



**Miami-Dade
Water and Sewer Department**

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

**Compliance Highlights
August 2009**

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

On April 7, 2009, the Board of County Commissioners (BCC) approved the Permanent Landscape Irrigation Restrictions Ordinance limiting landscape irrigation to two days a week. On May 5, 2009, the BCC approved the Miami-Dade County Right of Way Landscape Ordinance. Also on May 5, 2009, the BCC adopted an amendment to the Miami-Dade County Landscape Ordinance requiring the use of Florida Friendly landscaping and compliance with more efficient water use guidelines for all new construction.

On March 13, 2009, MDWASD submitted the annual Water Conservation Report to the SFWMD.

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 (RO) Water Treatment Plant (WTP).

On January 22, 2009, the Miami-Dade Board of County Commissioners (BCC) approved Amendment 1 to the Joint Participation Agreement which included the conveyance of the property on which the RO WTP will be constructed from Miami-Dade County to the City of Hialeah.

On March 16, 2009, the City received draft injection well permits from the Florida Department of Environmental Protection (FDEP), for RO brine disposal. On May 18, 2009, FDEP held a public meeting to receive comments on the injection well permit. On March 12, 2009, permits were received from the SFWMD for the test and production wells. On June 1, 2009 Notices to Proceed were issued to the Design/Build/Operate (DBO) teams for pilot testing.

The equipment for the pilot testing arrived on-site on June 1, 2009. It is anticipated that all monitoring and the pilot testing is ready to begin.

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

Upper Floridan Blending at Alexander Orr Water Treatment Plant

Blending at the Alexander Orr WTP has ceased.

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 Florida 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.

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 eleven of the fourteen construction contracts. The "Notice to Proceed" has been issued on eight of the HLD Contracts. One (1) other contract has been recently awarded by the BCC and two others are currently being advertised. Site preparations are complete.

South District Water Reclamation Plant

The consultant is on schedule and is currently developing the preliminary design of the South District Water Reclamation Plant (SDWRP).

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. MDWASD has met with the SFWMD to discuss the selected alternative and use of portions of SFWMD canal right-of-way. The waiver for use of the right-of-way was published in the Florida Administrative Weekly on April 3, 2009. MDWASD is currently awaiting approval to use the right-of-way, from the SFWMD. Design of the pipeline along SW 127 Avenue, is progressing and the survey has been completed.

The consultant has completed a Phase 1 Environmental Site Assessment (ESA) for the proposed water reclamation site and the recharge area at Miami Metrozoo. A draft Phase 2 ESA at the water reclamation plant site was completed on February 6, 2009. A conceptual site plan has also been completed by the consultant. The consultant is continuing to work on the preliminary design of the plant, and a BODR is expected to be completed in September 2009.

The geotechnical field work and surveying work, which are required to support the preliminary design of the recharge facilities, were completed for the Miami Metrozoo site. Preliminary design of the different recharge options is nearing

ninety percent completion; however a final selection of the recharge option cannot be determined until additional modeling is completed.

The results of the ammonia model were presented to DERM in January 2009. Based on the model results, DERM is requiring additional treatment for ammonia. Further removal of ammonia will require that an additional treatment process be added to the current treatment design. DERM also expressed concern regarding phosphorus; however DERM does not have a regulatory limit for phosphorus. MDWASD will evaluate treatment processes which can be added to the existing design to meet DERM's ammonia standard and which can lower the phosphorus concentrations to DERM's target.

Permits for the pilot plant at the SDWWTP, have been received, and construction of the pilot is complete. Pilot testing of the different processes began at the end of February and it has been completed. The microfiltration qualification testing started on April 1, 2009, and pilot testing of the ion exchange units was added to the program; ion exchange is one of the processes being considered for additional ammonia removal. Water quality analyses are being conducted.

West District Water Reclamation Plant

The consultant has prepared the major portions of the Phase I Environmental Site Assessments for the potential Candidate sites. ERM has obtained site access agreements with the owners of the largest parcels within one of the properties and is still pursuing acceptable access agreements with the rest of the owners in the Candidate sites. The consultant submitted draft Phase 1 ESAs for two of the candidate sites on July 17, 2009.

MDWASD staff continues to work on preliminary 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 February 12, 2009, the consultant was directed to begin a new scope of work for design of a 3.5 MGD facility. Additional survey work at the site has been completed and 30% design drawings have been completed. Consultant is working on 70% design submittal.

The design of the pipeline is being revised by MDWASD staff. MDWASD is also evaluating whether the project can be completed in advance of the December 2011 construction deadline.

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. A pre-bid conference for the membrane procurement was held on May 27, 2009. Bids

have been received and are being evaluated. Bids were determined to be non-responsive by County Attorney's Office. 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, with a connection to the Crandon Golf Key Biscayne. The consultant has completed 90% design and is working on 100% design. Pipe alignment has been selected based on the BODR recommendations. City of Miami will not grant easement along Arthur Lamb Jr. Road until the Virginia Key Master Plan is approved. The reclaimed water piping in the Village of Key Biscayne has been installed.

Biscayne Bay Coastal Wetlands Rehydration Pilot Project

The recommendation for consultant selection for this project was approved by the BCC on January 22, 2009 and the first Task Authorization was issued on February 2, 2009. A kick-off meeting was held with the consultant on February 19, 2009.

The Agreement with Florida International University (FIU) for ecological and aquatic toxicity testing was approved by the BCC on March 3, 2009. On March 5, 2009, MDWASD sent letters to FDEP, Biscayne National Park (BNP), the SFWMD, and the Miami-Dade Department of Environmental Resources Management (DERM), requesting appointment of staff members to the BBCWRP project stakeholder's leadership team. The designated Leadership Team met on April 28, 2009. On June 16, 2009 a public meeting of all stakeholders was held at MDWASD. The second stakeholder meeting was held on July 21, 2009.

On June 29, 2009, the consultant submitted a Water Quality Evaluation and a Process Technology Assessment report. The consultant has also submitted a draft ecological monitoring plan and a draft preliminary engineering report.

FPL Turkey Point

MDWASD staff is meeting monthly with representatives from Florida Power and Light (FPL). Four (4) main alternatives were considered for providing the reuse water. MDWASD developed cost estimates for these alternatives, and the selected alternative will provide up to 90 MGD of HLD-treated water from the SDWWTP for FPL use. Additionally, MDWASD will build and operate a pipeline which will deliver the water to Turkey Point. The construction of the pipeline is scheduled to be complete in 2017.

RAW WATER ACCOUNTING

MDWASD is continuing to assess pumpage rates of each production well and associated piping. Well motors are being assessed, 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 February 11, 2009, Malcolm Pirnie assessed the raw and finished Venturi meters at Alexander Orr.

A final report of these activities and the comparative flow analysis will be provided to the SFWMD by September 2009.

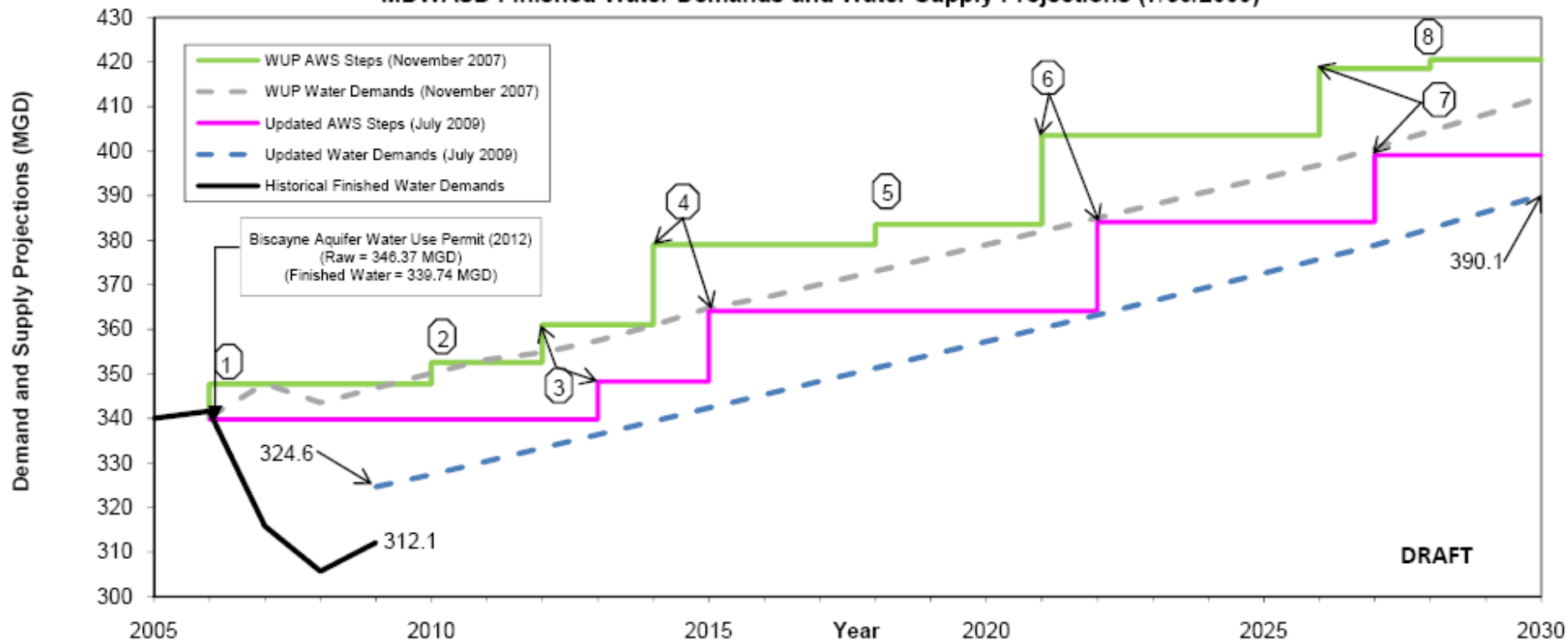
TWENTY-YEAR WATER SERVICE AGREEMENTS

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 the end of June 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. As result of the lower demands and updated population projections, MDWASD has reevaluated the water demand projections and the AWS project schedule. The attached chart includes these revisions. A request to modify the AWS schedule in the WUP will be forthcoming.

MDWASD Finished Water Demands and Water Supply Projections (7/30/2009)



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 (10 MGD, \$93.0M)
4. South Distr. W.R.P. Groundwater Recharge Ph 1 (18.6 MGD, \$357.5M)

5. Hialeah Floridan Aquifer R.O. W.T.P. Phase 2 (4.5 MGD, \$25.0M) (WTP Capacity = 15.0 MGD)
6. West District W.R.P. Canal Recharge Ph 2 (21 MGD, \$482.0M)
7. West District W.R.P. Canal Recharge Ph 3 (16 MGD, \$317.5M)
8. Hialeah Floridan Aquifer R.O. W.T.P. Phase 3 (2.0 MGD, \$9.7M) (WTP Capacity = 17.6 MGD)