PREPARED IN COOPERATION WITH THE
NEW YORK STATE DEPARTMENT OF HEALTH

AQUIFER THICKNESS

By
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EXPLANATION

Map Units	Classification	Infiltration rate, in inches per hour
1	Very low	less than 0.20
2	Low	0.20 to 0.63
3	Moderate	0.63 to 2.0
3/1	Thin (1-40 in), moderately permeable, irregular occurring soil derived from weathered bedrock or thin till, but very low permeable bedrock frequently crops out at surface or is usually at a depth of about 20-40 in.	
4	Moderate to high	2.0 to 6.3
5	Too variable to estimate	

NOTE

Range of infiltration rates are derived from a soil survey of Chemung County (1973) and are estimates of the rate that water moves in the B horizon of soils (usually 10-40 inches below land surface). The estimates are based on infiltration and permeability tests, soil texture and structure, porosity, and drainage observations.

The boundaries of the units of soil permeability may not always coincide with the geologic units. For example, in the formation of soil in till, the B horizon may be several times more permeable than the parent material due to disturbances such as freeze-thaw, root penetration, and burrowing by animals and insects. Also, a permeable sand and gravel unit will usually develop a less permeable B horizon due to the accumulation of clay, iron, aluminum, and other compounds leached from the A horizon.

BOUNDARY OF UNITS OF WATER-INFILTRATION POTENTIAL--approximately located

AQUIFER BOUNDARY--dashed where full extent of aquifer is not shown

00414000 COMMUNITY WATER SYSTEM WELL OR WELL FIELD--numbered by New York State Department of Health

REFERENCE CITED

Pearson, C. S., and others, 1973, Soil survey of Chemung County, New York: Washington, U.S. Soil Conservation Service, 167 p.

BASE FROM NEW YORK STATE DEPARTMENT OF TRANSPORTATION BIG FLATS, N.Y., 1978; ELMIRA, N.Y., 1978; SEELEY CREEK, N.Y.-PA., 1978; HORSEHEADS, N.Y., 1978. 1:24,000

GEOHYDROLOGY OF THE VALLEY-FILL AQUIFER IN THE ELMIRA AREA, CHEMUNG COUNTY, NEW YORK

1982

HYDROLOGY MAPPED IN 1981; BOUNDARIES MODIFIED FROM C. S. PEARSON (1973)