

# SOIL PARENT MATERIAL

## MERIDEN, CONNECTICUT

### LEGEND

- Moderate to Bedrock** - The soil depth to bedrock ranges from 20 to 40 inches.
- Moderate - Shallow to Bedrock** - The soil depth to bedrock ranges from 0 to 40 inches.
- Shallow to Bedrock** - The soil depth to bedrock is less than 20 inches.
- Glaciofluvial - Shallow to Bedrock** - Glaciofluvial material has been transported by moving water from melting ice. The material is usually rounded, well sorted sands and gravels. It has very high air and water movement throughout, but very low available water making it very droughty. These materials are important for ground water and aquifer recharge. The soil depth is less than 20 inches.
- Glaciofluvial** - Glaciofluvial material has been transported by moving water from melting ice. The material is usually rounded, well sorted sands and gravels. It has very high air and water movement throughout, but very low available water making it very droughty. These materials are important for ground water and aquifer recharge.
- Melt-out Till** - Melt-out till is material deposited, as the ice beneath the glacier slowly melts away. It is less consolidated and friable than lodgement till.
- Melt-out Till - Moderate to Bedrock** - Melt-out till is material deposited as the ice beneath the glacier slowly melts away. It is less consolidated and friable than lodgement till. The soil depth to bedrock ranges from 20 to 40 inches.
- Melt-out Till - Shallow to Bedrock** - Melt-out till is material deposited, as the ice beneath the glacier slowly melts away. It is less consolidated and friable than lodgement till. The soil depth to bedrock is less than 20 inches.
- Deep Organic - Inland** - Organics are materials deposited from decaying vegetation and microorganisms. These materials have a very high water holding capacity and buffering capability. The depth of the organic materials is greater than 51 inches.
- Shallow Organic - Inland** - Organics are materials deposited from decaying vegetation and microorganisms. These materials have a very high water holding capacity and buffering capability. The depth of the organic materials is 16 to 51 inches.
- Deep Organic - Tidal** - Organics are materials deposited from decaying vegetation and microorganisms. Organic materials found along coastal and tidal areas are often saline and support distinctively separate habitats from the non-saline organic materials commonly found inland. The depth of the organic materials greater than 51 inches.
- Shallow Organic - Tidal** - Organics are materials deposited from decaying vegetation and microorganisms. Organic materials found along coastal and tidal areas are often saline and support distinctively separate habitats from the non-saline organic materials commonly found inland. The depth of the organic materials is 16 to 51 inches.
- Alluvial/Floodplain** - Alluvial or floodplain deposits are transported by streams overflowing their banks.
- Glaciolacustrine** - Glaciolacustrine material is deposited during placid waters in large lake systems, such as Glacial Lake Hitchcock which formed in the Connecticut River Valley. These materials have layer upon layer of well sorted very fine sands, fine silts, and clays, collectively called varves.
- Lodgement Till** - Lodgement Till is material deposited directly beneath the glacier under enormous pressure. It is compact and contains a greater amount of fine-grained sediment. The compact or dense layer reduces the flow of air and water movement, producing a slowly permeable zone which supports perched water tables.
- Urban Influenced** - Urban Influenced refers to materials that show extreme variability from one location to another due to disturbance.

### EXPLANATION

Parent material is a term for the general physical, chemical, and mineralogical composition of the unconsolidated material, mineral or organic, in which the soil forms. Mode of deposition and/or weathering may be implied by the name.

The soil surveyor uses parent material to develop a model used for soil mapping. Soil scientists and specialists in other disciplines use parent material to help interpret soil boundaries and project

performance of the material below the soil. Many soil properties relate to parent material. Among these properties are proportions of sand, silt, and clay; chemical content; bulk density; structure; and the kinds and amounts of rock fragments. These properties affect interpretations and may be criteria used to separate soil series. Soil properties and landscape information may imply the kind of parent material.

### DATA SOURCES

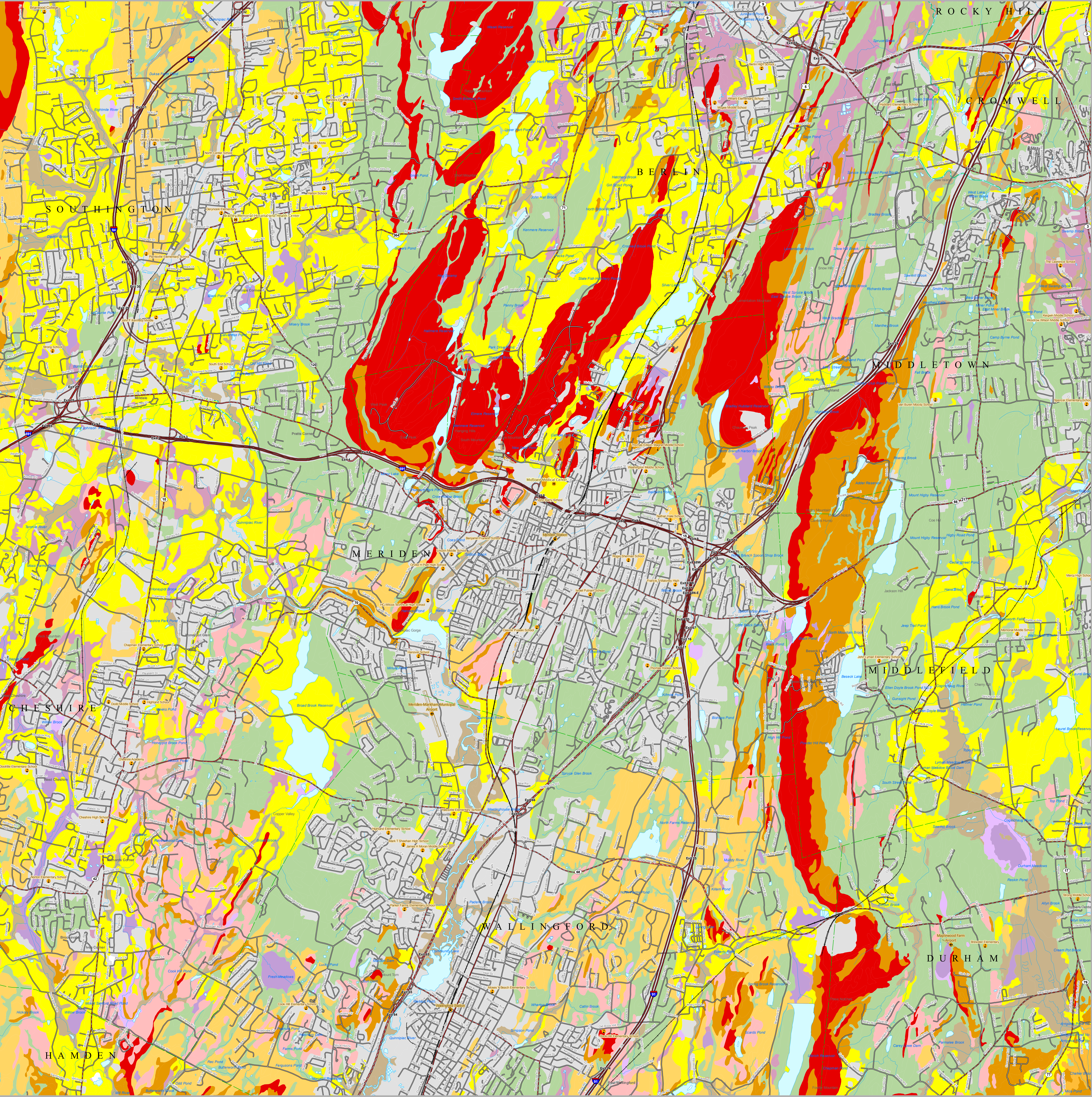
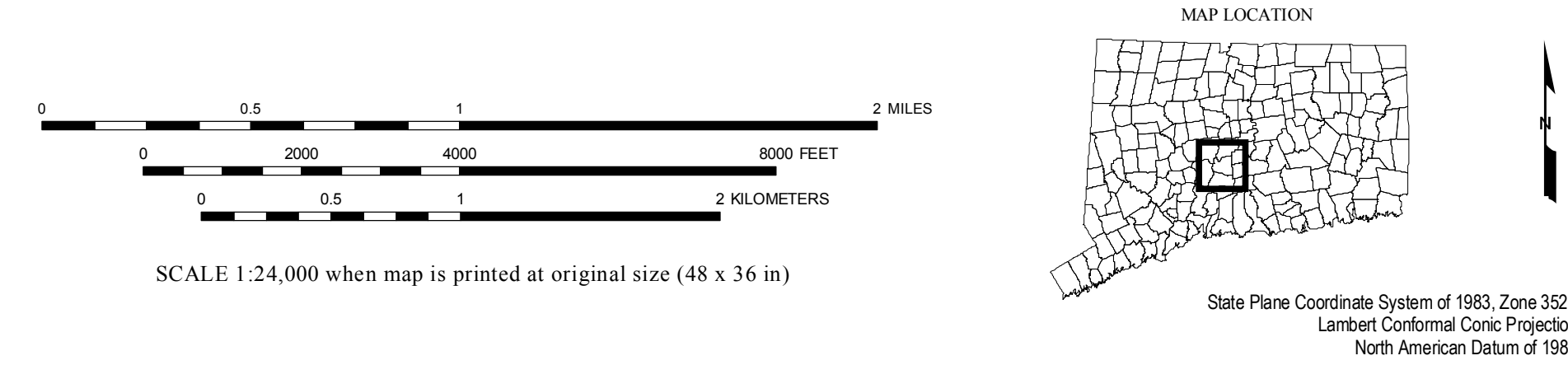
**SOIL DATA** - Soil map units shown on this map are from the 2007 Soil Survey Geographic Database (SSURGO) database produced by the USDA, Natural Resources Conservation Service (NRCS). The soils were mapped at a scale of 1:12,000 with a minimum size delineation of three acres. Enlargement of this map beyond the original source scale will not show additional detail and can cause misunderstanding of the detail of mapping. For the most recent soils data contact the NRCS.

**BASE MAP DATA** - Based on data originally from 1:24,000-scale USGS 7.5 minute topographic quadrangle maps published between 1969 and 1992. It includes political boundaries, railroads, airports,

hydrography, geographic names and geographic places. Streets and street names are from Tele Atlas copyrighted data. Base map information is neither current nor complete.

**RELATED INFORMATION**  
This map is intended to be printed at its original dimensions in order to maintain the 1:24,000 scale (1 inch = 2000 feet).

**MAPS AND DIGITAL DATA** - Visit the CT ECO website for this map and a variety of others. Visit the NRCS soils website for the soils data shown on this map. Visit the CT DEP website to download the base map digital spatial data shown on this map.



STATE OF CONNECTICUT  
DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
79 Elm Street  
Hartford, CT 06106-5127

Map prepared by CT DEP  
October 2009  
Map is not colorfast  
Protect from light and moisture

