

## MEMORANDUM

TO: Governing Board Members

FROM: Chip Merriam, Deputy Executive Director, Water Resources

DATE: November 20, 2007

SUBJECT: Approve the modification and renewal of Water Use Permit Application 050329-23 for the Florida Keys Aqueduct Authority for the projected demands with a 20-year duration (Miami-Dade County)

### SUMMARY

Staff recommends approval of the modification and renewal of Water Use Permit 13-00005-W, Florida Keys Aqueduct Authority (FKAA), to withdraw the projected average annual allocation of 23.78 million gallons per day (MGD) with a 20-year duration. The modification includes the addition of the Floridan Aquifer as an alternate water source utilizing reverse osmosis treatment at a rate of 8.0 MGD. The recommended Biscayne Aquifer allocation of 18.01 MGD represents the base condition according to the Regional Water Availability Rule. The withdrawals from the Biscayne Aquifer will further have a dry season average day limitation of 17 MGD. This allocation includes a contractual obligation to the United States Navy to provide up to 2.4 MGD.

### BACKGROUND

The FKAA wellfield and water treatment plant is located near Florida City in southern Miami-Dade County and provides potable water service to the Florida Keys. FKAA maintains two-seawater reverse osmosis facilities on Marathon Key and Stock Island with a combined capacity of 2.7 MGD to provide emergency standby supply to Key West and the lower keys. In November 2002, the permit for FKAA was modified and renewed with a proposed Floridan Aquifer, Aquifer Storage and Recovery (ASR) facility. Due to delays in obtaining the Underground Injection Control (UIC) well construction permit from the Florida Department of Environmental Protection, on November 12, 2003 the District and FKAA entered into Consent Agreement 03-166-CO-WU to re-establish the construction schedule for the ASR facility. Further delays in the UIC permit process resulted in the District and FKAA executing an amendment to the Consent Agreement (06-01-CO-WU) on January 11, 2006 to modify the construction schedule for the ASR facility. On September 13, 2007 the District and FKAA executed the Second Amendment to the Consent Agreement (2007-583-CO-WU) to allow the proposed Floridan Aquifer ASR well to be constructed as a reverse osmosis supply well and established the construction schedule for the facility. The construction schedule and the conditions of the Second Amendment to the Consent Agreement will be incorporated into the renewal of the Water Use Permit and the Consent Agreement will be superseded.

### MFL RECOVERY, CERP, AND REGIONAL WATER AVAILABILITY ISSUES

The utility was evaluated for a projected 2007 demand of 7,274 MGY (19.93 MGD) for the November 14, 2002 issuance of the permit and was found to meet the MFL and CERP criteria. The recommended Biscayne Aquifer allocation for this renewal of 6,574 MGY, which equates to 18.01 MGD, represents the base condition according to the Regional Water Availability Rule and is less than the previously evaluated allocation.

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