The map report shows the altitude of the water table in the surficial aquifer system, shallow zone, in eastern Palm Beach County for May 1996. The report, prepared by the U.S. Geological Survey in cooperation with the South Florida Water Management District, provides a series of surficial aquifer system water table maps for the study area. Water level data for the series of maps was collected in April and May, to show the normally expected annual low and high water level conditions, respectively.

Palm Beach County is the major source of potable water for the area. It contains two distinct zones: the shallow (surficial) zone and the deep (lower) zone. The shallow zone, 0 to 40 feet below land surface, consists primarily of unconsolidated sand, gravel, clay, and organic materials. It is under water-table control and is loosely termed a potentiometric surface. The high permeability of consolidated limestones and sandstones (Miller, 1990) makes the deeper zone more permeable and is under groundwater conditions. This map report addresses only the shallow zone.

The water table is at its highest level in eastern Palm Beach County, due to a high annual rainfall received by the U.S. Geological Survey during May 16-18, 1996. The water level data from these wells, supplemented with data from other agencies, were used to construct contour maps depicting the water table altitude. This map shows the altitude of the water table in the surficial aquifer system, shallow zone, in eastern Palm Beach County for May 1996. The contour interval is 5 feet.

The water table altitude contour, as drawn, indicates that they are in hydraulic connection with the canals, streams, and lakes in the area. The contours are generalized to show regional groundwater flow direction in the dynamic system. The water table contours reflect the topography of the area in a subdued manner. Variations in hydraulic conditions such as varying well depths, microunits, and water levels in wells and canals are considerations in determining water table altitude contours. The map does not show the effects of urban and agricultural development, nor does it reflect the effects of water controls or withdrawals on the water level. The map does not show the effects of urban and agricultural development, nor does it reflect the effects of water controls or withdrawals on the water level.


EXPLANATION
- WATER-TABLE CONTOUR—Shows altitude of water table
- Hachures indicate depressions. Contour intervals 2 and 4 feet.
- Canals where approximately located (Shallow zone is 0-40 feet below land surface). Datum is sea level.
- GROUND-WATER LEVEL MEASUREMENT SITE
- SURFACE-WATER LEVEL MEASUREMENT SITE
- MUNICIPAL WELL FIELD
- CANAL AND WATER CONTROL STRUCTURE

LOKOHATCHEE NATIONAL WILDLIFE REFUGE CONSERVATION AREA No. 1

ALTITUDE OF THE WATER TABLE IN THE SURFICIAL AQUIFER SYSTEM, SHALLOW ZONE, IN EASTERN PALM BEACH COUNTY, FLORIDA, MAY 16-19, 1996

by Richard L. Kane

1992