat restored e.g., shellfish reef, eelgrass. • (Coastal Forest) Enter the number of acres restored. In the NOTES: describe the specific type of habitat restored e.g., coastal forest. Specify landcover prior to restoration (barren, cropland, grass, shrub) and post restoration (broadleaf, conifer, redwood, shrubland). • (Terrestrial Habitat) Enter the number of acres of beach and dune restored. • (Terrestrial Habitat) Enter the number of acres of riparian buffer restored. • (Wetland Restoration) Enter the number of acres of wetland (not riparian or instream) habitat restored. In the NOTES: Specify landcover prior to restoration (Marsh, Tidal Marsh); and indicate % of vegetation on pre-project site (0-20%, 41-60%, 61-80%, 82-100%). • (Resilience) Enter the acres of living shoreline to be restored. In NOTES section: describe the method used e.g., oyster reefs/castles, reef balls etc. • (Invasives) Enter # acres of invasives removed. In the NOTES, specify: vegetation removed (e.g., Japanese knotweed, porcelain-berry, mugwort etc.). Desired dominant vegetation (e.g., Coastal Forest, Coastal Grassland, Salt/Tidal or Freshwater Marsh, Beach/Dune etc.), average frequency (in years) of future treatment, and whether removed vegetation will be left on site to decompose (Yes/No). • (Invasives) Enter the number of acres of invasive species re-treated (having received previous treatment). In the NOTES, specify: vegetation removed (e.g., Japanese knotweed, porcelain-berry, mugwort etc.), desired dominant vegetation (e.g., Coastal Forest, Coastal Grassland, Salt/Tidal or Freshwater Marsh, Beach/Dune etc.), average frequency (in years) of future treatment, and whether removed vegetation will be left on site to decompose (Yes/No). • (Invasives) Enter # acres of invasives removed. In the NOTES, specify: vegetation removed (e.g., Japanese knotweed, porcelain-berry, mugwort etc.). Desired dominant vegetation (e.g., Coastal Forest, Coastal

		<ul style="list-style-type: none"> • Grassland, Salt/Tidal or Freshwater Marsh, Beach/Dune etc.), average frequency (in years) of future treatment, and whether removed vegetation will be left on site to decompose (Yes/No). • (Invasives) Enter the number of acres of invasive species re-treated (having received previous treatment). In the NOTES, specify: vegetation removed (e.g., Japanese knotweed, porcelain-berry, mugwort etc.), desired dominant vegetation (e.g., Coastal Forest, Coastal Grassland, Salt/Tidal or Freshwater Marsh, Beach/Dune etc.), average frequency (in years) of future treatment, and whether removed vegetation will be left on site to decompose (Yes/No). • (Fish Passage) Enter # of miles opened. Enter total # of miles opened to improve aquatic organism passage. Only include the miles of main stem & smaller tributaries connected until the next barrier upstream (or headwaters), but NOT lakes, ponds, or distance downstream from the barrier removed. • (Fish Passage) Enter the # of in-stream barriers removed or rectified as part of this grant to improve aquatic organism passage and/or flooding. If multiple barriers exist at one specific location, please list "1" and list each individual barrier in the notes. Enter the number of acres of lake/pond habitat opened. • (Species Conservation) Enter the number of acres under improved management as a result of mitigating recreational disturbance to shorebirds and seabirds. In the NOTES section: list the species benefited.
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CCMP THEME: SUSTAINABLE & RESILIENT COMMUNITIES

Potential CCMP Implementation Actions	Examples of Project Activities	List of Potential Project Metrics Depending upon Project Activities
<ul style="list-style-type: none"> • 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. • SC-2: Support efforts and projects that promote environmentally sustainable recreational activities and protection of the Sound’s environmental and wildlife resources. • 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. 	<ul style="list-style-type: none"> • Access Improvements • Outreach/Education/Technical Assistance • Volunteer Participation 	<ul style="list-style-type: none"> • Enter the number of public access points developed/improved. • Enter the number of acres now open to public access. • Enter the number of organizations and other relevant stakeholders contributing to the initiative's conservation goals. • Enter the number of people reached by outreach, training, or technical assistance activities, In NOTES section: describe participant e.g., local community members, leaders and other relevant stakeholders, general public, farmer, students/teachers.

- **SC-7:** Produce informational materials to engage multiple audiences in stewardship and increase the public's understanding of the ecological, cultural, and recreational value of Long Island Sound.
- **SC-11:** Support local volunteer organizations that are working toward the ecological restoration of the Sound and its tributaries.
- **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.
- **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.
- **SM-17:** Establish and implement practices to effectively engage underrepresented stakeholders and communities in CCMP implementation and LISS Management Conference decision-making.
- **SC-18:** Support and encourage informal education activities on Long Island Sound.
- **SC-19:** Support programs and opportunities that promote in-the-field and hands-on learning through classroom and informal activities.
- **SC-20:** Provide support to municipalities on low-impact development and green infrastructure.
- **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.
- **SC-24:** Support community development, adoption, and implementation of new or updated Municipal Sustainability Plans and Coastal Resiliency Plans.
- **SC-27:** Implement standards, best practices, and educational materials for Green Infrastructure/Low-Impact Development planning and implementation.
- **SC-30:** Provide technical and financial assistance to municipalities to implement sustainable and resilient community projects.
- **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.
- **SC-32:** Encourage the sustainable use of natural coastal areas, including Long Island Sound Stewardship Areas, through support of sustainable blueways, bikeways, and greenways.

- Enter the number of volunteers participating in projects.
- Enter the number of workshops, webinars or meetings. In the NOTES section: describe the type of event.
- Enter the number of public education events completed.

ALL CCMP THEMES: Planning All Types & Technical Assistance

Potential CCMP Implementation Actions	Examples of Project Activities	List of Potential Project Metrics Depending upon Project Activities
<ul style="list-style-type: none"> • WW-1: Evaluate how drivers of pollutant loads and management responses will affect current and future pollutant loads from point and nonpoint sources. • 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. • WW-4: Pursue opportunities to further improve nitrogen removal including low-cost retrofits at WWTFs throughout the watershed but particularly in the upstream states. • WW-9: Improve and enforce pesticide/herbicide/fertilizer regulations and other Best Management Practices for agriculture and urban turf. • WW-12: Improve understanding, management, design, and implementation of denitrifying decentralized and residential, on-site wastewater treatment systems. • WW-14: Support collaborative and inclusive development of new and updated restoration/protection plans for Connecticut and New York embayment subwatersheds with pollution load reduction targets. • WW-16: Promote establishment and protection of riparian corridors and wetland buffers at the municipal level through development of local ordinances. • 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. • HW -14: Develop and implement invasive/non-native species management plans for priority terrestrial sites. • HW-16: Collect and analyze data on, and restore habitat for, Species of Greatest Conservation Need, including forage species. • HW-17: Reduce and manage threats to populations of Species of Greatest Conservation Need, including forage species. • HW-20: Develop and support programs to engage landowners in understanding the importance of habitat protection and management methods and in implementing them on their properties. • HW-22: Engage local communities in design, development, implementation, and promotion of habitat restoration, stewardship and monitoring projects. • HW-23: Collect and analyze data on LISS 12 targeted coastal habitat types in order to improve habitat assessment and adaptive management. 	<ul style="list-style-type: none"> • Management or Governance Planning • Planning different types • Technical assistance 	<ul style="list-style-type: none"> • Enter the number of plans developed that had input from multiple stakeholders. In NOTES section: describe the type of plan, campaign or strategy e.g., watershed, feasibility/suitability/alternatives analyses, conceptual or engineered plan. • Enter the number of acres assessed for improved management. Enter the number of Engineering and Design plans developed. Generally there will be 1 plan per project to be constructed. • Enter the number of Engineering and Design plans developed. Generally there will be 1 plan per project to be constructed. • Enter the number of organizations and other relevant stakeholders contributing to the initiative's conservation goals. • Enter the number of people reached by outreach, training, or technical assistance activities, In NOTES section: describe participant e.g., local community members, leaders and other relevant stakeholders, general public, farmer, students/teachers. • Enter the number of barriers assessed and or with design plans.

- **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.
- **SC-20:** Provide support to municipalities on low-impact development and green infrastructure.
- **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.
- **SC-24:** Support community development, adoption, and implementation of new or updated Municipal Sustainability Plans and Coastal Resiliency Plans.
- **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.