Quaternary Geology of Connecticut and Long Island Sound Basin

List of Map Units

Pleistocene Deposits - Late Holocene, Late Wisconsinan
- Unstratified Deltaic Deposits
- Glacial Lake Deposits
- Deltaic Deposits
- Till Deposits
- Strata Topographic Position
- Glacial Meltwater Deposits

Explanation of Map Symbols
- Area of glacially derived deposits grading to glacial lake
- Area of late Holocene sediment
- Deltaic Divide - Boundary between major geologic basins
- Deltaic Divide - Boundary between major geologic basins grading into north draining and south draining regions

Explanation

Quaternary Geology is the study of the geologic history of Connecticut during the last 2.588 ± 0.005 million years ago, including the Pleistocene and Holocene (post-glacial) periods. The Quaternary Period has been one of the most dynamic and significant periods in the history of the earth and the Connecticut landscape. The deposition of glacial deposits and the resulting landscape modification left a legacy of information that is critical to understanding the development of many details of the Connecticut landscape and all surficial deposits. At least twice during the Quaternary Period, which spans from 2.588 ± 0.005 million years ago to the present and the formation of the Connecticut landscape, and the glacial deposits that were emplaced early in post-glacial time and have been grouped together as Early Postglacial Deposits (Figure 1). These deposits are generally composed of layers of well-to-poorly sorted sands, gravels and silts with few to no glacial striations or glacial grooves. They are often composed of layers of well-to-poorly sorted sands, gravels, silts and clays with few to no glacial striations or glacial grooves. The oldest postglacial deposits occur in the flat valley terrace, floodplains, and delta plains, that were deposited simultaneously at and beyond the margin of a glacier, graded to a specific base level. Grain-size decreases from coarse gravel at ice-contact heads, through sand and gravel and sand beneath delta plains and foreset slopes to silt and clay in lake-bottom deposits (after Stone and others, 2005).

Morphosequences are a body of meltwater deposits composed of a continuum of land forms, grading from ice-contact forms (eskers, kames) to non-ice-contact forms (flats, outwash channels). These relationships are reflected in the organization of many surficial deposits in Connecticut. The development of many surficial deposits in Connecticut is associated with the retreat of the Wisconsinan Stage Pleistocene glacier. These deposits include till deposits, outwash deposits, floodplain alluvium, lake deposits, and glacial meltwater deposits.

Till Deposits

These data were digitized from the 1:24,000-scale compilation sheets prepared for both the Surficial Geology of Connecticut (Stone, J.R., Schafer, J.P., London, E.H., et al., 2005) and the Connecticut Quaternary Geology (Slocum Rd, 7000). From the 1:24,000-scale compilation sheets prepared for the statewide Quaternary Geology Map of Connecticut 1995, in and are typically thinner than the glacial deposits that they overlie. The oldest postglacial deposits occur in the flat valley terrace, floodplains, and delta plains, that were deposited simultaneously at and beyond the margin of a glacier, graded to a specific base level. Grain-size decreases from coarse gravel at ice-contact heads, through sand and gravel and sand beneath delta plains and foreset slopes to silt and clay in lake-bottom deposits (after Stone and others, 2005).