

## MEMORANDUM

**TO:** Governing Board Members

**FROM:** Chip Merriam, Deputy Executive Director, Water Resources

**DATE:** April 9, 2009

**SUBJECT:** Cooperative Agreement with the Tohopekaliga Water Authority for Exploratory Well Construction and Testing in the Lower Floridan Aquifer at the Cypress Lake Wellfield, Osceola County, Florida

### **Background**

Traditional water supply sources – particularly groundwater from the Upper Floridan Aquifer have been determined to be very limited in the Central Florida area. This has resulted in the potential for competition for the remaining groundwater resources amongst the various water suppliers in the region, including the Tohopekaliga Water Authority. The Lower Floridan Aquifer is a potential alternative water supply source, but few wells have been completed into this deeper aquifer to date in the area. Preliminary information obtained by Tohopekaliga Water Authority indicates that the the Lower Floridan Aquifer has favorable water quality and productivity, but not enough data exists to confidently tap this resource in an environmentally responsible manner to meet increasing demands in the region.

SFWMD staff has determined that it is in our mutual best interests to conduct additional exploratory well drilling and testing of the Lower Floridan Aquifer in the area. This effort will provide Tohopekaliga Water Authority with information specific to their service area to support their pending water use permit application, but will also provide SFWMD with data that can enhance our understanding of the regional framework of the Lower Floridan Aquifer. This data can also be used to enhance the East Central Florida Transient Model, the primary tool that we will use to manage groundwater resources in the Central Florida Coordination Area.

### **How this helps meet the District's 10-year Strategic Plan:**

The 10-year Strategic Plan specifically recognizes the challenges of meeting water supply demands in the Central Florida region, and the data collected from this cooperative agreement will enhance our understanding of the Lower Floridan Aquifer as an alternative water supply source of water to meet demands as identified in the Water Supply Program of the Strategic Plan.

**Funding Source:** The District will contribute \$200,000.00 of budgeted ad valorem funds towards the construction and testing of the Lower Floridan Aquifer exploratory well. The funds were originally budgeted in support of the Central Florida utilities agreement, which is being rebudgeted in FY2010.

### **This Board item impacts what areas of the District, both resource areas and geography:**

This item will primarily impact the Water Supply Program, and to a lesser degree Water Use Permitting staff of the Regulation Program. Staff time will be required to review and analyze the data obtained to allow evaluation of the Lower Floridan Aquifer as an alternative water supply source in the Central Florida region, particularly in southern Osceola County of the upper Kissimmee Basin.

**What concerns could this Board item raise?**

This item was not vetted through the FY09 budget development process. Instead, staff hopes to capitalize on an unplanned opportunity to obtain additional information on the Lower Floridan Aquifer by cooperatively funding this exploratory well and testing with Tohopekaliga Water Authority to increase our understanding of the Lower Floridan Aquifer as an alternative water supply source.

**Why should the Governing Board approve this item?**

Limited groundwater resources from traditional sources (e.g., Upper Floridan Aquifer) result in the need for additional information from alternative sources such as the Lower Floridan Aquifer. This exploratory well and testing provides needed additional data to evaluate the Lower Floridan Aquifer as an alternative water supply source that assists not only Tohopekaliga Water Authority locally but SFWMD from a regional evaluation perspective.

If you have any questions, please do not hesitate to call me at ext. 6597.

CM/mc