Lake Tarpon Aquifer Storage Recovery Test Program

The purpose of the Lake Tarpon Aquifer Storage Recovery (ASR) test program is to determine the feasibility of beneficially reusing surface water from Lake Tarpon to supplement the Utility's North County reclaimed water system during high irrigation demand periods. The ASR process is a water resource management tool whereby treated lake water is diverted from the lake during the wet season when the water would normally run over the control structure to Old Tampa Bay and store the water underground in the Floridan aquifer through a well. The water is later recovered through the same well and beneficially reused by supplementing the reclaimed water system. Approximately 60-120 million gallons of treated lake water will be diverted from the lake and stored underground. The same water would be recovered at a rate of approximately 1 million gallons a day.

The Lake Tarpon ASR Test Program was conceptualized in October 1998 from the recommendations provided in the Board adopted ***Lake Tarpon Drainage Basin Management Plan.*** An ASR feasibility report was completed in September 2000 and recommended two ASR test sites. In November 2000, the Board authorized investigating the feasibility of ASR by constructing an exploratory well. Two exploratory wells were subsequently constructed and the second exploratory well (completed in May 2003) identified a suitable subsurface storage zone near Chesnut Park.

In April 2004, Utilities applied for a Class V, Group 7 Aquifer Storage and Recovery test well construction application from the Florida Department of Environmental Protection (FDEP). Two notices were published in the St. Pete Times and a public hearing was held on March 2, 2005. The FDEP issued the permit on April 6, 2005.

The ASR well site is located in a non-public area of Chesnut Park, currently being used for temporary vegetative debris holding and subsequent burning. The ASR testing program has three phases: **1)** drilling and testing of the ASR test well and the two associated monitor wells (August – December 2006); **2)** constructing the lake intake structure, wet well pumps and associated disinfection equipment (May – October 2007), and **3)** performing 5-7 cycle tests by injecting and recovering the treated lake water over a two year period (December 2007 – December 2009) before operating permits are applied for long term operation.

A test authorization from SWFWMD has been issued which allows for the construction of the wells, associated hydrogeologic testing and aquifer performance tests. Well construction is anticipated to begin in August 2006. SWFWMD has supported the ASR project by co-funding the project, including the next three phases.