

Long Island Sound Study
Science and Technical Advisory Committee Meeting Summary
Friday, November 22, 2002
Stamford, Connecticut

STAC Co-chair Charlie Yarish called meeting to order at 10:15AM. Yarish introduced himself as the CT Co-chair of the STAC, and announced that Larry Swanson is the NY Co-chair. Swanson was not present. Paula Rose and Heather Fried were introduced as the LIS Fellows from NY and CT, respectively. Mark Tedesco from the EPA LISO was introduced, and members of the committee introduced themselves (attendees list attached).

(1) STAC Mission/Purpose and Function

A. STAC Charge and Support

Yarish lead a brief review of the charge of the STAC and source of funding. The charge of the committee is to (1) recommend priority research and monitoring enhancements in response to the LISS March 2002 monitoring workshop , (2) consider other technical issues and areas, such as tidal wetlands loss, and SAV declines (3) review proposals for establishing marine protected areas, and (4) ensure peer review of technical products. The LISS Management Committee has approved a budget of \$50,000 for STAC support. The budget provides funds for two fellows who will provide technical support to the committee.

B. STAC Function and Membership

Mark Tedesco provided a brief review of the functions and membership of the committee. The STAC will provide a forum for idea exchange will make recommendations for funding targets and determine current key issues for the LISS. The committee is made up of a core group of agency managers, engineers, scientists, researchers, and other professionals.

(2) Overview of the LISS/STAC

A. Results of the First STAC

Tedesco provided background on the first STAC committee, which was formed around 1986 in the early stage of the LISS to help direct monitoring and research to characterize water quality issues in Long Island Sound. In 1992, the STAC was reformed into a number of work groups to develop management recommendations for the Comprehensive Conservation and Management Plan (CCMP). They identified 6 priorities for the LISS CCMP: hypoxia, toxic contamination, pathogen contamination, floatable debris, effects of water quality and habitat loss on living natural resources, and land use and development.

B. LISS Management Conference Structure

Tedesco provided a brief overview of the management structure of the LISS. The management committee is advised by the policy committee, who in turn work with STAC, EPA LISO, and the Citizens Advisory Committee (CAC). EPA LISO works directly with technical work groups. The STAC has been inactive until a recent proposal to renew the committee was made.

C. Research Funding 2001-2002

Tedesco provided a breakdown of the 2001-2002 budget for the LISS, including expenditures and organizations involved in the budget. The Congressional CCMP Implementation budget from congress is \$4 million. Program Funding from EPA LIS line item support is \$477,400, with

\$2,022,600 from congressional earmark, and \$510,000 from National Estuary Program. Program funding supports (1) coordinating and reporting of environmental actions and results, (2) public education and outreach, (3) monitoring, modeling, and research and, (4) with CCMP implementation, support and technical assistance, including tasks associated with habitat restoration, mapping, LIS reserve and general technical assistance.

D. 2003 Budget

Tedesco informed the committee that Congress has not passed a 2003 budget and therefore LISS funding for 2003 is currently unknown. The LISS is proceeding with developing work plan proposals for submission by December 23. The proposals will be reviewed in Jan. 2003, and decisions made in April 2003 based on the funding levels in the 2003 appropriation. Work from 2002 is still being supported and is ongoing.

Funding Discussion:

The committee asked about the current funding for the HydroQual model. Tedesco gave a brief review of the funding for the SWEM model for 2001-2002. Expenditures were \$80,000 in 2001 and \$275,000 in 2002. Ed Monahan asked what other models are currently being supported. Tedesco provided a brief overview of the funding for other models. Johan Varekamp asked if the HydroQual model is for public or for EPA use. Tedesco admitted that the intellectual property rights are not currently known. The model has a long track record, but the STAC will need to decide its future need. Jim O'Donnell asked why MYSound was not supported. Tedesco responded that outside funding was found, however, the source of long-term maintenance is unknown. Hans Dam asked Tedesco to provide a prospective on the current budget's ability to support the LISS. Tedesco informed the committee that of the 28 National Estuary Programs, LIS receives the most funding, but the federal government has allowed for expansion beyond the EPA's ability to support the program. The \$4 million earmark from Congress goes directly to implementation. The program will need more money to continue. Brief discussion of budget prospects followed. The committee agreed that the following key points would need to be considered by the STAC when setting funding priorities for the LISS Management Committee. (1) Identify key issues, (2) determine what studies have been done and what still needs to be done, (3) assume roughly stable funding when identifying needs, (3) identify and understand ongoing work in the region. Dr. Armstrong asked for an explanation of communication expenses. Tedesco stated that communication expenses included reporting, tracking, products, and staffing for directed work.

E. LIS Fellowship

Tedesco informed the committee the fellowship would be open to two graduate students every year. There is bi-state commitment for funding, therefore one fellow will be supported from NY and CT. Fellows will provide support to the committee.

(3) **STAC Priorities**

A. Modeling

Yarish opened discussion on the focus of past modeling. The first STAC had an active modeling committee lead by Donald Pritchard that focused on hypoxia. Tedesco told the committee the current modeling efforts will be focused on eutrophication, but that the model could be adapted to address other issues. Al Dove suggested that temperature changes, trophic structure and living resources should be incorporated. The committee agreed the key would be to integrate abiotic and biotic components. Rozsa suggested a request be made to HydroQual to make their model available to the committee. Armstrong suggested that access to the model's code would allow

committee to determine what parameters it currently utilizes. Jim Latimer suggested that workgroups be used to identify critical parameters, and that this needs to be done prior to issuing RFPs. Jim O'Donnell asked that the committee consider funding projects in a way that allows for collaboration between researchers and allows additional components to be integrated. There needs to be better interaction between HydroQual and other researchers. The STAC agreed that a detailed presentation on the model should be made to the STAC.

The meeting was adjourned by Yarish for lunch at 12:00 PM and reconvened at 1:10 PM.

B. Committee Topics

Tedesco provided copies of the "Summary of the Comprehensive Conservation and Management Plan" to STAC members to review the topics identified by the first STAC committee. Tedesco agreed to send copies of the CCMP to the STAC. Yarish lead a brief discussion on potential priority topics. The committee agreed on the following priorities for the current STAC: eutrophication, submerged aquatic vegetation, tidal wetlands, and food web structure. Tedesco informed the committee that the CAC has established a "Living Marine Resource Committee" and suggested STAC should consider opening lines of communication with them. A recommendation was made and accepted by the committee to invite a representative of the CAC to participate with the STAC.

C. Committee Discussion and Membership

Eutrophication Committee

Yarish asked the committee to think about what type of modeling will be needed e.g., shallow water, whole basin. Rozsa suggested the committee work with the Estuary Research Federation. Steve Goodbred asked if the model would include regional effects such as climate change e.g., storm events, stratification, and precipitation. Al Dove suggested the committee contact atmospheric researchers at NOAA. Yarish asked the committee to decide what the questions and priorities of the eutrophication committee should be and what tools will be needed. Johan Varekamp suggested N isotope studies would be needed to determine point sources, identify spatial differences, and determine the amount of primary productivity in the region. Paul Stacey indicated point sources have already been identified. O'Donnell asked if there was a clear understanding of the N flux through the East River. Tedesco indicated isotope tracer studies in the East River are beginning. Stacey said additional N/O stable isotope studies are currently being supported by the LIS License Plate Fund.

Yarish asked for volunteers. Committee volunteers were Hans Dam, Jim O'Donnell, Paul Stacey, Johan Varekamp, with Charlie Yarish acting as a liaison between the eutrophication and food web committees.

Tidal Wetlands Group

Ron Rozsa handed out a draft announcement for a workshop addressing tidal wetland losses in Long Island Sound and provided a brief background on the motives for the meeting, observed loss of intertidal marsh vegetation into intertidal flats. Ron reported that the workshop is tentatively scheduled to be held on Jan. 13 and 14, 2003 at the Three Village Inn, Stony Brook, New York (The workshop has since been rescheduled to sometime in June) . Invited guest expert in the ecology and hydrology of intertidal marshes will be invited to the workshop. The STAC agreed that involvement in this issue should be done through the planned workshop. Steve Goodbred, Johan Varekamp, and Roman Zajac agreed to be STAC liaisons to the workshop planning effort. The group will report back to the full committee on the results of the workshop.

Submerged Aquatic Vegetation Committee

Goodbred suggested that the efforts of the committee should be focused on integrating SAVs into a larger process oriented ecological framework, e.g. land-ocean interactions, incorporating eutrophication, SAVs and tidal wetlands. Rozsa suggested that water quality in eastern LIS needs to be monitored, and the subsequent effects on eel grass need to be determined. Current models for LIS are focused on the open waters and western end of the sound and do not provide information needed to assess trends in eastern embayments in LIS. Armstrong suggested the focus should be a set of integrated models incorporating water quality (focus on N) and changes in eel grass. Ron Rozsa suggested working with the CTDEP's SAV team and contacting Jim Kremer at UCONN about a possible collaboration with HydroQual. Milan Keser and Tom Halavik will interface with the SAV team and Kremer and report back to STAC with recommendations.

Yarish asked for volunteers. Committee volunteers were Robert Armstrong, Tom Halavik, Milan Keser, Jim Latimer, Ron Rozsa

Food Web Committee

STAC members agreed the committee will need to identify and make connections with existing knowledge of food web structure. Jim Latimer provided a brief overview of the EPA ORDs current work on developing a multivariate model of nutrient effects on hypoxia, food web structure and SAV changes.

Yarish asked for volunteers. Committee volunteers were Charles deQuillfeldt, Al Dove, Jim Latimer, Dave Simpson, Ellen Thomas, Gary Wikfors, Roman Zajac

D. Charge for Workgroup Structure

Gary Wikfors suggested the subcommittees should focus on (1) inventory of data, (2) interpreting the data, (3) determining trends and projections, and (4) future research needed to improve the projections.

(4) STAC Membership, Meeting Locations, Frequency

Yarish encouraged STAC members to extend an invitation to individuals that may be able to provide additional expertise to the committee. The committee agreed to keep the location for future meeting at EPA LISO in Stamford, CT. There will be a STAC meeting in February, but a date and time have not been decided upon. Discussions with the CAC are postponed until the workgroups have advised the STAC on LIS priorities.

(5) Future Agendas

Agenda items suggested for the next meeting include a discussion of Ecological Reserve Initiative, applying to NOAA for NEER status, and inviting HydroQual to give a presentation of their SWEM model. Subcommittees should provide recommendations at the next meeting to facilitate recommendations for RFPs.

Yarish adjourned the meeting at 2:30 PM.