

STRATUS CONSULTING

Long Island Sound Futures Fund (LISFF) Final Evaluation Report

Prepared for:

U.S. Environmental Protection Agency, Long Island Sound
Office; Long Island Sound Study; and National Fish and
Wildlife Foundation

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Table of Contents

Executive Summary.....	iii
About this Report.....	1
1. Background	1
1.1 Conditions in Long Island Sound	1
1.2 Overview of the LISFF program.....	2
2. Evaluation Methodology and Process.....	4
Step 1: Review of project and program archival materials.....	6
Step 2: Kickoff “convergence workshop”	7
Step 3: Grantee online survey.....	7
Step 4: Site visits	7
Step 5: In-depth grantee interviews	8
Step 6: Insider and outsider interviews	8
Step 7: Integration of findings	9
3. LISFF Evaluation Findings	9
3.1 LISFF program strategy: Is the LISFF program strategically coherent and sound?	9
Question 1. To what extent do grantee projects align with the broader conservation goals and mission of the LISFF program?.....	9
Question 2. What are the LISFF’s unique contributions and role within the network of Long Island Sound stewardship and management agencies?	11
3.2 Program Implementation – Is the LISFF program being implemented effectively?	11
Question 3. Are there factors that significantly enable the achievement of grantee outputs? How effective is the LISFF project selection process at selecting successful projects? What are the variables that make a successful grantee/project?	11
Question 4. Are there factors that limit project impact and recipient performance?	13
Question 5. How can grantee project metrics be made more useful? What performance-based project metrics are best suited for measuring the impact of key LISFF conservation strategies?	16
Question 6. Do multi-year grantees show evidence of adaptive management or strategic learning?	17
Question 7. The LISFF “portfolio” of projects is broad and diverse. Do particular types of activities stand out as problematical?	18
Question 8. Are the LISFF funding allotments adequate to maximize project benefits?	19

Question 9. Are there components or procedures within the LISFF program that could be improved?	20
3.3 Program results – Does LISFF contribute to improvements in the environmental health and status of Long Island Sound?	20
Question 10. Given observed outcomes and funding patterns, where might investments be most prudently directed in order to maximize conservation impacts in Long Island Sound?	20
Question 11. What does the LISFF bring to the region that wasn't there before?	23
Question 12. How has the LISFF program enhanced the LISS and management conference?	23
Question 13. Do grantee outputs link convincingly to identified longer-term environmental/conservation outcomes?	24
Question 14. How effective is the grant-making process in terms of building long-term grantee capacity?	24
Question 15. What is the potential for LISFF investments to be sustained?	24
4. Recommendations	26
Appendix A Online Survey Questionnaire	31
Appendix B Evaluation of LISFF Program Project Types	48
Introduction	49
Application of evaluation criteria	50
Appendix C Bibliography	58
Glossary	60

Executive Summary

The purpose of the Long Island Sound Futures Fund (LISFF) is to support local and regional on-the-ground implementation of projects that contribute to improving conservation and environmental quality Sound-wide. LISFF is administered by the National Fish and Wildlife Foundation (NFWF) in partnership with the Long Island Sound Study (LISS), a bi-state partnership comprised of a suite of stakeholders, including federal, state, and local public agencies, individuals, educational institutions, nongovernmental organizations, and user groups. LISFF funding partners include LISS, the U.S. Environmental Protection Agency, the National Fish and Wildlife Foundation, the U.S. Fish and Wildlife Service, the Natural Resources Conservation Service, with other contributions from corporations and settlements.

Since 2005, LISFF has invested over \$10 million in 258 projects to protect and restore the health and living resources of Long Island Sound. With a match of approximately \$23 million, LISFF influences a total investment of about \$33 million for the conservation of Long Island Sound and stewardship of its environmental and human resources. The LISFF typically funds between \$1 and \$2 million in grant awards on an annual basis.

In 2012 Stratus Consulting was commissioned to conduct an independent evaluation of the LISFF. We worked closely with NFWF and LISS management to conduct an ensemble of six research steps; and then performed an integrated analysis to produce findings and recommendations pertaining to the program's strategy, implementation, and results.

Overall, Stratus Consulting found LISFF to be a vital, well-run program serving a real need with respect to a one-of-a-kind resource, Long Island Sound. The program is greatly appreciated by grantees and their communities. The program has completed a wide range of innovative, successful, and visible conservation and restoration projects within the Long Island Sound region. Also important, the program provides valuable non-monetary services to grantees, helping to build organizational capacity within the region and thereby strengthening the "community of practice" dedicated to the stewardship of Long Island Sound.

While we find that LISFF grants are consistent with goals articulated in the LISS Comprehensive Conservation and Management Plan (CCMP), we nevertheless feel that the program would benefit from greater definition with regard to its core mission and programmatic identity. We also suggest a number of program deployment changes that we believe would increase grantee success and enhance overall LISFF results. Exhibits E.1 and E.2 summarize highlights of the evaluation, with Exhibit E.1 outlining findings and associated recommendations as they pertain to LISFF program strategy and program implementation and Exhibit E.2 summarizing strengths and weaknesses of major LISFF grant categories along with recommendations specific to each type of grant.

Exhibit E.1. Summary of Major Findings and Associated Recommendations

STRATEGIC FINDINGS

Strategic Finding 1: The LISFF program lacks a sharp mission; different LISS program partners emphasize different program foci and values. The program has a very broad scope; perhaps trying to do too many things with its relatively limited budget.

Recommendation: NFWF and LISS program managers should better define and possibly restrict the program's focus, perhaps holding a facilitated retreat to reaffirm the program's mission.

Strategic Finding 2: Grantee project execution can be enhanced through access to a shared pool of contractual resources and services.

Recommendation: NFWF and LISS program managers should consider providing grantees with access to LISFF-sponsored resources and services, such as a dedicated communications consultant and/or consulting engineering services. Possibly accessed by grantees through a voucher system, such a pool of services could help to design effective outreach campaigns, coordinate grantee communications and education activities, provide independent reviews and technical guidance for development or review of project estimates, or provide expert oversight for specialized maintenance activities.

IMPLEMENTATION FINDINGS

Implementation Finding 1: Standalone education and outreach projects are infrequently evaluated by grantees to characterize their impact, either with respect to knowledge generation or behavioral change in target audiences. These projects appear to have a limited impact on the population of Long Island Sound. Outreach and educational activities appear more effective if associated with a conservation and/or restoration project.

Recommendation: If these types of projects continue to be emphasized, LISS and LISFF program managers should invest in a regional survey of Long Island Sound-related knowledge, attitudes, and behaviors. All projects should then be designed and delivered to address aspects of this survey in a coordinated campaign of education and outreach. In addition, LISFF should consider limiting outreach, education, and behavioral change funding to interventions tied to infrastructure, conservation, or restoration projects.

Exhibit E.1. Summary of Major Findings and Associated Recommendations (cont.)

<p>Implementation Finding 2:</p>	<p>Volunteers are very important to LISFF projects; effective volunteer management enables grantee performance, less effective volunteer management constrains grantee performance.</p>
<p>Recommendation:</p>	<p>Request for Proposals (RFPs) and associated applications for LISFF funding should request a volunteer management plan that addresses recruitment, management, training, and recognition of volunteers; LISFF should invest in annual volunteer management workshops for grantees.</p>
<p>Implementation Finding 3:</p>	<p>A “champion” is a person who brings great conviction, passion, and knowledge to the implementation of a project. Some LISFF projects involve such a champion, while others do not. Projects involving a “champion” fare better than those which do not.</p>
<p>Recommendation:</p>	<p>RFPs for LISFF funding should seek sufficient detail in the personnel section to enable reviewers to assess whether proposed project staff include at least one individual who has a long-term commitment to the activity and area in question, and a demonstrated passion for the proposed outcomes.</p>
<p>Implementation Finding 4:</p>	<p>Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis. These people do not necessarily work together every day, but they communicate because they find value in their interactions. Such individuals may develop a common sense of identity. Informal ties between grantees appear to bolster performance of individual grantees.</p>
<p>Recommendation:</p>	<p>Wherever possible, LISFF should seek either to foster or to fund into existing communities of practice within Long Island Sound.</p>
<p>Implementation Finding 5:</p>	<p>Adaptive management is the application of scientifically informed conservation and resource management strategies whose recommendations are iteratively evaluated and revised to improve outcomes. LISFF supports an adaptive approach to project management. This practice should be more formalized within proposal review and grant management processes.</p>
<p>Recommendation:</p>	<p>Applicants should be required to specify factors likely to impact project completion, describe how project status will be tracked, and describe conditions or thresholds that may trigger the need for a revised approach.</p>
<p>Implementation Finding 6:</p>	<p>Diverse, multi-organizational project teams tend to have more capabilities and resilience than project teams comprised of a single entity, leading to sustained project outputs.</p>
<p>Recommendation:</p>	<p>Proposals that combine the skills, experience, and resources of multiple formal partners such as municipal government, nongovernmental organizations, and educational institutions should be favored over those that involve only (or predominantly) a single entity.</p>

Exhibit E.2. Strengths, Weaknesses, and Recommendations by LISFF Grant Category

STRENGTHS	WEAKNESSES	RECOMMENDATIONS
Grant Category: Large Project Grants		
<p>Project grants directly support CCMP priorities that reduce pollution or contribute to the restoration of Long Island Sound. Projects provide versatile means of support to augment LISS programs. They also provide flexible means for communities to pilot innovative solutions to long-term problems.</p>	<p>Lack of focus, too many different project types and priorities, and lack of “critical mass” in any single area to make a difference at the scale of Long Island Sound. Short-term funding commitment is inconsistent with the long-term, sustained focus needed to achieve goals of some projects.</p>	<p>Reduce scope of covered projects and priorities; Increase period of grant coverage; and In evaluating proposals, focus on factors such as maintenance, the presence of project champions, and diverse project teams to help ensure sustainability of funded projects.</p>
Grant Category: Planning Grants		
<p>LISFF planning grants are a unique resource serving to catalyze important community initiatives and projects with potential to serve as models Long Island Sound-wide.</p>	<p>Few significant weaknesses.</p>	<p>Continue to support at current levels or higher; and Ensure that applicants for planning grants focus on relationship- and community-building as well as project design.</p>
Grant Category: Education Grants		
<p>There is a great need to improve public understanding of current conditions and threats to the health of Long Island Sound. Surveys indicate that citizens of Long Island Sound suffer from a significant knowledge deficit regarding the environmental condition of the Sound, how citizen behaviors contribute to degradation, and things citizens can do to lessen or reverse trends.</p>	<p>Education programs are not coordinated, do not address a common suite of themes or issues, and hence, do not constitute a Sound-wide “campaign.”</p>	<p>Consider reduction in support for “standalone” education projects; Maintain funding for educational initiatives associated with physical restoration or water quality projects that improve a hands-on understanding of threats and resources; and Consider coordination of multiple education projects into thematically unified, Sound-wide campaigns of outreach and education.</p>
Grant Category: Mini-grants		
<p>Mini-grants provide funds to support shorter-term, hands-on, and highly visible projects and activities that involve and educate citizens and students about the Sound and the public’s connection to the resource. Mini-grants clearly generate a lot of good will for LISS; the overall funding burden is relatively low.</p>	<p>Mini-grants are not coordinated, do not address a common suite of themes or issues, and hence, do not constitute a Sound-wide “campaign.”</p>	<p>Take steps to coordinate at least some aspects of mini-grant events; and Create coordinated, Sound-wide campaigns.</p>



An example of successful, high-visibility LISFF project activity, revegetation and bank stabilization along the Bronx River Greenway.

About this Report

This report has four main sections. Section 1 provides background on Long Island Sound and the Long Island Sound Futures Fund (LISFF) program. Section 2 describes the seven-step evaluation process undertaken by Stratus Consulting. Section 3 describes evaluation findings, expressed in terms of answers to a series of 15 evaluation questions, framed to address issues of program strategy, implementation, and results. Section 4 describes recommendations to National Fish and Wildlife Foundation (NFWF) and Long Island Sound Study (LISS) program managers concerning possible changes in program strategy and implementation. The report also includes three appendices: (1) the questionnaire used for the online survey, (2) the multi-attribute analysis used to assess the comparative effectiveness of common LISFF project types, and (3) a list of references and archival resources are included in a bibliography. A glossary is included at the end of the report.

1. Background

Long Island Sound is a vital estuary in the northeastern United States supporting diverse and significant natural resources as well as an array of human activities such as commerce, transportation, research, recreation, and national defense. The estuary lies within the most densely populated region of the United States. Nearly nine million people reside in the watershed, with approximately one-third of these people living within a few miles of the shoreline. An estimated \$5 billion is generated annually within the region due to boating, fishing, swimming, and beach-going activities (LISS, 2011a, 2012).

1.1 Conditions in Long Island Sound

Long Island Sound experiences severe environmental pressures from the impact of anthropogenic activities within the watershed. Urbanization, industrial activities, and agriculture have profound impacts on water quality in the Sound and its tributaries. The densely populated and developed Western Sound experiences the most environmental impacts due to pollution and nutrient inputs into the ecosystem. Hypoxia, sediment contamination, pathogen contamination, marine debris, and industrial pollution are some of the environmental impacts faced by the Sound. The Sound is also vulnerable to climatic variations, and in recent years has experienced extreme weather events, such as hurricanes, tropical storms, and unseasonal blizzards. Future climate change, including variations in water temperature outside of historical patterns, may alter fishery activities within the Sound, and increased intensity of storm events could exacerbate negative effects of pollution and nutrient inputs from human activities.

Investments into improving the Sound's ecological health through water pollution control programs have been occurring over several decades, since the introduction of the Clean Water Act in 1972. Efforts into improving pollution control and water quality have led to corresponding improvements in ecosystem health, but remaining threats to the Sound include development pressure, agricultural runoff, increased pollution inputs from expanding industrial

activities, and resource consumption for commercial and recreational purposes. In 1985, the U.S. Environmental Protection Agency (EPA), New York, and Connecticut formed a multidisciplinary, bi-state collaborative partnership comprised of stakeholders, including federal, state, and local public agencies, individuals, and user groups called the Long Island Sound Study. LISS focuses on hypoxia, toxic and pathogen contamination, floatable debris, resource and habitat management, land use and development, and public involvement and education initiatives under the Comprehensive Conservation and Management Plan (CCMP; LISS, 1994).

1.2 Overview of the LISFF program

The purpose of the LISFF program is to support local and regional on-the-ground implementation of projects that address the priorities of the CCMP, contribute to improving conservation and environmental quality Sound-wide, and engage communities and people in those efforts. Since 2005, the LISFF program has invested over \$10 million in 258 projects to protect and restore the health of Long Island Sound. With a match of approximately \$23 million, LISFF influences a total investment of about \$33 million for the conservation of Long Island Sound and stewardship of its environmental and human resources.

LISFF is administered by NFWF in partnership with the LISS. LISFF funding partners include LISS, EPA, NFWF, the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service (NRCS), with other contributions from corporations and legal settlements.

The LISFF funds approximately \$1–2 million in grant awards on an annual basis. Awards address at least one of five designated “conservation priorities,” outlined in Exhibit 1. Grant awards support project performance periods of 12–15 months. The LISFF operates through four types of grants, three of which are classified as “large” and one as “mini-grant.”

- **Large Project Implementation Grants:** Ranging between \$20,000 and \$150,000, these grants are awarded to support projects anticipated to result in pollutant reductions and/or gains in the restoration or protection of LISS Habitat Initiative types or LISS Stewardship Initiative areas.

Exhibit 1. LISFF Conservation Priorities

- **Urban Waters:** Assist communities, especially underserved communities, to improve and benefit from their surrounding land and waters.
- **Clean Water and Healthy Watersheds:** Improve water quality in Long Island Sound to restore fish and wildlife, and enhance public use and enjoyment.
- **Restore and Protect Habitat, and Conserve Wildlife:** Enhance habitat of important fish and wildlife species within Long Island Sound and its rivers and streams.
- **Engage People and Communities around the Sound:** Engage citizens and stakeholders to increase knowledge and/or foster sustainable behaviors through social marketing and related tools.
- **Improve Conservation on Private Lands:** Work with landowners to increase conservation activities conducted on private lands.

- **Large Planning Grants:** Ranging between \$20,000 and \$60,000, these grants primarily support planning and design processes anticipated to lead to implementation of habitat restoration, acquisition, or water-quality projects. Support is also provided for watershed planning and water-quality monitoring activities.
- **Large Education Grants:** Ranging between \$20,000 and \$35,000, these grants are for projects that utilize education and/or social marketing approaches in an effort to build awareness and engagement and change behavior in targeted audiences, including the general public.
- **Mini-grants:** Ranging between \$3,000 and \$10,000, these grants support shorter-term, hands-on, and highly visible projects and activities that involve and educate citizens and students about the Sound and the public’s connection to the resource.

LISFF grantees are diverse. Almost 60% of LISFF grantees classify themselves as nonprofit organizations, 18% identify themselves as city or municipal government agencies, 9% as academic or educational institutions, 9% as a state government agency, and 5% as “other.” Most LISFF grantees (53%) are relatively small organizations, with fewer than 10 staff devoted to environmental or conservation-related activities. Very few LISFF grantees are large organizations, with only two survey respondents classifying themselves as having over 500 staff working on environmental or conservation-related efforts. Approximately 25% of grantees have a conservation-related budget of less than \$50,000 per year, and 14% have a conservation budget between \$50,000 and \$100,000. About 43% report a conservation budget of over \$250,000 per year.

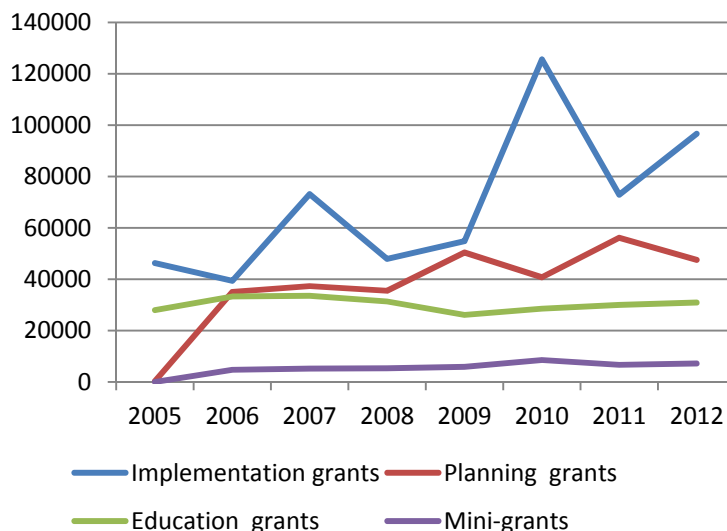
As indicated in Exhibit 2, total LISFF funding averaged about \$1 million per year from 2005 through 2009, increasing to about \$2 million per year from 2010 to 2012. Project implementation grants are by far the largest category, being allotted between 50% and 75% of all program funds in recent years. With the exception of project implementation grants, funding by grant category appears to have remained relatively constant throughout the life of the program (see Exhibit 3). With isolated exceptions, average grant size has remained stable for planning, education, and mini-grants. However, average awards for project implementation grants can vary significantly from year-to-year, sometimes by as much as 100% or more. It is our understanding that this variation is due to sponsor agency budget factors, and is not the result of strategic allocation decisions on the part of LISFF.

Exhibit 2. Total Funds Awarded per Year by Category

	2005	2006	2007	2008	2009	2010	2011	2012
Implementation grants	508,793	393,772	438,771	383,248	548,030	1,884,555	1,020,709	1,449,596
Planning grants	130,000	245,358	298,443	248,456	151,127	285,158	392,789	190,000
Education grants	307,594	133,000	134,000	219,062	234,627	228,200	269,377	216,090
Mini-grants	0	56,769	31,000	73,736	64,124	68,270	66,584	64,359
Total	\$946,387	\$828,899	\$902,214	\$924,502	\$997,908	\$2,466,183	\$1,749,549	\$1,920,045

Although LISFF has made 258 grant awards over the life of the program, some of the grants were made only one time and others received support in two or more funding cycles. After review of the grants funded in the period 2005–2012, we find that LISFF has supported 179 distinct projects over its eight-year program tenure. Of the 179 projects funded between 2005 and 2012, 132 (74%) were funded for only a single 12–15 month cycle. Twenty-nine projects (16%) were funded for two cycles, and 18 projects (10%) were funded for three cycles. LISFF resources are intended for use in project planning and initial deployment, not for long-term operational support.

Exhibit 3. Average Funds by LISFF Grant Category: 2005–2012



Consistent with the LISS CCMP, LISFF funds a wide variety of projects and priorities. Exhibit 4 summarizes grantee descriptions of project activities. As suggested by the graphic in Exhibit 5, many grants address multiple project objectives. We think it noteworthy that many LISFF projects include an education and/or outreach component in addition to their primary activity, enabling the completed project to serve a role that is both functional and potentially transformational. As indicated by a comparison of Exhibits 1, 4, and 5, grantee descriptions of their activities suggest a good match between LISFF priorities and grantee project outputs.

In addition to grant-based funding, the program provides recipients with a range of non-monetary services, including access to LISS technical advisors (TAs), a wide range of technical guidance materials, and guidance and mentoring from NFWF and TAs.

2. Evaluation Methodology and Process

Starting in January 2012, NFWF, working in consultation with EPA’s Long Island Sound Office, convened an advisory team to oversee a third-party evaluation of the LISFF program. The advisory team was comprised of representatives from the natural resource agencies of Connecticut and New York, the Long Island Sound Study Science and Technical Advisory Committee, and the New York Sea Grant. Members of this advisory team participated in defining the scope of the evaluation, reviewed pre- and full proposals, and recommended the selection of Stratus Consulting to conduct the third-party evaluation. Two nongovernmental organizations joined the team post-selection to further refine the evaluation scope and develop evaluation questions.

Throughout the evaluation, Stratus Consulting worked in consultation with NFWF, including both evaluation staff and LISFF managers. In addition to this report, we provided interim findings in the form of briefings and reports, including a thematic summary of major observations from site visits.

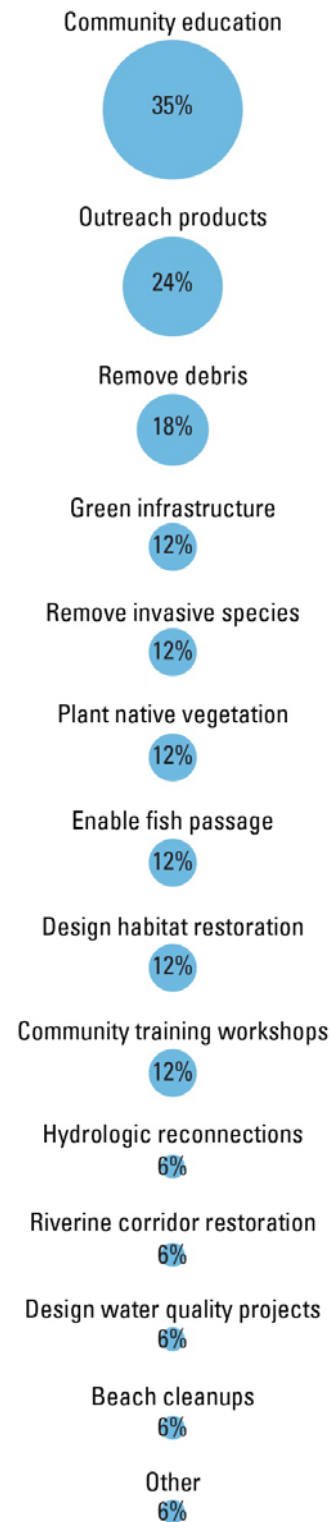
Major research steps conducted by Stratus Consulting included:

1. A structured archival review;
2. A “convergence workshop” with LISFF and LISS program managers and the advisory team to discuss evaluation scope and questions;
3. An online grantee survey designed for all past and present grantees;
4. A series of 29 site visits;
5. A series of 22 topically oriented, in-depth grantee interviews (by telephone);
6. A series of interviews with outside experts knowledgeable about estuary conservation or related issues, and a series of interviews with LISS partner agency managers with some oversight responsibility for LISFF (by telephone); and
7. A synthesis of information assembled through previous research steps.

This approach was developed to obtain an ensemble of qualitative and quantitative information about the LISFF program. Dependence on information obtained through any one of the activities described below might provide a biased or incomplete perspective on the program’s status and/or effectiveness. However, taken together in an integrated analysis, these methods enabled Stratus Consulting to merge methodologies and provide careful, nuanced narrative and visual depictions of the soundness of the program’s strategic orientation, the effectiveness of its implementation, and the impact of grantee activity.

Exhibit 4. Grantee Descriptions of Project Activities

(Grantee could select multiple options)



As a general rule, evaluation findings must be supported by multiple lines of evidence from the ensemble of research activities.

These research and analytical steps are described in greater detail below.

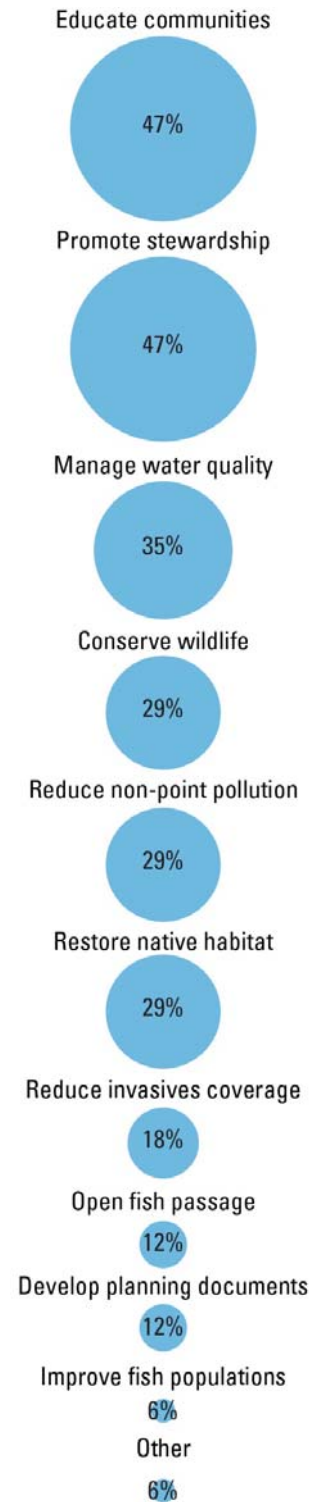
Step 1: Review of project and program archival materials

Stratus Consulting selected 80 projects for in-depth archival review, including both completed and in-progress projects for the period 2005 to 2011. In making these selections, we strove for variety in terms of project location, habitat types, project intervention approaches, LISFF grant categories, and LISFF conservation priorities. We reviewed project documentation such as annual grant award summaries, project proposals, progress reports, final reports, supplementary documents, and closure memoranda. We also reviewed key LISFF and LISS strategic and guidance documents, including the LISS Comprehensive Conservation and Management Plan, the 2011–2013 Long Island Sound Action Agenda, the LISFF 2012 Request for Proposals (RFP), the PowerPoint presentation for the LISFF 2012 General Proposal Applications Webinar, and various technical guidance documents available to grantees.

For each project, we summarized basic descriptive information, but also reviewed materials with a critical eye to discern factors such as:

- Factors cited or implied that either enabled or limited the grantee’s ability to complete the project as proposed;
- Factors cited or implied that either enabled or constrained the project from delivering or contributing to the outcomes envisioned;
- Factors cited that might affect the sustainability of a project or mode of intervention;

Exhibit 5. Grantee Descriptions of “Primary” Project Objectives
(Grantee could select multiple objectives)



- Factors cited that might affect the replicability of a particular type of intervention approach; and
- A narrative that suggests that grant outputs (deliverables at the end of the project performance period) departed from LISFF priorities and/or approaches.

Step 2: Kickoff “convergence workshop”

After becoming fully immersed in the archival review, Stratus Consulting facilitated an in-person project “convergence workshop” with key NFWF and LISS program partners including the advisory team of representatives from the natural resource agencies of Connecticut and New York, the Long Island Sound Study Science and Technical Advisory Committee, New York Sea Grant and nongovernmental organizations, to provide a forum for reviewing and discussing key evaluation questions, existing and potential future program tracking metrics, and other evaluation needs. This workshop resulted in the set of questions used to guide the overall evaluation process.

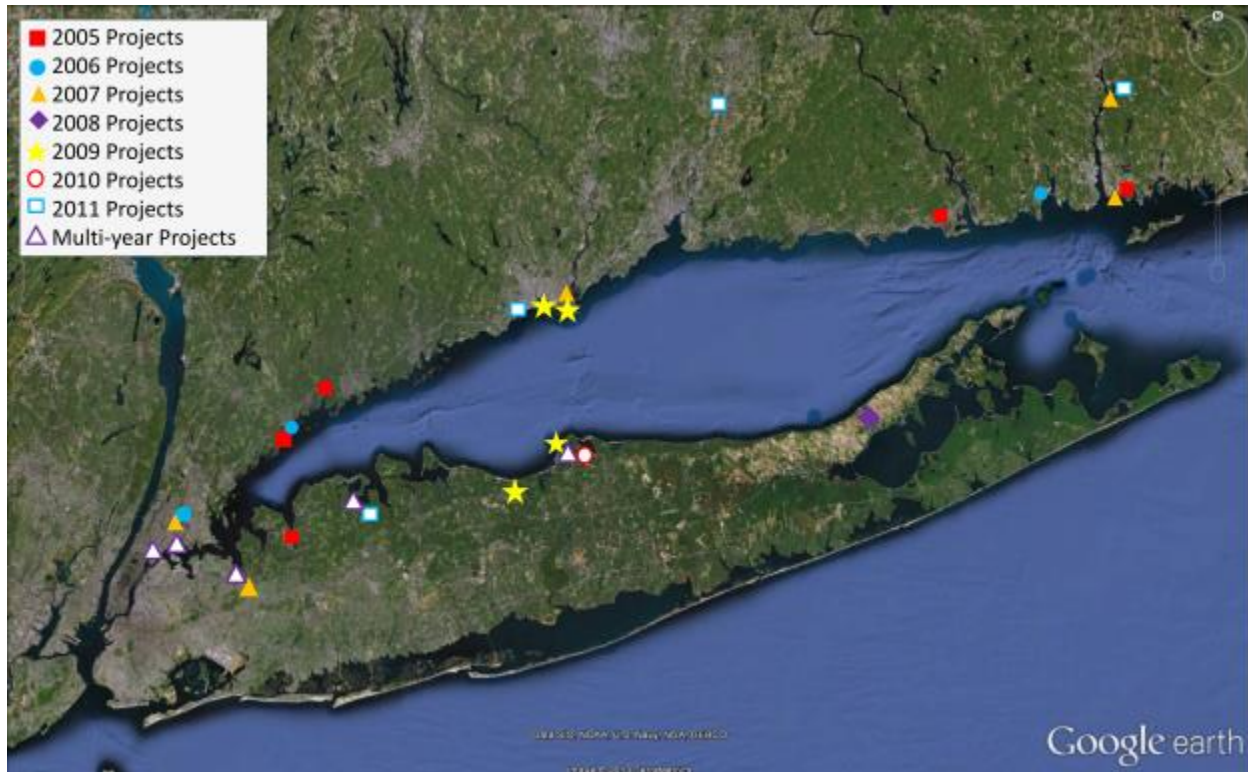
Step 3: Grantee online survey

Stratus Consulting surveyed grant recipient organizations to collect grantee perspectives on specific grant impacts, the soundness of program strategies and interventions, and how effectively the program has been implemented for projects funded between 2005 and 2011. Conducted through *SurveyMonkey*, the questionnaire included a mix of closed- and open-ended questions (see Appendix A). An invitation to the survey was sent to all past and current grant recipient organizations. Analytical techniques used to analyze the survey data included quantitative and qualitative approaches, such as simple categorization techniques, contextual analysis, and limited descriptive statistical analyses. Open-ended questions were analyzed through a narrative content analysis. The response rate for the survey was slightly less than 50% (68 responses out of 140 unique recipients). This response rate was similar to that obtained on other evaluation commissions conducted by Stratus Consulting.

Step 4: Site visits

Stratus Consulting conducted site visits to a subset of 29 grantees drawn from projects funded between 2005 and 2011. Project sites visited during this phase of our research are depicted by year of award and location in Exhibit 6. Site visits served to (1) ground the evaluation in empirical, site-based evidence; (2) enable comparison of planned project approaches with on-the-ground practices; and (3) allow for assessment of the potential positive bias in self-reported project-level information. Site visits were conducted in accordance with a semi-structured protocol, including topics to be addressed, issues and/or apparent inconsistencies to be explored, and a list of variables to be monitored. Of the 29 site visits, 54% addressed habitat restoration and/or species conservation, 18% focused on water quality improvement, 18% focused primarily on education and/or outreach, and 8% dealt with planning. While 90% of the site visits addressed large grants, 10% focused on events or mini-grant projects. Stratus Consulting collected photographic documentation of each site.

Exhibit 6. Location of Project Sites Visited by Year of Award



Step 5: In-depth grantee interviews

Stratus Consulting conducted a series of 22 in-depth, topically focused interviews with grantees involved in at least one of the following activities: education/behavioral change, planning, engagement of volunteers, and/or social media projects. These activities were selected because they (1) represent a significant area of LISFF emphasis, (2) appeared as potentially problematical based on archival interpretation, or (3) are referenced by grantees as a factor in project success.

Step 6: Insider and outsider interviews

Stratus Consulting interviewed five individuals knowledgeable about estuarine restoration or Long Island Sound issues, but not affiliated with NFWF or LISFF grantees. These individuals provided feedback on LISFF strategic directions, program priorities, and the role of LISFF within the context of other organizations and programs with responsibility for stewardship of Long Island Sound. The purpose of this research step was to obtain expert information from individuals not affiliated with the LISFF program. We also interviewed five individuals involved in LISFF program management. The purpose of these interviews was to obtain feedback on program accomplishments, challenges, opportunities, and strategic orientation from individuals with an intimate grasp on the program's history and evolution.

Step 7: Integration of findings

During the synthesis phase of the project, we gathered data and perspectives from steps 1–6 to identify key strengths and weaknesses of the program, and to develop options for future adjustments. We synthesized our research inputs in terms of the following perspectives:

- Grant and grant category alignment with LISS and LISFF program goals;
- Factors that influence the sustainability and replicability of outcomes;
- The relative effectiveness of different grant types and intervention approaches;
- Key “enabling” and “limiting” factors;
- Activities for which LISFF funding serves as a more efficient and effective delivery mechanism for the LISS; and
- Information that suggests a future LISFF “niche” of activity that is narrower, broader, or otherwise different from that presently being undertaken.

3. LISFF Evaluation Findings

Findings from the evaluation are structured in terms of 15 evaluation questions, framed jointly by Stratus Consulting, the LISFF management team, and members of the advisory team to address issues of program strategy, implementation, and results. As discussed in Section 2, findings are accepted only if supported by multiple lines of evidence from the ensemble of research activities.

3.1 LISFF program strategy: Is the LISFF program strategically coherent and sound?

Question 1. To what extent do grantee projects align with the broader conservation goals and mission of the LISFF program?

The LISFF program is an important implementation tool of the LISS, the CCMP, and the LISS Action Agenda. The program is framed in terms of five broad conservation priority areas and executed through a wide range of interventions, summarized in Exhibit 7.

Grants awarded by the program appear to be consistent with goals and objectives articulated in LISFF RFP documents, and more fundamentally consistent with conservation goals outlined in the CCMP. Based on a review of interim and final project reports, the online survey, and site visit observations, we find that grantee project outputs are generally consistent with activities described in proposals. This observation pertains to all LISFF grant categories. Answers to open-ended survey questions about the CCMP suggest that grantees are familiar with its objectives.

While not a prevalent issue, site inspections suggest that some grantees appear to pursue LISFF objectives in conjunction with other goals that are not fully consistent with the LISFF mission. For example, education and outreach programs funded by LISFF sometimes have a broader, more diverse set of objectives (e.g., education of at-risk youth) than that dictated by a strict focus on the CCMP, possibly leading to a slight dilution of the impact of LISFF funding.

Perhaps more fundamentally, the LISS Management Committee seems to lack agreement on issues of program focus and priority. We feel that the broad diversity of the grant portfolio reflects this lack of shared vision. Our perspective is supported by commentaries noted at the evaluation kick-off meeting, interviews with program managers, changes to grantee award priorities over time, and input from grantees. To illustrate our observation, one or more LISS and LISFF program managers emphasized the following as “central” or “primary” program objectives.

- Building capacity in regional organizations focused on *conservation and stewardship* of Long Island Sound;
- Identifying and sponsoring innovative, *exemplar projects* that others can emulate;
- Sponsoring projects that *restore resources and values* in the Sound;
- Sponsoring projects that help to *prevent future degradation* of Long Island Sound resources;
- Supplementing agency investments targeted toward *regulatory compliance*; and
- Providing “*as needed*” support to LISS to augment programmatic aspects of the CCMP and LISS Action Agenda.

While these are all logical endeavors that are consistent with the CCMP, LISS Action Agenda, and other LISS documentation, it is not clear that the LISFF budget can support such a broad and diverse spectrum of activities. It appears that LISFF is trying to “do too much with too little.”

Exhibit 7. Summary of Major Intervention Approaches Funded by LISFF

- Constructing green infrastructure (e.g., rain gardens, swales, green roofs)
- Installing pollution control devices (e.g., storm water filters, catch basins)
- Restoring hydrologic connections to wetlands (e.g., removing/replacing culverts, installing/replacing/removing tide gates)
- Removing invasive species
- Restoring/maintaining riverine corridors
- Planting submerged aquatic vegetation (e.g., eelgrass)
- Opening fish passage (e.g., fish way installation, dam/culvert removal)
- Conducting education/stewardship programs
- Developing action/management plans
- Engineering and design of restoration/water quality improvement projects

Question 2. What are the LISFF's unique contributions and role within the network of Long Island Sound stewardship and management agencies?

Grantees and program management agree that the LISFF program is important because it focuses on Long Island Sound and its unique set of problems, in contrast to broader regional or national grant programs. The program also makes grants that are large enough to support, or at least catalyze, significant project efforts, unlike many community-based foundations with more limited scope and resources that are often unable to support larger projects. Grantees also appreciate that LISFF awards allow a greater flexibility in project selection and design than support provided through regulatory-based funding programs administered by federal and state agencies.

Grant recipients point to LISFF's support for planning grants as a source of unique value. As many funders do not provide support for planning, LISFF fills an important gap. Perhaps as important, grantees and outside observers report that planning grants encourage engagement and help focus community awareness and involvement on the stewardship of Long Island Sound. As one grantee puts it, *"This design grant has enabled this small village to move forward from idea to shovel-ready project. Not many other grant opportunities support the design/planning phase of a project...and many great concepts are left being ideas. This project is an example that a small community can make a difference and while local efforts may not solve an entire system, they do have an impact."*

Funding aside, LISFF and the LISS Management Committee appear to provide the core of a Long Island Sound-focused "community of practice," resulting in ongoing dialog concerning the Sound and its stewardship. We view this as a strong, but perhaps intangible, contribution to long-term efforts to protect and preserve Long Island Sound. Based primarily on archival review and management interviews, it is not clear to us that LISS and NFWF have fully institutionalized this catalytic role, suggesting opportunities for further development and growth.

3.2 Program implementation – Is the LISFF program being implemented effectively?

Question 3. Are there factors that significantly enable the achievement of grantee outputs? How effective is the LISFF project selection process at selecting successful projects? What are the variables that make a successful grantee/project?

Almost 70% of grantees report that their projects have achieved "all" proposed outputs, with an additional 22% claiming to have achieved "some" objectives. Although somewhat overstated, grantee self-assessments are roughly consistent with observations made during site visits, wherein we noted that approximately 80% of grantees had been able to complete all or most of their proposed course of action. While this can be interpreted as a reasonably high "rate of success," it only addresses *completion* of a project, not necessarily the project's ongoing functionality, which can be compromised by budgetary impacts, improper maintenance, extreme weather events, and other factors.

Factors that appear to contribute to successful, long-term projects and their ongoing functionality include:

- **Well-run Volunteer Corps:** Volunteers are a prevalent feature of successful LISFF projects, with over 80% of LISFF projects involving some type of volunteer contribution. Some projects rely heavily on volunteer contributions. Over 15% of LISFF grantees report that volunteers either conduct or support upwards of 60% of their project activity. Volunteer contributions within the LISFF grant portfolio are diverse, and include data collection, structured observation roles, education, occasional labor, semi-regular labor, and public outreach. Although effective volunteer utilization is a clear success factor within the LISFF scheme, some grantees do not fully understand that volunteer utilization involves a significant investment in training, coordination, inspiration, and oversight. Some grantees designate and fund full-time volunteer coordinator positions, develop databases to help coordinate volunteer activities, and utilize social networking tools to help schedule volunteer efforts. However, site visits suggest wide variation in the degree to which grantees engage in thoughtful, professionalized management of volunteers.
- **Grantees Working within Long Island Sound-focused Communities of Practice:** We found that LISFF sometimes funds organizations situated within pre-existing groups of regularly interacting grantees. These groups of grantees work in the same geographic area, and conduct activities that are consistent and mutually beneficial. These “communities of practice” (Wegner et al., 2002) also “keep an eye on one another,” sometimes even as friendly critics. For example, we became aware of a cohesive network of grantees and partners in the Bronx, including the Bronx River Alliance, NY City Parks Department, Rocking-the-Boat, University of Connecticut, Bronx River Art Center, Sustainable South Bronx, and the New York Botanical Gardens. These organizations seem to interact regularly; are aware and supportive of their respective activities and missions; and look for ways to help sustain each another, such as through subcontracting in order to augment tight budgets and obtain specialized services.
- **Involvement of Project Champions:** A champion is a person or small group of people emotionally invested in a site/activity; someone with a mastery of the long-term history of the site; someone who will volunteer (i.e., do things themselves) if funding dries up; or someone who is constantly “on the make” for next steps and/or new sources of support (Taylor et al., 2012). Some LISFF projects have long-term champions, others don’t. Based upon our observations and interview inputs, it appears that projects overseen by champions perform better and are more sustainable than projects administered through revolving staff, provided, of course, the champion does not depart.
- **Diverse Project Team:** Drawing upon site visit interviews, it is our sense that projects which divide roles among multiple partners tend to have a more vital long-term presence than projects that involve only a single organization. Grantees who report that

they worked without any partners to implement their LISFF project are much less likely to have met all of their proposed outputs than grantees who worked with at least one other organization (12.5% vs. 30%, respectively). Furthermore, nearly half of all grantees working alone report that their project implementation activities were impeded by a “lack of staff, training, necessary equipment, or other project inputs;” whereas only 13% of grantees who partnered with one to three other organizations experienced similar constraints on project performance. This team-based dynamic makes sense because it allows for resource sharing, risk pooling, backstopping, and other benefits. It may also create a constituency dedicated to the project, whereas administration of a project by a single agency may result in the project being subsumed within an ongoing program. Finally, grantees described instances in which this team-based approach provided “checks and balances” to ensure an ongoing focus on project-related priorities. This observation about checks and balances is consistent with the literature (Wondolleck and Yaffee, 2000).

- **Planning Grants Conducted as a “Living Process”:** As discussed under Question 2, grant recipients and external observers view LISFF planning grants as an important and somewhat unique conservation resource for Long Island Sound. Several grantees strongly emphasized that successful planning processes involve more than development of a project blueprint. As one grantee put it, “...*think of the plan as an entity or mechanism of long-term cultural change, not just written instruction for how to do a job.*” Well-conducted planning grants tend to emphasize relationship development and community building, not merely the design of a structure. We were told that effective planning grants emphasize activities such as the following: network formation and maintenance, data collection and publication, development and approval of an EPA Quality Assurance Project Plan, elicitation of stakeholder input, organizational establishment, trust-building exercises, participant education, and recruitment of volunteers.

Question 4. Are there factors that limit project impact and recipient performance?

Although LISFF grantees achieve most of their project objectives, there are nevertheless factors repeatedly observed to negatively impact project performance and achievement of planned outputs. Although some constraints are minor, others demonstrate the potential to delay, diminish, or degrade project activities and outcomes.

Factors observed to disrupt project completion or degrade project performance include:

- **Municipal Budget Shortfalls:** A number of LISFF projects (18%) involve local governmental units, many of which have suffered through severe budgetary circumstances over the past decade (Hoene, 2009). Furthermore, nearly one-third of grantees report that ongoing maintenance for project outputs will be provided by or through municipal government agencies, which can lead to a fairly common dynamic. Funding is secured to develop a project, but then municipal (or other) funds or

resources cannot be identified to support ongoing operations and maintenance costs. This leads to degradation of the initial project and/or its functional outputs. We observed this state-of-affairs for habitat restoration, green infrastructure, and stormwater run-off control projects.

- **Lack of Appropriate Maintenance:** Many LISFF projects require ongoing maintenance. In some cases, needed maintenance is fairly specialized and requires trained personnel (e.g., green infrastructure, care of native revegetation). Response to the online survey conducted for this project indicates that almost 10% of LISFF projects are in need of maintenance, which has not taken place. However, observations noted during site visits suggest that as many as 30% of projects suffer from either inappropriate maintenance or at least partial lack of needed maintenance. Lack of maintenance is sometimes associated with funding shortfalls. Failure to provide maintenance or improper maintenance can result in project functional degradation, or in rare cases, near-complete loss of the original LISFF investment. For example, we observed two ecological restoration projects involving control of invasive species that had been allowed to return to their original degraded condition due to the near-complete lack of appropriate upkeep.
- **Project “Ownership” Handoffs:** Projects are sometimes conceived, initiated, and constructed by one group, and then transferred to another group (such as within another department of a municipality) for operational or maintenance oversight. These hand-offs can go badly. The project may lose its champion; the recipient department may not have skills, training, or interest in the outputs of the project; or the project may not be a budget priority within its new “home.” This can result in a lack of upkeep or provision of inappropriate maintenance of LISFF-funded projects. We observed this constraint with hydrological reconnection and ecological restoration projects.
- **Budget Estimation Inaccuracies:** Discussions during site visits suggest that nearly one-quarter of grantees struggle with developing realistic project budgets. This was almost never an issue that compromised project delivery, but did in most cases present an unwelcome administrative challenge, with inaccurate budget estimates leading to funding shortfalls and the subsequent need for project redesign. We think this problem arises because LISFF-sponsored projects often involve activities (e.g., habitat restoration, green infrastructure, hydrological reconnection) that are not yet “routine” for performing parties, such as city/county engineering offices and general contractors. As one grantee describes this situation, “...a comprehensive and detailed investigation of the true costs for engineering assessment must be undertaken, prior to applying for any grant. While we were able to retain the services of an excellent engineering consulting firm and accomplish the objectives of the [project], it was only through much negotiation.”



Invasives crowding out reintroduced natives at a LISFF-funded wetland restoration site on Long Island.

- **Mismatches between Anticipated Outcomes and Grant Period of Performance:** Many LISFF projects seek outcomes (i.e., results beyond the actual project performance period) that require years to fully achieve. For example, behavioral change efforts require multiple intervention cycles over successive years, and rarely succeed with only a single treatment of the targeted population. Similarly, invasive species control projects requiring long-term treatment due to proximity to surrounding (non-treated) sources of invasive plants. As another example, we learned of two cases where the grant award cycle was not coordinated with seasonal planting and treatment cycles, jeopardizing project outputs. This is not necessarily problematic if the goal of the LISFF program is to build capacity, spark innovation, or catalyze activity. On the other hand, if the central goal of LISFF is to achieve Sound-scale conservation outcomes, then the grant period of performance and the schedule of the grant cycle are clear constraints on overall program effectiveness.

Question 5. How can grantee project metrics be made more useful? What performance-based project metrics are best suited for measuring the impact of key LISFF conservation strategies?

The LISFF program has worked hard to motivate and enable applicants and grantees to identify and adopt meaningful progress and output metrics. In 2007, LISFF started to require that project performance metrics be developed by applicants. NFWF provided applicants with examples and training to do so. In 2010 LISFF management staff developed a list of potential program metrics and included it as a drop-down menu on the NFWF online grant application (see Exhibit 8). Review of proposals and grantee reports suggests that this has led to a more explicit designation and utilization of metrics than exhibited in the program's early years.

Although NFWF previously required grant applicants to describe proposed projects in terms of a sophisticated logic framework (including components such as activities, short-term project outputs, long-term project outcomes, indicators, baseline characterization, predicted post-project outputs, and predicted post-project outcomes), this is no longer the case. Applicants are now required to complete a simplified logic framework describing activit(ies) from a pull-down menu of choices and provide a quantitative metric related to the activit(ies)/outcome. LISFF grantee proposals often fail to depict or communicate how their projects build upon inputs (i.e., activities) that lead to short-term project outputs, how short-term project outputs support or lead to long-term project outputs, or how project outputs lead to or set the stage for project outcomes. Some proposals list various activities with no explanation of how or why a quality/unit is necessary or sufficient to lead to a particular end-state. For example, one grantee's proposal lists "outreach to scientists" as an activity and "program supported by the community" as the resultant project output. In general, grantee characterizations of metric categories lack consistency, can be highly interpretative, and often fail either to grasp or effectively communicate the logical succession of activities and outputs. Further, we did not review any proposals that attempted

Exhibit 8. LISFF Drop-down List of Potential Project Metrics

- Best management practices installed (square feet/number)
- Sediment reduced from entering waterway (pounds/gallons/tons)
- Nutrients reduced from entering waterway (pounds/gallons/tons)
- Toxics reduced from entering waterway (pounds/gallons/tons)
- Pathogens reduced from entering waterway (pounds/gallons/tons)
- Floatables reduced from entering waterway (pounds/tons)
- Habitat restored (acres)
- Stream bank restored (linear or square feet)
- Workshops, webinars, special events, meetings associated with activity (number)
- Volunteers engaged in project (number)
- People educated about project (number)
- Communities engaged in project (number)
- Schools engaged in project (number)
- Students engaged in project (number)
- Educational signs (number)
- Websites created (number)
- Brochures or other materials created (number)

to describe what might happen if an activity was *not* implemented or completed as planned; and did not find any proposal narrative that described the hypothetical nature of projected outcomes, with consideration of alternative courses of action if expected outputs were not fully achieved.

Finally, we note that LISS has designated a series of 55 environmental indicators to track and characterize the health of Long Island Sound and its surrounding watershed. These indicators address habitat, land use and population, marine and coastal animals, and water quality. Some of the indicators have associated goals and/or management interventions, but many do not. Data records for each indicator vary, but in most cases extend back over a decade. While some grantee metrics (and logic models) tie clearly into this overarching LISS indicator set, most do not. Project-level adoption of metrics and logic models that tie clearly to LISS indicators would help to demonstrate how an individual project contributes to Sound-wide conservation goals. Exhibit 9 provides examples of LISFF activity and output metrics that mesh logically with LISS environmental indicators.

Exhibit 9. Examples of LISFF Project Activities that Can Be Logically and Numerically Related to LISS Environmental Indicators

LISFF Project Activities	LISFF Project Outputs	LISS Environmental Indicators
<ul style="list-style-type: none"> • Restoration of tidal flow • Removal of invasive species 	⇒ Tidal wetland acres restored	⇒ Coastal habitat acres restored
<ul style="list-style-type: none"> • Fish passage installation • Shoreline restoration 	⇒ River miles opened	⇒ River miles restored
<ul style="list-style-type: none"> • Fish passage installation • Monitoring 	⇒ Herring passage monitoring data	⇒ Herring runs at streams with upstream planned fishway projects
<ul style="list-style-type: none"> • Implementation of best management practices 	⇒ Reduction in point or area nitrogen loadings	⇒ Estimated nitrogen load (CT)

Question 6. Do multi-year grantees show evidence of adaptive management or strategic learning?

Adaptive management is the application of scientifically informed conservation or resource management strategies for which results are iteratively evaluated and revised to improve project outputs and outcomes. Based on a similar philosophy, strategic learning involves the use of data and insights from a variety of information-gathering activities to help organizations learn from their work so that they can adapt their strategies (Coffman and Beer, 2011). It also means integrating evaluative thinking into strategic decision-making and accessing timely data for reflection and use.

As discussed in Section 1.2, approximately one-third of LISFF grantees receive funding for multiple years associated with different projects. Based on site observation and interviews, we estimate that at least 20% of LISFF projects demonstrate meaningful instances of strategic learning or adaptive project management, leading to improvements in either project implementation or output. An example of this might be a green infrastructure installation proposed with a particular type of plant, but later revised to employ a different plant species because of its superior functional performance, given the goals of the project. Equally important, review of archival documentation indicates that LISS and LISFF program managers understand that project interventions rarely entail full certainty in terms of output, and work to provide flexibility in responding to unforeseen contingencies, such as budget cuts, inaccurate cost estimates, project staffing difficulties, or extreme weather events.

On the other hand, relatively few LISFF projects provide for explicit, formalized tracking of results, with almost one-third (28%) of site visit subjects reporting that they have been unable to fully monitor project status. Monitoring of grant output performance by grantees is uneven across the LISFF project portfolio. As one grantee describes it, *“Monitoring has been difficult and is overseen by people who are not focused on the science of it and I am not sure that the data is being saved to be studied over a longer period of time.”* Moreover, none of the grantee proposals, metrics, or logic frameworks we reviewed included specific consideration of project contingencies given failure or delay in achieving planned activities or outputs. This lack of consistent, formalized tracking and assessment makes it harder for LISFF managers to carefully assess project status, thus making adaptive management a matter of judgment rather than a process through which known and pre-determined decision criteria are evaluated in light of clearly articulated options.

Question 7. The LISFF “portfolio” of projects is broad and diverse. Do particular types of activities stand out as problematical?

As discussed in greater detail in our response to Question 10, it is possible to discern performance variations among LISFF project types. However, there is enough variation in project performance within categories that we hesitate to make definitive pronouncements regarding comparative project outputs. The following project types and project attributes appear to us to be more likely to presage performance issues.

Standalone Behavioral Change Projects: Limited survey data suggest that Long Island Sound residents and businesses are largely unaware of how their activities can negatively impact water quality in the Sound (U.S. EPA, 2006). The disconnect in public understanding serves as a rationale for LISFF investments in outreach and behavioral change projects. Nearly two-thirds (65%) of LISFF projects claim to “target” citizens and residents within the Long Island Sound region. Approximately one-third of LISFF projects include at least one aspect intended to promote behavioral change. While there is a clear need and strong enthusiasm for these projects, we are skeptical that they are leading to lasting, broad-based changes in specific behaviors that link in known ways to specified LISS indicators. Some grantees are able to present data on participation rates, but provide little evidence (even anecdotal) about actual,

lasting behavioral change. Logic models and proposal narratives often equate exposure to information with behavioral attributes such as “empowerment,” “appreciation,” and “stewardship.” This linkage is tenuous, little proven, and dependent upon localized circumstances. As part of a series of five focused, in-depth interviews of grantees with projects designed to deal exclusively with behavioral change, we asked respondents if they could confirm that their efforts had resulted in documented changes in specified behaviors. None were able to confirm instances of behavioral change. In addition, we found projects to be variable with respect to methodological specificity, sometimes neglecting to identify and characterize key audiences, target behaviors, modes of delivery for behavior change techniques, or barriers to fostering desired changes. We do note that some grantees have followed-up with limited, simplified surveys of their program subjects.

Standalone Education and Outreach Projects: Every year, LISFF funds about 8–12 mini-grants to support hands-on and highly visible projects and activities intended to involve and educate citizens and students about the Sound and the public’s connection to it. Generally speaking, these event-based grants appear to be well-attended and popular within host communities. However, we found little reason to believe that such events contribute to systematic change or consistent messaging within the Sound region. Each event seems to adopt a fairly unique focus, involve different types of partners, and disseminate different types of messages. Based upon an informal content analysis, LISFF-sponsored outreach materials do not adopt the same, or even similar, perspectives, facts, questions, or messages. Annual events do not always maintain a consistent message or theme from year-to-year. In other words, the events and their collateral material do not constitute or contribute to a coordinated, ongoing campaign or attempt to share a common core of themes.

Projects that Require Specialized Maintenance and Upkeep: While most LISFF projects appear to fit within “normal” maintenance routines, others require specialized knowledge, close monitoring, and a sustained focus. For example, projects that aim to eradicate invasive plants and replace them with native species require sustained monitoring from staff or volunteers knowledgeable in plant species recognition. Site visits suggest that fish passages, permeable paving installations, and “grey infrastructure” improvements (e.g., construction of storm water retention basins) are amenable to more routinized, less knowledge-intensive upkeep regimes.

Question 8. Are the LISFF funding allotments adequate to maximize project benefits?

The broad community of Long Island Sound stewards view LISFF as a critical source of support. Indeed, almost 53% of grantees report that 30–60% of their project funding is provided by LISFF, with another 21% responding that at least 60% of their funding is provided through LISFF. When asked whether their projects would have been possible without LISFF funding, about 81% of grantees answer that LISFF money was “crucial” to the project moving forward. Moreover, while 14% of LISFF grantees designate “inadequate funding” as a factor that impeded their work, no grantees are critical of LISFF funding allotments in their answers to open-ended survey questions. The issue of insufficient funding did not come up during any site visit conversations. Finally, a variety of interview respondents (e.g., grantees, LISS and LISFF program managers,

and outside experts) point out that LISFF support has been critical to capacity expansion within the Long Island Sound region. As one grantee reports, *“The grant provided funds for the engineered design and actual [construction of the project]... We had sufficient funding to cover unanticipated expenses when we had to contract with an engineer to provide construction oversight, a service our project partner was going to provide as an in-kind match.”*

While awards appear adequate to support project implementation, it is less clear that the overall LISFF funding level is sufficient to impact LISS indicators at the level of the entire Sound. However, the answer to this question (overall funding sufficiency) depends greatly on the LISFF/LISS vision of the program’s mission. If, for instance, LISFF is fundamentally intended to establish projects that serve as examples for other communities in Long Island Sound, then the overall budget is probably sufficient. If, on the other hand, the program is intended to address all factors outlined in the answer to Question 1, at a level that would achieve Sound-scale impacts, then it would seem that LISFF is underfunded.

Question 9. Are there components or procedures within the LISFF program that could be improved?

Overall, both grantees and program managers believe that LISFF is an important, well-run program, serving a real need in an important region. There were, however, isolated factors mentioned that could be improved. One-third of grantees surveyed indicate that they experienced “challenges associated with NFWF project administration,” with specific issues including slow or delayed execution of monetary awards, and insufficient flexibility in project periods of performance. As discussed under Question 4, some grantees remark that periods of performance are too short, and do not allow for common contingencies such as permitting delays, staffing changes, and temporary budget snafus.

Some grantees and external observers have speculated that LISFF could enhance grantee performance through the provision of NFWF-sponsored services to grantees. Examples mentioned include (1) better coordination and sharing of “lessons learned” among grantees doing similar activities, (2) access to a program-wide communications consultant, and (3) access to engineering services. An outside observer cited the model of the Chesapeake Bay Small Watershed Grants Program as a possible model for the provision of shared grantee services.

3.3 Program results – Does LISFF contribute to improvements in the environmental health and status of Long Island Sound?

Question 10. Given observed outcomes and funding patterns, where might investments be most prudently directed in order to maximize conservation impacts in Long Island Sound?

The LISFF program funds projects in Long Island Sound with the goal to accelerate the implementation of the CCMP. As we have already recognized, most projects appear well-aligned with the CCMP; however, they vary in terms of overall benefits, leveraging capacity, and long-term sustainability. LISFF and LISS program managers emphasize that they would like this evaluation to provide information on the comparative effectiveness of different conservation

strategies and/or project types. To support this type of management review, Stratus Consulting developed an approach that could be tailored and used by LISFF and LISS program managers to help compare and prioritize alternative program investment areas.

Fully described in Appendix B, this approach consists of a multi-attribute framework and associated scoring rubric that can be used for the comparative assessment of different project types within the LISFF program. The scoring rubric provides for each project category to score between 10 and 30 points. Outlined in Exhibit 10, criteria were selected based on project attributes that were observed to impact project performance through archival review, grantee interviews, and site visits.

Outlined below for five common project types, results were driven by the variation in scores for these performance-related attributes:

Exhibit 10. Attributes used as a basis for comparative assessment of project effectiveness

- Alignment with LISS goals, issues, and actions
- Alignment with LISS environmental indicators
- Influence on LISS environmental indicators
- Behavioral change
- Co-benefits
- Government and nongovernmental organization (NGO) support
- Community support
- Presence of a champion
- Presence of risk factors
- Maintenance/sustainability

- **Green Infrastructure (25/30):** LISFF has funded a variety of green infrastructure projects to manage storm water flow, including green roofs, green streets, permeable surfaces, runoff retention basins, and bio swales. Green infrastructure projects appear relatively successful in terms of all of the attributes outlined in Exhibit 10. Comparatively speaking, green infrastructure projects appeared to stand out in terms of their potential to educate and inspire behavioral change, and their provision of positive co-benefits, such as aesthetic enhancement and creation of urban habitat.
- **Fish Passage (25/30):** LISFF has supported a number of successful fish passage projects, which contribute directly to the conservation of LISS indicator species such as river herring and Atlantic salmon. Fish passage projects attract positive attention from the community, seem to attract champions from local conservation groups, and often garner financial support from other agencies. Maintenance needs are predictable and do not require specialized training. Fish passage projects appear relatively successful in terms of all of the attributes outlined in Exhibit 10, but are especially strong in terms of their clear link to LISS goals and indicators, serving as a locus for community interest and support.

- **Hydrologic Reconnection (23/30):** Tidal wetlands provide vital rearing, feeding, and refuge habitats for wildlife and commercially and recreationally important fisheries. These wetlands are also important for water quality, flood control, and recreation. Hydrologic reconnection involves the removal of obstructions to restore the natural ebb and flow of seawater interacting with freshwater. Generally, LISFF hydrological reconnection projects have been successful in achieving their goals, with their primary weakness being that such projects do not appear to foster behavioral change. Hydrological reconnection projects appear to attract investment from other agencies such as the National Oceanic and Atmospheric Administration. Hydrologic reconnection projects are clearly consistent with LISS goals; and easy to relate to LISS indicators; however, they are unlikely to inspire behavioral change among Sound residents and may be prone to problems including design challenges.
- **Invasive Species Removal (21/30):** Twelve per cent of LISFF projects involve removal of invasive plant species and subsequent revegetation with native plants. While these projects are fully consistent with LISS goals and action categories, they tend to be very difficult to maintain. Maintenance challenges are especially acute because specialized knowledge is required in order to identify plant species (in all seasons), address their unique growing needs, and to monitor their long-term status. It is not clear how invasive removal relates to particular LISS environmental indicators. Data were not available to indicate that invasive removal projects result in the widespread knowledge generation or behavioral change among residents and visitors to Long Island Sound. Although simpler to initiate than other types of habitat restoration projects such as fish passage, invasive species removal projects appear difficult to sustain, especially if they entail a follow-up phase that involves addressing reinvasion and subsequent native revegetation.
- **Education and Outreach Projects (21/30):** As already emphasized in this report, many New York and Connecticut residents lack a strong understanding of how their activities and lifestyles contribute to pollutant loadings and other stresses upon Long Island Sound. Educational projects and outreach events could theoretically help to address this knowledge deficit, presumably helping residents to act as better stewards of the Sound and its various economic and environmental resources. This type of project ranks comparatively low for several reasons: (1) educational initiatives tend not to be expressed or framed in terms of their impact on LISS indicators, (2) they are not maintained over a sufficient period of time to support the type of repetitive messaging necessary to achieve meaningful changes in outlook at the community level, and (3) they are not sufficiently coordinated to catalyze Sound-wide or population-scale changes in understanding and behavior.

Although this analysis suggests relative differences in the outcomes associated with different project types, we emphasize that performance also varies within project categories. We hesitate to draw hard and fast conclusions such as “green infrastructure projects are better than hydrologic reconnection projects.” There are many other factors at play. That said, we do

believe that conservation impacts will be maximized if LISFF and LISS program managers ensure that proposals for project categories with known types of weaknesses receive grant awards only if the proposal acknowledges the weakness(es) and describes how they will be managed and/or mitigated.

Question 11. What does the LISFF bring to the region that wasn't there before?

As a result of the LISFF program, the Long Island Sound region contains a wide variety of innovative projects with the potential to positively impact the environmental quality of the Sound. The program provides funding and resources not otherwise available for municipalities, NGOs, and local stewards to plan and conduct projects consistent with the conservation of Long Island Sound. As we have already said, these projects have the potential to stand as “exemplars” to what might be accomplished more broadly, given greater investment and agency focus. Also important, LISFF has catalyzed the growth and capacity of community-based organizations with an interest in the Sound.

Although we lack a good description of pre-LISFF “baseline” conditions, we note that several of our interviewees have a very long-term perspective (~ 30 years) on the health and status of Long Island Sound. These individuals are united in their conviction that “things are improving” and that Long Island Sound would be in “worse shape” were it not for the resources and leadership brought to bear by LISFF.

Question 12. How has the LISFF program enhanced the LISS and management conference?

The current version of the LISS CCMP addresses a broad range of issues, including hypoxia, toxic substances, pathogen contamination, floatable debris, management and conservation of living resources and their habitats, and land use and development. The CCMP also emphasizes the need for public involvement and education programs to secure citizen understanding and cooperation in achieving LISS goals and objectives. Based on literature review, interviews with program insiders, and site visits, LISFF grants appear to reflect the breadth of the CCMP. In other words, the LISFF is cooperatively managed as a vehicle for LISS CCMP implementation. In this sense, the LISFF supports the LISS management conference through the provision of a flexible tool for program implementation, clearly augmenting other program elements.

However, we are not convinced that this situation is supporting an optimal role within the LISS. As outlined in our discussion of Question 1, we think LISFF may have adopted an overly broad field of focus, causing the program to spread its budget and staff resources over a portfolio that is too broad and diverse to make a significant difference with regard to any single LISS priority area. As one LISFF program manager says, “*anything can be in LISFF.*” It is possible that the program tries to do too much with too little.

Question 13. Do grantee outputs link convincingly to identified longer-term environmental/conservation outcomes?

On a conceptual level, nearly all grants appear to be logically consistent with the achievement of long-term environmental/conservation outcomes for the Long Island Sound region. That acknowledged, few of the grant outputs that we studied can be said to have a quantifiable linkage to changes in one or more of the 55 environmental indicators identified by LISS to track and characterize the health of Long Island Sound and its surrounding watershed.

However, even when LISFF projects appear to be too small or too diffuse (on an individual basis) to have a significant influence on LISS indicators, they can be good examples of what needs to be accomplished and maintained in order to attain and preserve the long-term health of Long Island Sound. In other words, if LISFF projects are viewed as exemplar investments, and promoted sufficiently, they could catalyze further investment and help to fuel a broader campaign of sustainable change in the region. While some LISS and LISFF program managers articulate this general approach, others do not.

Question 14. How effective is the grant-making process in terms of building long-term grantee capacity?

Approximately half of the LISFF grantees are small, NGOs. There is a sense among some grantees and LISFF observers that the program has helped to create and strengthen a network of organizations dedicated to the stewardship of Long Island Sound. Fully 60% of grantees surveyed indicate that they have used knowledge gained through LISFF project funding to better implement and manage their post-grant activities. Beyond funding, grantees report that NFWF awards provide them with credibility with partners, stakeholders, and public management agencies.

LISFF also funds a small number of large, high-capacity organizations, such as state universities, national NGOs, and major metropolitan departments of parks, recreation, and environmental management. In these cases, LISFF is not building capacity so much as providing extra-programmatic funding for new or innovative activities. However, grantee interviews indicate a significant interaction between these high-capacity organizations and other members of the LISFF network, suggesting an informal mentoring role that may also bolster grantee capacity.

All things considered, LISFF plays an effective and important role in expanding regional capacity to address Long Island Sound stewardship.

Question 15. What is the potential for LISFF investments to be sustained?

Many desired LISFF project outcomes (e.g., clean water; healthy, restored habitats; improved fisheries passage) cannot reasonably be achieved without a continuous, long-term effort. Yet as discussed in Section 1.2, the majority of LISFF grantees are supported for only a single grant cycle.

Project-related interventions that require regular maintenance, occasionally involving specialized knowledge, are sometimes prone to degradation over time. This appears to be associated with municipal funding shortfalls, shifts in oversight, or departure of key staff. On the other hand, projects and grantees that involve champions, well-managed volunteer corps, diverse but coherent project teams, and operate in a strongly networked environment seem to promote success and sustained outputs. As explored in our discussion of Question 10, green infrastructure and fish passage projects may tend to be more sustainable than invasive species control or hydrologic reconnection, but project-specific factors seem to exert more influence on long-term sustainability than category-specific differences.

As discussed in our answer to Question 7, it is not clear to us whether LISFF outreach and education investments are resulting in sustained changes in outlook, attitude, or behavior. While many grantees believe strongly that their programs “make a difference,” few have conducted follow-up surveys or other empirical exercises to gauge any ongoing impact.



LISFF-funded fishway and access walk at Mianus River Pond.

4. Recommendations

The LISFF program is a well-established, well-run program, conducting a broad range of activities that support stewardship of Long Island Sound. Looking back across eight years of programmatic experience, LISFF is in a good position to draw lessons, make adjustments, and bolster its operations.

Findings outlined in this report can be addressed through a range of program actions, including shifts in strategic focus that would either (1) sharpen the LISFF program focus, and/or (2) create service pools and other resources to improve programmatic communications and outreach and enhance the performance of individual grantees. Other findings can be addressed through relatively simple changes in program implementation, such as tightening of RFP requirements, changes to interim reporting requirements, or changes to proposal ranking criteria.

Recommendations are derived both from suggestions put forward by grantees or experts and from our own analysis of possible solutions to mitigate program risk, overcome barriers, or capitalize on opportunities. Ultimately, the decision of which recommendations to pursue will be made by the LISS and LISFF program managers, in accordance with their vision for the program.

Recommendations include the following:

Clarify and Tighten the Program's Role and Focus: As discussed previously, it is our sense that LISS and LISFF program managers lack full agreement on fundamental issues of program focus and priority, sometimes even within the same agency. The grant portfolio reflects this lack of shared vision. We suggest that the LISFF management team make a concerted effort to define a narrower scope of program activity. The LISFF management team should use the findings and techniques used in this report to narrow the scope of grant awards. We suggest the LISFF management team consider scheduling a day-long, facilitated retreat during which partners reframe the LISFF mission and scope.

Whatever the strategic focus of the program, LISFF and LISS program managers should:

- Reduce funding for conservation strategies and grant categories that are unlikely to demonstrate enduring impact, such as standalone behavioral change projects and standalone education programs.
- Avoid funding project implementation grants likely to need extended, specialized maintenance regimes that have not submitted a detailed, long-term maintenance plan as part of their proposal.
- Support planning grants that include a strong emphasis on community- or relationship-building, as opposed to merely designing a structure.

- Tighten RFP requirements and selection criteria to better invest in projects likely to be sustained over the long-term. This would include projects that (1) involve a champion, (2) are part of a local community of practice, (3) involve a diverse project team with sufficient skills to address problems, and (4) include a detailed, long-term plan for site maintenance.

Adopt a More Explicit Strategy of Projects as Exemplars: As a possible alternative to our first recommendation (tightening of LISFF program focus), LISS and LISFF program managers may wish to consider a strategy that more explicitly seeks and funds projects as exemplars for regional change. In this case, projects would be selected for their ability to showcase innovative methods through which to address threats identified in the CCMP. Such a strategy would likely entail a significant, coordinated communications campaign to ensure that project achievements are widely publicized and understood as viable solutions to the types of challenges encountered by communities in Long Island Sound. This would likely entail an investment in the type of shared communications resource pool described below.

Invest in Portfolio-wide Services: Grantee project execution can be enhanced through access to a shared pool of resources and services. LISS and LISFF program managers should consider redirecting a portion of LISFF funding to create pools of grantee support services, perhaps including a communications contractor, consulting engineering services, and appropriately trained maintenance contractors. Such a pool of services could help coordinate grantee outreach activities, review project budgets, or provide expert oversight for specialized maintenance activities.

Through its association with LISS and various partner agencies, the LISFF program is able to provide grantees with access to a range of non-monetary services. Each year, LISFF fields dozens of requests for technical assistance, conducts webinars designed to help grantees develop proposals, and facilitates one-on-one technical interactions for habitat restoration projects. This is a powerful program resource, but we feel it could be emphasized even more. We suggest that the LISFF program should more deliberately market its technical support resources and capabilities to grantees and grant applicants. Although our survey did not include questions or request that grantees comment on LISFF technical services, none of our interviewees or site visit subjects volunteered either awareness or utilization of the technical advisory services and technical guidance materials available through the LISFF program. It is our sense that modest efforts to increase awareness would be worthwhile.



Maintenance work being undertaken at the New York Parks City-wide Greenroof Project.

Effectiveness of Outreach and Educational Activities: Outreach and educational activities appear most effective if conducted in the context of a physical project (as opposed to “standalone” outreach and educational projects). LISFF projects provide enduring points of community interest and focus, thus enhancing the impact of collateral educational materials and activities. Projects that involve messaging (whether for outreach, education, or social marketing) need to plan for *repetition*. People need to hear things more than once for the message to be fully understood and for it to “sink in.” Project-based education and outreach provide a locus for this repetitive process. Emphasizing project-focused communications and outreach would enhance the strategy of using projects as exemplars for regional change, but should be embraced as an effective program practice under any strategic orientation.

More Explicit Focus on Adaptive Management: Adaptive management is the application of scientifically informed habitat management or resource conservation strategies whose recommendations are iteratively evaluated and revised to improve outcomes. Many projects appear to include aspects that are innovative and not routine, for example, habitat restoration projects that test alternative means to stabilize shorelines or embankments. The LISFF RFP should direct applicants to highlight interventions that include aspects that may necessitate an

iterative monitoring and evaluation process, such as utilized under the adaptive management paradigm.

Seek and Support Communities of Practice: The LISFF RFP should include a section focused on the applicant's network, through which reviewers can discern whether the individual or organization is associated with local communities of practice. Such a section would ask the applicant to list potential partners within their network, and describe ways in which these relationships might prove advantageous during the course of work under the grant. The RFP could also require applicants to list organizations with which they have partnered on past projects of a similar nature.

Emphasize Volunteer Effectiveness: Many projects are highly leveraged through volunteer activity. It is critical that the LISFF volunteer resource be effectively managed. Applicants who plan to use volunteers should be able to describe (1) where and how volunteers will be recruited, (2) how they will be managed, and (3) whether they need training, and, if so, how training will be supplied. It is also important to recognize volunteer efforts and "give back" to volunteers. The LISFF RFP might also ask for applicant plans for volunteer recognition. In addition to requiring grantees to articulate plans for volunteer management in their proposals, we suggest that LISFF and/or LISS consider investing in an annual volunteer management workshop for grantees.

Seek and Nurture Champions: We recommend that the LISFF RFP require applicants to describe the project team in sufficient detail for reviewers to discern whether projects include potential "champions." We further recommend that LISS and NFWF managers more actively "recruit" potential champions, perhaps even building grants around exceptional individuals and teams.

Link Explicitly to "Citizen Science" Programs and Partners: Nearly one-half (44%) of grantees report working with volunteers to accomplish project goals. Of these, about one-third of volunteers are involved in monitoring or scientific data collection. LISS/LISFF should look for ways to link with the "citizen science" movement, perhaps through co-funding with the National Science Foundation; EPA, Office of Research and Development; or other organizations that endorse and support the concept of citizen science. LISFF could also require applicants proposing citizen science work to confirm that their projects are consistent with a consensus-based standard, such as the National Science Foundation "Framework for Evaluating Impacts of Informal Science Education Projects."

Role of Watershed Plans and Project Implementation Plans: During the proposal review process, NFWF and its LISS partners should consider giving projects that emerge from LISFF planning grants a greater weight in the project-selection process. LISFF has provided significant support for these planning efforts, so it is logical that projects that emerge from these stakeholder processes should be given preference during the project-selection process. Reviewers should look for signs that grantees view their plans as "living documents" through

requirements for updating, ongoing data collection, formation of boards or other ongoing management bodies, and decision-driving assessments.

Secure Maintenance Arrangements: The imperative for effective, long-term maintenance is increasingly recognized as a factor that should be addressed during the design phase of parks, greenways, and other public spaces (Van Valkenburgh and Saunders, 2013). The LISFF RFP should highlight that preference will be given to projects that can demonstrate a commitment to long-term maintenance. Preference could be given to applicants that can identify long-term funding for maintenance, and verify that maintenance will be undertaken by individuals properly trained to address the unique maintenance needs of the proposed project. Grantees could be required to address emerging maintenance concerns or challenges in interim project reports.

Continue to Emphasize Metrics: While we note that LISFF is increasing its emphasis on quantitative deliverables, we remind program managers that the numerical representation of grantee activities is not meaningful without an accompanying narrative that clearly defines the conditional relationship among inputs, outputs, and project outcomes. We suggest that grantees also be pushed to include a narrative description of how their project supports at least one (named) LISS indicator, including a conceptual description of basic mechanisms being relied upon to transfer project-level outputs into sound-scale outcomes.



Appendix A

Online Survey Questionnaire

LISFF Survey Sept 2012

Introduction

You have been asked to participate in this survey because your organization has received funding from the National Fish and Wildlife Foundation's Long Island Sound Futures Fund (NFWF LISFF) program. Your participation will help us better understand the conservation impacts of LISFF projects and the factors that affect project effectiveness.

This evaluation is being conducted by a third party (Stratus Consulting Inc.). Your name, your organization, and your project will never be associated with any answers you provide through this survey without your explicit permission. Your identity will be kept completely confidential. All data gathered from grantees will only be reported to NFWF and Long Island Sound Study (LISS) program staff in aggregate with other responses. Future funding from NFWF and LISS will not be affected by your level of engagement in this evaluation, including your willingness to participate in this survey.

This survey has five parts:

- Part One asks about your organization (1-2 minutes)
- Part Two asks basic information about your project (e.g., name, location, funding) (1-2 minutes)
- Part Three asks about the goals and objectives of your project (20-25 minutes)
- Part Four asks about partners and volunteers (5-10 minutes)
- Part Five asks additional operational information about your project (e.g., continued funding, maintenance, etc.) (5-10 minutes)

The survey questionnaire functionality only saves your responses when you hit "next" to move to the next section, so it is preferable to complete the survey in sections or leave the survey window open until you have completed the survey entirely (you will not be "timed out").

We estimate that the survey will take about 35-45 minutes to complete if you are familiar with your project.

Thank you in advance for your time and your thoughtful feedback.

LISFF Survey Sept 2012

Part One – Grantee Information

1. Contact information

Your name

Your organization

2. Which of the following best describes your organization?

- A non-profit organization
- An academic or educational institution
- A city or municipal government agency
- A county government agency
- A state government agency
- Other (please specify)

3. Within your organization, how many staff are devoted to environmental/conservation activities?

- 10 staff
- 10 - 50 staff
- 51 - 100 staff
- 101 - 500 staff
- >500 staff
- Don't know

4. What is your organization's annual budget to be applied towards environmental/conservation activities?

- <\$50,000 per year
- \$50,000 - \$100,000 per year
- \$100,001 - \$250,000 per year
- >\$250,000 per year
- Don't know

LISFF Survey Sept 2012

Part Two -- Project Information

5. LISFF-funded project information

LISFF project name

LISFF project Easygrant ID number(s) (Please refer to your grant contract for this info. For example, if the grant contract number is 1401.10.028444, the Easygrant ID number is 28444)

City of project location(s)

Zip code of project location(s)

Latitude and longitude of project location(s) (For help, you can use the following web-based tool: <http://touchmap.com/latlong.html>. If your project is at a watershed scale, please pick a central reference point.)

6. What was the LISFF grant size of this project? (Please do not include in-kind resources.)

- <\$15,000
- \$15,000 - \$50,000
- \$50,000 - \$100,000
- >\$100,000
- Don't know

7. What percentage of the overall project was funded by LISFF?

- <30%
- 30-60%
- >60%
- Don't know

8. Is this LISFF-funded project within a LIS Study Stewardship Area?

- Yes
- No
- Don't know

9. Is this LISFF-funded project complete?

- Yes
- No

LISFF Survey Sept 2012

Part Three -- Project Goals, Objectives, and Outcomes

10. What were the primary goals of this LISFF-funded project? (Please select no more than three.)

- Water quality improvement
- Habitat restoration
- Species conservation
- Urban conservation
- Water quality monitoring
- Education
- Stewardship
- Public engagement
- Watershed planning
- Project planning

11. What LIS habitats were being targeted by this LISFF-funded project? (Select all that apply.)

	Primary Habitat(s)	Secondary Habitat(s)
Beaches and dunes	<input type="checkbox"/>	<input type="checkbox"/>
Cliffs and bluffs	<input type="checkbox"/>	<input type="checkbox"/>
Estuarine embayments	<input type="checkbox"/>	<input type="checkbox"/>
Coastal and island forests	<input type="checkbox"/>	<input type="checkbox"/>
Freshwater wetlands	<input type="checkbox"/>	<input type="checkbox"/>
Coastal grasslands	<input type="checkbox"/>	<input type="checkbox"/>
Intertidal flats or rocky intertidal zones	<input type="checkbox"/>	<input type="checkbox"/>
Riverine migratory corridors	<input type="checkbox"/>	<input type="checkbox"/>
Submerged aquatic vegetation beds	<input type="checkbox"/>	<input type="checkbox"/>
Shellfish reefs	<input type="checkbox"/>	<input type="checkbox"/>
Tidal wetlands	<input type="checkbox"/>	<input type="checkbox"/>
Not applicable	<input type="checkbox"/>	<input type="checkbox"/>

Part Three -- Project Goals, Objectives, and Outcomes (continued)

**12. What elements of LIS communities were being targeted by this LISFF-funded project?
(Select all that apply.)**

- Children
- Students
- Schools
- Scientists or technical experts
- Citizens/residents
- Private landowners
- Farmers
- Boaters
- Public officials
- Businesses
- Resource managers
- Environmental groups
- Community groups
- Government
- Not applicable
- Other (please specify)

LISFF Survey Sept 2012

13. What were the objectives of this LISFF-funded project? (Select all that apply)

	Primary Objective(s)	Secondary Objective(s)
Reduce storm water runoff and/or non-point source pollution	<input type="checkbox"/>	<input type="checkbox"/>
Manage and improve water quality	<input type="checkbox"/>	<input type="checkbox"/>
Monitor water quality	<input type="checkbox"/>	<input type="checkbox"/>
Reduce invasive species coverage	<input type="checkbox"/>	<input type="checkbox"/>
Restore native vegetation/habitat	<input type="checkbox"/>	<input type="checkbox"/>
Restore hydrological connections to wetlands (e.g., removing/replacing culverts, installing/removing/replacing tide gates, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Create/restore submerged aquatic vegetation beds (e.g., eelgrass)	<input type="checkbox"/>	<input type="checkbox"/>
Open fish passage to migratory fish species	<input type="checkbox"/>	<input type="checkbox"/>
Improve local fish/shellfish populations	<input type="checkbox"/>	<input type="checkbox"/>
Conserve wildlife	<input type="checkbox"/>	<input type="checkbox"/>
Protect and conserve land (e.g., land acquisition)	<input type="checkbox"/>	<input type="checkbox"/>
Educate communities	<input type="checkbox"/>	<input type="checkbox"/>
Promote and engage stewardship	<input type="checkbox"/>	<input type="checkbox"/>
Develop planning documents	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify below)	<input type="checkbox"/>	<input type="checkbox"/>

Other

LISFF Survey Sept 2012

14. What actions did this LISFF-funded project take? (Select all that apply.)

	Primary Action(s)	Secondary Action(s)
Constructing green infrastructure (e.g., rain gardens, vegetated swales, green roofs, porous pavements, etc.) or installing pollution control devices/hardware (e.g., storm water filters, catch basins, hydrodynamic separators, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Removing invasive species	<input type="checkbox"/>	<input type="checkbox"/>
Restoring hydrologic connections to wetlands (e.g., removing/replacing culverts, installing/removing/replacing tide gates, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Planting native vegetation	<input type="checkbox"/>	<input type="checkbox"/>
Riverine corridor restoration/maintenance	<input type="checkbox"/>	<input type="checkbox"/>
Removing debris	<input type="checkbox"/>	<input type="checkbox"/>
Planting submerged aquatic vegetation (e.g., eelgrass)	<input type="checkbox"/>	<input type="checkbox"/>
Enabling fish passage (e.g., installing fishways, removing dams/culverts)	<input type="checkbox"/>	<input type="checkbox"/>
Engineering and design for habitat restoration projects	<input type="checkbox"/>	<input type="checkbox"/>
Engineering and design for water quality improvement projects	<input type="checkbox"/>	<input type="checkbox"/>
Shellfish seeding or reef restoration	<input type="checkbox"/>	<input type="checkbox"/>
Land acquisition/easements	<input type="checkbox"/>	<input type="checkbox"/>
Organizing community educational programs/events	<input type="checkbox"/>	<input type="checkbox"/>
Organizing community training programs/workshops	<input type="checkbox"/>	<input type="checkbox"/>
Organizing municipal or governmental training programs/workshops	<input type="checkbox"/>	<input type="checkbox"/>
Organizing/conducting community water quality monitoring programs	<input type="checkbox"/>	<input type="checkbox"/>
Organizing/conducting beach cleanups	<input type="checkbox"/>	<input type="checkbox"/>
Developing outreach products (e.g., education signage, newsletters, web pages, radio segments, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Developing action/management plans for watersheds	<input type="checkbox"/>	<input type="checkbox"/>
Developing action/management plans for LIS Stewardship Areas	<input type="checkbox"/>	<input type="checkbox"/>
Implementing action/management plans for watersheds	<input type="checkbox"/>	<input type="checkbox"/>
Implementing action/management plans for LIS Stewardship Areas	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify below)	<input type="checkbox"/>	<input type="checkbox"/>

Other

LISFF Survey Sept 2012

15. Did the project meet its proposed outputs (e.g., # of acres restored, # of students educated, # of plans prepared)?

- Yes, all outputs
 Yes, some outputs (please comment below)
 No, none of the outputs (please comment below)
 Don't know

Comments

16. Please describe the project outputs that have been achieved.

17. In your opinion, did the project accomplish its primary and secondary objective(s)?

	Primary Objective(s)	Secondary Objective(s)
Yes, all objectives	<input type="checkbox"/>	<input type="checkbox"/>
Yes, some objectives (please comment below)	<input type="checkbox"/>	<input type="checkbox"/>
No, none of the objectives (please comment below)	<input type="checkbox"/>	<input type="checkbox"/>

Comments

Part Four -- Project Partners and Volunteers (continued)

18. What percentage of the project activities were conducted/supported by volunteers?

- Volunteers were not engaged
- <30%
- 30-60%
- >60%
- Don't know

19. What was the primary role played by volunteers?

- Advisory (e.g., scientific, legal, etc.)
- Outreach/education
- Labor
- Data collection
- Other (please specify)

20. Please describe the most effective and least effective aspects of the volunteer engagement.

LISFF Survey Sept 2012

Part Three -- Project Goals, Objectives, and Outcomes (continued)

21. What were the most effective aspects of this LISFF-funded project and what factors enabled this?

22. What were the least effective aspects of this LISFF-funded project and what factors caused this?

23. In your opinion, do you think this LISFF-funded project had a significant impact on Long Island Sound as a whole? Please provide support for your answer.

Part Three -- Project Goals, Objectives, and Outcomes (continued)

24. Have you used the knowledge gained from this LISFF-funded project to better manage/implement future projects?

- Yes (please elaborate below)
- No (please elaborate below)
- Not applicable
- Don't know

Comments

25. How did this LISFF-funded project support the goals articulated in the LIS Comprehensive Conservation and Management Plan?

26. What were the lessons learned from this LISFF-funded project?

Part Four -- Project Partners and Volunteers

27. How many organizations did you partner with to implement this LISFF-funded project?

- None
- 1-3 organizations
- 4-6 organizations
- >6 organizations
- Don't know

**28. Which of the following worked as partners to implement this LISFF-funded project?
(Select all that apply.)**

- Private landowner(s)
- Non-governmental or non-profit organization
- Volunteers and/or citizen-based volunteer group
- An academic or educational institution
- A business or other "for-profit" entity
- Federal agency
- State agency
- County or local government agency
- No partners
- Other (please specify)

29. Did the partnership exist prior to receiving the LISFF grant?

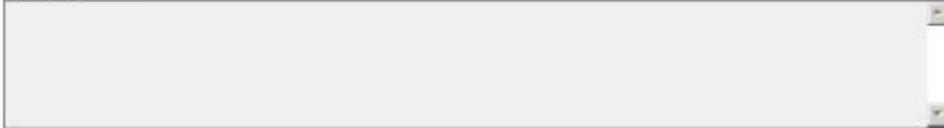
- Yes
- No

30. Did the partnership continue after the LISFF grant ended?

- Yes
- No
- Project ongoing, not applicable

LISFF Survey Sept 2012

31. Please describe the most effective and least effective aspects of the partner engagement.



Part Five -- Operational Information

32. In your opinion, did any of the following impede implementation of this LISFF-funded project? (Select all that apply.)

- Challenges associated with NFWF project administration
- Challenges associated with internal project administration
- Challenges associated with permitting or related issues
- Lack of scientific expertise or scientific resources
- Lack of staff, training, necessary equipment, or other project inputs
- Challenges associated with laws
- Critical partners did not participate in the project
- Differing approaches among project partners
- Inadequate funding
- Don't know
- Other (please specify)

33. After the LISFF grant ended, have you been able to track the project to see if it is effective at accomplishing the project goals/objectives? If so, what have you observed?

- Yes, we have been able to track the project (please describe observations below)
- No, we have not been able to track project
- Project ongoing, not applicable

Comments

LISFF Survey Sept 2012

34. Please indicate and describe if long-term maintenance of the LISFF project site is needed and/or has taken place since the LISFF-funded project was completed?

- Maintenance has taken place (please describe below who has provided that maintenance)
- Maintenance is needed, but has not taken place (please describe below)
- Maintenance is not needed (please explain below why maintenance is not required)
- Project ongoing, not applicable

Comments

35. Where did financial or other forms of support come from for maintaining the project beyond LISFF funding? (Select all that apply.)

- A private foundation
- A public agency grant program
- A non-profit organization
- An academic or educational institution
- A city or municipal government agency
- A county government agency
- A state government agency
- A federal government agency
- A corporation or other for-profit entity
- Project ongoing, not applicable
- Other (please specify)

36. What is the availability of financial support for the type of project work that you have funded through LISFF?

LISFF Survey Sept 2012

37. Do you believe this LISFF-funded project will be sustained and provide long-term benefits to Long Island Sound?

- Yes, likely (please explain below why you believe long-term benefits will be sustained)
- No, not likely (please elaborate below)

Comments

38. Would this LISFF-funded project have been possible without LISFF funding?

- Yes, we could have fully conducted the project
- Yes, we could have conducted the project, but on a slightly smaller scale
- Yes, we could have conducted the project, but on a much smaller scale
- No, the LISFF money was crucial to this project being conducted

Comments

39. How does the LISFF differ from other funding sources available in Long Island Sound?



Appendix B

Evaluation of LISFF Program Project Types

Introduction

The LISFF program funds projects in the Long Island Sound with the goal to accelerate the implementation of the CCMP. Project types include habitat restoration, watershed management, education, and stewardship. All of these techniques align with the CCMP; however, they vary in terms of overall benefits, leveraging capacity, and long-term sustainability. NFWF and LISS program managers emphasize that they would like this evaluation to provide information on the comparative effectiveness of different conservation strategies and/or project types. To support this type of management review, Stratus Consulting developed an approach that could be tailored and used by LISFF program staff to help compare and prioritize alternative program investment areas.

This approach consists of a multi-attribute framework and associated scoring rubric that can be used for comparative assessment of different project types within the LISFF program. The criteria were selected based on project attributes that were observed to be important through archival review, grantee interviews, and site visits. These project attributes can be applied to each project type to develop an overall ranking of the different techniques. If some evaluation criteria were considered more important than others, these criteria could be given different weights, and those weights applied to the evaluation criteria before summing. The evaluation criteria, and associated questions that may aid in the analysis, are outlined below:

- **Alignment with LISS Goals, Issues, and Actions:** To what extent does the activity align with the LISS goals (e.g., protect and improve water quality, preserve and enhance the physical, chemical, and biological integrity of the sound), issues (i.e., water quality, habitat quality, watershed management, and stewardship), and actions?
- **Alignment with LISS Environmental Indicators:** To what degree does the activity align with LISS environmental indicators (e.g., estimated nitrogen load, area of hypoxia, coastal habitat acres restored, river miles restored, herring runs)?
- **Influence on LISS Environmental Indicators:** Is the technique likely to have an influence on environmental indicators? Are changes measurable at a project level and/or broader regional level?
- **Behavioral Change:** Is the technique likely to result in a behavioral change? Are changes measurable?
- **Co-benefits:** Does the technique have co-benefits (e.g., water purification, climate mitigation)?
- **Government and NGO Support:** Is the technique likely to have financial and/or technical support from other state, federal, and/or non-profit partners? Is the technique supported by federal/state environmental laws, regulations, and/or plans?

- **Community Support:** Is the technique likely to have community support, interest, and/or involvement?
- **Champion:** Is the technique likely to find or create a champion?
- **Risk Factor:** Is the technique likely to encounter an obstacle during the design and/or implementation?
- **Maintenance/Sustainability:** Does the technique require long-term maintenance? Is long-term sustainability likely?

Application of Evaluation Criteria

As an illustrative assessment, common project types within the LISFF program were evaluated based on the established evaluation criteria. For an individual project type, a score between one and three was given for each evaluation criterion, as outlined in Exhibit B.1, and then the total score of the project type was calculated. All evaluation criteria were assumed to have a similar weight and given a value of 1. The summary of results for all analyzed project types is shown in Exhibit B.2. The more in-depth analyses for each project type are shown in Exhibits B.3 to B.7.

Based on this analysis, fish passage and green infrastructure projects received the highest rank, while invasive removal and education/outreach projects received the lowest rank. These results were driven by the variation in scores for many of the evaluation criteria, including attributes such as project benefits (e.g., influence on LISS indicators, behavioral change), project support (e.g., government, NGO, community), and technical aspects (e.g., maintenance, sustainability, risk factors). For example, fish passage ranked highly due to the project type's alignment and likely influence on LISS indicators, leveraging capabilities, and long-term sustainability. However, the attributes that lowered the overall score included low likelihood of a positive behavioral change and high likelihood the project would encounter an obstacle during design and implementation.

We emphasize that the selection of evaluation criteria and scoring was based on best professional judgment.

Exhibit B.1. Scoring Factors

Evaluation Criteria	Score			Weight
	1	2	3	
Alignment with LISS goals, issues, and actions	Little or no alignment with LISS goals, issues, and actions	Medium alignment with LISS goals, issues, and actions	High alignment with LISS goals, issues, and actions	1
Alignment with LISS environmental indicators	Little to no alignment with LISS indicators	Alignment with LISS output indicators	Alignment with LISS output and outcome indicators	1
Influence on LISS environmental indicators	Little to no influence on LISS indicators	Likely influence on LISS output indicators	Likely influence on LISS output and outcome indicators	1
Behavioral change	Low likelihood the project will result in positive behavioral change	Medium likelihood the project will result in positive behavioral change	High likelihood the project will result in positive behavioral change	1
Co-benefits	Few project co-benefits	Some project co-benefits	Many project co-benefits	1
Government and NGO support	Low government and/or NGO support	Medium government and/or NGO support	High government and/or NGO support	1
Community support	Low community support, interest, and/or involvement	Medium community support, interest, and/or involvement	High community support, interest, and/or involvement	1
Champion	Low likelihood the project will find a champion	Medium likelihood the project will find a champion	High likelihood the project will find a champion	1
Risk factor	High likelihood the project will encounter an obstacle during design and/or implementation	Medium likelihood the project will encounter an obstacle during design and/or implementation	Low likelihood the project will encounter an obstacle during design and/or implementation	1
Maintenance/sustainability	High maintenance/long-term sustainability is not very likely	Medium maintenance/long-term sustainability is likely	Low maintenance/long-term sustainability is likely	1

Exhibit B.2. Scores (based on preliminary analysis)

Criteria	Green Infrastructure	Invasive removal	Hydrologic Reconnections	Fish Passage	Education/ Outreach
LISS goals, issues, and actions	3	3	3	3	2
LISS environmental indicators	3	2	3	3	1
Influence on LISS environmental indicators	2	2	2	3	1
Behavioral change	3	1	1	1	2
Co-benefits	3	2	2.5	2	2
Government and NGO support	3	1.5	3	3	2
Community support	2	2.5	2	3	3
Champion	2	3	2	3	3
Risk factor	2	3	2	1	3
Maintenance/ sustainability	2	1	2.5	3	2
Total	25	21	23	25	21

Exhibit B.3. Green Infrastructure

Criteria	Description	Score
LISS goals, issues, and actions	Aligns with LISS program goals (i.e., 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), issues (i.e., water quality), and actions.	3
LISS environmental indicators	Aligns with output- and outcome-based indicators (e.g., hypoxia area/duration/frequency, estimated nitrogen load, water quality index, sediment quality index, beach closures and advisories, impervious surface).	3
Influence on LISS environmental indicators	Able to quantify changes to output-based indicators (e.g., impervious surface). Projects may have an influence on site-scale outcome-based indicators (e.g., reductions in nitrogen load), but measuring changes may be difficult. Unlikely able to measure changes to larger-scale outcome-based indicators (e.g., water quality, sediment quality, hypoxia area/duration/frequency).	2
Behavioral change	Green infrastructure (e.g., greenroofs, permeable pavers) can be used as an education tool and behavioral change is likely.	3
Co-benefits	Many project co-benefits (e.g., regulating building temperatures, reflecting/dissipating solar radiation, improved aesthetics, created urban habitat).	3
Government and NGO support	Support from federal/state regulations (e.g., Clean Water Act, MS4 permits) and regional/local watershed management plans (e.g., TMDL for Long Island Sound, NYC Green Infrastructure Plan to reduce combined sewer overflows).	3
Community support	Medium community support, interest, and involvement (e.g., volunteers help construct greenroofs).	2
Champion	Medium likelihood the project will find a champion.	2
Risk factor	Medium likelihood the project will encounter an obstacle during design and/or implementation (e.g., design issues).	2
Maintenance/sustainability	Requires maintenance but long-term sustainability is likely.	2

Exhibit B.4. Invasive Removal

Criteria	Description	Score
LISS goals, issues, and actions	Aligns with LISS program goals (i.e., preserve and enhance the physical, chemical, and biological integrity of the Sound and the interdependence of its ecosystem), issues (i.e., habitat quality), and actions.	3
LISS environmental indicators	Aligns with output-based indicators (e.g., coastal habitat acres restored).	2
Influence on LISS environmental indicators	Able to quantify changes to output-based indicators (e.g., acres of coastal habitat restored).	2
Behavioral change	Low likelihood the project will result in a behavioral change.	1
Co-benefits	Some potential project co-benefits (e.g., bank stabilization, improved aesthetics, improved public access).	2
Government and NGO support	Medium/low support from government organizations and NGOs (e.g., CT DEEP, USDA NRCS).	1.5
Community support	Medium/high community support, interest, and involvement (e.g., volunteers help with invasive removal).	2.5
Champion	High likelihood the project will find a champion.	3
Risk factor	Low likelihood the project will encounter an obstacle during design and/or implementation.	3
Maintenance/sustainability	Significant maintenance is required to sustain the project long-term.	1

Exhibit B.5. Hydrologic Reconnections

Criteria	Description	Score
LISS goals, issues, and actions	Aligns with LISS program goals (i.e., preserve and enhance the physical, chemical, and biological integrity of the Sound and the interdependence of its ecosystem), issues (i.e., habitat quality), and actions.	3
LISS environmental indicators	Aligns with output- and outcome-based indicators (e.g., coastal habitat acres restored, forage fish CPUE).	3
Influence on LISS environmental indicators	Able to quantify changes to output-based indicators (e.g., acres of coastal habitat restored). Changes to outcome-based indicators are unlikely (e.g., forage fish CPUE).	2
Behavioral change	Low likelihood the project will result in a behavioral change.	1
Co-benefits	Significant project co-benefits (e.g., improved water quality, improved aesthetics).	2.5
Government and NGO support	High support and leveraging from government organizations and NGOs (e.g., NOAA RC, TNC, CT Fund for the Environment).	3
Community support	Medium community support, interest, and involvement.	2
Champion	Medium likelihood the project will find a champion.	2
Risk factor	Medium likelihood the project will encounter an obstacle during design and/or implementation (e.g., design issues).	2
Maintenance/sustainability	May require some maintenance but long-term sustainability is likely.	2.5

Exhibit B.6. Fish Passage

Criteria	Description	Score
LISS goals, issues, and actions	Aligns with LISS program goals (e.g., preserve and enhance the physical, chemical, and biological integrity of the Sound and the interdependence of its ecosystem), issues (e.g., habitat quality), and actions.	3
LISS environmental indicators	Aligns with output- and outcome-based indicators (e.g., river miles restored, anadromous fish runs, herring runs).	3
Influence on LISS environmental indicators	Changes to both output- and outcome-based indicators are likely and measurable.	3
Behavioral change	Low likelihood the project will result in a behavioral change.	1
Co-benefits	Some potential project co-benefits (e.g., water quality improvement, safety (if dam removal), reduced town maintenance costs (if dam removal)).	2
Government and NGO support	High support and leveraging from government organizations and NGOs (e.g., NOAA RC, American Rivers, TNC, CT DEEP, CT Fund for the Environment).	3
Community support	High community support, interest, and involvement (e.g., fisherman, conservationist).	3
Champion	High likelihood the project will find a champion (e.g., local conservation groups).	3
Risk factor	High likelihood the project will encounter an obstacle during design and/or implementation (e.g., permits, private property).	1
Maintenance/sustainability	Little maintenance and operational costs, and long-term sustainability is likely.	3

Exhibit B.7. Education/Outreach

Criteria	Description	Score
LISS goals, issues, and actions	Aligns with LISS issues (i.e., stewardship) and actions.	2
LISS environmental indicators	Does not align with LISS environmental indicators.	1
Influence on LISS environmental indicators	Does not influence LISS environmental indicators.	1
Behavioral change	Medium likelihood the project will result in a behavioral change.	2
Government and NGO support	Medium support and leveraging from government organizations and NGOs (e.g., NOAA B-WET).	2
Community support	High community support, interest, and involvement.	3
Champion	High likelihood the project will find a champion (e.g., environmental education centers, conservation groups).	3
Risk factor	Low likelihood the project will encounter an obstacle during design and/or implementation.	3
Maintenance/sustainability	No maintenance, but long-term impact is unknown.	2

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Glossary

Adaptive Management: Adaptive management is the application of scientifically informed habitat management strategies whose recommendations are iteratively evaluated and revised to improve outcomes.

Champion: A champion is person who voluntarily takes an extraordinary interest in the adoption, implementation, and ongoing success of a cause, program, or project. He or she will typically try to force the idea through internal and/or external resistance to change, and will attempt to promote the idea or program within his or her organization.

Community of Practice: Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis. These people don't necessarily work together every day, but they communicate because they find value in their interactions. Such individuals may develop a common sense of identity.

Conceptual Framework: A conceptual framework describes a course of action or a preferred approach to an idea or thought. Conceptual frameworks can act like maps that give coherence to an empirical inquiry.

Enabling Factor: An enabling factor facilitates or supports the growth or development of a process or intervention.

Indicator: A measure selected as a marker of whether a program or project was successful in achieving its desired results. Identifying indicators helps a program more clearly define its outcomes.

Intervention: A planned change to the status quo or specific set of activities conducted to achieve a specified goal, in this case related to conservation and environmental stewardship of Long Island Sound. For example, a fish passage is an intervention intended to increase the population of a particular fish species in a particular river.

Limiting Factor: A limiting factor inhibits or constrains the growth or development of a process or intervention.

Outcome: In most evaluations, "outcome" is used as a synonym of an accomplishment or a result.

Output: A final product or service delivered by a program or project to end-users, such as reports, publications, removal of invasive plant species, construction of a fish passage or green roof, which a program is expected to produce in order to achieve its expected accomplishments and objectives.

Strategic Learning: Strategic learning means using evaluation to help organizations learn from their work so they can adapt their strategies. It means integrating evaluative thinking into strategic decision making and bringing timely data to the table for reflection and use.