Customizing Soil Survey Interpretations for Connecticut Customers

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Connecticut Soil Survey Users and Issues

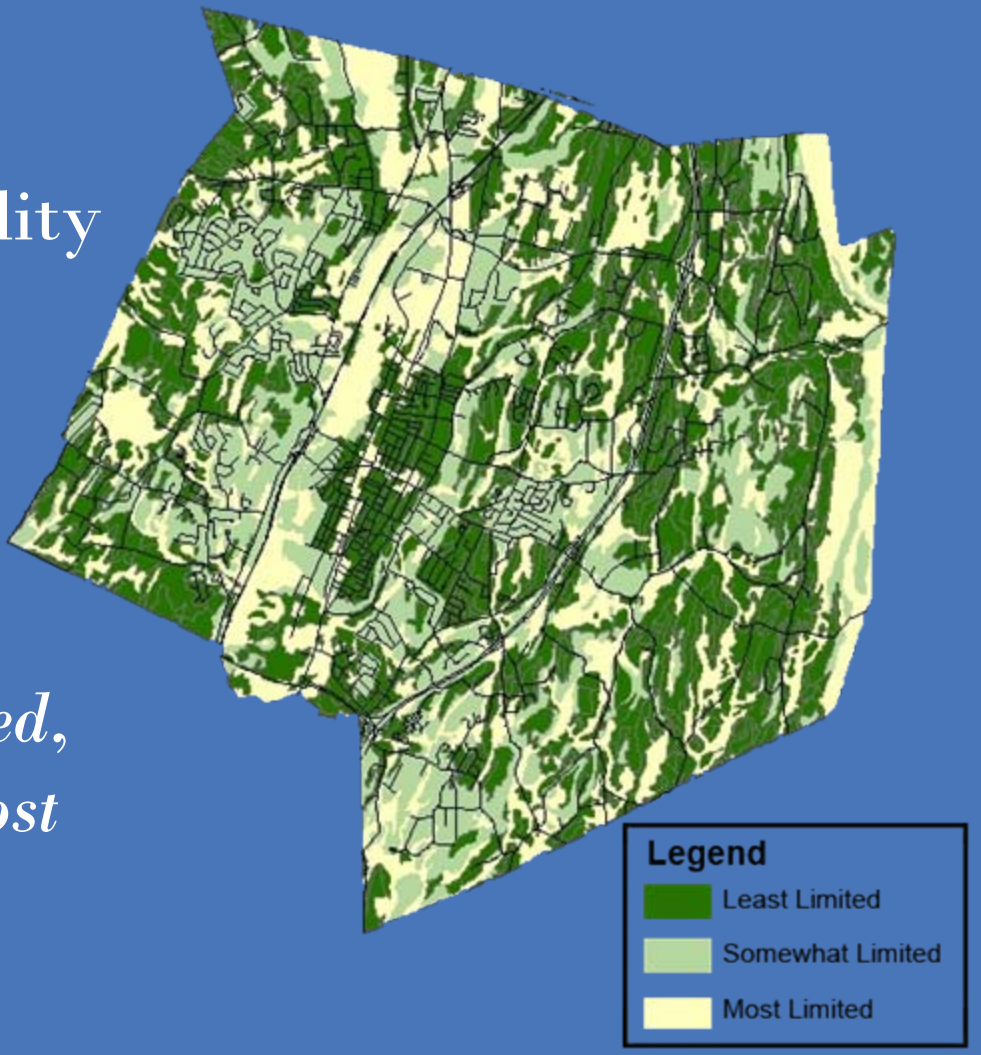
- Diverse Population
- Changing Land Uses
- Complex Natural Resource Issues
- Complex Soil Landscapes
- Highly Regulated

Soil Ratings for Stormwater Runoff BMPs

- Heavy development pressure in most Connecticut towns
- System failure due to improper citing and design
- Town review boards need tools to review proposals

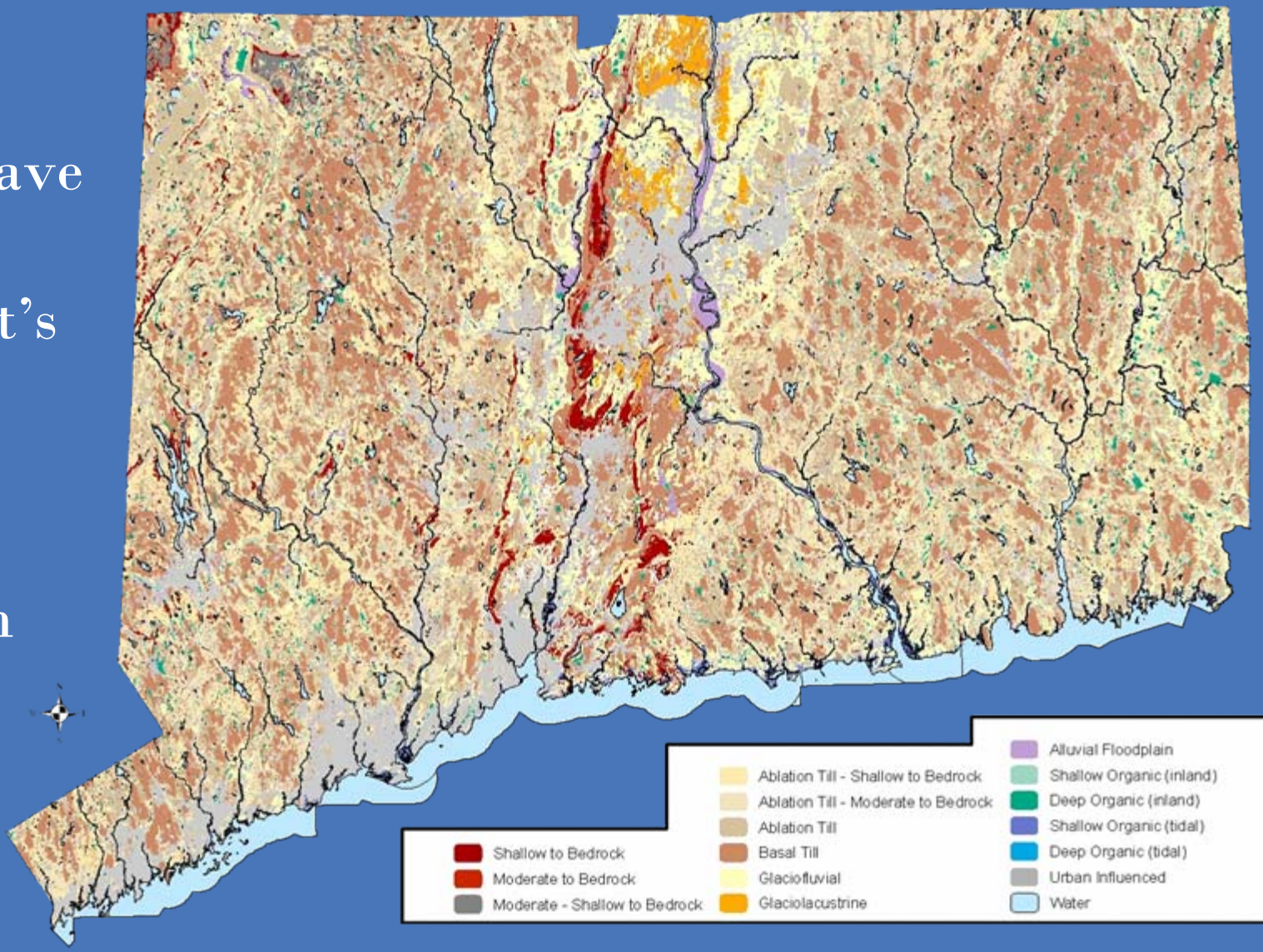
Soil Ratings for Stormwater Runoff BMPs *(continued)*

- Water quantity and quality issues
- Collaboration with state agencies and towns resulted in a change in rating class to *least limited*, *somewhat limited*, and *most limited*

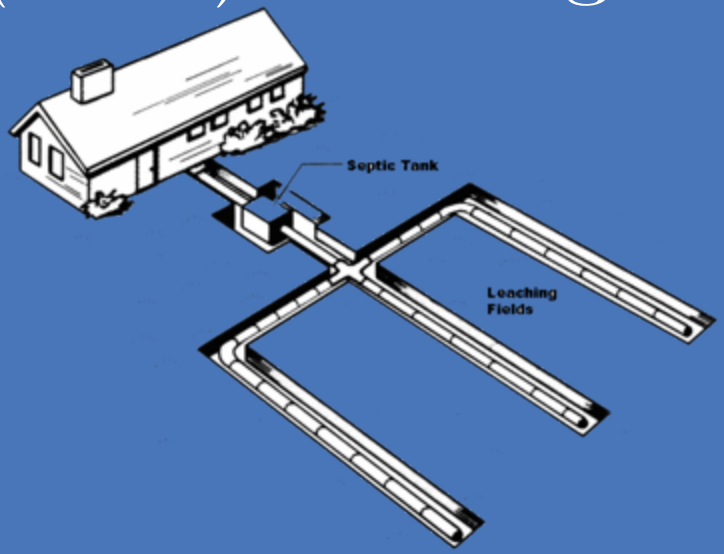


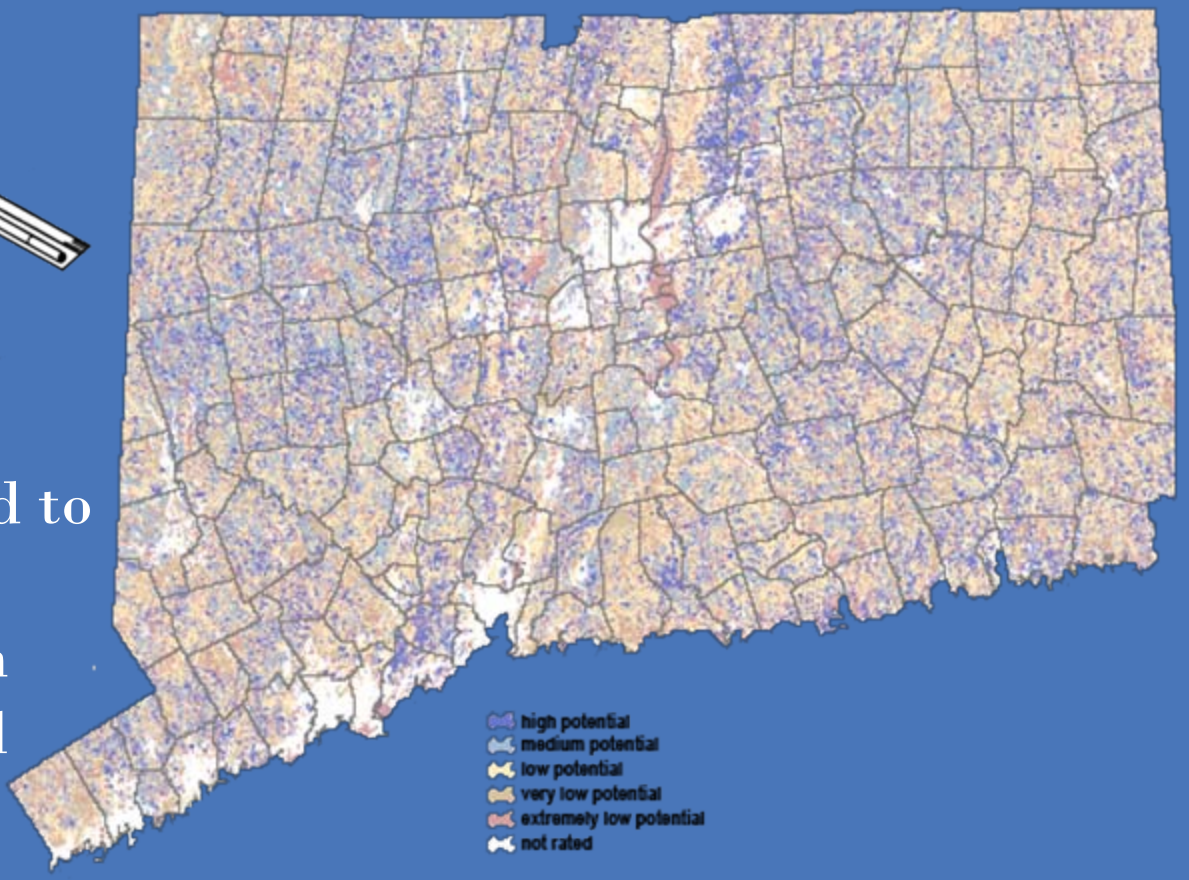
Parent Material Map

Geologic processes have brought to Connecticut's surface numerous parent materials in which soils have formed.



Subsurface Sewage Disposal Systems (SSDS) for Single Family Residences





Soil properties correspond to criteria identified in the Connecticut State Health Code Regulations, as well as factors deemed significant by NRCS.

Subaqueous Soil Interpretations - Bottom Type

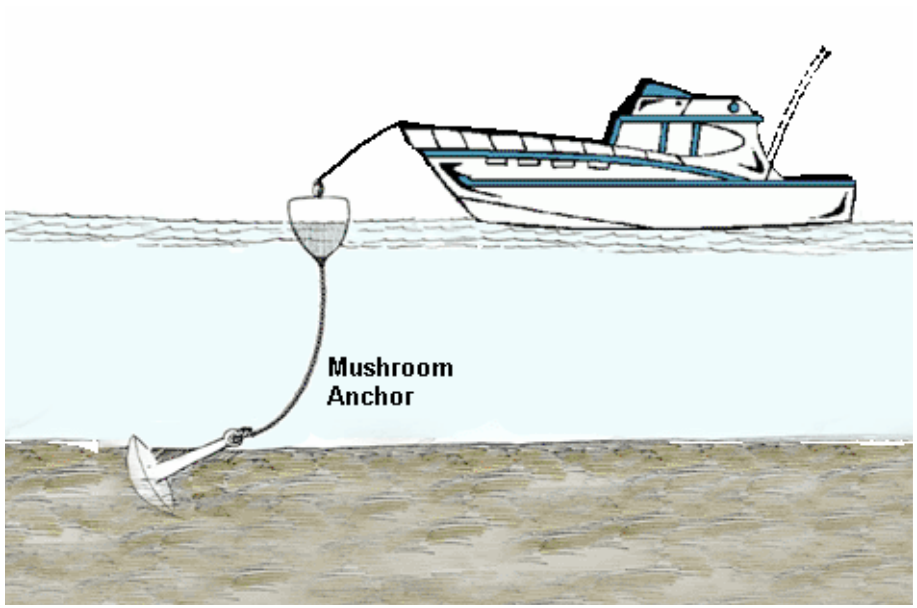
The bottom type of material is measured by the soil structural stability n-value of the soil surface horizon.

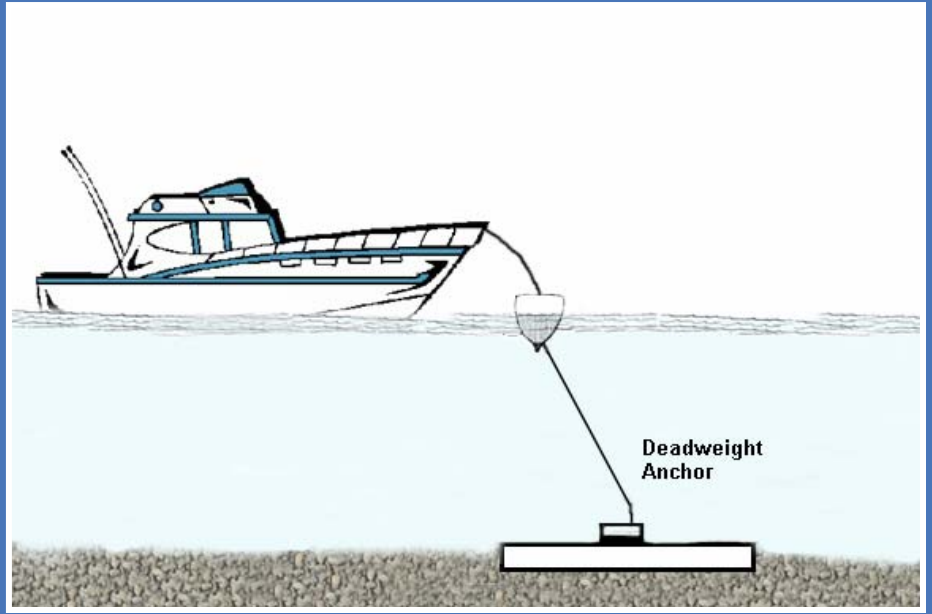
Knowledge of bottom types provides a framework for mapping benthic habitats and managing marine resources.

Subaqueous Soil Interpretations - Moorings

The type of soil material in the surface layers has a great deal to do with the holding power of anchors.

Two common types of permanent anchors are the mushroom and deadweight anchors. These two types are the focus of this soil interpretation.

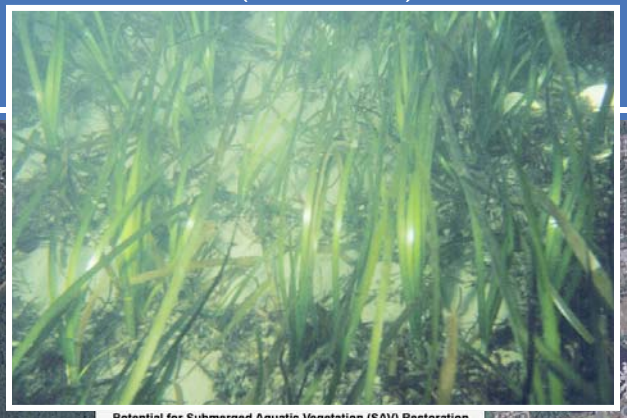




Subaqueous Soil Interpretations - Potential for Submerged Aquatic Vegetation (SAV) Restoration

SAV beds are among the most productive ecosystems in the world; a highly important food source and shelter for many species of birds, finfish, and shellfish.

To increase restoration success, the potential ratings focus on soil map units where existing SAV was observed and rate the same map unit without SAV to determine the best sites for full scale eelgrass restoration.

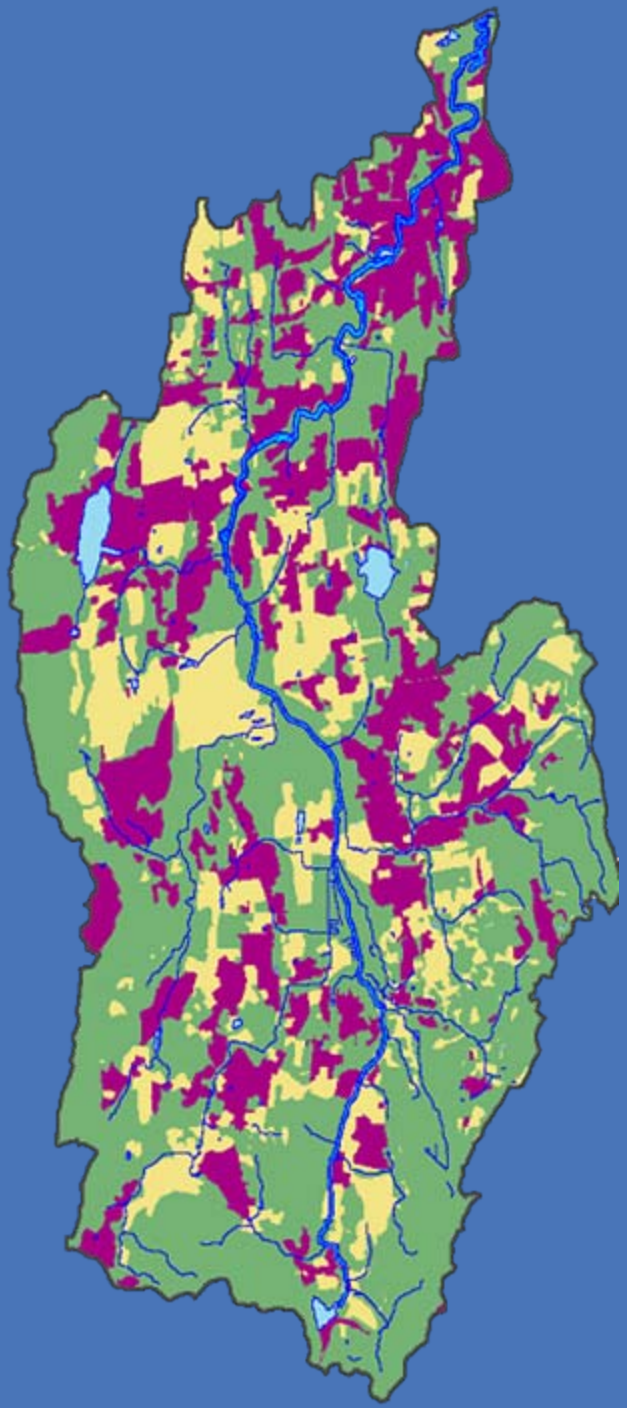


Subaqueous Soil Interpretations - Presence of Sulfidic Materials

Map units dominated by soils containing sulfidic materials within 1 meter from the soil surface.

If soils containing sulfidic materials are disturbed without appropriate management and remediation, they pose a significant threat to development and the natural environment.

Rapid Watershed Assessment



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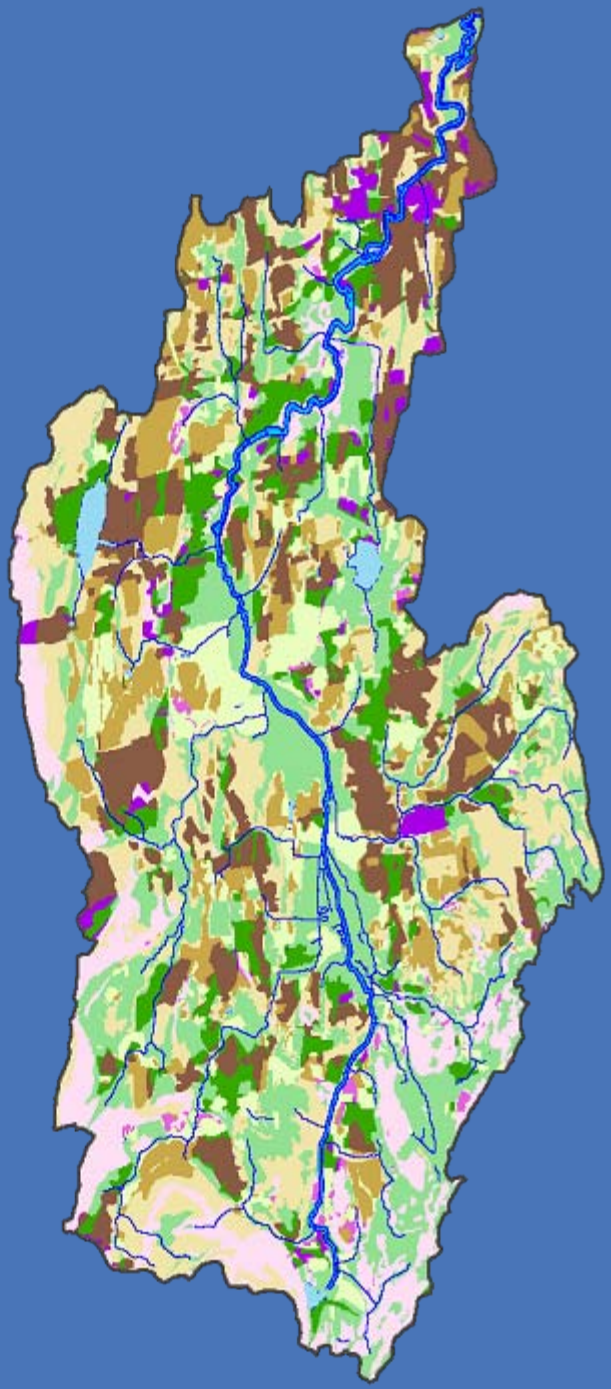


Locally Important Farmland

- Four communities requested and approved in 2007
- *Stony* and *very stony* phases of soils that are otherwise prime or statewide important farmland soils (LCC 6 map units)
- Eligible for prime and important ranking tools, LESA systems, FRPP, and state funds
- Helps recognize small scale, niche farms that are locally important to communities

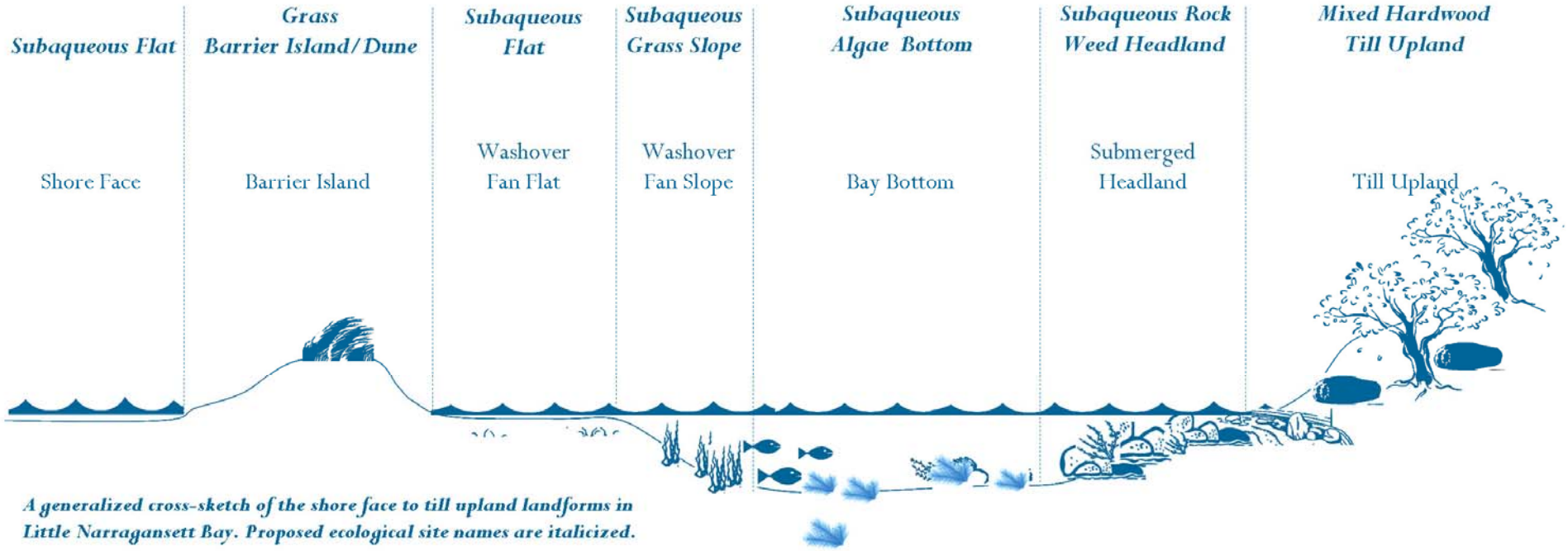
Multi-Agency Resource Mapping Site: Connecticut Environmental Conditions Online (CT ECO)

Partners

- USDA-Natural Resources Conservation Service (NRCS)
- Connecticut Department of Environmental Protection (CT DEP)
- University of Connecticut Center for Land Use Education and Research (UCONN CLEAR)

Initial soils information will include most commonly requested interpretations. Resources for a wide range of users.

Ecological Site Descriptions



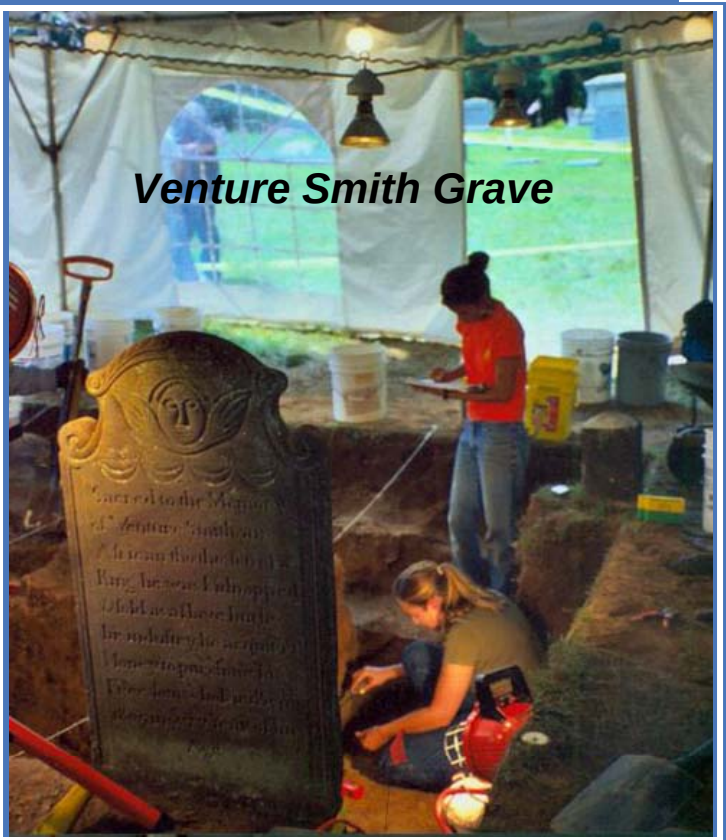
A generalized cross-sketch of the shore face to till upland landforms in Little Narragansett Bay. Proposed ecological site names are italicized.

The purpose of this study is to initiate the characterization of subaqueous and terrestrial ecological site descriptions. An ecological site is recognized and described on the basis of the characteristics that differentiate it from other sites in its ability to produce and support a characteristic biological community.

Bone Preservation

- Work with state archaeologist to use soil information to infer probable preservation of bone.

- Identify soils in which bones are at risk. These soils can be made a priority for excavation and conservation.



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