

WATER TABLE ON LONG ISLAND, NEW YORK, MARCH 1979

by

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Each year the hydrologic situation on Long Island is reviewed as new water-level data are obtained. March 1979 water-level measurements from 564 wells across the island were used to prepare this map. Measurements were made by the wetted tape method to the nearest hundredth of a foot. The water-table configuration has changed little since 1975 (Nakao and Erlichman, 1978) except for increases as great as 5 feet in central Nassau County and 9 feet in central Suffolk County.

The general configuration of the water table is an east-west mound that coincides with the glacial moraine along the center of the island, with an isolated high in central Nassau County and another in central Suffolk County. Northwestern Nassau County and the central part of the southern peninsula of eastern Suffolk County also have local highs. These highs are a product of the low hydraulic conductivity of the geologic units. The lowest recorded water level on the island in March 1979 was a depression in eastern Queens County at 4 feet below the National Geodetic Vertical Datum of 1929 (mean sea level); the highest recorded water level was 91 feet above the datum in central Nassau County. The 100-foot contour in northwest Nassau County represents the probable water level around the site of an abandoned well that consistently had water levels in excess of 115 feet above the datum.

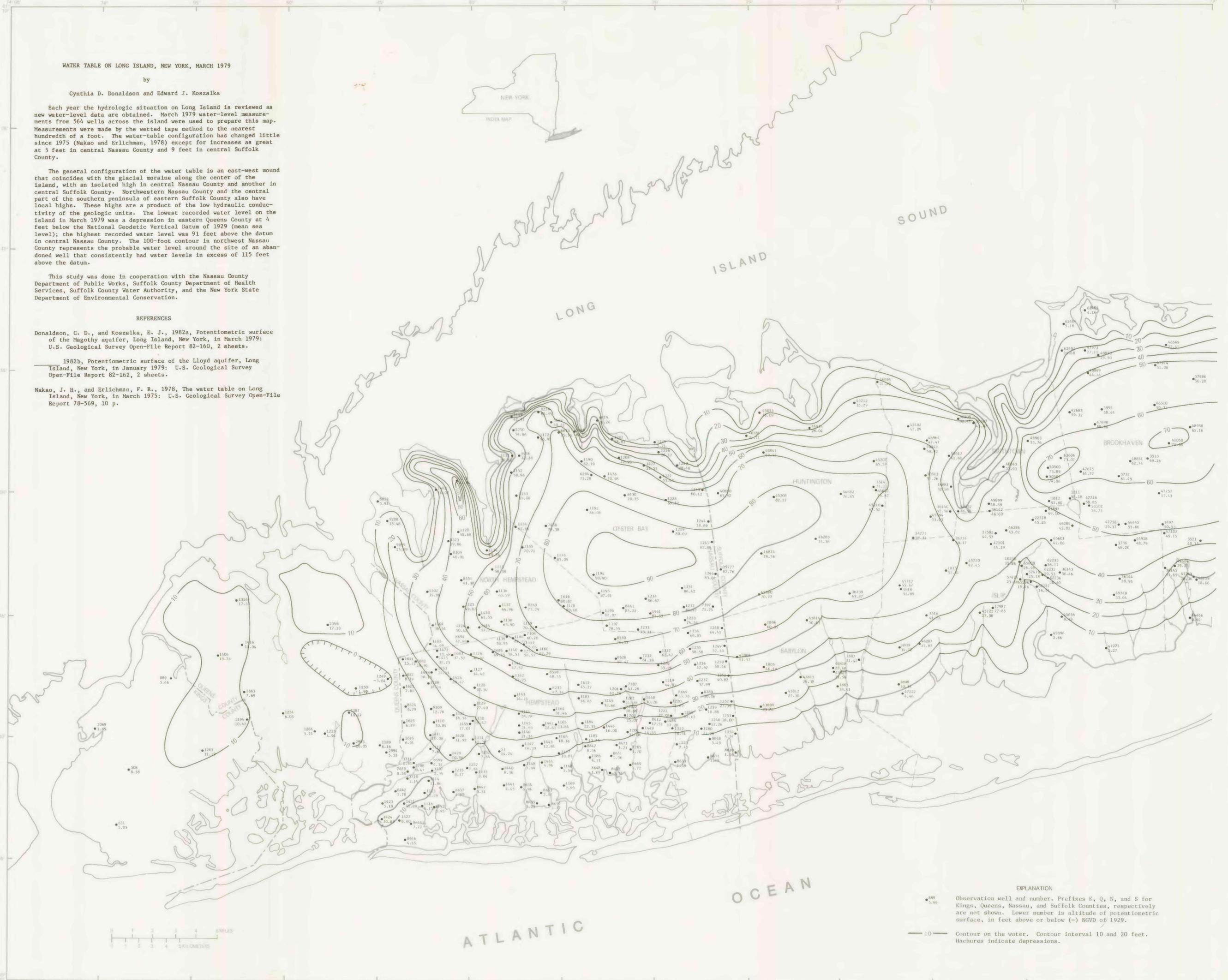
This study was done in cooperation with the Nassau County Department of Public Works, Suffolk County Department of Health Services, Suffolk County Water Authority, and the New York State Department of Environmental Conservation.

REFERENCES

Donaldson, C. D., and Koszalka, E. J., 1982a, Potentiometric surface of the Magothy aquifer, Long Island, New York, in March 1979: U.S. Geological Survey Open-File Report 82-160, 2 sheets.

1982b, Potentiometric surface of the Lloyd aquifer, Long Island, New York, in January 1979: U.S. Geological Survey Open-File Report 82-162, 2 sheets.

Nakao, J. H., and Erlichman, F. R., 1978, The water table on Long Island, New York, in March 1975: U.S. Geological Survey Open-File Report 78-569, 10 p.



EXPLANATION
● 889 5.46 Observation well and number. Prefixes K, Q, N, and S for Kings, Queens, Nassau, and Suffolk Counties, respectively are not shown. Lower number is altitude of potentiometric surface, in feet above or below (-) NGVD of 1929.
— 10 — Contour on the water. Contour interval 10 and 20 feet. Haclures indicate depressions.

