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# **Miami-Dade Water and Sewer Department**

**Miami-Dade Consolidated PWS  
Water Use Permit No. 13-00017-W**

## **Compliance Highlights January 2010**

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Miami-Dade Water and Sewer Department  
P.O. Box 33-0316  
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On November 15, 2007, the South Florida Water Management District Governing Board approved the Miami-Dade Consolidated Public Water Supply Water Use Permit (WUP). Below are the highlights of Miami-Dade County's efforts to comply with the WUP during this report period.

### **WATER CONSERVATION**

Miami-Dade County's Water Conservation Program received five awards from the American Water Works Association's Florida chapter in December, earning praise for the Every Drop Counts children's poster contest, the rebate and incentive programs, and for the development of Water Use Efficiency Standards Manual for industry.

More details about the program and the documents referenced above are available at: <http://www.miamidade.gov/conservation/home.asp>

### **ALTERNATIVE WATER SUPPLIES AND WATER RECLAMATION PROJECTS**

#### **Hialeah Floridan Aquifer Reverse Osmosis Water Treatment Plant**

Based on the conservation rates which have resulted in lower water demands, Miami-Dade Water and Sewer Department (MDWASD) has requested that the notice to proceed for this project be extended until December 2010 and completion by December 2012. The City of Hialeah has had unforeseen delays with the project.

The Request for Proposals for the *Hialeah Reverse Osmosis Water Treatment Plant Design, Build, Operate (DBO) Project* was issued on October 15, 2009. The RFP responses are due on January 15, 2010. Pilot testing with the three potential DBO contractors is continuing. The notice to proceed is tentatively scheduled by the City of Hialeah for April 27, 2010.

Request For Proposals (RFPs) for the *Drilling, Construction and Testing of Class 1 Test/Injection Wells and Dual Zone Monitor Well* were received by the City of Hialeah on September 17, 2009. On November 7, 2009, the selected contractor began drilling Injection Well 1. Drilling for both wells is in progress.

All documents issued by the City of Hialeah may be found at:  
<http://www.hialeahfl.gov/dep/water/WaterTreatmentInfo/WaterTreatmentInfo.html>

#### **Upper Floridan Aquifer Blending at Hialeah/Preston Water Treatment Plant**

On January 6, 2009, the SFWMD granted a postponement for the completion of milestones associated with the Floridan aquifer blending project, while the District evaluates the water quality situation. On June 2, 2009 the BCC approved a resolution to reject all bids on the Blending Well Construction Project, until it can be determined if the wells are needed for additional water supply and blended

water can be used without negatively impacting water quality. MDWASD has submitted a permit modification requesting deletion of this project from the WUP.



### **High Level Disinfection (HLD)**

The Miami-Dade County's High Level Disinfection (HLD) Project, at the County's South District Wastewater Treatment Plant, is on schedule. MDWASD has advertised 12 of the fourteen construction contracts. The "Notice to Proceed" has been issued on 10 of the HLD Contracts. Site preparations are complete.

### **South District Water Reclamation Plant**

Work continues on the preparation of the Basis of Design Report for the South District Water Reclamation Plant (SDWRP). Completion of the BODR is expected in late January. The final nutrient removal technical memorandum has been issued and Ion exchange has been chosen for additional removal of ammonia.

A general regulatory meeting with DERM, FDEP, the Miami-Dade Health Department, and the SFWMD was held on November 9, 2009 to discuss any issues pertaining to water quality, monitoring, and the groundwater modeling which was performed for the aquifer recharge options. A follow-up meeting on the water budget analysis was held with SFWMD on November 12, 2009. Based on this meeting the consultant, CDM, was to compare the modeling results from the three recharge options in more detail to see the impact on the C-1W canal north of structure S-148.

A&P Consulting, the contractor hired to design the pipeline from the SDWRP to the Miami Metrozoo, has prepared the BODR for the pipeline and an alternative for the pipeline route has been selected. The 70% design survey and geotechnical report for pipeline along SW 127 Avenue was received on October 13, 2009. The consultant has submitted the 90% design for SW 127 Avenue. MDWASD is still awaiting approval to use the right-of-way, from the SFWMD.

### **West District Water Reclamation Plant**

On November 6, 2009, MDWASD staff and the consultant met and selected Candidate Site (CS) 12 as the preferred site for the construction of the West District Water Reclamation Plant (WRP). A Phase II Environmental Site Assessment (ESA) is currently being initiated for CS 12. Based upon favorable results of the ESA, the land acquisition process will be started.

MDWASD staff continues to work on sizing and design for the proposed WDRP. Currently various alternatives, including plant capacity associated with reclaimed water opportunities, are being developed in conjunction with system-wide wastewater transmission and treatment facilities planning and the ocean outfall legislation implementation.

### **North District Water Reclamation Plant**

On October 20, 2009, MDWASD staff met to discuss the City of North Miami Beach's request to receive reclaimed water, should the City receive funding for a project.

On November 7, 2009 MDWASD responded to FDEP's Request for Information on the design of the North District WRP. On November 20, 2009, MDWASD met on-site with FDEP and the consultant to discuss the design. The consultant will revise the design in accordance with FDEP's comments and resubmit the plans. On December 3, 2009, MDWASD received the 90% design submittal from the consultant.

Plant Operations staff have performed exploratory excavations around the Chlorination Building to determine possible conflicts between the proposed piping and existing piping on the plant site. The MDWASD Survey Section will obtain elevations and topographical information. On December 14, 2009, MDWASD met with the consultant to review and select a piping route for the 20" filter effluent pipeline.

### **Central District Water Reclamation Plant**

Geotechnical work has been completed at the Central District Water Reclamation Plant (CDWRP). In order to initiate early procurement of the microfiltration membranes, and the membrane procurement process is underway. The Basis of Design Report (BODR) has been finalized and the consultant is currently preparing the environmental permits for the project.

On May 20, 2008, the BCC approved a Professional Services Agreement to design the pipeline from the Central District Water Reclamation Plant (CDWRP) to the Village of Key Biscayne. The Consultant is completing the 90% design which is due in January 2010.

The reclaimed water piping in the Village of Key Biscayne has been installed.

### **Biscayne Bay Coastal Wetlands Rehydration Pilot Project**

On August 25, 2009, a stakeholders' workshop was held to review treatment efficiencies of the proposed pilot plant treatment trains. On November 4, 2009, a public meeting was held to update stakeholders on the progress of the pilot. On December 4, 2009, a stakeholder workshop was held to discuss the draft literature review and the draft report on monitoring data sources.

### **FPL Turkey Point**

MDWASD staff is meeting regularly with representatives from Florida Power and Light (FPL) to finalize the Joint Participation Agreement (JPA). The construction of the reclaimed water pipeline is scheduled to be complete in 2017. It is anticipated that the JPA will be sent to the Government Operations Committee in March 2010 and to the Board of County Commissioners in April 2010.

### **RAW WATER ACCOUNTING**

MDWASD is continuing to systematically assess pumpage rates of each production well and associated piping. Well motors are being evaluated, piping is being replaced and wells are being acid washed, as needed. This type of evaluation and preventive maintenance will be a continual process as MDWASD seeks to improve wellfield operations and water accounting. MDWASD will also continue to assess and where possible, improve the accuracy of the individual well meters.

On September 30, 2009, MDWASD submitted a Final Comparative Report of these activities and the comparative flow analysis will be provided to the SFWMD.

### **TWENTY-YEAR WATER SERVICE AGREEMENTS**

To date, the City of Hialeah has not signed the Hialeah 20-year water service agreement.

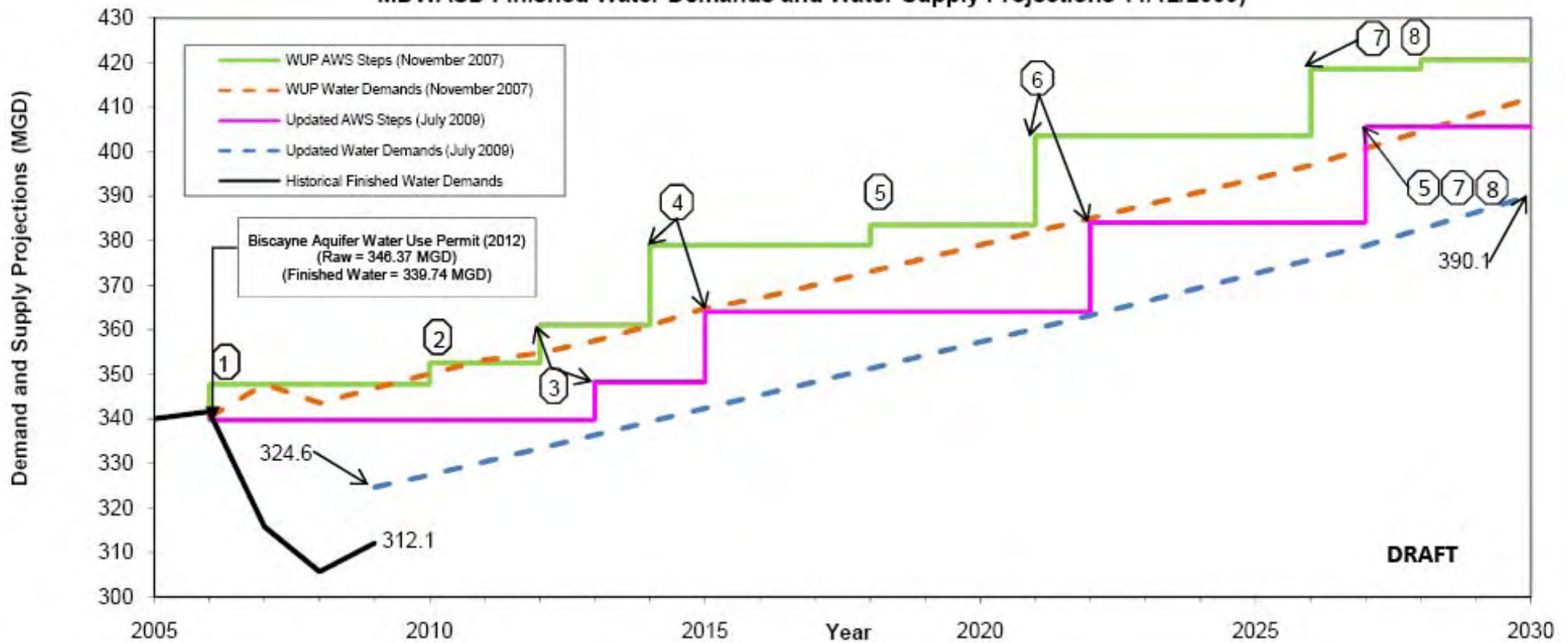
### **STATUS OF ACTUAL WATER DEMANDS**

The following chart shows MDWASD's 20-year Alternative Water Supply (AWS) Program and finished water demand as they are included in the WUP, as well as the actual demands, as of September 2009. The actual demands are about 35 MGD lower than what was anticipated in the WUP. The lower demands are the result of the water restrictions and the successful implementation of MDWASD Water Use Efficiency Program. The attached chart includes these revisions.

### **PERMIT MODIFICATION**

On December 21, 2009 MDWASD submitted an application for a permit modification to the SFWMD. As result of the lower demands and updated population projections, MDWASD has reevaluated the water demand projections originally submitted for the WUP, and the AWS projects and project schedules. The application for the permit modification reflects changes to the AWS plan.

MDWASD Finished Water Demands and Water Supply Projections 11/12/2009)



Project Names (per 2007 AWS program):

1. ASR Ultraviolet (UV) Disinfection System for ASR Sys. @ W&SW Wellfields (7.2 MGD ASR/blend, \$6.4M)
2. Floridan Aquifer Blending Wellfield at Hialeah/Preston (4.7 MGD, \$10.3M)
3. Hialeah Floridan Aquifer R.O. W.T.P. Phase 1 Capacity (8.5 MGD, \$116.0M) (WTP Capacity = 10.0 MGD)
4. South Distr. W.R.P. Groundwater Recharge Ph 1 (18.6 MGD, \$359.0M)

5. Hialeah Floridan Aquifer R.O. W.T.P. Phase 2 (4.5 MGD, \$25.6M) (WTP Capacity = 15.0 MGD)
6. West District W.R.P. Canal Recharge Ph 2 (21 MGD, \$632.0M)
7. West District W.R.P. Canal Recharge Ph 3 (16 MGD, \$504M)
8. Hialeah Floridan Aquifer R.O. W.T.P. Phase 3 (2.0 MGD, \$12.2M) (WTP Capacity = 17.5 MGD)