

# Town of Newmarket--Groundwater Resources & Hazards



Municipal Wells

**Transmissivity of Stratified Drift Aquifers  
units are in feet squared per day**

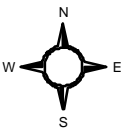
- Less than 500
- 500 to 1000
- 1000 to 2000
- 2000 to 3000
- Greater than 3000

Aquifer Protection  
Overlay District

**Potential Non-Point Pollution Sources**

- C Mine, sand and gravel
- Storm drain
- B Sand/salt storage pile, covered
- N Sand/salt storage pile, uncovered

DES Groundwater Hazard Inventory



## STRATIFIED DRIFT AQUIFERS

Aquifer data collection was initiated in 1983 by the USGS in cooperation with the New Hampshire Department of Environmental Services, Water Resources Division. Data Automation Provided by the Complex Systems Research Center, Durham, NH.

The aquifer information shown on this map was automated from USGS Water Resources Investigations 88-4128 "Geohydrology and Water Quality of Stratified-Drift Aquifers in the Exeter, Lamprey, and Oyster River Basins, Southeastern New Hampshire", published in 1990.

The aquifer information presented on this map is the source information for the Aquifer Overlay Protection District as established in the Newmarket Zoning Ordinance.

Transmissivities of stratified-drift aquifers, in feet squared per day (ft<sup>2</sup>/d), were estimated from test-boring logs by calculating hydraulic conductivity for specific intervals, multiplying these values by the saturated thickness of the interval, and summing the results. Transmissivity values reported by published engineering consultants, were used as well as calculating transmissivities from unpublished aquifer test data. The transmissivity coverage is a polygon coverage where each polygon represents a range a transmissivity; for example, 0 to 1,000 ft<sup>2</sup>/d. Some polygons are hills of till that protrude the stratified-drift and, therefore, have a transmissivity of nearly 0 ft<sup>2</sup>/d. Transmissivities were interpreted on 1:24,000 scale-stable mylar USGS quadrangle maps and digitized by Complex Systems Research in Durham, NH into ARC/INFO coverages.

## POINT/NON-POINT POTENTIAL POLLUTION SOURCES

This information was developed as a joint effort between the New Hampshire Department of Environmental Services (NHDES), the Office of State Planning, and the nine Planning Commissions to map selected types of point and non-point potential pollution sources. The data was collected as part of the EPA 205(j) project from 1991 to 1994. Data automation done by NHDES from a source scale of 1:24,000/1:25,000.

The data includes the following features collected statewide: mining sites, storm drains, salt storage piles, Sludge and septage application sites, and snow dumps.

Points for Newmarket include only gravel pits and a sand/salt storage pile. This information was collected in 1993.

## GROUNDWATER HAZARD INVENTORY

This information consists of existing and potential threats to groundwater quality as recorded in the files of the NHDES Groundwater Protection Bureau. Data collection and automation done by NHDES from a source scale of 1:24,000 / 1:25,000. The last revision of this information was November, 1998.

SRPC 3/29/2001....  
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