SOIL DRAINAGE CLASS

PLYMOUTH, CONNECTICUT

LEGEND

Excessively drained - Water is removed very rapidly. The occurrence of internal free water commonly is very rare or very deep. The soils are commonly coarse-textured and have very high hydraulic conductivity or are very shallow.

Somewhat excessively drained - Water is removed from the soil rapidly. Internal free water occurrence commonly is very rare or very deep. The soils are commonly coarse-textured and have high saturated hydraulic conductivity or are very shallow.

Well drained - Water is removed from the soil readily but not rapidly. Internal free water occurrence commonly is deep or very deep; annual duration is not specified. Water is available to plants throughout most of the growing season in humid regions. Wetness does not inhibit growth of roots for significant periods during most growing seasons. The soils are mainly free of features that are related to wetness.

Moderately well drained - Water is removed from the soil somewhat slowly during some periods of the year. Internal free water occurrence commonly is moderately deep and transitory through permanent. The soils are wet for only a short time within the rooting depth during the growing season, but long enough that most mesophytic crops are affected. They commonly have a moderately low or lower saturated hydraulic conductivity in a layer within the upper 1 m, periodically receive high rainfall, or both.

Somewhat poorly drained - Water is removed slowly so that the soil is wet at a shallow depth for significant periods during the growing season. The occurrence of internal free water commonly is shallow to moderately deep and transitory to permanent. Wetness markedly restricts the growth of mesophytic crops, unless artificial drainage is provided. The soils commonly have one or more of the following characteristics: low or very low saturated hydraulic conductivity, a high water table, additional water from seepage, or nearly continuous rainfall.

Poorly drained - Water is removed so slowly that the soil is wet at shallow depths periodically during the growing season or remains wet for long periods. The occurrence of internal free water is shallow or very shallow and common or persistent. Free water is commonly at or near the surface long enough during the growing season so that most mesophytic crops cannot be grown, unless the soil is artificially drained. The soil, however, is not continuously wet directly below plow-depth. Free water at shallow depth is usually present. This water table is commonly the result of low or very low saturated hydraulic conductivity of nearly continuous rainfall, or of a combination of these.

Very poorly drained - Water is removed from the soil so slowly that free water remains at or very near the ground surface during much of the growing season. The occurrence of internal free water is very shallow and persistent or permanent. Unless the soil is artificially drained, most mesophytic crops cannot be grown. The soils are commonly level or depressed and frequently ponded. If rainfall is high or nearly continuous, slope gradients may be greater.

Not Rated - Soils have characteristics that show extreme variability from one location to another. Often these areas are urban land complexes or miscellaneous areas. An on-site investigation is required to determine soil conditions present at the site.

EXPLANATION

Soil Drainage Class refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized - excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. Drainage classes are from observations of water tables, soil wetness, landscape position and soil morphology. In many soils the depth and duration of wetness relate to the quantity, nature, and pattern of redoximorphic features. Redoximorphic features are soil features associated with wetness. They result from the reduction and oxidation of iron and manganese compounds in the soil after saturation with water and desaturation, respectively.

Drainage classes provide a guide to the limitations and potentials of the soil for field crops, forestry, wildlife, and recreational uses.

The class roughly indicates the degree, frequency, and duration of wetness, which are factors in rating soils for various uses.

As the minimum soil map unit size delineation is approximately 3 acres, this map does not all soils that are dominated by the drainage classification. Soil map units are not homogenous units. They contain both similar and dissimilar soils. Flooding class map units are dominated by soils that flood, but have inclusions of non-flooding soils. Non-flooding soil map units may contain inclusions of flooding soils. This map indicates those types of soils that are dominated by the drainage classification. For those map units that have miscellaneous areas (Rock Outcrop, Urban Land, Dumps, Pits), the classification refers to the soil portion.

This map does not incorporate current land use changes which may affect the drainage class designation.

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).

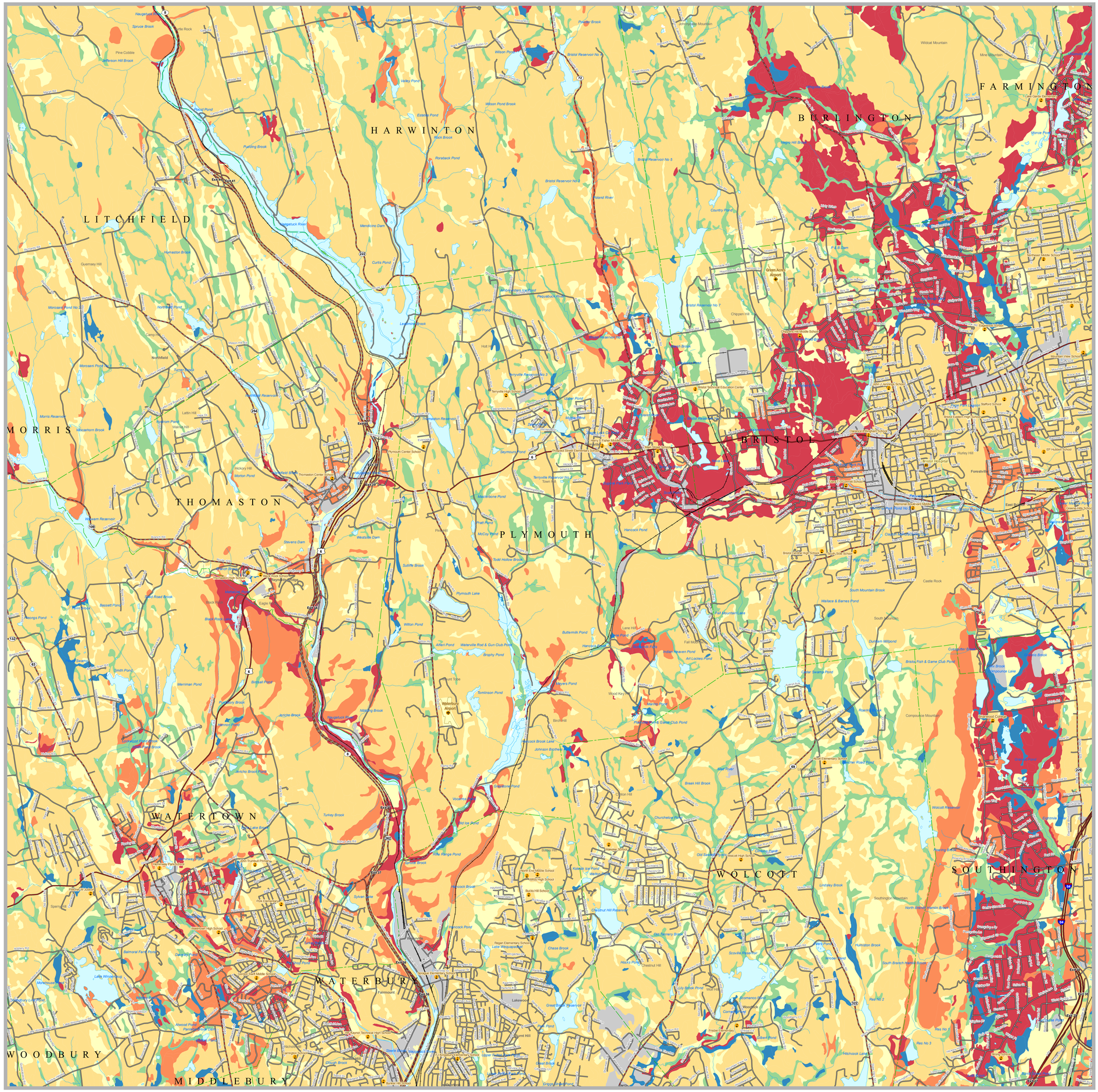
MAPS AND DIGITAL DATA - Visit the CT ECO website for this map and a variety of others. Visit the NRCS soils website for the soils data shown on this map. Visit the CT DEP website to download the base map digital spatial data shown on this map.

0 0.5 1 2 MILES
0 2000 4000 8000 FEET
0 0.5 1 2 KILOMETERS

SCALE 1:24,000 when map is printed at original size (48 x 36 in)

MAP LOCATION

State Plane Coordinate System of 1983, Zone 3526
Lambert Conformal Conic Projection
North American Datum of 1983



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

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

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