

Appendix A: Priority Topic

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| TOPIC: | LIS Near-Shore Water Quality Monitoring Enhancement Phase I: Evaluation and Development of Framework |
| SUGGESTED COST ESTIMATE RANGE: | Up to \$60,000 |
| PROJECT PERIOD: | 12 months, March 2012— March 2013 April 2012 – April 2013 |
| LISS COMMITMENTS SUPPORTED: | This request is intended to support the commitments made to monitoring water quality parameters related to hypoxia as described in the LISS CCMP. |
| BACKGROUND AND REQUEST: | <p>The Long Island Sound Study (LISS) is acutely aware of the importance of water quality monitoring data in assessing the effectiveness of management decisions and in measuring progress towards reaching water quality goals. LISS is also aware of the role played by citizens groups in collecting and providing access to water quality data for near-shore areas and embayments, as these data are typically not collected by other larger, publicly funded monitoring efforts. For many years, LISS has provided some support for citizens monitoring efforts through the Long Island Futures Fund. However, locally led nearshore and embayment monitoring has not been utilized to full advantage and there needs to be better coordination between the data needs of the LISS scientific/technical community, watershed managers, and the data collection undertaken by multiple monitoring groups. The usability of near-shore monitoring data could also be improved by a Sound-wide coordination effort to improve uniformity in regards to sampling methodology, data management, quality objectives and data reporting. To this end, the New England Interstate Water Pollution Control Commission (NEIWPCC), in partnership with LISS, is seeking a contractor to develop a framework for coordinated near-shore water quality monitoring by completing the steps described below:</p> <ol style="list-style-type: none"> I. Near-Shore Data Needs Assessment- interact with the LISS Science and Technical Advisory Committee (STAC), Indicators Workgroup, CT DEEP LIS monitoring program, IEC LIS monitoring program, Municipal Separate Storm Sewer System (MS4) communities that discharge into impaired embayments and agency staff and management as necessary to evaluate specific needs for near-shore/embayment water quality data. This assessment must cover: <ol style="list-style-type: none"> A. Parameters of interest B. Spatial coverage (geographic area of interest) C. Temporal coverage (frequency of monitoring) D. Quality objectives necessary for data use E. Data formatting and access necessary for data use II. Identify Established Monitoring Groups- identify and create and inventory of ongoing and recently abandoned water quality monitoring programs in Long Island Sound embayments and tributaries with a focus on citizen-based (non-governmental) efforts. It is anticipated that the project leader will need to work closely with the LISS CAC and with leadership from each existing group to obtain and document the following information: <ol style="list-style-type: none"> A. Name of group performing monitoring including contact information, addresses, websites, etc. B. Parameters the group currently monitors C. Station locations monitored by the group including latitude/longitude D. Frequency of monitoring efforts E. Instrumentation/equipment utilized by the group F. Status of a quality control program for the group including whether or not the group has a QAPP, monitoring manual or Standard Operating Procedures (SOPs) in place, and if the documents have been approved by EPA or a state agency. Where a QAPP/SOP exists, the entity should obtain a copy and inventory these G. If the group utilizes standardized Field Sheets H. If, how, when, where Metadata are recorded |

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| | <ul style="list-style-type: none">I. How data are disseminated and to whom data are disseminated (e.g., website, newsletter, e-mail (weekly, monthly), end-of-year report)J. If a training program exists for the groupK. Needs of the established groups – the entity should work with individual groups to understand their funding needs and expenses, as well as any need for technical support. <p>III. Framework Development – synthesis of the information collected in steps I and II into a framework document describing a coordinated, strategic approach to future near-shore/embayment monitoring efforts that would mutually benefit the LISS agencies and watershed managers using the data and the citizens groups collecting the data. It is expected that this document would draw heavily on the plans and guidance used by other coordinated citizens monitoring programs associated with National Estuary Programs (see http://www.savebuzzardsbay.org/document.doc?id=377 http://www.mbnep.org/get-involved/monitoring.php http://water.epa.gov/type/oceb/nep/monitor_index.cfm http://www.dep.state.fl.us/coastal/sites/charlotte/volunteer/waterquality.htm)</p> <p>The framework document will include the following:</p> <ul style="list-style-type: none">A. Parameter recommendationsB. Field recommendations (number of samples, frequency of sampling, selection of sampling locations)C. Equipment recommendations (best technologies, maintenance, field calibration techniques)D. Laboratory recommendations (analysis methods, maintenance and calibration of equipment)E. Training recommendationsF. Data management recommendations (development of standardized data reporting format, development of LISS-wide embayment monitoring water quality database, data dissemination plan, data synthesis, incorporation of data into existing national databases (e.g. EPA's STORET/WQX), integration of embayment data into the LISS indicators presentation and reporting)G. Funding recommendations (scope of total need of unfunded embayment monitoring groups across the Sound, research into current and potential funding sources, recommendations on core needs and on phasing enhancements)H. Gap recommendations (identification of areas where no embayment monitoring currently exists, recommendations to encourage formation of new groups or programs to fill these gaps) <p>IV. Quality Assurance Project Plan Development – Working with the project TAC and EPA Region 1 and 2 QA staff as necessary, the successful applicant will develop a model quality assurance project plan based on the parameter, field, equipment, laboratory, training and data management recommendations made during Step III and based on the necessary quality objectives identified during Step I. The outline developed should be flexible enough for individual groups to enter their procedures, technical specifications, data collection protocols, etc. as necessary, but should contain minimum standards necessary for EPA QA approval.</p> |
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| EXPECTED OUTCOMES: | <ul style="list-style-type: none"> - Organized documentation of near-shore/embayment water quality monitoring data needs of LISS partners and watershed managers - Organized documentation of existing near-shore/embayment water quality monitoring programs across Long Island Sound with a focus on citizen-based (non-governmental) groups. - Strategic plan for embayment water quality monitoring across Long Island Sound that will mutually benefit the data end-users and data collecting organizations - QAPP template available for monitoring groups to modify to fit their program. Ensures adherence to minimum quality standards. |
| EXPECTED METHODOLOGY: | <p>This effort will require substantial communication with LISS partners, municipal staff and existing water quality monitoring groups. Applicants should be aware that citizens groups have varying levels of ability and willingness to communicate electronically and should plan on some travel within the LIS coastal zone to meet with group representatives when necessary. Applicants should also plan on attending a certain key LISS technical meetings to facilitate discussion of LISS near-shore monitoring data needs. These meetings are likely to include at least one meeting each of the Science and Technical Advisory Committee (STAC), the Citizens Advisory Committee (CAC) and the Indicators Workgroup (all held in the immediate LIS area, i.e. Southern Connecticut/New York City/North Shore of Long Island).</p> |
| DELIVERABLES/OUTPUTS: | <ul style="list-style-type: none"> - The final report for this project will include documentation and summary of the research conducted on near-shore water quality data needs and existing monitoring efforts. It will also include the full framework and QAPP template documents, as described above. - Frequent communication with NEIWPCC program manager and various LISS partners via conference calls, email, and other venues not requiring travel. - Presentation of results to the LISS Management Committee and the LISS CAC at one of each committee's quarterly meetings (held alternately in Southern Connecticut and the New York City area). |
| RFP TOPIC CONTACT: | <p>Jim Latimer US EPA Environmental Effects Research Laboratory 27 Tarzwell Drive Narragansett, RI 02882 (401) 782-3167 latimer.jim@epa.gov</p> |