POTENTIOMETRIC SURFACE OF THE UPPER FLORIDIAN AQUIFER IN FLORIDA, MAY AND JUNE 1995

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INTRODUCTION

This report is the sixth in a series of maps reporting the potentiometric surface of the Upper Floridian aquifer in Florida. The first map was published in 1975. Three additional maps were published in 1985, 1995, and 2000. The previous reports were collected as part of continuing programs of the United States Geological Survey (USGS) and the Florida Department of Environmental Protection. The reports have been used by the State and local government agencies. Many of the general hydrologic conditions associated with the aquifer in the Florida peninsula have been reviewed by the USGS (Eiden, 1985; Siccama, 1986; Stahls and Feyen, 1990; and McManus, 1992).

SELECTED REFERENCES

POTENTIOMETRIC SURFACE

The potentiometric surface is composed of many local contours, each representing the level of groundwater heads within a confined or unconfined portion of the aquifer. The potentiometric surface may be classified as either a surface of equipotential heads or a surface of equipotential contours. The equipotential surface is composed of a series of vertical equipotential lines that are perpendicular to the equipotential contours.

The potentiometric surface is an important factor in the design and management of ground-water systems and their use as a source of water supply. The potentiometric surface can be affected by natural processes such as precipitation, evapotranspiration, and recharge, as well as by human activities such as pumping and storage.

EXPANSION

POTENTIOMETRIC CONTOUR - Shows altitude at which water level would be equal to the elevation of the surface.

Figure 1 - Generalized net change in the potentiometric surface of the Upper Floridian aquifer between May 1990 and May 1995.

Figure 2 - Fluctuations of ground-water levels in selected wells in the Upper Floridian aquifer.