U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Prepared in cooperation with
THE METRO-DADE DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT,
THE MIAMI-DADE COUNTY WATER AND SEWER AUTHORITY, AND THE
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

OPEN-FILE REPORT-92-32

This map report shows the altitude of the water table in the Biscayne aquifer in Dade County for April 1988. The report, prepared by the U.S. Geological Survey, in cooperation with the Metro-Dade Department of Environmental Resources Management, the Miami-Dade Water and Sewer Authority, and the South Florida Water Management District, is one of a planned series of water-table map reports for the Biscayne aquifer in the study area. Water-level data for this series of reports are collected twice annually, in April and October, to show the normally expected annual low and high water-level conditions, respectively.

The Biscayne aquifer occurs within the surficial aquifer system in southeast Florida and is the sole source of potable water for the area. It consists of the Pamlico Sand, Miami Oolite, Anastasia Formation, Key Largo Limestone, and Fort Thompson Formation all of Pleistocene age, and highly permeable beds of the Tamiami Formation of Miocene and Pliocene age (Fish and Stewart, 1992). Water in the Biscayne aquifer is unconfined (Parker and others, 1955).

Water levels in 108 wells (depths of 0-200 feet below land surface) in Dade County were measured by the U.S. Geological Survey during April 25-28, 1988. The water-level data from these wells, supplemented with data from other agencies, were used to construct contours depicting the water-table altitude. This map shows the altitude of the water table in the Biscayne aquifer in Dade County at the end of the dry season (November-April). The combined effects of low rainfall and increased urban and agricultural withdrawals typically cause the water table to be at its lowest level during April.

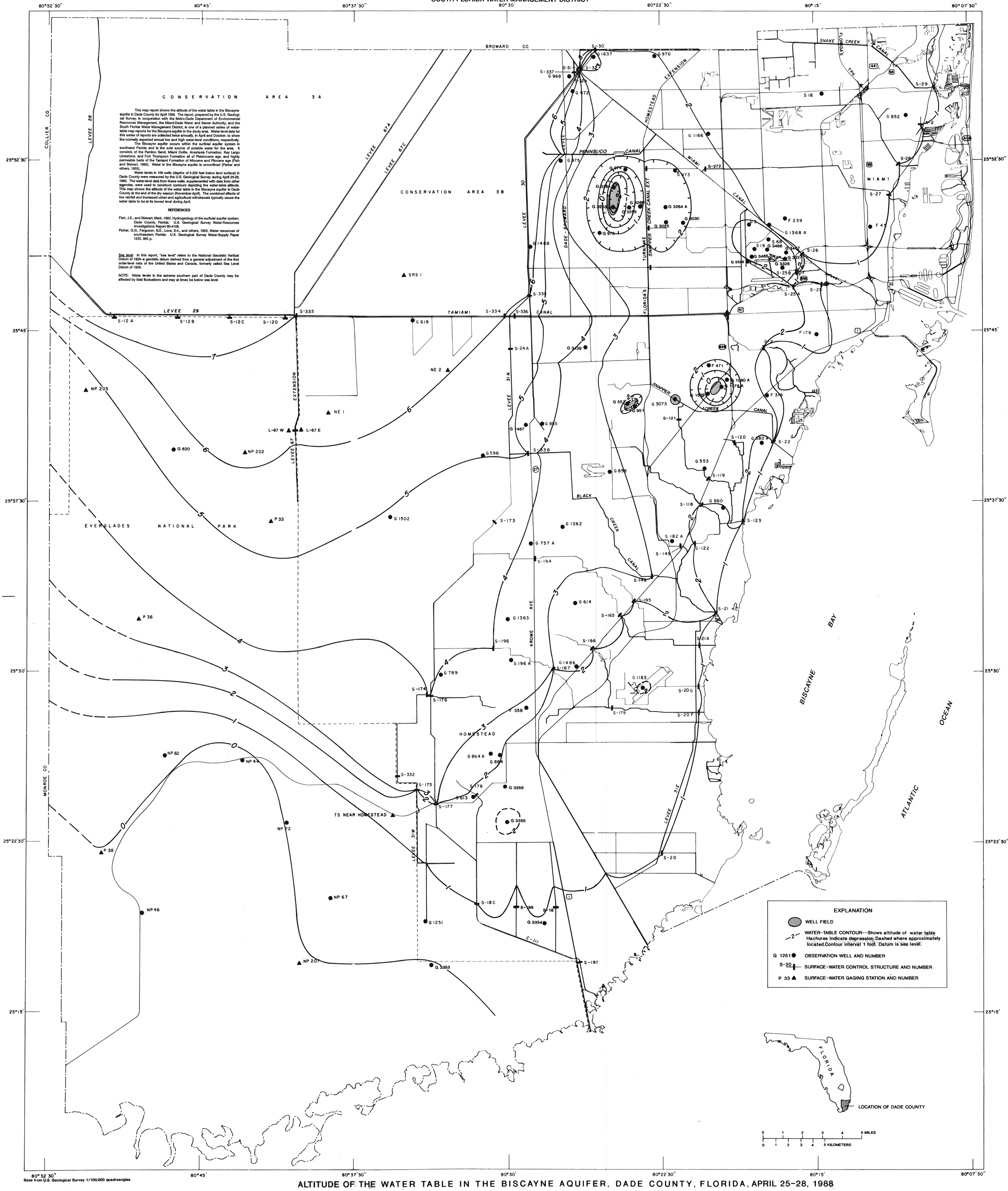
REFERENCES

Fish, J.E., and Stewart, Mark, 1992, Hydrogeology of the surficial aquifer system, Dade County, Florida: U.S. Geological Survey Water-Resources Investigations Report 90-4108.

Parker, G.G., Ferguson, G.E., Love, S.K., and others, 1955, Water resources of southeastern Florida: U.S. Geological Survey Water-Supply Paper 1255, 965 p.

Sea level: In this report, "sea level" refers to the National Geodetic Vertical Datum of 1929--a geodetic datum derived from a general adjustment of the first order-level nets of the United States and Canada, formerly called Sea Level Datum of 1929.

NOTE: Water levels in the extreme southern part of Dade County may be affected by tidal fluctuations and may at times be below sea level.



EXPLANATION

- WELL FIELD
- 2 — WATER-TABLE CONTOUR--Shows altitude of water table. Hachures indicate depression. Dashed where approximately located. Contour interval 1 foot. Datum is sea level.
- G 1251 ● OBSERVATION WELL AND NUMBER
- S-20 ▮ SURFACE-WATER CONTROL STRUCTURE AND NUMBER
- P 33 ▲ SURFACE-WATER GAGING STATION AND NUMBER

LOCATION OF DADE COUNTY

0 1 2 3 4 5 MILES
0 1 2 3 4 5 KILOMETERS

Base from U.S. Geological Survey 1/100,000 quadrangles

ALTITUDE OF THE WATER TABLE IN THE BISCAYNE AQUIFER, DADE COUNTY, FLORIDA, APRIL 25-28, 1988

By A.C.LIETZ
1991