# CT National Estuarine Research Reserve (NERR) Project:

# Site Selection Team Meeting 2

*CT Department of Energy & Environmental Protection*
*Office of Long Island Sound Programs,*
*NOAA Office for Coastal Management,*
*CT Sea Grant, &*
*University of Connecticut Marine Sciences Program*

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## A. Project Timeline Review:

- Can be fluid; dates are not hard and fast – no formal window
- Best guess at a reasonable range, but would like to finish sooner if possible.
- Major milestones

| What | Who | By When |
|------|-----|---------|
| *NERR Project Kickoff Meeting* | *SC, Federal NERR Leadership Team, invitees, public* | *April 2016 …* ✓ |
| Preliminary Site Screening | SST, Regional NERR Team | June 2016 |
| Preliminary Site Screening Public Meeting | All Teams, public | July 2016 |
| Detailed Site Selection | SST, Regional NERR Team, outside experts | August 2016 |
| Detailed Site Selection Public Meeting | All Teams, public | July 2017 |
| Public Comment Period | public | August 2017 |
| Formal Nomination Announcement | SC, Governor's office | October 2017 |

**B. Screening Review:**

2 tiers (preliminary & detailed)
- Prelim is more general: idea to get 3-5 candidates
- Detailed is a more thorough vetting

*Sites / Site configuration*
- Within a "project area" defined by the CT Coastal Area and the CT River to Cromwell/Portland
- An area with a representative mix of land and water (coastal or riverine)
- Exists in some form of protection/preservation (i.e., not as private property to purchase)
  - Cannot be more than 50% Federal property.
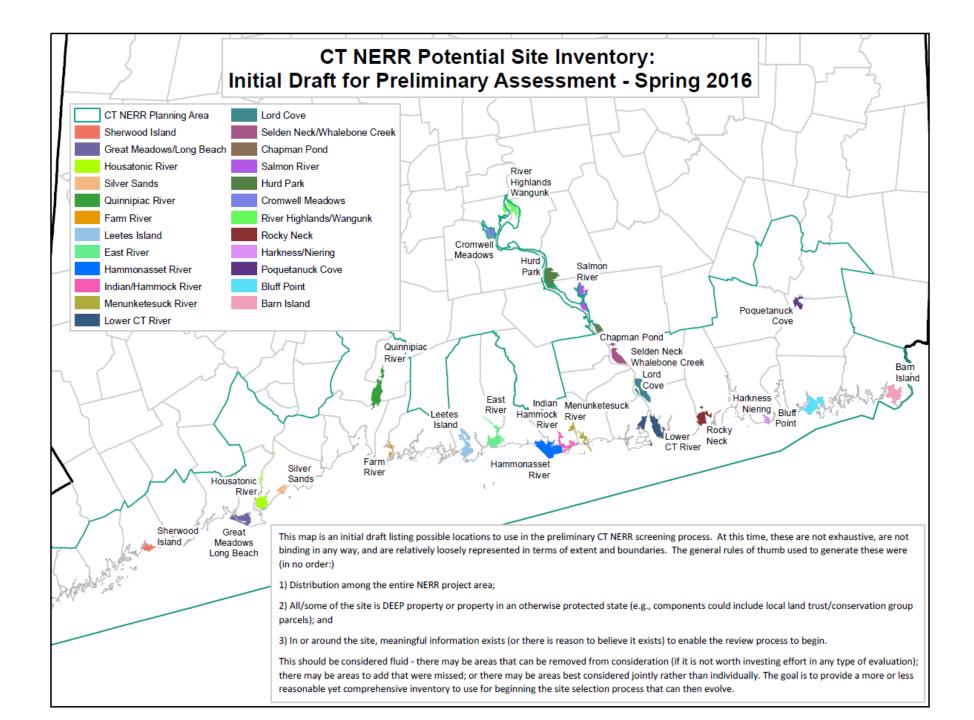- Can be a more or less single unit OR several disparate units treated as a whole (multi-site)

*Preliminary Screening:*
- SST will have a basic inventory to work from.  Does this need to be adjusted?
- Prior to prelim scoring, SST needs to consider how to configure these (i.e., what if any are singles, what components would make multi-sites?)
  - There can be overlap between and among (i.e., Site X could be considered as a single but also as part of another larger assembly, or one site could be part of several possible multi-site assemblages.)
  - No formal guidance for this, but should relay on BPJ and an understanding of what a NERR strives to achieve.

Once config settled, prelim scoring applied.  KEY APPROACH – FLEXIBLE

*Preliminary Screening:*

Publically viewable web map available as well.



## CT NERR Potential Site Inventory:
## Initial Draft for Preliminary Assessment - Spring 2016

**Legend:**

- CT NERR Planning Area
- Sherwood Island
- Great Meadows/Long Beach
- Housatonic River
- Silver Sands
- Quinnipiac River
- Farm River
- Leetes Island
- East River
- Hammonasset River
- Indian/Hammock River
- Menunketesuck River
- Lower CT River
- Lord Cove
- Selden Neck/Whalebone Creek
- Chapman Pond
- Salmon River
- Hurd Park
- Cromwell Meadows
- River Highlands/Wangunk
- Rocky Neck
- Harkness/Niering
- Poquetanuck Cove
- Bluff Point
- Barn Island

This map is an initial draft listing possible locations to use in the preliminary CT NERR screening process. At this time, these are not exhaustive, are not binding in any way, and are relatively loosely represented in terms of extent and boundaries. The general rules of thumb used to generate these were (in no order:)

1) Distribution among the entire NERR project area;

2) All/some of the site is DEEP property or property in an otherwise protected state (e.g., components could include local land trust/conservation group parcels); and

3) In or around the site, meaningful information exists (or there is reason to believe it exists) to enable the review process to begin.

This should be considered fluid - there may be areas that can be removed from consideration (if it is not worth investing effort in any type of evaluation); there may be areas to add that were missed; or there may be areas best considered jointly rather than individually. The goal is to provide a more or less reasonable yet comprehensive inventory to use for beginning the site selection process that can then evolve.

*1. The site is a representative estuary in the biogeographic region or sub-region (i.e., Southern New England sub-region).*
*2. The proposed boundaries of the site include sufficient land and water area to maintain the integrity of the ecosystem.*
*3. The candidate site consists of publicly owned lands and/or demonstrates sufficient potential for land acquisition and adequate land use control to meet NERRS objectives.*
*4. The candidate site is accessible by normal modes of transportation.*
*5. The candidate site is suitable for research, monitoring, and resource protection activities.*
*6. The candidate site is suitable for education, training, and interpretation activities.*
*7. The candidate site is suitable to address key local, state, and regional coastal management issues.*

| Preliminary Site Scoring Matrix | |
| --- | --- |
| 3 Points | The site is well suited for preliminary criteria. |
| 2 Points | The site is moderately suited for preliminary criteria. |
| 1 Point | The site is marginally suited for preliminary criteria. |
| 0 Points | The site is not suited for preliminary criteria |

Criteria have some latitude for subjectivity.

Scoring is by aggregate for each candidate. To mitigate bias and ensure everyone is free to make their own decisions, scoring will be individually done rather than as a group.

After scoring, results are reviewed as a group to determine how to proceed.

SST will have latitude to make breakpoints (just 3?  4?  5?)  and can adjust list if there seems to be questions on the viability of ranking (will require a discussion & majority vote to make changes.)

Once finalists are selected, SST will notify SC to make sure there are no conflicts/issues.

Outcomes: 3-5 finalist sites, draft report, initial inventory of data, expected external contacts

*Issues raised at last meeting (5/18) re: preliminary scoring….*

1. Scoring values could/should be re-factored (e.g., 9-6-3-0 rather than 3-2-1-0)
   - *Would not have issue, not a substantive change.*

2. Add weighting factors
   - *This was discussed with NOAA earlier during the development of the process and the preference was to not do this as the NERR system doesn't value or weigh their goals/operations.*
   - *Would add more complexity to process – need to have everyone on board with rationale/values.  Benefit not likely to outweigh the cost especially considering the prelim process is designed to be a blend of objective and subjective measures.*

*Detailed Screening:*

- SST core team to engage external experts.
- Process will involve meetings, calls (formally and informally) but must schedule site visits at each of the sites to establish a more complete understanding of them.
- Criteria used for evaluating/scoring is more formal than prelim (see criteria on next slide)
- Once all the info for each site has been reviewed, each core team member will score each site.
- For each site, average for each criteria will be calculated, the average criteria scores totaled and divided by the total possible points (percentage score 0 to 100);
- Ideally, best score wins out ultimately….
    - Meeting of SST to see and review/discuss scores; afterwards members may alter scores based on discussion (not required.)
    - Once satisfied, no further changes allowed.  Scores submitted to Chair
    - Ties:  scores to two decimal points so unlikely but:
        - If 2 sites receive the same score – simple majority vote will decide
        - If >2 sites receive same score, SST will determine (unanimously) a fair way to decide

Outcomes:  Draft report, finalist site

Sample scoring example:

| Section | Criteria | Rev 1 | Rev 2 | Rev 3 | Rev 4 | Rev 5 | Rev 6 | Rev 7 | Rev 8 | Rev 9 | Rev 10 | Rev 11 | Rev 12 | Rev 13 | Ave Score |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Environmental Representativeness & Characterisitics | | | | | | | | | | | | | | |
| 1.1 | Ecosystem Composition | 2 | 2 | 2 | 0 | 3 | 1 | 1 | 0 | 2 | 2 | 0 | 3 | 3 | 1.62 |
| 1.2 | Balanced Ecosystem Composition | 1 | 0 | 2 | 3 | 1 | 3 | 3 | 1 | 1 | 3 | 2 | 3 | 1 | 1.85 |
| 1.3 | Habitat Composition / Complexity | 2 | 2 | 3 | 3 | 3 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 1 | 1.92 |
| 1.4 | Uniqueness of Habitat | 0 | 3 | 1 | 3 | 1 | 3 | 3 | 1 | 1 | 1 | 3 | 0 | 0 | 1.54 |
| 1.5 | Importance of Habitat for Significant Flora / Fauna | 0 | 1 | 2 | 1 | 1 | 0 | 1 | 3 | 2 | 0 | 1 | 2 | 2 | 1.23 |
| 1.6 | New or Exemplary Typology | 1 | 1 | 3 | 3 | 1 | 3 | 0 | 3 | 0 | 3 | 3 | 3 | 0 | 1.85 |
| 1.7 | Site's Relationship to Tidally Influenced Drainage Basin | 2 | 0 | 3 | 0 | 3 | 2 | 2 | 1 | 2 | 0 | 0 | 0 | 3 | 1.38 |
| 1.8 | Geologic Uniqueness / Diversity of the Site | 2 | 3 | 3 | 3 | 2 | 1 | 1 | 3 | 2 | 3 | 3 | 0 | 3 | 2.23 |
| 1.9 | Salinity Gradient | 3 | 3 | 1 | 2 | 2 | 0 | 3 | 1 | 1 | 0 | 3 | 0 | 1 | 1.54 |
| 1.10 | Degree Developed and Potential Impacts to Water Quality | 2 | 0 | 1 | 3 | 1 | 0 | 0 | 1 | 3 | 1 | 1 | 1 | 1 | 1.15 |
| 2 | Value for Research Monitoring & Stewardship | | | | | | | | | | | | | | |
| 2.1 | Suitability of the Site for Long Term Research | 2 | 0 | 3 | 3 | 3 | 2 | 3 | 2 | 2 | 1 | 0 | 3 | 2 | 2.00 |
| 2.2 | Previous and Current Research Efforts | 3 | 2 | 3 | 3 | 0 | 2 | 3 | 1 | 1 | 0 | 2 | 0 | 3 | 1.77 |
| 2.3 | Suitability of the Site for Environmental Monitoring | 1 | 3 | 1 | 2 | 0 | 0 | 1 | 1 | 3 | 3 | 1 | 1 | 0 | 1.31 |
| 2.4 | Suitability of the Site for Stewardship Program Development | 2 | 2 | 0 | 3 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 0 | 2 | 1.62 |
| 2.5 | Ability to Address Local, State, and Regional Coastal Management Issues | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 0 | 0 | 3 | 3 | 1 | 2.23 |
| 3 | Value for Training, Education, and Interpretation | | | | | | | | | | | | | | |
| 3.1 | Value of the Site for Environmental Education, Interpretation, and Training Programs | 0 | 0 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 2 | 1.46 |
| 3.2 | Diversity and Quality of Education and Interpretation Opportunities | 3 | 2 | 0 | 0 | 1 | 2 | 3 | 3 | 1 | 3 | 2 | 2 | 2 | 1.85 |
| 3.3 | Previous and Current Education / Outreach Efforts | 3 | 1 | 0 | 0 | 0 | 0 | 2 | 3 | 1 | 2 | 2 | 0 | 0 | 1.08 |
| 3.4 | Diversity and Availability of Target Audiences | 0 | 2 | 3 | 0 | 1 | 1 | 0 | 0 | 3 | 3 | 3 | 0 | 0 | 1.23 |
| 4 | Acquisition & Management | | | | | | | | | | | | | | |
| 4.1 | Land Ownership | 1 | 2 | 3 | 2 | 2 | 1 | 3 | 1 | 3 | 2 | 1 | 3 | 3 | 2.08 |
| 4.2 | Publically Owned Lands and Feasibility of Land Acquisition | 1 | 0 | 0 | 1 | 1 | 3 | 2 | 0 | 1 | 2 | 1 | 2 | 2 | 1.23 |
| 4.3 | Availability of Facilities | 0 | 1 | 3 | 0 | 3 | 1 | 2 | 0 | 3 | 1 | 0 | 0 | 3 | 1.31 |
| 4.4 | Proximity and Accessibility of Site to Researchers, Educators, and Environmental Managers | 2 | 1 | 1 | 1 | 2 | 0 | 0 | 2 | 0 | 1 | 2 | 3 | 3 | 1.38 |
| 4.5 | Controlled Land and Water Access | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 3 | 2 | 3 | 1 | 1 | 3 | 1.31 |
| 4.6 | Site Security | 1 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | 2 | 0 | 1 | 0 | 3 | 1.23 |
| 4.7 | Compatibility with Existing Management Practices and Consumtive / Non-consumptive Uses | 0 | 2 | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 1.15 |
| 4.8 | Compatibility with Adjacent Land and Water Uses | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 1 | 2 | 3 | 2 | 1 | 1.08 |
| 4.9 | Future Development Plans | 2 | 3 | 0 | 2 | 1 | 1 | 0 | 3 | 2 | 0 | 3 | 3 | 2 | 1.69 |
| 5 | Climate Resiliency | | | | | | | | | | | | | | |
| 5.1 | Facility Resiliency - Accessibility | 1 | 0 | 1 | 3 | 3 | 2 | 3 | 1 | 3 | 1 | 3 | 0 | 3 | 1.85 |
| 5.2 | Facility Resiliency - Vulnerability | 1 | 2 | 2 | 2 | 0 | 3 | 3 | 2 | 2 | 0 | 3 | 1 | 0 | 1.62 |
| 5.3 | Resource Resiliency | 0 | 3 | 2 | 0 | 1 | 2 | 0 | 2 | 2 | 3 | 2 | 2 | 2 | 1.62 |
| Totals | | 41 | 46 | 50 | 55 | 44 | 41 | 54 | 46 | 52 | 48 | 59 | 41 | 52 | 48.38 |
| Site Score | | 44.09% | 49.46% | 53.76% | 59.14% | 47.31% | 44.09% | 58.06% | 49.46% | 55.91% | 51.61% | 63.44% | 44.09% | 55.91% | 52.03% |

*Issues raised at last meeting re: Detailed Scoring....*

1. Scoring values could/should be re-factored (e.g., 9-6-3-0 rather than 3-2-1-0)
   - *Would not have issue, not a substantive change.*
2. Add weighting factors
   - *This was discussed with NOAA earlier during the development of the process and the preference was to not do this as the NERR system doesn't value or weigh their goals/operations.*
   - *Would add more complexity to process – need to have everyone on board with rationale/values.  Benefit not likely to outweigh the cost.*
3. Issue with final scoring strategy (top value winning, application of arbitrary level of numeric detail)
   - *Based on the prelim selection/screening, finalist sites all should be "acceptable" as NERR sites – any could work, it's a just a question of which may be best.*
   - *The process does allow discussion after the initial scoring, so the idea is everyone can see where things stand and ask questions/discuss as needed*
   - *Its not likely that two sites will tie, but there's nothing wrong with having a tight spread of scores – in theory that could mean any could adequately function as a NERR.  A win doesn't have to be by a landslide.*
   - *Key concept is the criteria were honestly and objectively assessed and discussed, and that the voters have a firm grasp on what they mean.*
   - *Approach has been successfully implemented in previous selection efforts.*

## C. SST Meeting Logistics:

| 2. Preliminary Screening | 2.1 | **Public Meeting outcome organization**<br>organize / coordinate  external volunteers -> Site Screening Team;<br>finalize initial materials / info / data for screening;<br><br>*SC, SST NOAA-OCM* | | |
|---|---|---|---|---|
| | 2.2 | **Preliminary Screening Meeting One**<br>**(1 to 2 days)**<br>SST intro / overview;<br>begin group application of basic criteria to initial sites<br><br>*SC, SST* | 1 day meeting: 8 hrs | 2 day meeting: 16 hrs |
| | 2.3 | **Ad-hoc Preliminary Screening**<br>SST members self-screen as needed, coordinate with SC;<br>extra meetings/calls as needed;<br>Begin Prelim Screening report draft;<br>reach out to external subject matter experts for Detailed Screening;<br><br>*SST, SC,* | 4 meetings: 12 hrs<br>Additional time: 8 hrs | 5 meetings: 15 hrs<br>Additional time: 16 hrs |
| | 2.4 | **Preliminary Site Screening Public Reporting Meeting**<br>report out results of preliminary screening;<br>seek comments / input;<br><br>*CNPT, SST, NOAA-OCM, Regional NERRs* | 1 public meeting: 2 hrs | 1 public meeting: 2 hrs |
| | 2.5 | **Preliminary Site Screening  formal Public comment period**<br>finalize Preliminary Screening report;<br><br>* SC, SST* | Report Review: 4 hrs | Report Review: 8 hrs |
| | 2.6 | **Preliminary Site Screening Report Complete** | | |
| | | | *34 hrs* | *57 hrs* |

(1) 2.5 hr meeting 5/18
(1) 2.5 hr meeting 6/30

*Prelim Screening Strategy (up for discussion – can be amended/altered:)*

Possible approach - Divide & conquer: People/groups set up to address specific tasks

1. SNE NERR Typology Team: responsible for understanding the make-up of neighboring NERRs and to provide an assessment/rationale for whether a prelim site could reasonably constitute a new typology for the system

2. Site Assembly Teams: responsible for understanding a group of sites* with respect to addressing the preliminary criteria.
   a) Reviewing preliminary documentation and information for sufficiency;
   b) Identifying/gathering additional info (within reason – key on answering prelim criteria)
   c) Providing a sense of the existing typology (provide a rough outline of how a site fits into the scheme.)
   d) Based on a) b) & c) suggest configurations for single/multi-site options

   * groups can be broken out by geographies, favorites, personal experience, etc.

Subsequent SST meeting(s) will have discussions on sites led by Teams, with input on typology issue by Typology Team.

Benefits – typology becomes well understood/consistently applied by an expert group; work tasks divided equally among teams.

*Potential Timeline:*

- Smaller teams encouraged to meet as needed (or via conference calls, email, etc.) during **July**.

- Should plan on an all-day SST group meeting in **late July early August** to review materials and discuss.
    - Goal: to position people to score candidates using preliminary screening either at meeting or shortly thereafter
    - Hosting at DEEP suitable? Or another venue?

- Should plan on a SST group meeting shortly after (2 week max – **mid August**) to review results, discuss, modify as needed.
    - Goal: Have the 3-5 finalist sites chosen so Steering Committee can review
    - Hosting at DEEP suitable? Or another venue?

- Preliminary Screening completed by **late August/early September**.
- Public meeting/webinar in **Sept**
- Detailed screening begins immediately after public meeting running through next summer 2017.

**D. Preliminary Data Summary/Resources:**

Google Drive folder: https://drive.google.com/folderview?id=0B5JvtMMeDBUJRzJKX1EtVkVjcDA&usp=sharing
(should have received an invite to access this – if not or if there are problems see me.)

- General intent is to have this available just for the internal NERR teams during selection; as material becomes suitable for public consumption, it can be transitioned to the public web page.  So this is envisioned to provide a secure, shareable workspace.  Here's a brief roadmap:
    - The LISS_EcologicalSitesInventory folder contains the data collected as part of the Long Island Sound Study ecological inventory.  Some of these will likely be of interest to the NERR effort as well.  Included are GIS data, an MS Access dB and supporting documentation.  To simplify things, the PDF file "LISS_2014EcologicalSiteInventoryReport_CT" is a viewable/printable report of the contents of the database.
    - The SNE-Reserves folder contains information on the 3 southern New England Reserves.  This includes their site profile documents, and the DRAFT typology crosswalk-comparisons I've compiled.  The most current versions of the Hudson River NERR Habitat maps (as zipped files of GIS data) are also included; similar maps for Narragansett Bay and Waquoit Bay are expected later this year.
    - "CTNERR_Potential_Inventory_summary doc" is a synthesis of several data sources as they pertain to the possible sites under consideration for the preliminary screening.
    - Many loose files of general interest.

CT NERR Potential Site Summaries:

In order to help support an initial assessment of several possible NERR sites/site configurations identified in the map *CT NERR Potential Site Inventory: Initial Draft for Preliminary Assessment – Spring 2016*, the following summary pages were developed by looking at the following sources:

- CT DEEP property  (GIS layer: http://www.ct.gov/deep/cwp/view.asp?a=2698&q=322898&depNav_GID=1707)
- CT DEEP Protected Open Space Inventories (GIS layer: http://www.ct.gov/deep/cwp/view.asp?a=2698&q=322898&depNav_GID=1707)
- CTDEEP State Park information (website: http://www.ct.gov/deep/cwp/view.asp?a=2716&q=325086&deepNav_GID=1650)
- LISS Stewardship Atlas (web site: http://longislandsoundstudy.net/issues-actions/stewardship/stewardship-areas-atlas/)
- LIS Ecological Site Inventory (document: Barret, 2014 – available through NERR Google Docs share site: https://drive.google.com/folderview?id=0B5JvtMMeDBUJRzJKX1EtVkVjcDA&usp=sharing)

These are not the only sources of information; others may be identified and required, but they make up a general suite of data suitable to set up an overview of the sites.  (NOTE:  Protected open space data is somewhat dated, so consider these as a general guide.  If more detailed/current property data is required, town assessors should be contacted.)

Questions for consideration (prior to application of preliminary NERR screening criteria in the Selection Process document:)

- With respect to parcels identified at potential sites, what adjustments (if any) are needed? (E.g., omit certain parcels, include others, etc.) The current configurations make no assumptions on whether listed owners are interested or able to contribute, merely that the land seems to be set aside for conservation and may make sense to consider within the context of a NERR.
- Should any sites be eliminated for consideration entirely, and on what grounds?
  - It has been suggested that Great Meadows/Long Beach be dropped based on ownership (Federal and municipal, and the ratio exceeds the 50% limit on Federal component)
  - Similarly, the Federal ratio for the Menunketesuck site also exceeds 50%, which would preclude the current configuration from advancing "as-is"
- Should any sites be added for consideration, and on what grounds?
- How might sites be combined into multi-site assemblies? Housatonic, Quinnipiac, and Lower CT River are assumed multi-site assemblies; can Lower CT River be expanded north? Can Hammonasset and Hammock River be combined? Bluff Point/Barn Island? Others?
- Are there other obvious or not so obvious data sources needed?
- Other considerations?

CT NERR Site Viewer:  **http://arcg.is/1J0EtBd**  (publically accessible & revised with new data.)
- Contains much of the property data used in the "CTNERR_Potential_Inventory_summary doc"
- Designed to provide context for further examining sites on your own/within groups.