

# AQUIFER PROTECTION AREAS

## Bethlehem, CONNECTICUT

### LEGEND

- Level A Aquifer Protection Area (Final Adopted)
- Level A Aquifer Protection Area (Final)
- Level B Aquifer Protection Area (Preliminary)

### EXPLANATION

The Aquifer Protection Program, administered by the Connecticut Department of Energy & Environmental Protection (DEEP), provides primary protection for Connecticut's high-yield public water supply well fields. Responsibilities within the program are shared by DEEP, municipalities and the water companies. The intent of this program is to protect the water supplies by identifying the land areas contributing ground water to the wells through detailed field work and ground-water flow modeling, and then by regulating land use within those areas. Once mapped, municipalities adopt land use regulations for the final aquifer protection areas, sometimes called "wellhead protection areas". For example, land use involving hazardous materials within a designated aquifer protection area is strictly monitored and regulated.

This information is intended to be used to depict regulated Aquifer Protection Areas on a map preferably at 1:24,000 scale. The mapping of these areas is one of the requirements of Connecticut's Aquifer Protection Area Program. The program requires water companies to complete both preliminary and final Aquifer Protection Area mapping. Preliminary mapping provides a general estimate of the area contributing ground water to the well field. Final mapping is based on extensive, site-

specific, detailed modeling of the ground water flow system at the well field. Preliminary mapping is conducted first and is replaced later with the more detailed final mapping.

The aquifer protection area information can be used in conjunction with surficial materials, bedrock geology, elevation, and soils to more thoroughly understand the physical characteristics of the aquifers. The spatial relationships between these areas and environmental quality data such as water quality, non-point source pollution, impaired ground water, contaminated lands, and past, present and projected land use can be analyzed.

This information does not include protection areas for all public water supply wells in Connecticut. It only includes aquifer protection areas for public water supply wells located in Connecticut that are set in stratified drift and serve a residential population of 1,000 or more. It does not include protection areas for smaller stratified drift public water supply wells that serve less than 1,000 people, public water supply wells drilled into bedrock, nor public water supply wells located in Connecticut that serve customers out of state.

### DATA SOURCES

**AQUIFER PROTECTION AREA DATA** – Aquifer Protection Areas shown on this map are from the Aquifer Protection Area digital dataset which contains polygon data intended to be used at 1:24,000 scale. The dataset contains regulated areas classified as Level A Aquifer Protection Area (Final) and Level B Aquifer Protection Area (Preliminary). The data was collected from 1991 to the present and is actively updated as Final area mapping replaces earlier Preliminary areas. The Aquifer Protection Areas are delineated by the individual water companies owning the well fields and submitted to DEEP for approval. Preliminary mapping provides a general estimate of the area contributing ground water to the well field. Final mapping is based on extensive, site-specific, detailed modeling of the ground water flow system. DEEP may adjust Final area boundaries to be consistent with 1:24,000 scale topography and base map data where appropriate during the approval process.

**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.

**MASSACHUSETTS WELLHEAD PROTECTION DATA** - The Massachusetts Wellhead Protection Areas which may be shown on this map were downloaded from the MassGIS web site. The information was published on July 9, 2014. More information about wellhead protection in Massachusetts is available from [www.mass.gov/deep](http://www.mass.gov/deep).

**RHODE ISLAND WELLHEAD PROTECTION DATA** - The Rhode Island Wellhead Protection Areas which may be shown on this map were obtained from RIGIS. The information was published in December 2014. More information about wellhead protection in Rhode Island is available from [www.dem.ri.gov](http://www.dem.ri.gov).

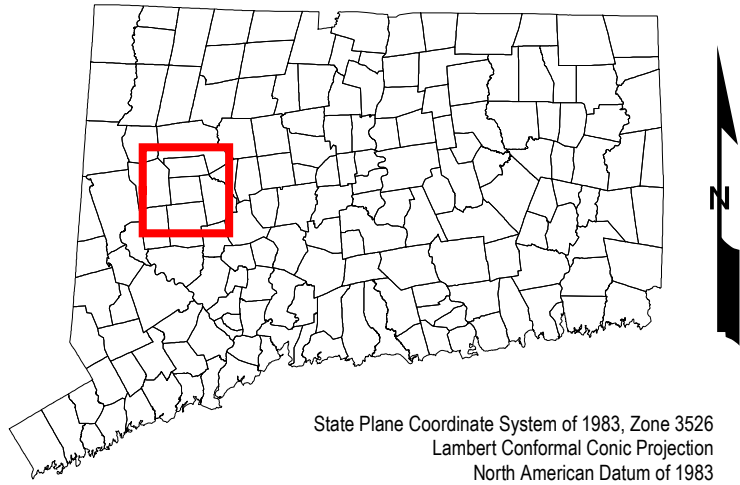
#### RELATED INFORMATION

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

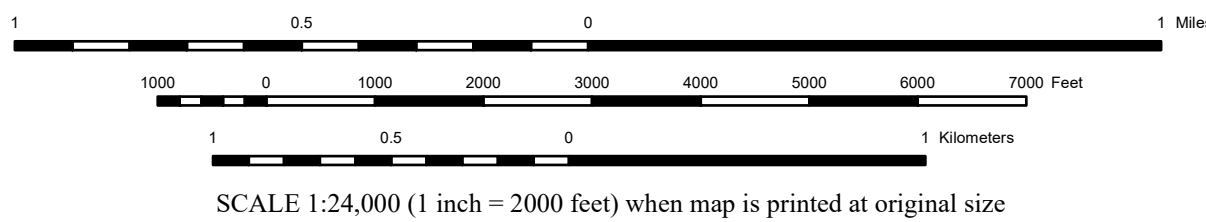
**AQUIFER PROTECTION PROGRAM** - Go to the DEEP website for more information on the Aquifer Protection Program and the aquifer protection areas.

**MAPS AND DIGITAL DATA** - Go to the CT ECO website for this map and a variety of others. Go to the DEEP website for the digital spatial data shown on this map.

#### MAP LOCATION



State Plane Coordinate System of 1983, Zone 2059  
Lambert Conformal Conic Projection  
North American Datum of 1983



STATE OF CONNECTICUT  
DEPARTMENT OF  
ENERGY & ENVIRONMENTAL PROTECTION  
79 Elm Street  
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Map created by DEEP  
December 2021  
Map is not colorfast  
Protect from light and moisture

