

79°17'30"

15'

12'30"

10'

7'30"

79°05'

# WATER-INFILTRATION POTENTIAL OF SOIL ZONE

By  
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## EXPLANATION

WATER-INFILTRATION POTENTIAL OF SOIL ZONE

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

- BOUNDARY OF UNITS OF WATER-INFILTRATION POTENTIAL—approximately located
- - - AQUIFER BOUNDARY—dashed where full extent of aquifer is not shown
- 00676000 COMMUNITY WATER SYSTEM WELL OR WELL FIELD—numbered by New York State Department of Health

### NOTE

Range of infiltration rates are derived from a soil survey of Chautauqua County (1916) 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.

### REFERENCE CITED

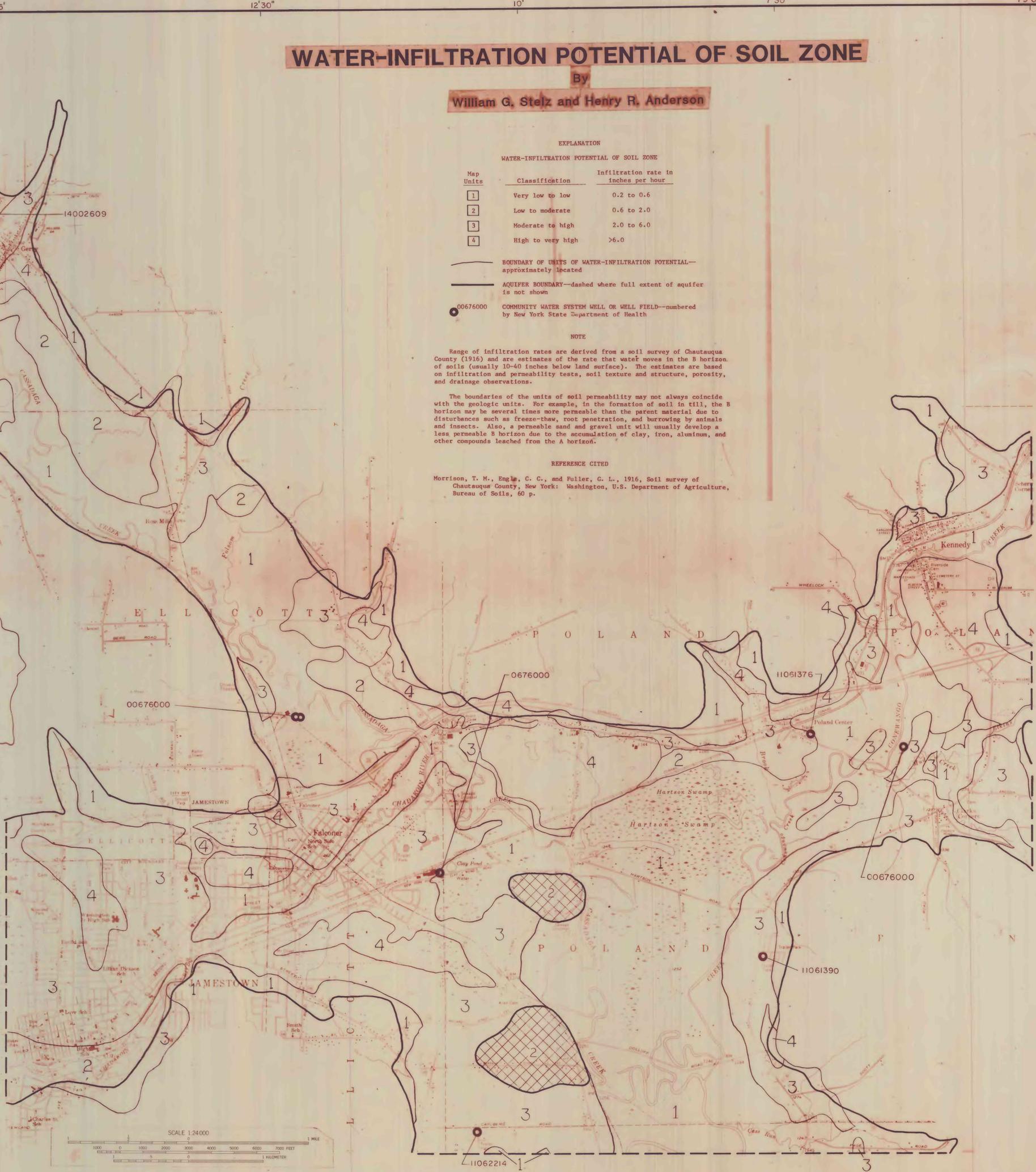
Morrison, T. M., Engle, C. C., and Fuller, G. L., 1916, Soil survey of Chautauqua County, New York; Washington, U.S. Department of Agriculture, Bureau of Soils, 60 p.

42°12'30"

10'

7'30"

42°05'



BASE FROM NEW YORK STATE DEPARTMENT OF TRANSPORTATION ELLERY CENTER, N.Y., 1978; GERRY, N.Y., 1978; IVORY, N.Y., 1978; JAMESTOWN, N.Y., 1978; AND KENNEDY, N.Y., 1978. 1:24,000

## GEOHYDROLOGY OF THE VALLEY-FILL AQUIFER IN THE JAMESTOWN AREA, CHAUTAUQUA COUNTY, NEW YORK

HYDROLOGY MAPPED IN 1981; BOUNDARIES MODIFIED FROM T.M. MORRISON, C.C. ENGLE, AND G.L. FULLER (1916)