

Habitat Restoration & Stewardship Work Group

Virtual Meeting

Monday, May 9, 2022 – Meeting Summary



Welcome and Roll Call

A total of 29 people attended the meeting. Roll call Victoria O’Neill (NEIWPC/NYSDEC/LISS); Harry Yamalis (CTDEEP/LISS); Juliana Barrett (UConn/CT Sea Grant); Emily Hall (Seatuck Environmental Association); Richard Friesner (NEIWPC); Cassie Bauer (NYSDEC); Samarra Scantlebury (NYSDEC); Jimena Perez-Viscasillas (NYSG/LISS); Sarah Schaefer-Brown (NYSG/LISS); Cayla Sullivan (EPA R2 LISO); Elizabeth Hornstein (NY Sea Grant/LISS); Maureen Dunn (Seatuck Environmental Association); Mark Tedesco (EPA Long Island Sound Office); Jamie Ong (NYC Parks); Robert Doscher (Westchester County); Ralph Lewis (UConn); Ron Rozsa; Tessa Getchis, CT Sea Grant/UConn; Nancy Balcom, CT Sea Grant; Beth Amendola, Audubon CT; Jim Turek, NOAA Restoration Center; Katie Friedman, Save the Sound; Kevin O’Brien, CTDEEP; Jessica LeClair, CTSG/LISS; Todd Bobowick, USDA-NRCS; Sabrina Pereira, NOAA NMFS; Angela Schimizzi, NYSDEC; Heather Johnson, Friends of the Bay; Gavin Jackson, CTDEEP;

Announcements

- Jim Turek updated us on the current status of the NOAA Bipartisan Infrastructure Law funding opportunities. He expects the fish passage announcement to be released at the end of May. But the Department of Commerce is working on a release for federally recognized tribes at this time, and 15% of these funds would be set aside for tribes. NOAA is still waiting on the habitat restoration funding opportunity, which will target a variety of habitat types. Still waiting on the details to see what happens. Jim will let us know once they are released and LISS HRSWG will forward it along.
- Vicky O’Neill announced that the NYSDEC 2022 Tributary Restoration & Resiliency RFA application deadline was extended to Friday, May 13 at 3pm.

Ensuring a Resilient Coastal Forest to Address Changing Climate in Southeastern CT

- Forest Resilience in the face of climate change: The Study of the Hoffman Preserve
- This project was conducted in collaboration with the Avalonia Land Conservancy
- This project is located in Stonington, CT, near the Mystic River and close to the RI border. It is within the coastal ecoregion. This area does not get regular salt spray but is impacted by coastal storms. The area is over 200 acres in size.
- The area was planted with evergreens years ago and is also dominated by oak hickory trees. Not much of an understory at this site, which concerned bird groups.
- Ghost Moths (formerly known as Gypsy Moths) really impacted this area, along with major wind events, which caused tree death.
- The site has been patch cut (in 2019), so there was clearing of the area, and skid trails. There was conversation on what to do from this point on, to prepare the site for climate change. Worried about water quantity and quality, cultural aspects, recreation, and wildlife.

- Had to decide what is a healthy forest. Very complex issue. Hard to define. Always have to think about resilience and regeneration. No one answer or solution.
- This project attempted to get to a resilient forest. Diversity of trees and ages of trees important. Need to plan for changes in rainfall and temperature increases. NEED:
 - Ability to grow and reproduce successfully in future climate
 - Add diversity and resilience with additional species and genotypes
- LISFF funded project (with match from Avalonia) that focused on planting, seeding, educational signage, management, and lecture series. Had about 65 acres to address in this project (patch cuts and skid areas).
- Looked at the idea of assisted migration of species. Moving seed sources from current range to areas just beyond the range mimicking natural dispersal. Species chose were reviewed by UConn Forester and CT. All trees were GPSed for location planted on the site. Sourced trees from MD State nursery and worked with Earth Tones in CT.
- Used the USDA Climate Change Atlas to choose more southern species of trees like Loblolly Pine
- Planted in the spring and fall of 2021 and will have two plantings in the Spring of 2022.

The Geologic Heterogeneity of the Coastline of LIS as it Relates to Variability in Coastal Resilience

- This talk is focused on secondary shorelines which are impacted by marine processes such as waves, tides, and SLR (also biota, but this will not be covered in this presentation).
- When waves encounter coasts, several things happen including: beach rollover, reflection, refraction, diffraction, and wave induced transport. All of these examples, the one common factor is that sediment is transported in some way.
- Storms are intensifying and increasing in number. The energy dynamic of shorelines is changing. We have to try and understand the interaction between waves and coasts if we want to design coastal resiliency project.
- Fetch is variable in LIS. Wind determines the fetch.
- In winter NW winds. SW in summer. Noreasters in the winter. Important to understand how much potential wave energy there might be from the various wind direction. Wind direction determines sediment movement.
- Heterogeneity wave energy and coastal modification. You can't just use the same technology or design for coastal projects and move it to another location in the LIS coastline.
- North shore of LI does not have to deal with bedrock. Mainly glacial deposition and glacial streams. LI is a big sponge because there is a lot of sand.
- Wave residence in the LIS, which results in lower tides in eastern LIS and higher tides in western LIS. Sea level story is complicated in LIS. Tectonic forces are impacting sea level rise. The forces put pressure on the Atlantic coast of the US.

LIS Marine Debris Action Plan

- Two year effort funded by NOAA Marine Debris Program and National Sea Grant. Guidance from NOAA midatlantic and northeast region. 5-year plan, focused on LIS and its watershed.
- Want to see LISS free of marine debris. Address both removal of debris and policy changes.

- 2 year effort to complete the plan. Planning team included Sea Grant and other representatives. Completed surveys to partners and organized work groups to address the main issues. Organized content among work group members and created the plan.
- Three goals: Consumer Debris, Lost Fishing and Aquatic Gear, Microplastics
- each goal has many actions.
- Plan should be approved, finalized, and publicized by the end of May.

Update on CT Shellfish Restoration, Monitoring, and Management

- Natural shellfish beds in CT had not been surveyed since 1890. They stated surveying for this project in 2021 and will continue until all areas of CT have been surveyed. Trying to cover the entire CT coastline. They are looking at both designated and undesignated beds.
- The survey is focused on oysters but also includes mussels. Basic info obtained is: non reef, low density, and high density. A GIS layer was created for all the sites surveyed.
- Drone monitoring has been piloted as well through UConn, with the CT State Department of Agriculture. Drones can see the full expanse of the reef, vertical elevation. This method is inexpensive.
- They created an interactive map viewer, through UConn CLEAR. It shows human use, habitat and species, water quality, oceanographic factors, shellfish production, areas of interest, and off limits areas.
- The next step is to develop a habitat suitability index model to help id priorities.
- Before and after Covid, it was noted that natural oyster beds were falling into disrepair. There was a need to restore them for the health of the LIS and for the oyster industry. During Covid, hired out of work shellfisherman to plant clean shell and replant beds.

Our next meeting will be Tuesday, September 13. Save the Date!