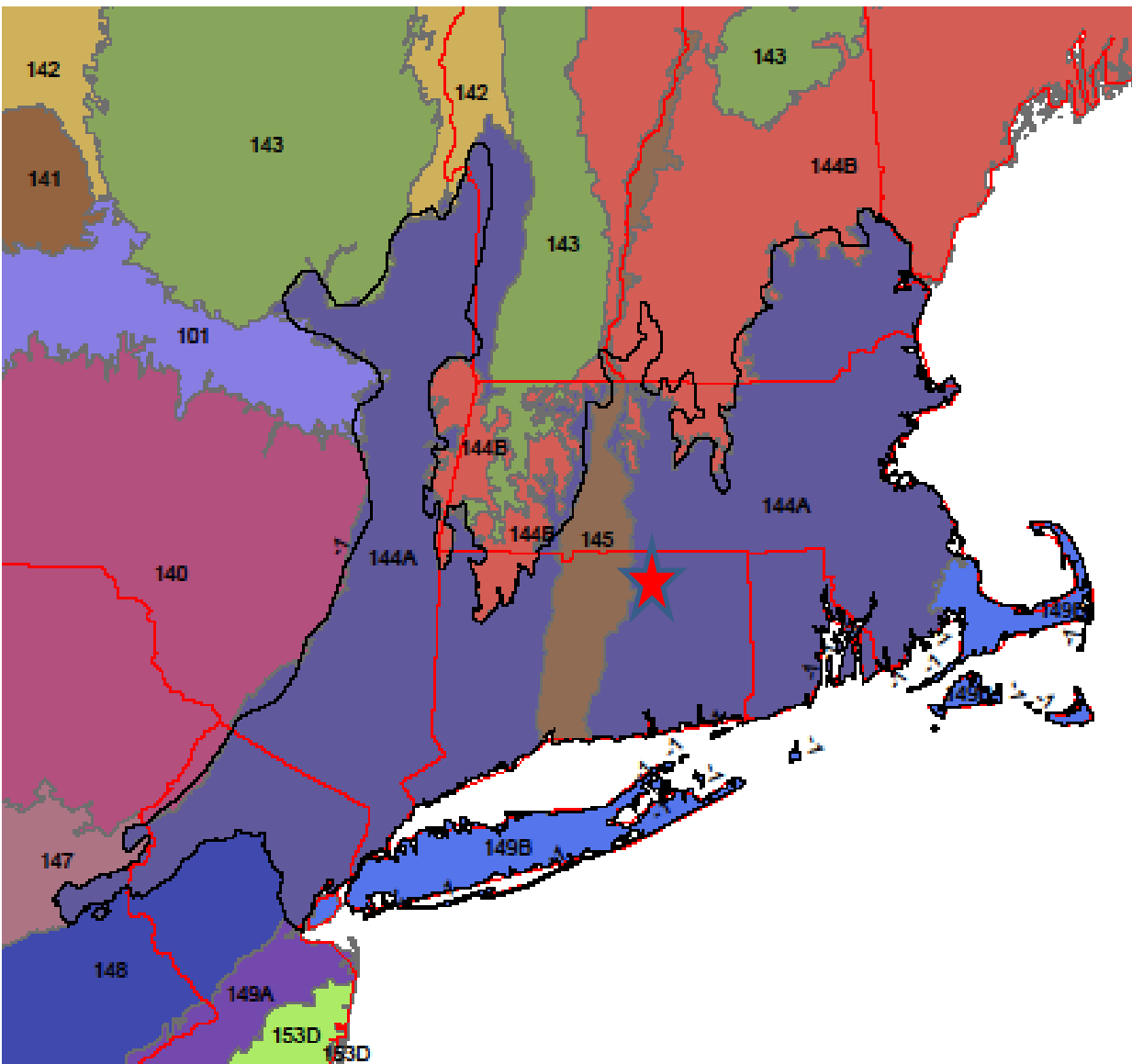




Office Location:

Tolland, Connecticut

Staff:

Donald Parizek

Acting Soil Survey Office Party Leader

Jacob Isleib

Soil Scientist

Marissa Theve

Soil Scientist

Vacant

Soil Scientist

Vacant

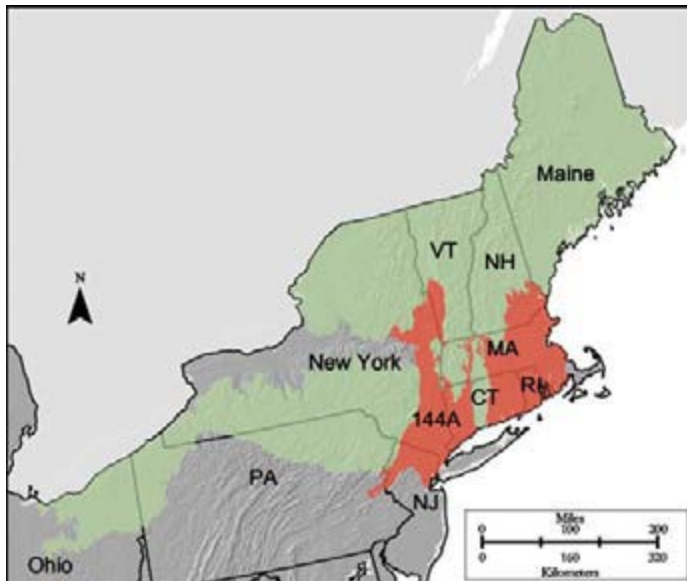
Ecological Site Specialist

12- TOL MLRA Soil Survey Area

Approximately 15,000,000 Acres

MLRA 144A

144A—New England and Eastern New York Upland, Southern Part

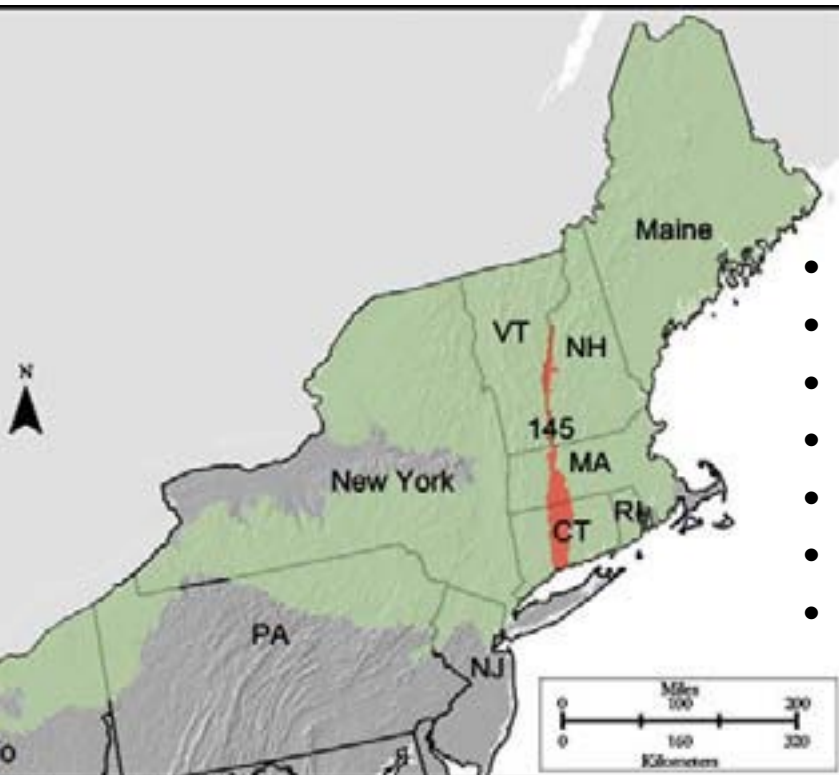


- Mesic Glaciated Regions
- Rolling Hills and River Valleys
- Bedrock near the surface in many areas
- Dominated by till soils and lesser amounts of other parent materials.
- Largest MLRA in the Soil Survey Area
- Natural Soil Fertility is Variable
- Large Expansive Urban Areas
- Extensive Coastal Zone
- Plenty of “New England Stone Walls”



MLRA- 145

145—Connecticut Valley

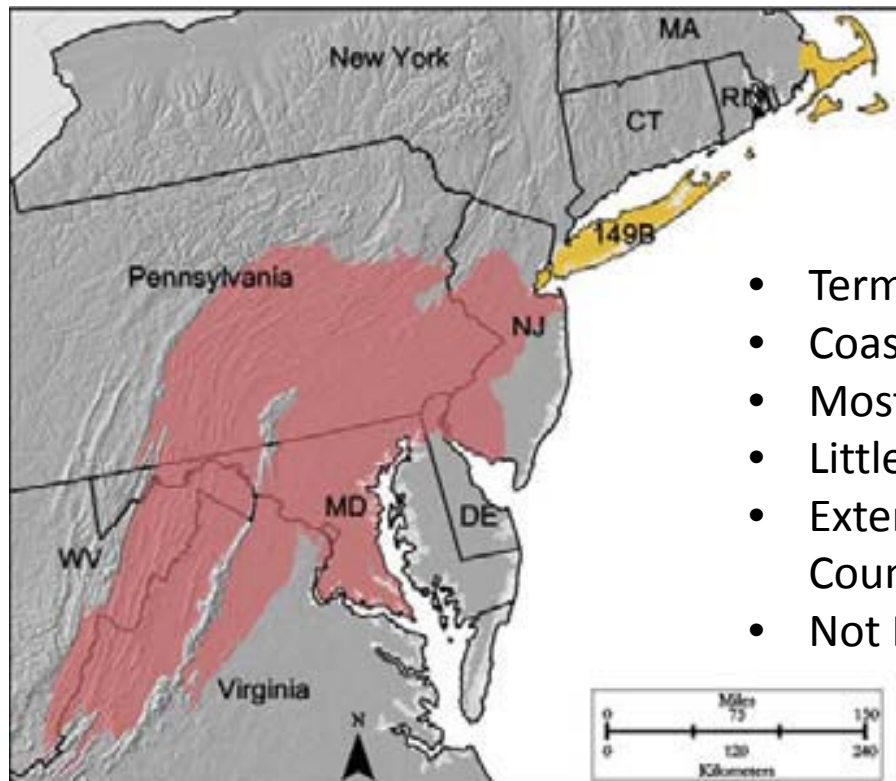


- A Rift Valley
- Soils Derived from Red Parent Materials
- Large Floodplain and Basalt Ridges
- Warmer climate
- Naturally Fertile Soils
- Extensive Urban Areas
- World Famous for CT Shade Grown Tobacco Production



MLRA 149B

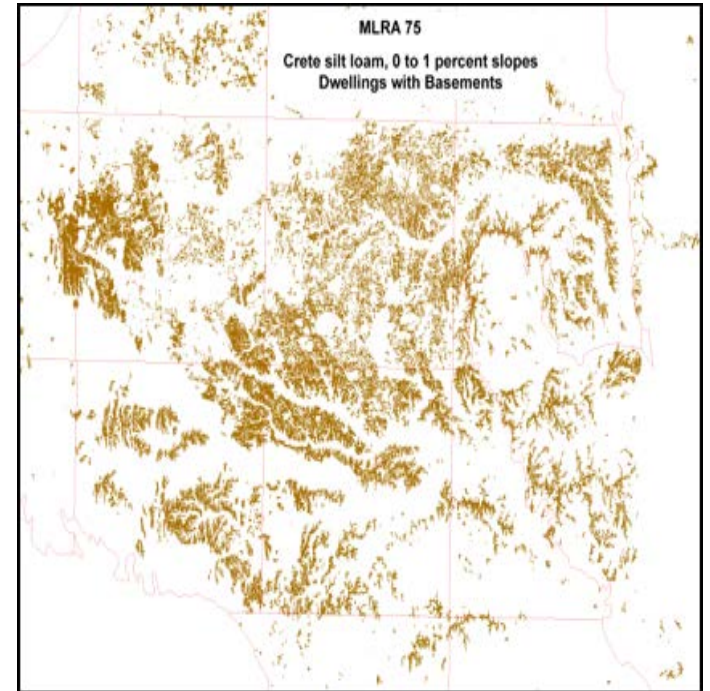
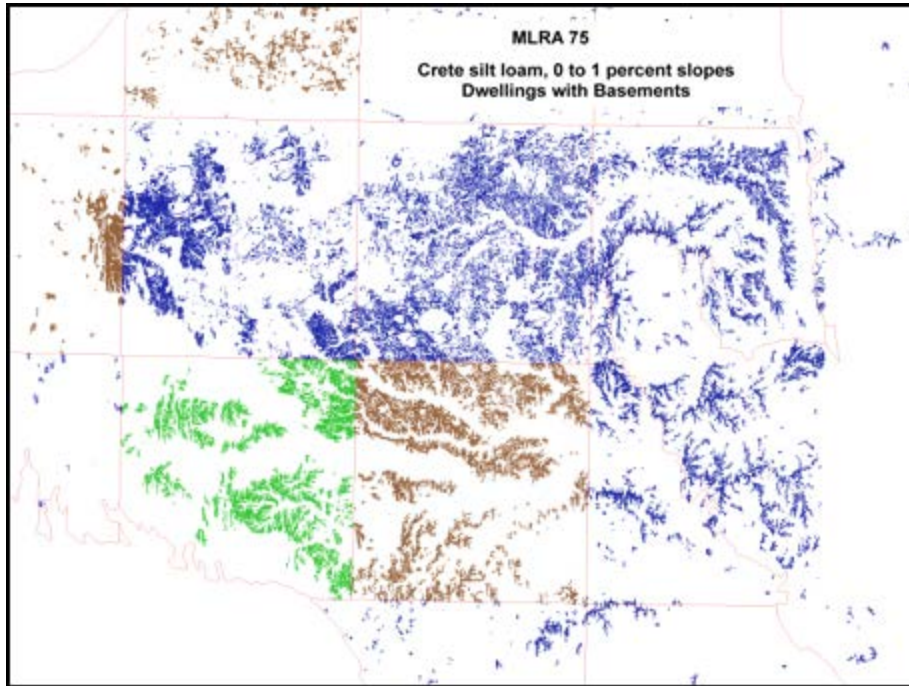
149B—Long Island-Cape Cod Coastal Lowland



- Terminal Moraine
- Coastal Zone, Low Relief, Maritime Climate
- Mostly Sandy Acid Infertile Soils
- Little or No Bedrock Near The Surface
- Extensive Cranberry Production IN Plymouth County, MA
- Not Part of Connecticut



Soil Data Join Recorrelation Initiative (SDJR)



Soil Data Join Recorrelation Initiative (SDJR)

- A National Initiative
- **Top Priority for NRCS Soil Science Division**
- Database Management and Modernization Project, Five Year Term?
- **No** Field Work Involved, **No** Spatial Edits
- Will Help To Alleviate Soil Interpretation Discrepancies Across Political Boundaries
- Will Improve Soil Surveys to a Common Standard Across the United States

Soil Data Join Recorrelation Initiative (SDJR)

- Will Link Same Named Map Units To A Single Data Map Unit Within the MLRA or subsection of the MLRA
- Will Generate Future MLRA Field and GIS Spatial Projects
- Will Make the Soil Survey More Useful Across Larger Geographic Areas For GIS Users
- **Over 250,000 Acres Completed**
- **Very Limited time for other projects**

SDJR Project Example

SDJR - MLRA 144A Windsor Loamy Sand, 3 to 8 Percent Slopes

Interpretation
ENG - Lawn, Landscape, Golf Fairway
Windsor Loamy Sand, 3 to 8 Percent Slopes
Dominant Condition

- Not Limited
- Somewhat Limited, Low
- Somewhat Limited, Medium
- Somewhat Limited, High
- Very Limited

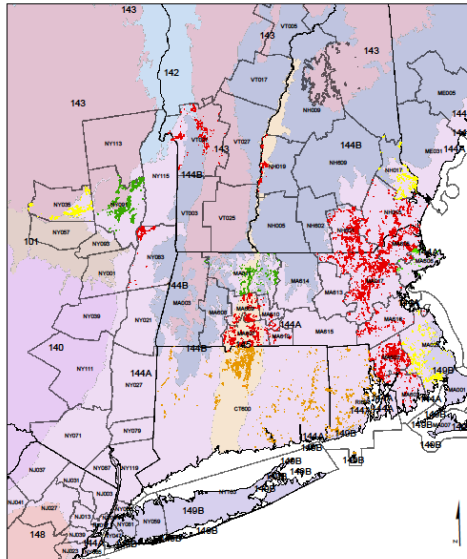
Soil Survey Area Boundaries
State Boundaries

MLRA_rev_wgs84
MLRARSYM

- 101
- 140
- 142
- 143
- 144A
- 144B
- 145
- 148
- 149A
- 149B

1:2,229,070

0 15 30 60 90 120
Kilometers



SDJR - MLRA 144A Windsor Loamy Sand, 3 to 8 Percent Slopes

Interpretation
ENG - Lawn, Landscape, Golf Fairway
Windsor Loamy Sand, 3 to 8 Percent Slopes
Dominant Condition 2-Somewhat Limited, Medium

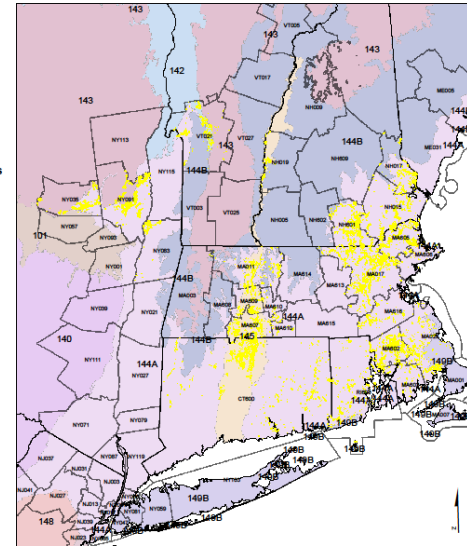
Soil Survey Area Boundaries
State Boundaries

MLRA_rev_wgs84
MLRARSYM

- 101
- 140
- 142
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- 144A
- 144B
- 145
- 148
- 149A
- 149B

1:2,229,070

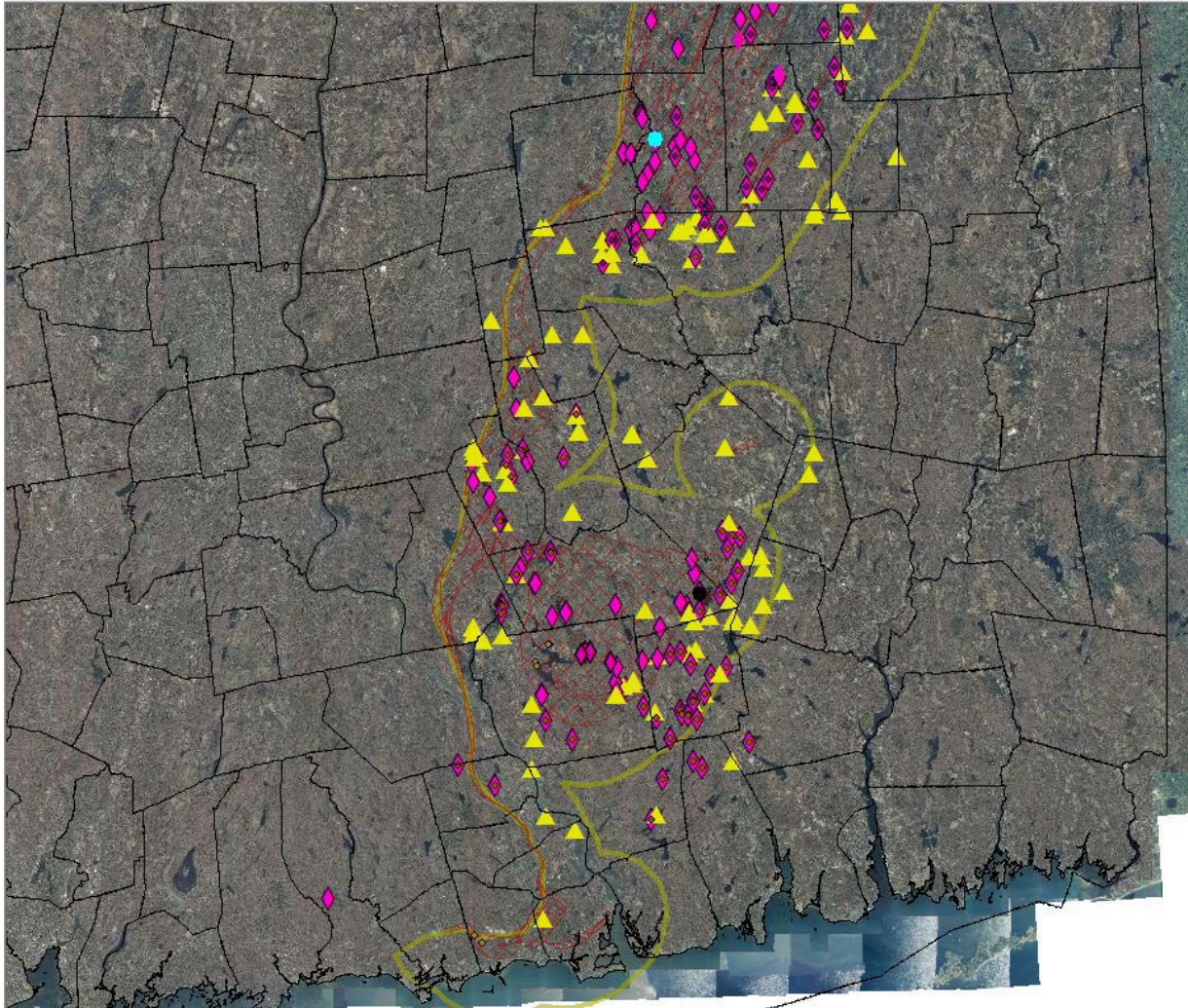
0 15 30 60 90 120
Kilometers



Post Active Acid Sulfate Soils

- New Soil Correlation Based on Soil Chemistry and Mineralogy
- Masters Thesis By Shawn McVey, UCONN student and NRCS Soil Scientist
- Areas of Brimfield Bedrock, a Sulfur Bearing Schist Promote Intense Acidification and Weathering Resulting in High Levels of Pedogenic Iron and a Parasesquic Mineralogy Class in These Till Soils

The Project Area in Eastern Connecticut



The Bedrock



Soil Profile





Soil Landscape

New Soil Mapping Units

Map Unit Symbol	Map Unit Name	Acreage
71C	Nipmuck-Brimfield-Rock Outcrop Complex, 3 to 15 percent slopes	8,567
71E	Nipmuck-Brimfield-Rock Outcrop Complex, 15 to 45 percent slopes	6,826
72C	Nipmuck-Brookfield Complex, 3 to 15 percent slopes, very rocky	23,220
72E	Nipmuck-Brookfield Complex, 15 to 45 percent slopes, very rocky	10,379
700E	Rock Outcrop-Brimfield Complex, 3 to 45 percent slopes	75
700F	Rock Outcrop-Brimfield Complex, 45 to 60 percent slopes	402

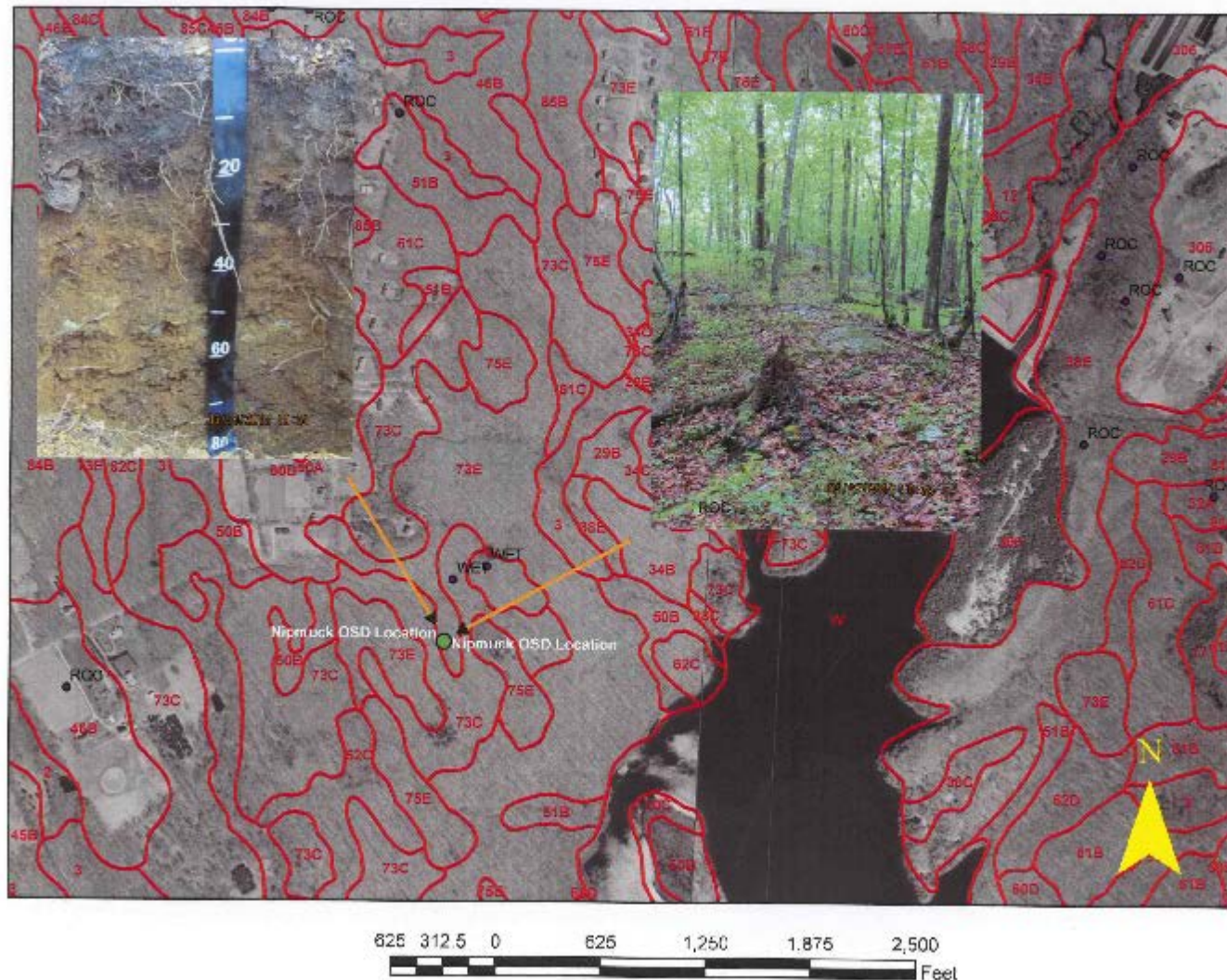
Changes Effective January 1, 2014

The Nipmuck Series

A New Soil Series

- Moderately Deep to Bedrock (20 to 40 inches)
- well drained soils formed in till derived mainly from iron sulfide bearing schist
- Upper B horizon is 2.5YR Through 7.5YR Hue
- Taxonomic Class: Coarse-loamy, Parasesquic, mesic Typic Dystrudepts

Nipmuck OSD Location, Colchester, CT



Soil Survey in the URBAN ENVIRONMENT



New York City and Hudson County
Published to Web Soil Survey

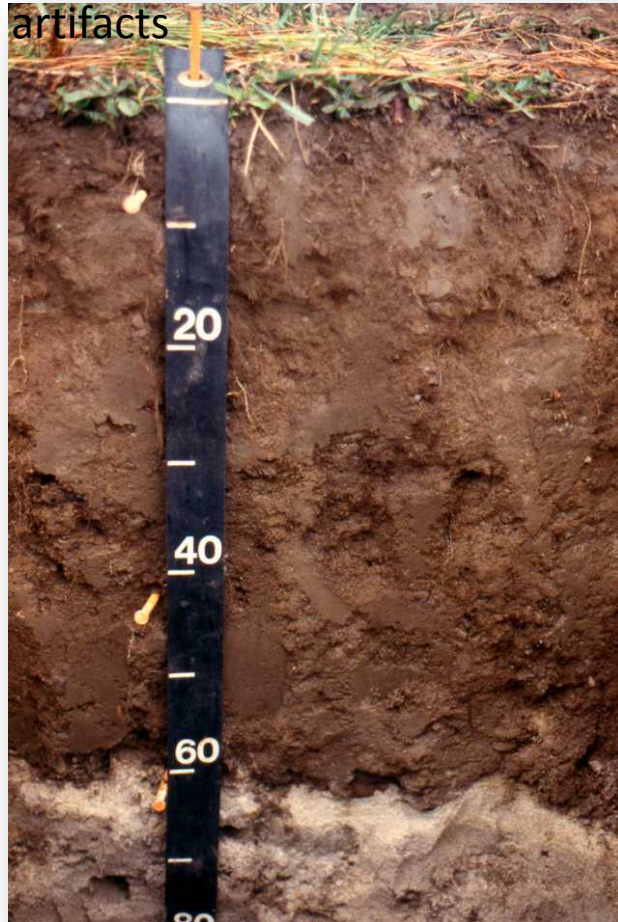
28- New Anthropogenic Soil Series Correlated
Over 120 KSSL lab Pedons
Order 2 Mapping for the 5 boroughs and Hudson County , NJ
Scale : 1:12000

Inwood Park vicinity, Manhattan, NY
1:12,000

Soils formed in Human Constructed or Modified Landforms

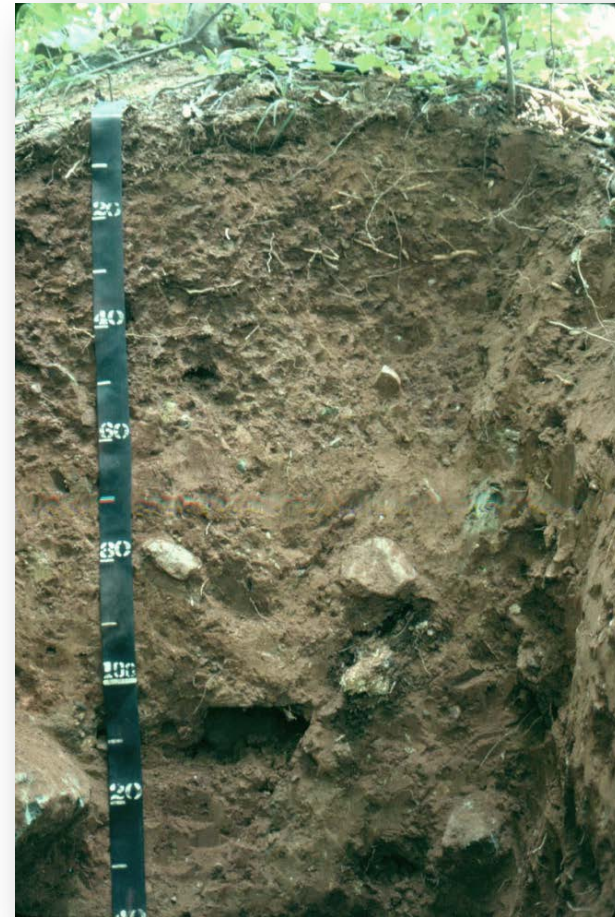
Verrazano

.25 to 1m loamy fill over
outwash or eolian sands; <10%
artifacts



Greenbelt

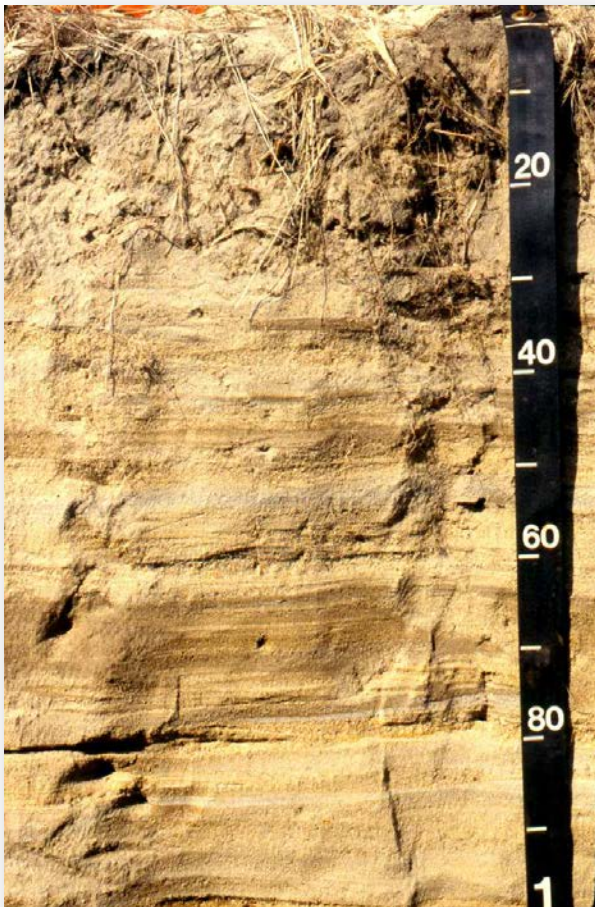
> 1 meter fill; <10% artifacts



Soils formed in Dredge Material

Bigapple

> 1m dredge



Marinepark

25-70 cm loamy HTM over dredge

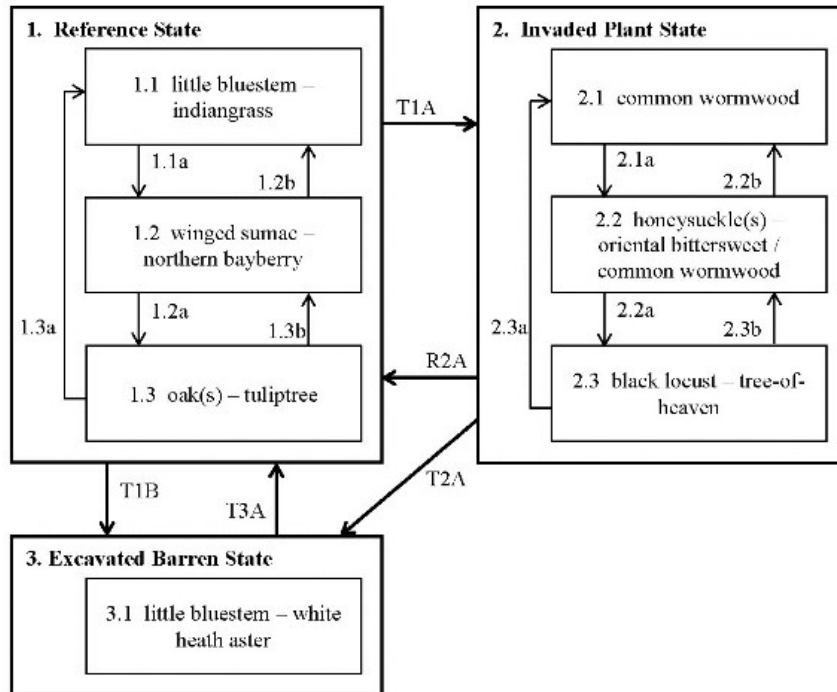


Ecological Site Descriptions(ESD)

- A Union of Soils, Vegetation Data and Land Use
- Links Soil Components To Plant Communities
- Provides a Road Map for Conservation and Management with State & Transition Diagrams
- Originally Created and Used In The Arid West on Range Land
- A New Concept For the East



MLRA 149B Serpentine Till Uplands



Draft ESD Linking Wotalf and Todthill Soils to vegetation on Staten Island, NY home to rare and endangered Plant Species



Code	Practice
1.1a, 1.2a, 2.1a, 2.2a	Lack of fire, lack of management, vegetation development [succession]
1.2b, 1.3a, 1.3b, 2.2b, 2.3a, 2.3b	Disturbance to site (e.g., wind, fire, cutting, herbicide) woody overstory removal
T1A	Major disturbance to site (e.g., wind, drought, fire), Invasive species establishment
T1B, T2A	Topsoil removal, excavation and dumping
R2A	Selective removal (cutting, herbicide, prescribed burn), appropriate new plantings
T3A	Physical "topsoil" establishment and stabilization, substrate amendments, and appropriate new plantings.

Subaqueous Soil Survey Project

NRCS, URI and CT Dept. of Ag

Shellfish Beds in Long Island Sound



Changes to CT Farmland Soils

- Overtime Changes Occur Which Effect Farmland Classification of The Soil
- Changes Impact Soil Quality and Eligibly for State and Federal Farmland Preservation Programs
- Soil Mapping Needs to Reflect Current Conditions
- Conducted as Needed Based on Site Visits-Limited in Scope



Questions?



Contact ...

USDA-NRCS

12- TOL Soil Survey Office

344 Merrow Road

Tolland, CT 06084

Donald Parizek, MLRA Project Leader

Donald.Parizek@ct.usda.gov

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