



Long Island Sound Study

A Partnership to Restore and Protect the Sound

Meeting Minutes
for
LISS Habitat Restoration & Stewardship Workgroup Meeting
Fort Trumbull State Park, New London, CT
March 4, 2020, 9:30am – 2:30pm

Presentations

Welcome and Introductions

David Kozak and Harry Yamalis, CTDEEP

-Introductions by folks in attendance as well as on the phone. The park manager was not available to give us an overview of Fort Trumbull State Park.

Coastal Habitat Restoration at Great Meadows Marsh, Stratford, CT

Jim Turek, NOAA

-NOAA-Restoration Center is leading a Dept of the Interior salt marsh restoration project on a National Wildlife Refuge (USFWS property)

-tasks include invasive species control, native plantings, new culverts, fill removal, TLP, connecting a few ponds to tidal water, and rare plant concerns, as well as maintaining coastal public access.

-mapped in 1868 by the US Coast and Geodetic Survey, the once Great Meadows contained over 1450 acres of tidal marsh habitat.

-the vast marshes were ditched, diked, and drained in the late 1800s for salt hay farming and mosquito control

-there was some filling as well, as dredged material from Bridgeport Harbor was disposed of in this marsh

-the large ACOE dike that was completed in 1955 is still there and mostly intact, although the tide gates that were installed at creek crossings fell off in the 1980s(?) and were never replaced

Workgroup Task: Develop a list of priority tidal marsh research topics

Juliana Barrett, UConn/CT Sea Grant

-Here's the short list of what was discussed:

- Develop a conceptual model of LIS tidal wetland change/response to variations in LIS conditions (Ron Rozsa)—comment that research grant may not be most appropriate funding source.
- Marsh migration rates based on soil and slope (Jim Turek)
- Marsh response to changing marsh elevations through placement of material on marsh to modify existing marsh platform elevations (thin layer deposition) including monitoring of fish and bird use of modified marshes (Jim T)
- Ground-truthing of SHARP (Saltmarsh Aviation Research Project) habitat management area priorities (Amanda Pachomski)
- Comparison of ditched vs. unditched marshes response to SLR (Ron R.) and general long term viability (and marsh ecosystem services?) Ron R.
- Re-survey (12?) CT sites to examine marshes' response to past sediment deposition (in saltmarsh ditches?)
- Examine trends (and drivers?) of invasive plant expansion in Lower CT River Estuary (Patrick Comins)

- PC- recommends expanding LISS's SAV mapping efforts to include brackish and freshwater species in the lower CT River, where invasive species (water chestnut, hydrilla) are rapidly expanding

CT State of the Birds report – full report available [here](#)

Patrick Comins, CT Audubon

-Highlights include:

- importance of protecting islands along the coast of LIS for nesting bird species, such as gulls, terns, snowy egrets, cattle egrets, and black crowned night herons
- summary of the targets and goals of the HRSWG as stated in LISS's 2015 CCMP
- summary of tidal marshes both as critical habitat for wildlife and as an energy source for species ranging from plankton to top pelagic predators
- potential SLR impacts to CT's tidal marshes and shoreline communities
- summary of the [LIS Blue Plan](#)
- the importance of healthy forage fish populations to healthy bird populations
- LIS water quality improvements over the last 20 years
- the proposed Connecticut [National Estuarine Research Reserve](#)

Workgroup Discussion: Enhancement Grant Proposals to the LISS MC for FFY20

V. O'Neill / D. Kozak / H. Yamalis

-There were no true objections to any of the proposals that were submitted, though some members did feel more strongly in favor of some proposals over others.

-A list of the proposals as well as some comments, can be accessed on the HRSWG's Google Drive at:

https://drive.google.com/file/d/1kM_BLCKWDJI7BC0t0njPIOIzYGYIFkA/view?usp=sharing

Walking tour of Bentley Creek Tidal Marsh Restoration Site

H. Yamalis / D. Kozak

-In his haste to take down the electronics after the final presentation and put the multimedia podium back the way it was, Harry forgot to start the Bentley Creek slide show for your lunchtime viewing pleasure (sorry!). To make up for that unfortunate blunder, some of the project highlights are included below. Scroll down, and direct any questions about the project to harry.yamalis@ct.gov. Photos can be viewed [here](#).

Background

- The remediation and restoration of the urban tidal marsh in Bentley Creek is an excellent example of government and the private sector working together to achieve goals.
- The Bentley Creek tidal wetland is the last remnant of a large marsh that existed in the vicinity of the Fort Trumbull Peninsula which was historically filled and used for various industrial purposes. Discharges from the industrial uses such as a linoleum factory and scrap metal dealer resulted in contaminated sediments.
- Today, the marsh is roughly 1.8 acres.
- In order to redevelop the "New London Mills Site" for the Pfizer Global Development Facility [now owned by General Dynamics / Electric Boat], it was necessary for Pfizer to fill an inland wetland on the property. In granting authorization to Pfizer to fill the wetland, the Army Corps of Engineers required that the Bentley Creek degraded urban wetland area be restored.

- For the remediation and restoration, **DEP was responsible for investigating and remediating** the site and **Pfizer, Inc. then undertook reestablishing the wetland**. The DEP carried out the work under the **Urban Sites Remedial Action Program** which is an innovative program using state money to clean up brownfield sites to make way for significant private investment.

Project Description

The **remediation and restoration** of the Bentley Creek wetlands involved:

- Removing about 18,000 tons contaminated sediments (~1,200 tractor trailer's worth, only 2 of which were handled as hazardous waste). Non-hazardous waste was used as daily cover at a landfill.
 - Contaminants included: arsenic, lead, fuels, paints, semi-volatile organic compounds (heavier carbon-based or organic compounds), ash, and slag (industrial foundry waste)
- capping and regrading with clean material suitable for the growth of tidal wetlands
- seeding with *Spartina alterniflora* seeds harvested from plants in Rocky Neck State Park
- covering with erosion control matting

Partners & Project Cost

- CTDEEP's Office of Long Island Sound Programs (now part of the Land & Water Resources Division)
- CT Department of Economic and Community Development
- New London Development Corporation
- Pfizer, Inc.
- Science Center of Southeastern Connecticut
- CTDEEP spent about \$600,000 on investigation, remediation, waste disposal and engineering oversight of the wetland remediation.
- DECD spent about \$330,000 for waste disposal of materials from the wetland.
- These are in addition to the other remedial activities and financial incentives provided to Pfizer.
- Pfizer hired contractors to perform the restoration (construction costs unknown)

Project Goals & Benefits

- Increase current extent of wetland
- Establish a low marsh habitat dominated by *Spartina alterniflora* (smooth cordgrass)
- Provide channels to support certain marine invertebrates and fish
- Retain open water and mudflat habitats
- Provide educational opportunities and coastal public access in an urban setting
- Remediation of the Bentley Creek tidal marsh which immediately adjacent to a major development project
- Restoration of an urban salt marsh
- Creation of education opportunities that promote science and environmental protection.
- A visible example of government and private partnerships

Finally, a blast from the past:

Ron Rozsa had mentioned that some ditched marshes are reverting to their ‘pre-ditching’ condition, as maintenance ditching in CT was ceased 30+ years ago. In the pre-ditching condition, marshes are wetter in general, with numerous small ponds, a complex network of meandering tidal creeks, and many of these shallow pannes or pools of standing water. The photo above is from the Quinnipiac River marsh system (exact location unknown) and was taken by CT’s Mosquito Control program in 1917. The drained condition, which can be seen in the post-ditching photo taken days later, is below.

**Attendance**

Jim Ammerman, NEIWPCC / LISS

Juliana Barrett, CT Sea Grant

Todd Bobowick, USDA-NRCS

Chantal Collier, TNC-CT

Patrick Comins, CT Audubon Society

Cindy Corsair, US Fish & Wildlife Service

Emily Hall, Seatuck

David Kozak, CTDEEP

Alex Krofta, Save the Sound

Ben Maher, Audubon NY

Adelaine McCloe, CTDEEP

Vicky O'Neill, NYSDEC

Amanda Pachomski, Audubon NY

Casey Personius, NYSDEC

Ron Rozsa, Coastal Plant Ecologist

Jim Turek, NOAA-Restoration Center

Tim Visel, Sound School

Harry Yamalis, CTDEEP