DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
NEW YORK STATE DEPARTMENT OF HEALTH

OPEN-FILE REPORT 82-112
(SHEET 3 OF 6)

WATER-INFILTRATION POTENTIAL OF SOIL ZONE

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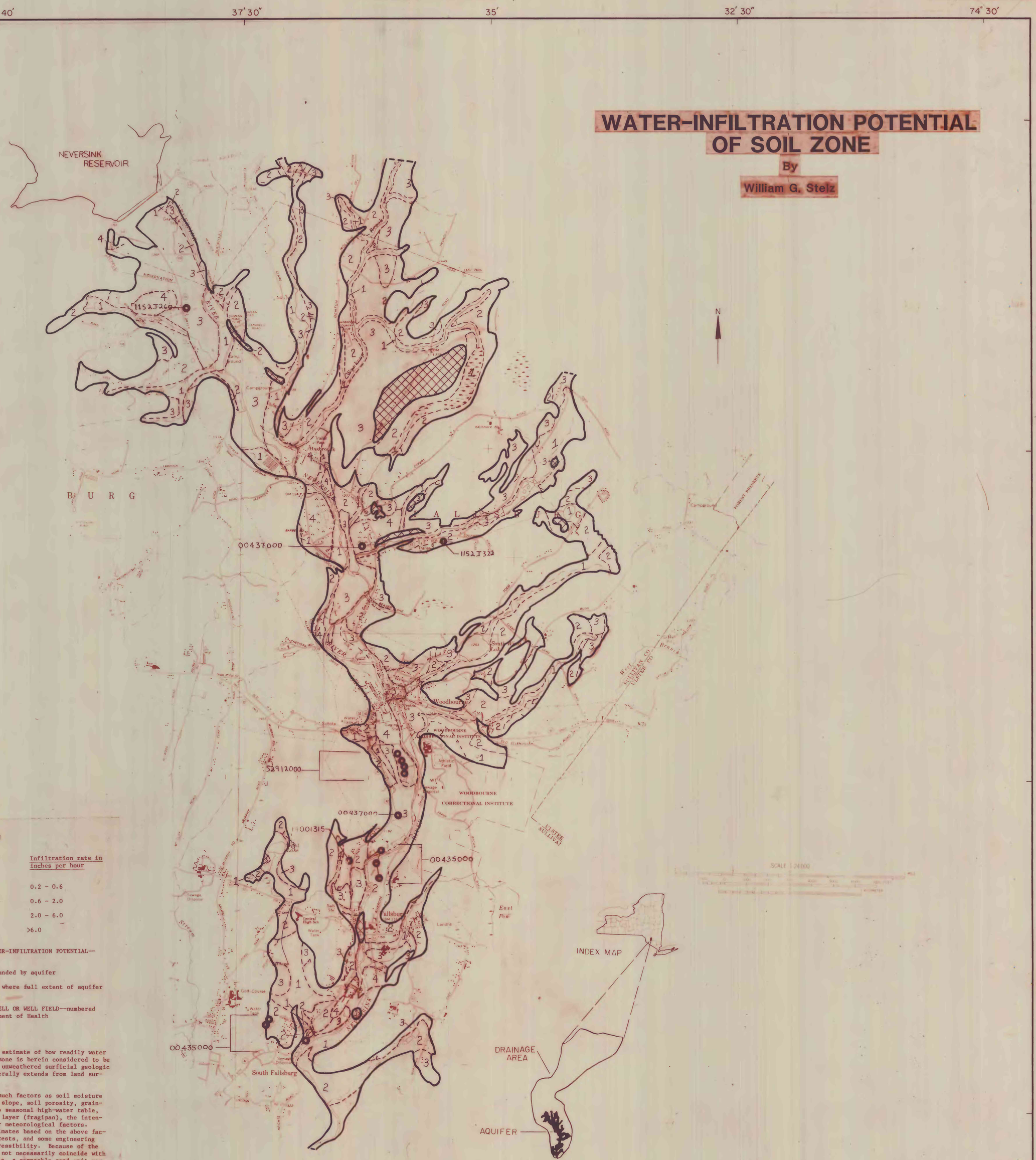

EXPLANATION

Map units	Classification	Infiltration rate in inches per hour
1	Very low to low	0.2 - 0.6
2	Low to moderate	0.6 - 2.0
3	Moderate to high	2.0 - 6.0
4	High to very high	>6.0

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

TILL/BEDROCK HILL--surrounded by aquifer

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

00437000 COMMUNITY WATER SYSTEM WELL OR WELL FIELD--numbered by New York State Department of Health

NOTE

The infiltration rate is a general estimate of how readily water can penetrate the soil zone. The soil zone is herein considered to be only the A and B horizons which overlie unweathered surficial geologic materials (sheet 1). The soil zone generally extends from land surface down 18 to 30 inches.

The infiltration rate depends upon such factors as soil moisture and temperature, density of vegetation, slope, soil porosity, grain-size distribution and cohesion, depth to seasonal high-water table, presence or absence of a water-impeding layer (fragipan), the intensity and duration of rainfall, and other meteorological factors. Average soil infiltration rates are estimates based on the above factors plus septic-tank soil-percolation tests, and some engineering tests of linear shrinkage and soil compressibility. Because of the above, the boundaries of these units do not necessarily coincide with the geologic units (sheet 1), for example, a permeable sand unit may have a thin cover of windblown silt or pond deposits which creates a low-permeable soil zone overlying a very permeable geologic unit.

REFERENCE CITED

Secor, Wilbur and others, 1946, Soil survey of Sullivan County, New York: U.S. Department of Agriculture, Bureau of Plant Industry, Soils and Agricultural Engineering, series 1938, no. 8, 99 p.

BASE FROM NEW YORK STATE DEPARTMENT OF TRANSPORTATION GRAHAMSVILLE, N.Y., 1976; LIBERTY EAST, N.Y., 1976; MONTICELLO, N.Y., 1976; WOODRIDGE, N.Y., 1976. 1:24,000

GEOHYDROLOGY OF THE VALLEY-FILL AQUIFER IN THE SOUTH FALLSBURGH-WOODBOURNE AREA, SULLIVAN COUNTY, NEW YORK

1982

HYDROLOGY MAPPED IN 1981; BOUNDARIES MODIFIED FROM SECOR AND OTHERS (1946)