Habitat Restoration & Stewardship Work Group Virtual Meeting
Tuesday, February 15, 2022 – Meeting Summary

Welcome and Roll Call

A total of 72 people attended the meeting. Roll call Victoria O'Neill (NEIWPCC/NYSDEC/LISS); Harry Yamalis (CTDEEP/LISS); Juliana Barrett (UConn/CT Sea Grant); Heather Johnson (Friends of the Bay); Alex Krofta (Save the Sound); Tripp Killin (Jeniam Foundation); Jim Ammerman (LISS/NEIWPCC); Emily Hall (Seatuck Environmental Association); DeAva Lambert (CTDEEP); Richard Friesner (NEIWPCC); Adam Starke (The Nature Conservancy); Alex Huddell (EPA Long Island Sound Office); Alicia Tyson (CT Sea Grant); Cassie Bauer (NYSDEC); Tom Parisi (Nassau County Soil & Water Conservation District); Samarra Scantlebury (NYSDEC); Jimena Perez-Viscasillas (NYSG/LISS); Sarah Schaefer-Brown (NYSG/LISS); Vincent Long (CT DEEP); Bill Lucey (Soundkeeper - Save the Sound); Shelby Casas (Audubon New York); Beth Amendola (Audubon CT); Juliana Barrett (CT Sea Grant); Esther Nelson (EPA LISO); Katie Friedman (Save the Sound); Cayla Sullivan (EPA R2 LISO); Sara Powell (NY Sea Grant); Jake LaBelle (Wildlife Conservation Society); Elizabeth Hornstein (NY Sea Grant/LISS); Suzanne Paton (USFWS) ; Alex Krofta (Save the Sound); Lynn Dwyer (National Fish and Wildlife Foundation); Judy Preston (LISS/CT Sea Grant); Sabrina Pereira (NOAA Fisheries (GARFO)); Jane Jackson (North Shore Land Alliance); Nikki Tachiki (EPA Long Island Sound Office); Maureen Dunn (Seatuck Environmental Association); Justin Angle, (Cadence Analytics); Mark Tedesco (EPA Long Island Sound Office); Lillit Genovesi (NY Sea Grant/LISS); Mary Arnold (NEIWPCC /NYSDEC); Heather Gierloff (NYS DEC); Jamie Ong (NYC Parks); Dave Dickson (UConn CLEAR); Jim Browne PhD (Town of Hempstead); Kim Manzo (CCE); Jacob Isleib (USDA-NRCS); Alex Metcalf (Cadence Analytics); Robert Burg (LISS/NEIWPCC); Chris Humphrey (SC Soil & Water); Tara Schneider-Moran; Deb Surabian (USDA-NRCS); Jeff Main (Westchester County Parks); Jordan Bishop (NEIWPCC); Robert Doscher (Westchester County); Tom Anderson (CAS); Laura Schwanof (GEI); Kevin O'Brien (CTDEEP);Kathleen Fallon (NY Sea Grant); Kelly Streich (CTDEEP); Chris Shubert (USGS); Brad Peterson (SBU); Ralph Lewis (UConn); Ben Spratford (GEI); Mary Beth Billerman (GEI); Dave Kozak (retired); MarIlin Ozolos; Steve Schott (CCE); Kimarie Yap (IEC); Samantha Wilder (IEC); John Chandler (Cadence Analytics); Georgina Cullman (NYC Parks);

The Long Island Sound Study is a cooperative Federal/state Management Conference researching and addressing the priority environmental problems of the Sound identified in the Comprehensive Conservation and Management Plan. The Habitat Restoration & Stewardship Work Group provides restoration and conservation advice to the Management Conference partners in implementing the CCMP.

Announcements
- We announced that the 2022 Long Island Sound Futures Fund released a Save the Date and that the full RFP will be out in early March. Applicants are encouraged to contact NFWF with project ideas at this time.
- Several partners announced job openings. These openings can be found in the email associated with this meeting.

Microtargeting to improve conservation outreach and efficiency

- Conservation is a human and ecological process. We need to better understand the human dimensions, at scale

• When we do try to get data on why people invest in conservation, we boutique data. We put a lot of effort in getting that data but this information does not help us understand individuals. • The Approach: Microtargeting. Why not use microtargeting for conservation? • For microtargeting, it is helpful to have some record of successful from people who participated with you in the past, so that you have a smaller group.

> OR
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> People who you tried to partner with in the past but did not partner with you.
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> You can then combine this information with consumer data to build an algorithm which will tell you if they are likely to participate or likely not to participate.

• Example Project: PA riparian landowners. The spatial data analysis involved 1m data. To determine which of the forest buffers needed restoration. They found that over 200k individual owners that needed restoration. They scored everyone 1-10 likely to participate using available data to determine social receptivity. Also, tried to survey random and prime prospects (5k landowners). There was big buy in from prime owners which resulted in big savings.

• Ex: Chesapeake Bay Farmers. Survey data can substitute "past participation" lists. Promoting soil health in stream buffer prospects. First, conduct the survey. Second, collect consumer data and farm data. Third, microtarget to build an algorithm. Fourth, score the population based on these results. Now you have targeted outreach.

- o Past participants->microtarget population->likely participants
- o Know market segments->microtarget population->likely participants

• About the data: Data used are readily available and are either public or for purchase

Connecticut State of the Birds Report 2021

• The report was included in a prior email to the group. It can also be found in the Google Drive folder for this meeting.

• Both roseate and common tern rely on a diet of forage fish (including sandlance). Forage fish benefit from dam removal.

• Long tailed duck and white winged scoter populations have collapsed. LIS tidal flux (similar to Nantucket shoals) offers abundant prey for sea ducks and buffer from storms. We need to protect these locations from development. There are great numbers of scoter and longtail duck off of Strafford. These areas might need protective zones.

• Audubon is actively working on restoration projects, especially grasslands and tidal wetlands. • Advocacy work is needed on national climate solutions.

• Recommendations include:

- o Congress needs to pass the Recovering America's Wildlife Act (CT along could receive $12 million annually).
- o Land acquisition

Developing Methods to Assess Eelgrass using Drone Technology

• Can we get similar monitoring results as ground monitoring efforts?
• QAPP completed in February 2021
• Site selection criteria:
- o Area of known eelgrass

- o Field survey that coincides with drone fly overs
- o FAA airspace class that allows UAS operation (you always have to maintain visual site of the drone).
- o Area to deploy ground targets
- Project Study Area: Niantic River, Niantic CT
- The power station at the chosen location monitors the eelgrass annually. They partnered with CTDEEP and agreed to share that data. This location was also very accessible.
- Field day preparations include:
  - o planning the mission
  - o notifying national guard, police, local neighborhood;
  - o deploying ground control targets
  - o observing and recording weather conditions
- The pilot mission included 128 acres over land and water
- 56% of the images failed to calibrate in Drone2Map and Pix4Mapper
- What they learned:
  - o Mapping over water is difficult
  - o Next time, they need to try and include 30% terrestrial features in all images and not 30% of the entire project area. If you can't do that then you need a channel that is not too wide
  - o Try a different tool for image processing
  - o Consider breaking up project over successive days
  - o Need more computing power

The Geologic Heterogeneity of the Coastline of LIS as it Relates to Variability in Coastal Resilience • In New England, there is a north south grain for CT and the Bronx

• On Long Island, there is a east west grain

• Sea Level was high in the Cretaceous Period (the seas lapped up against the bottom of the Appalachian Mountains) and most of North America was underwater. Runoff draining off the land created the continental shelf (a coastal sediment plain). Roughly 40,000 ft of sediment sits on the shelf.

• All faults in CT show major rivers

• LIS's north shore has bedrock controlling the topography

• LIS's south shore has underlying coastal plains controlled by glacial deposits •

Geology influenced human use: LI became agricultural, and CT became industrial.