

SURFICIAL GEOLOGY

By
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DRAINAGE AREA
TO AQUIFER

AQUIFER

LOCATION MAP

SCALE 1:24,000

INTRODUCTION

The Schenectady aquifer in eastern New York is a valley-fill aquifer which underlies a 25-square-mile area along the Mohawk River in Schenectady County. The aquifer is the primary source of water for community water systems, industry, and rural residents in eastern Schenectady County.

The mapping was undertaken to compile available information on the limits and characteristics of one of the principal aquifers used by community water systems in upstate New York. The findings are presented in this series of maps to provide water managers with current knowledge necessary to protect and manage this highly used aquifer. The hydrologic data on which these maps are based are available in the cited references and in the New York Sub-District Office of the U.S. Geological Survey in Albany, New York.

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EXPLANATION

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| als | Alluvial silty sand, with some clay and organic matter; floodplain deposits of recent age; low to moderate permeability |
| ls | Lake sand and silt, with a few discontinuous lenses of sand and gravel; offshore deposits in proglacial or postglacial lakes; low to moderate permeability |
| lsc | Lake silt and clay, with a few sand lenses; offshore deposits in proglacial or postglacial lakes; low permeability |
| ksg | Kame sand and gravel, some sorting; ice-contact deposits; high permeability |
| osg | Outwash sand and gravel; deposited by meltwater streams; stratified and well sorted; generally overlain by floodplain deposits; high permeability |
| t/sh | Till overlying shale; subglacial deposits of unstratified silty and sandy clay, with occasional pebbles, cobbles and boulders; scattered lenses of sand and gravel; generally less than 30 feet thick in upland areas, as much as 200 feet thick in valleys; low permeability |

GEOLOGIC CONTACT

AQUIFER BOUNDARY--dashed where full extent of aquifer is not shown. Areas not shown are small, not hydrologically significant, and do not have community wells

LINE OF GEOLOGIC SECTION--see sheet 3, "Aquifer Thickness and Geologic Sections"

BOUNDARY BETWEEN MAJOR AND MINOR AQUIFERS

WELL OR TEST HOLE--on which geologic section is based

COMBINED BOUNDARY--geologic contact coincident with boundary between major and minor aquifers

REFERENCE CITED

Winslow, J. D., and others, 1965, Ground-water resources of eastern Schenectady County, New York, with emphasis on infiltration from the Mohawk River: New York State Water Resources Commission Bulletin 57, 148 p.

BASE FROM NEW YORK STATE DEPARTMENT OF TRANSPORTATION
PATTERSONVILLE, N.Y., 1974; ROTTERDAM JUNCTION, N.Y.,
1974; SCHENECTADY, N.Y., 1974. 1:24,000

GEOLOGY MODIFIED FROM J. D. WINSLOW
AND OTHERS (1965)

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