LISS Habitat Restoration & Stewardship Workgroup
Stewart B. McKinney Refuge
733 Old Clinton Rd
Westbrook, CT 06498
May 1, 2018

Meeting Minutes

Attendance-27

Juliana Barrett, CT Sea Grant
Mike Bradley, URI
Margo Burns, River COG
Patrick Comins, CT Audubon
Rob Doscher, Westchester County
Steve Gephard, CTDEEP
Tessa Getchis, CT Sea Grant
David Kozak, CTDEEP
Marit Larson, NYC DPR
Victoria O'Neill, NEIWPCC/LISS
Amanda Pachomski, Audubon NY
Mark Paine, City of West Haven
Mark Parker, CTDEEP/LISS
Suzanne Paton, USFWS
Rick Potvin, USFWS-McKinney Refuge
Judy Preston, LISS/CT Sea Grant
Ron Rozsa, Plant Ecologist
Karen Stackpole, GEI Consultants
Deb Surabian, USDA-NRCS
Becca Swadek, NYC DPR
Garrett Timmons, USDA-NRCS
Jim Turek, NOAA Restoration Center
Alison Verkade, NOAA-NMFS
Tim Visel, The Sound School
Danica Warns, NYC DPR
Cary White, TNC-CT Chapter
Harry Yamalis, CTDEEP/LISS

Notes

Welcome, Introductions / Announcements

- LIS Futures Fund grant applications due May 10th. More information can be found here: http://www.nfwf.org/lisff/Pages/lisff2018rfp.aspx
- NYS Water Quality Improvement Project (WQIP) Program grant released May 1st. Application due July 27th. Habitat restoration is limited to aquatic restoration to improve tributary connectivity. More information can be found here: https://www.dec.ny.gov/pubs/4774.html

Welcome to the Refuge: Habitats, History, Work, by Rick Potvin, Refuge Manger

- We learned about the long history of the refuge and the different aspects of the ten refuge properties spread out along the coast of CT from Westbrook to Greenwich.
- Refuge lands include eight islands, barrier beaches, tidal salt marshes, shrublands, and forest habitat.
- Due to its location along the Atlantic Flyway, the refuge provides important resting, feeding, and nesting habitat for many species of birds including the endangered roseate tern and threatened piping plover.

Presentations

LIS 2017 Eelgrass Survey Results
Suzanne Paton, USFWS & Mike Bradley, URI

- Aerial surveys/photos (1 ft. pixel resolution) were conducted from Westerly, R.I. to New Haven, CT on the north coast of LIS and from Orient Point to Fishers Island, NY on the south side of LIS. Photography was completed in June 2017. Although peak eelgrass growth occurs in July and August, a late spring attempt to complete the flights was preferred to ensure water clarity. Photographic images taken during 2017 were exceptional due to the perfect forecast. Images were received and ready for interpretation in September 2017.

- Rocks and algae makes photointerpretation very difficult. Always recommended to field check questionable locations. For this project, polygons were placed on a tablet and taken into the field with a handheld submeter GPS. The GPS required no post-processing. An underwater video camera attached to the boat was also used to confirm eelgrass location.
- One of the most important things to check during the field assessment is the location of the eelgrass deepwater edge.
- Eelgrass was found to grow in as shallow as 4ft of water (Niantic) and as deep as 20ft of water (Fishers Island).
- Eelgrass is home to a variety of sea slugs, snails, epiphytes, and fish.
- Eelgrass will senesce at some point in late October so it is important to get out into the field before the end of that month.
- A total of 1581 acres of eelgrass in LIS in 2017. This is straight deduction between 2017 and 2012. However, reporting eelgrass in this way is deceiving. In 2012 the field checks were not completed due to Superstorm Sandy. In looking at the 2012 and comparing it to the 2017 data there were ways to determine whether or not the loss seen in 2017 was true loss. In some cases, it is likely that if the field checks were completed in 2012 some areas would have been determined not to have eelgrass after all.
- Once all of the 2012 and 2017 data was compared, it was found that there was roughly 12% decline in eelgrass since 2012 (this is true loss). This result is similar to recent Narraganset Bay eelgrass study. The Rhode Island coastal ponds had loss around 18%.

Sciongay property acquisition/restoration sites
D. Kozak

- Not unusual for significant coastal land acquisitions such as the Sciongay acquisition creating the CT DEEP Menunketesuck Wildlife Management Area to take several years
- Few large significant coastal land conservation opportunities remain along CT's coastline
- Need to focus on identifying/acquiring only the most significant land conservation opportunities—CT DEEP focusing on waterfront/marshfront and acquisition that abut existing protected open space
- If possible, tie land acquisition initiative to a larger conservation initiative
- Support from other agency divisions / towns critical to success, especially if controversial
- Coordinate often and early with project partner
- Have a plan for responding to opposition
- Vision for improving the property to support public use will garner support for current and continued acquisition funding
- Must be willing to take risks if pursuing best/remaining significant acquisition opportunities

Tracking LIS Habitat Connectivity for CCMP Ecosystem Indicators: Pilot Project
V. O'Neill

- Vicky explained the need to track habitat connectivity as per the 2015 LISS Comprehensive Conservation & Management Plan. Habitat that is connected has higher biodiversity and greater ecosystem resilience.
- The LISS CCMP has an ecosystem target to track habitat connectivity. The goal is to "Increase connectivity of coastal habitat by 2035 by restoring and/or protecting habitat patches that increase biodiversity and support migration pathways."
- LISS has new ecosystem target webpages that track all of the new CCMP targets, including habitat connectivity.
- The issue is that there is currently no way to track connectivity within LIS coastal boundary. Habitat connectivity can mean different things to different species. It is difficult to determine what makes a habitat connected.
- We took on a pilot project to determine habitat connectivity using LIS Stewardship Areas and Anchor Sites within these Areas. We determined connectivity using land protected and/or restored within the

Stewardship Area. The greater the area protected/restored, the higher the connectivity.

- We created "Priority 1 Areas", areas within 500ft of the waterbody and/or Anchor Sites, and will be impacted by marsh migration in the future (as per Sea Level Affecting Marshes Model).
- We created "Priority 2 Areas", areas within 500-1000ft of the waterbody and/or Anchor Sites.
- Comments/suggestions included the need to add additional stewardship areas, include tidal wetlands as existing protected lands in CT (and NY?) because of State law restrictions on use of TWs, and increase focus on restoring/restored lands when evaluating habitat connectivity.

Overview of the Coastal Forest and Shellfish Beds Chapters of the LISS Habitat Restoration Manual
Juliana Barrett, CT Sea Grant
Tessa Getchis, CT Sea Grant

- The coastal forest chapter covers the different types of forest found within the LIS coastal boundary, threats to coastal forests, forest restoration and management efforts, forest recreational opportunities and access, and forest monitoring techniques.
- The shellfish chapter provides an overview all relevant shellfish within the LIS but focuses primarily on Oysters. The chapter covers everything from the history of oyster harvest in our area, oyster biology, economic value of oysters and current harvest, oyster restoration techniques, and monitoring efforts.

For those of you who missed the meeting, or for those that would like to revisit the presentations, you can find the presentations here:
https://drive.google.com/drive/folders/1BS041UUBCO4_cfc203i9iU0Z6bGu3biS

Field Trip to view Menunketesuck River/Chapman Mill Pond fish passage
Steve Gephard, Supervising Fisheries Biologist, CTDEEP

- Steve led the group on a tour of the dam, fish passage, and eel passage. He described the history of the location, the history of the project, the details of the fish passage and eel passage design, the success to pass fish to date, and the ongoing monitoring effort.

2018 Meeting Dates:
Wednesday, June 20 (Rye, NY)
Wednesday, September 12 (CT)
Wednesday, November 28 (NY)

View of the fish ladder and eel ladder from the top of the Chapman Mill Pond Dam on the Menunketesuck River (*photo NYSDEC*).

LISS HRSWG members stand on a bridge over Chapman Mill Pond Dam to view the fish ladder on the Menunketesuck River (*photo NYSDEC*).

Steve Gephard, Supervising Fisheries Biologist for the Inland Fisheries Division at CTDEEP, talks to the LISS HRSWG members about the design of the fish ladder and how alewife use the structure to move into the Mill Pond (*photo NYSDEC*).

Steve Gephard shows off the monitoring equipment within the fish ladder at the Chapman Mill Pond Dam (*photo NYSDEC*).

Steve Gephard shows off the glass eel trap counter at the Menunketesuck Chapman Mill Pond Dam (*photo CTDEEP*).

Steve Gephard points to where the glass eels are taken up over the dam after counting at the Menunketesuck River Chapman Mill Pond Dam (*photo CTDEEP*).