FIELD TRIP

ST PETERSBURG RECLAIMED WATER AQUIFER STORAGE AND RECOVERY SYSTEM

Southwest Water Reclamation Facility, 3800 54th Ave S, St Petersburg, FL

FIELD TRIP LEADERS:

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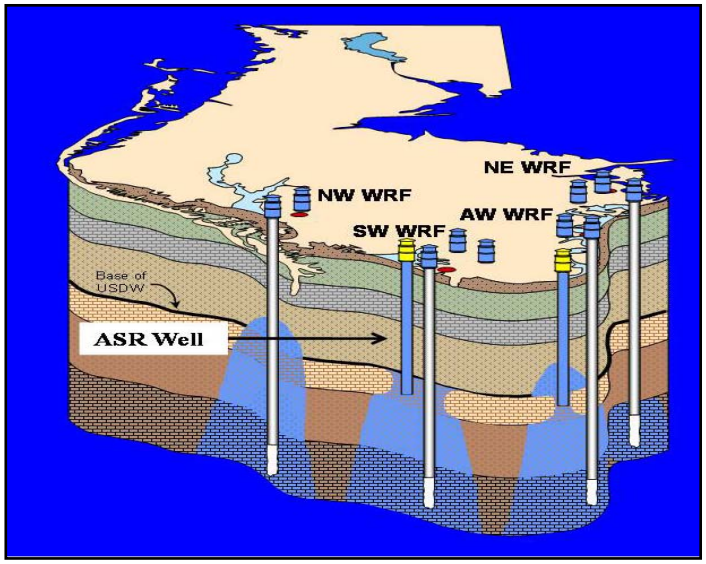
The City of St Petersburg in conjunction with the Southwest Water Management District has developed an Aquifer Storage and Recovery (ASR) test well system at the Southwest Water Reclamation Facility (SWWRF) in southern St Petersburg. The well is used to store excess reclaimed water from the SWWRF and recover it to supplement the reclaimed water system during the critical spring dry season. The site where the ASR well is located is unique in that it is located at one of the City's facilities on the southern end of the Pinellas Peninsula where deep well injection of excess reclaimed water has been underway since the late 1970's.

The ASR well is completed into the Suwannee Limestone to a depth of 620'which is above the deep injection wells which are completed into the Avon Park Formation at a depth of 1110'. This collocation of the wells takes advantage of the freshening that has occurred in the storage zone from the injection wells (historically > 10,000 TDS). This has allowed alternative water resource opportunities to be developed such as aquifer storage and recovery.

Cycle testing of the ASR system began in October 2005 under a FDEP construction permit. The City has completed 7 full cycle tests with cycle 8 underway. Cycles have progressively increased up to the current injection volume of 120 MG. Extensive monitoring has been collected throughout cycle testing with results being very favorable. The City is in the process of applying for an operating permit with the FDEP, which when issued, will only be the second such permit in the State for reclaimed water ASR.



The reclaimed water is used to irrigate golf courses, schools, and home and business lawns throughout the City and has significantly reduced demands for potable water. Demand was historically more than 40 MGD which has been reduced down to approximately 27 MGD today. The demand for the reclaimed water has historically outstripped supply during the peak of the spring dry season. ASR will provide a critical seasonal storage component to add reliability to the system.

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