Pilot Project: Development of a Volunteer Program to Monitor CT Embayments 2016 and 2017

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Unified Water Study, Tier 2 Development Meeting
Project Background

- DEEP has responsibility under Clean Water Act under Section 305(b) to assess and monitor waters of CT
  - 210 estuarine segments totaling 611.91 mi²
  - 148 are near shore segments
  - 102 are not assessed for Aquatic Life Use
- DEEP has highly successful FW tiered volunteer monitoring program
Project Background

• 2015- DEEP received funding from LISS to develop pilot project in embayments
  -same time as NFWF extended funding to develop Unified Water Study

• Objectives-
  – determine testing parameters suitable for volunteer groups and applicability of procedures utilized by other estuary monitoring programs
  – Field test in 3 embayments
  – Develop Standard Operating Procedures
2016 Embayments

Joshua Cove/Island Bay, Guilford

Farm River, East Haven

Saugatuck River, Westport

Assisted by Harbor Watch

Connecticut Department of Energy and Environmental Protection
2016 Parameters

“Tier 2”
Enterococci Bacteria
Total Phosphorus
Total Nitrogen
Chlorophyll a
Dissolved Oxygen
Temperature
Salinity
pH
Water Clarity (Secchi disk depth)

“Tier 3”
Continuous Dissolved Oxygen
Benthic Macroinvertebrates
Macro algae
Comparison to UWS

Similar parameters and methods for nutrients and in situ data collection

Macro algae- ours will be more qualitative than quantitative
  Discussion Topic: UWS consider adding qualitative macro algae sampling as Tier 2, leave quantitative as Tier 1?

Possible extra biological opportunity with benthic sampling
  Issues: no long term datasets, no LIS specific B-IBI, identifications are expensive; need professional taxonomist
2017 Additional Work

- Focus on only 1 Embayment
- Continuous DO
- Macro algae
- Benthic macroinvertebrates
Study Influences

Overview of Nitrogen Reduction Strategy for Long Island Sound

Unified Water Study

Connecticut Department of Energy and Environmental Protection
Other DEEP Happenings

2nd Generation Nitrogen Reduction Strategy -

Recent RFP-- Inventory and Assessment of Onsite Wastewater Treatment Systems and their impact on Nitrogen loadings to CT Coastal Areas

CLEAR program to provide outreach, technical assistance, web tools to municipalities regarding new storm water permit, including new circuit rider

Niantic River Estuary Pilot Project-
http://vaudrey.lab.uconn.edu/research-niantic-river-estuary/
QUESTIONS?

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