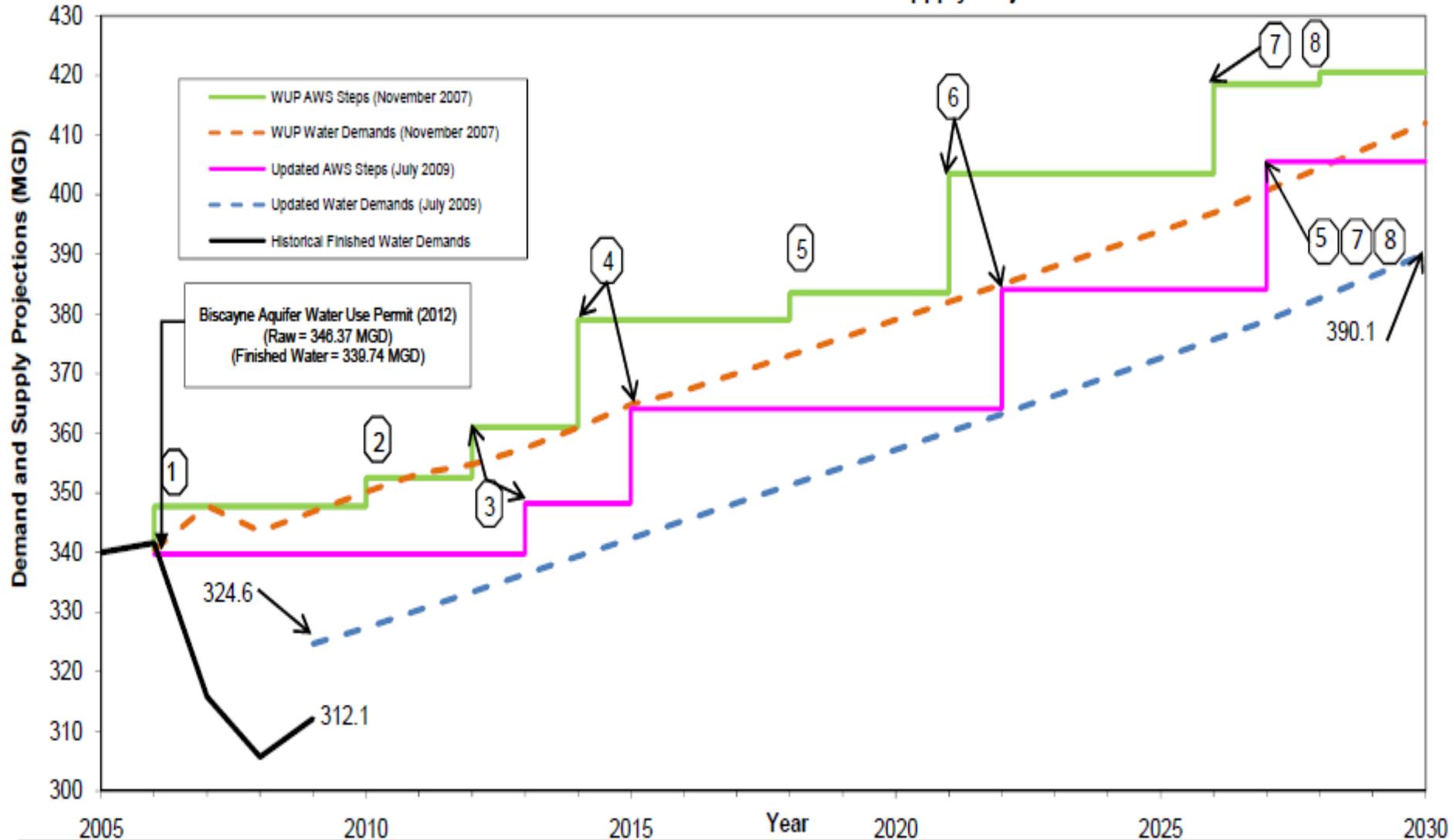


MDWASD Finished Water Demands and Water Supply Projections



Project Names (per 2007 AWS program):

- | | |
|---|--|
| <ul style="list-style-type: none"> 1. ASR Ultraviolet (UV) Disinfection System for ASR Sys. @ W&SW Wellfields (7.2 MGD ASR/blend, \$8.4M) 2. Floridan Aquifer Blending Wellfield at Hialeah/Preston (4.7 MGD, \$13.1M) 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(18.8 MGD, \$359.0M) | <ul style="list-style-type: none"> 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, \$594M) 8. Hialeah Floridan Aquifer R.O. W.T.P. Phase 3 (2.0 MGD, \$12.2M) (WTP Capacity = 17.5 MGD) |
|---|--|

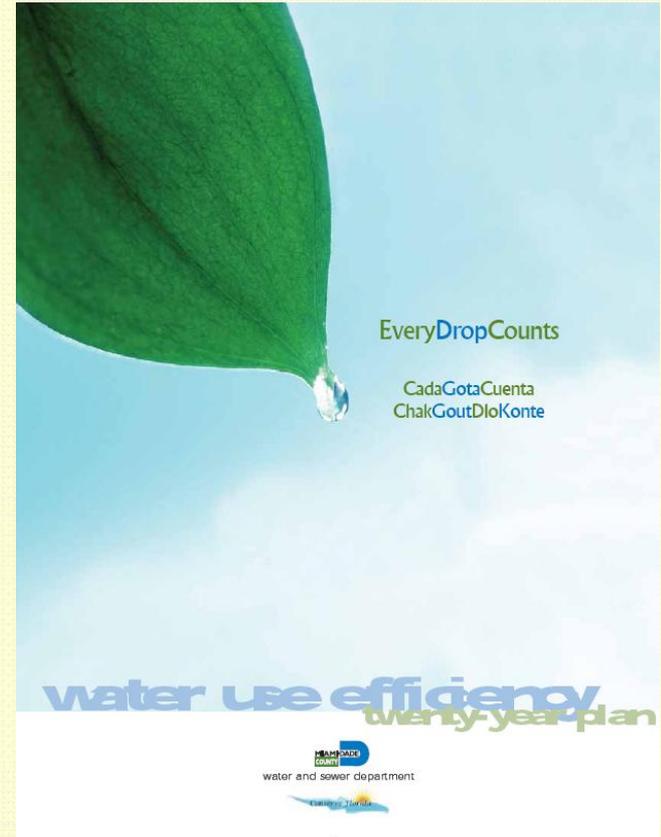
WATER USE EFFICIENCY IN MIAMI-DADE COUNTY



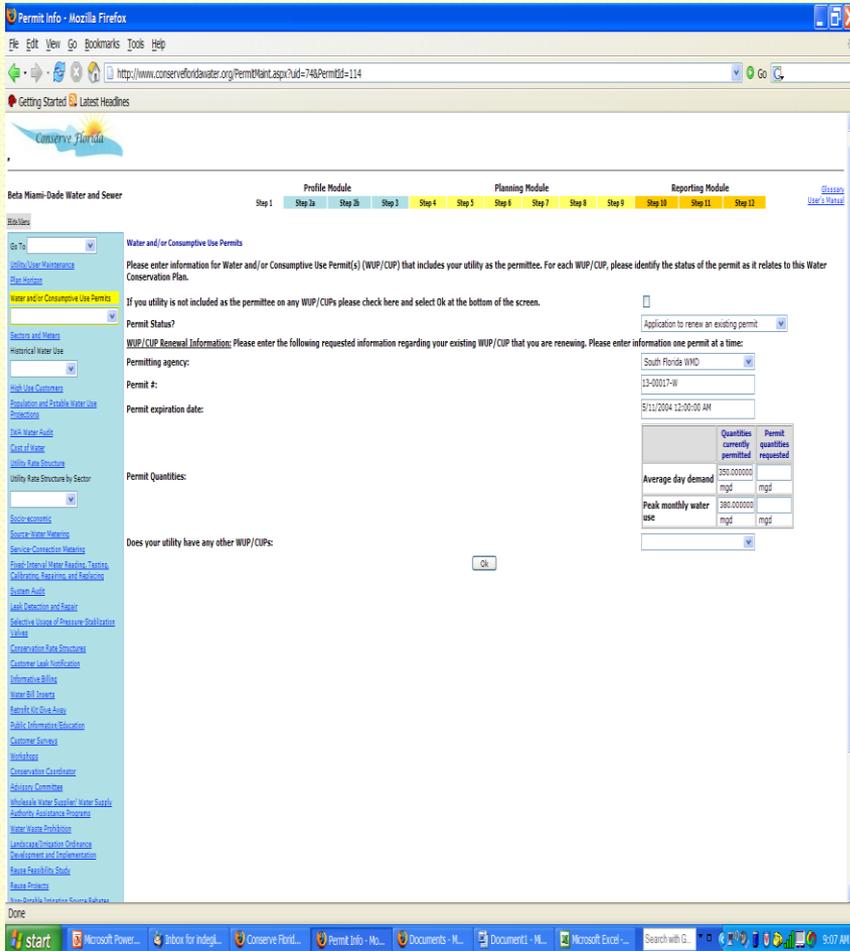
South Florida Water Management District
Governing Board Meeting
Miami - January 14, 2010

Water Use Efficiency Plan

- A five year Plan approved by the Board of County Commissioners in April 2006
- In March 2007 expanded the Plan to 20-year as part of the Water Use Permit (WUP) application
- First plan to be developed using the DEP's Conserve Florida Guide
- Plan includes:
 - Implementation of BMPs
 - Water Loss Reduction Program
 - Legislative Initiatives
 - Public Outreach



Conserve Florida Guide



- Plan developed using the Conserve Florida Guide

- Goal-based with a combination of quantifiable BMPs and several conservation measures:

- operational
- policy
- educational
- public outreach



Implemented BMPs

- **Indoor**
 - **High Efficiency Toilets (HET) - \$100 rebate (SIP Funding)**
 - **High Efficiency Showerhead (1.5 gpm) - \$10 rebate**
 - **Seniors HET Retrofit – (SIP Funding)**
 - **Senior Retrofit Project – (SIP Funding)**
 - **High-Efficiency Showerhead Exchange (SIP Funding)**
 - **High-Efficiency Washers Rebate (SIP Funding)**

Implemented BMPs

- Outdoor

- Residential landscape irrigation evaluations (SIP Funding)

- HOA landscape irrigation evaluations (SIP Funding)

- Industrial, Commercial and Institutional (ICI)

- Green Lodging Hotel and Restaurant Project

- Water use evaluations (Public and Private) (SIP Funding)

Showerhead Exchange Program



- Available to ALL Miami-Dade County residents
- Homes must be built prior to 1996
- Participants receive a kit with:
 - 1.5 gallons per minute showerhead
 - Aerators for the bathroom and kitchen sink
 - Leak detection tablets
- **FREE**

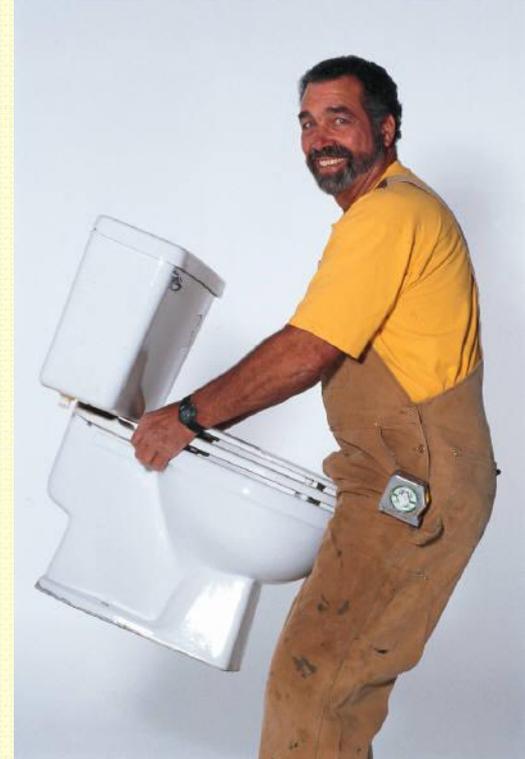
High Efficiency Toilet (HET) Rebate Program

- Available to all Miami-Dade County residents
- Homes must be built prior to 1996
- Up to \$100 rebate on the purchase of HETs
- EPA WaterSense Label



Senior Retrofit Program

- Senior Citizens that qualify for the Senior Homestead Exemption on their property taxes
- Homes must be built prior to 1996
- Implemented in partnership with the County's Community Action Agency



High Efficiency Washer (HEW) Rebate Program



- Extremely successful project in 08-09
- Participants received a rebate of up to \$200 on the purchase of a High Efficiency Washer

Landscape Irrigation Audits

- Available to homeowners and condo associations (HOA) with large landscape irrigation systems and to single family homes
- Participants receive an evaluation of their landscape irrigation system and recommendations to make it more efficient
- HOAs receive a rebate of up to \$2800 towards the implementation cost of the recommendations and soil moisture sensors
- Single family homes receive a soil moisture sensor



Policy Measures

- **Ordinances:**

- **Water Use Efficiency Standards for new developments (Effective January 2009)**
- **Water Conservation Plans required for ALL water municipal distribution on WASD's system**
- **Permanent Landscape Irrigation Ordinance (Ord. 09-25)**
- **Landscape Ordinance Amendments (Section 18-A)**
 - **Includes Public Right-of-Way landscape requirements (Sect. 18-B)**

- **Resolutions:**

- **Direction to develop a conservation plan (Res. 468-06)**
- **Outreach Plan for Educating School Children (Res. 89-09)**

Miami-Dade Ordinance 08-14

- Water-Use Efficiency Standards for New Construction
Section 32-84 of the Code of Miami Dade County
 - Since January 1, 2009, a new homes will use up to 30% less water

Fixture	Standard*	Adopted
Water Closets (Toilets)	1.6 gallons per flush	1.28 gpf
Showerheads	2.5 gallons per min	1.5 gpm
Faucets	2.2 gallons per min	1.5 gpm
Urinals	1 gallon per flush	0.5 gpf/or less
Dishwashers	8.6 gallons/cycle	≤6.5 gallons/cycle
Clothes Washers	39 gallons/Load	≤ WF=8 gallons/load



Learn about the [Every Drop Counts kids poster contest!](#)

Education and Public Outreach Measures

- Children’s Education Campaign
- Landscape Irrigation Campaign
- Rebate Program Outreach
- In-School and Libraries Programs
- Enhanced Public Information in Customer Relations
- Public Events
- Printed Materials
- Public Service Announcements
- Workshops and Presentations
- New initiative with the SFWMD
 - [MIA-District Water Conservation PSA Campaign](#)



Communication Tools

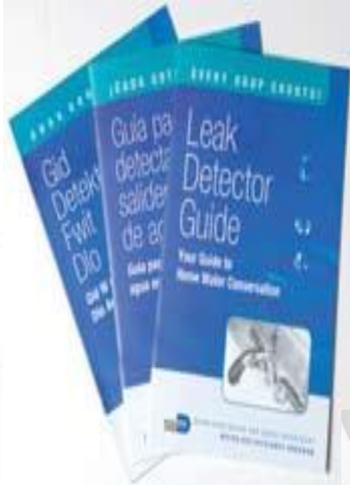


20-Year Water Use Permit Update: Building the Foundation for Miami-Dade's Future Water Supply

The Miami-Dade Water and Sewer Department (MSD) continues to move forward on the various projects associated with its 20-year Water Use Permit.

As you are aware, the Water Use Permit was granted in 1990, and is now coming up for renewal. MSD is currently in the process of updating the permit to reflect the various projects and programs that are being implemented to ensure the long-term sustainability of the water supply.

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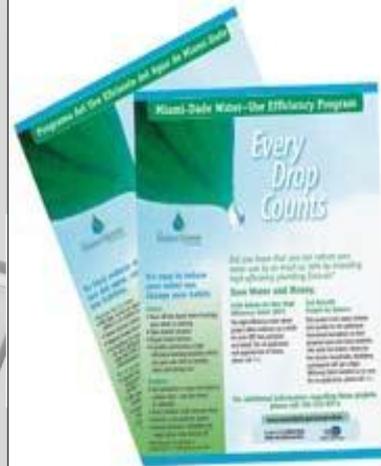
Want to Cut Your Water Bill by 10 Percent?

Older toilets can use 75 to 80 percent more water per flush than new high-efficiency models.

Replace your older, water-wasting toilet and receive up to \$100.

Miami-Dade's Water-Use Efficiency Program offers a rebate to replace your old toilet. Single family residences and townhomes built prior to 1996 qualify for the High-Efficiency Toilet Rebate Project.

"Every Drop Counts!"



To get your \$100 rebate, visit www.miamidade.gov/conservation or call 311.

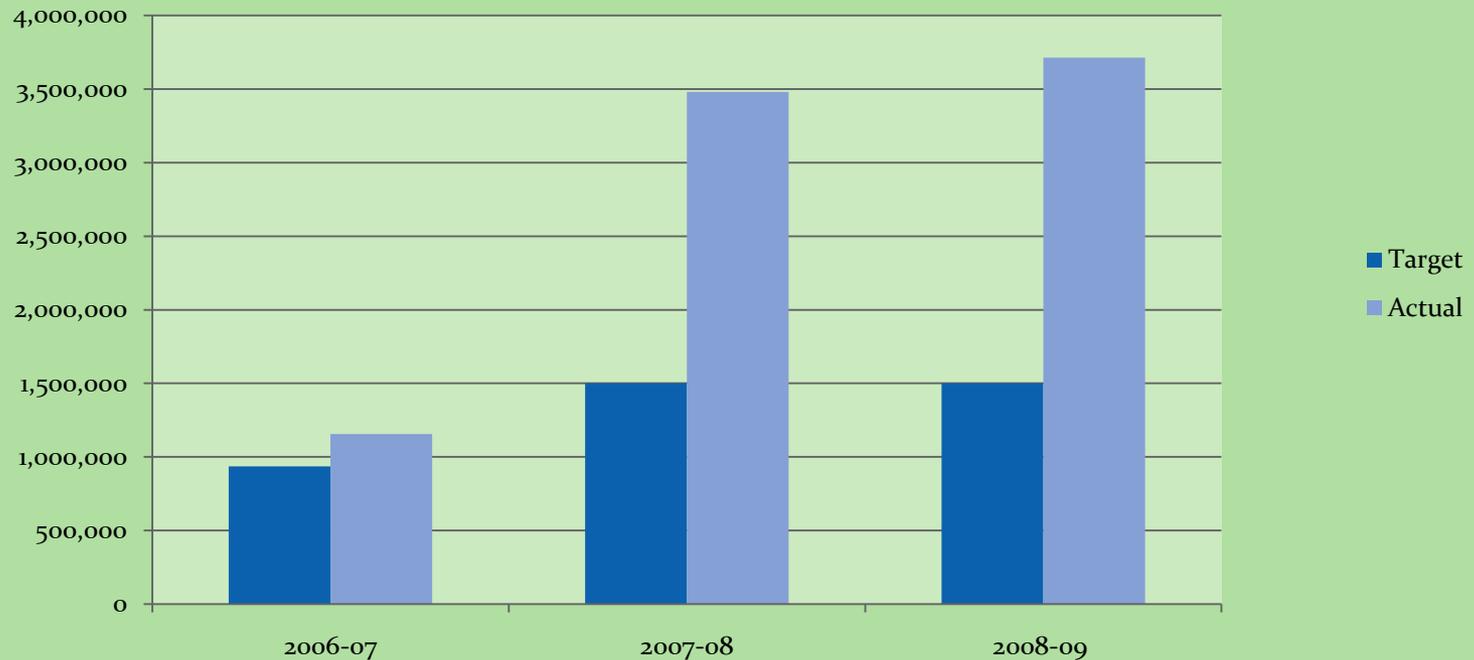


Building Smarter Every Day

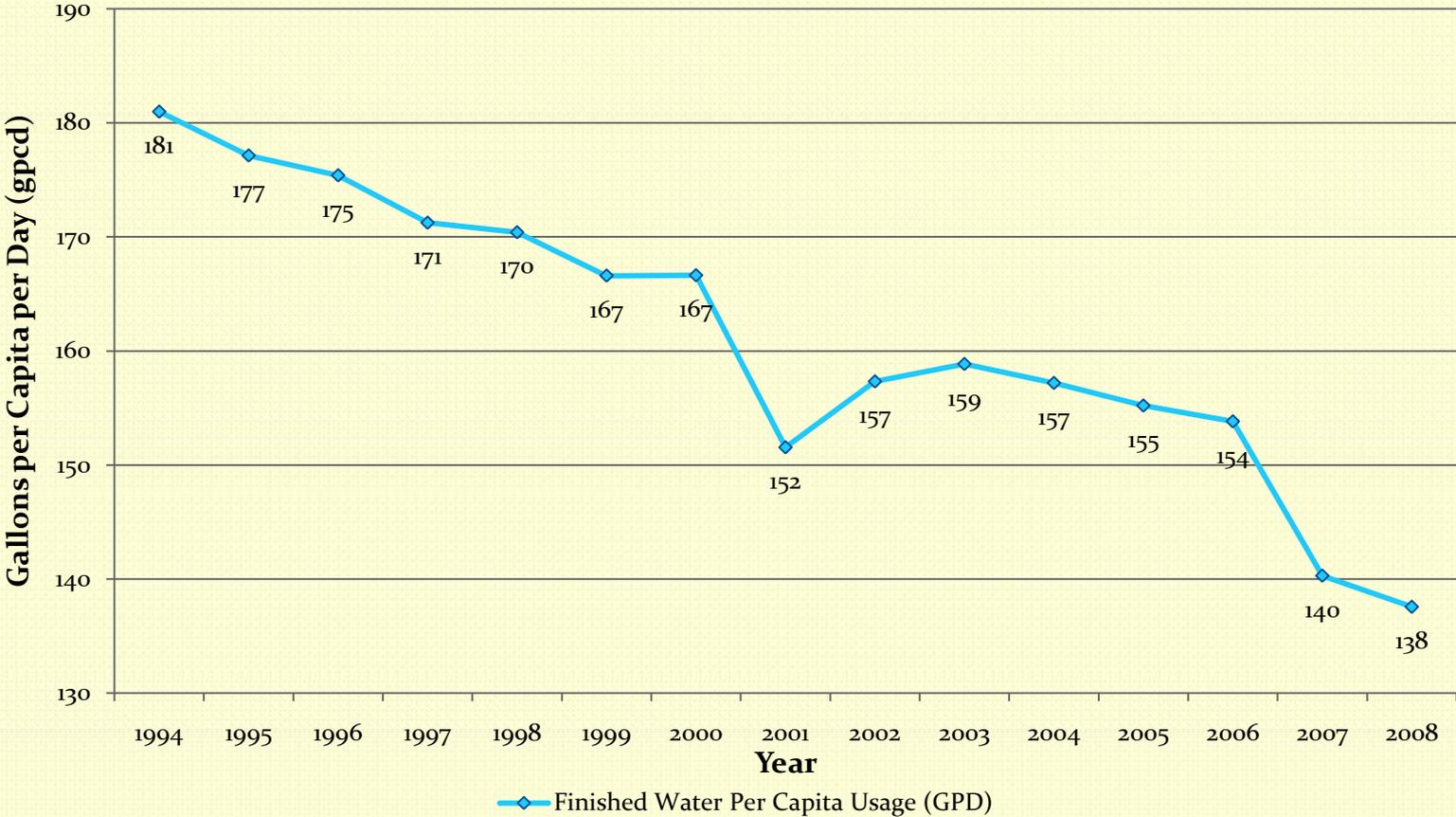
Water Use Efficiency Program

Direct Quantifiable BMP's Water Savings

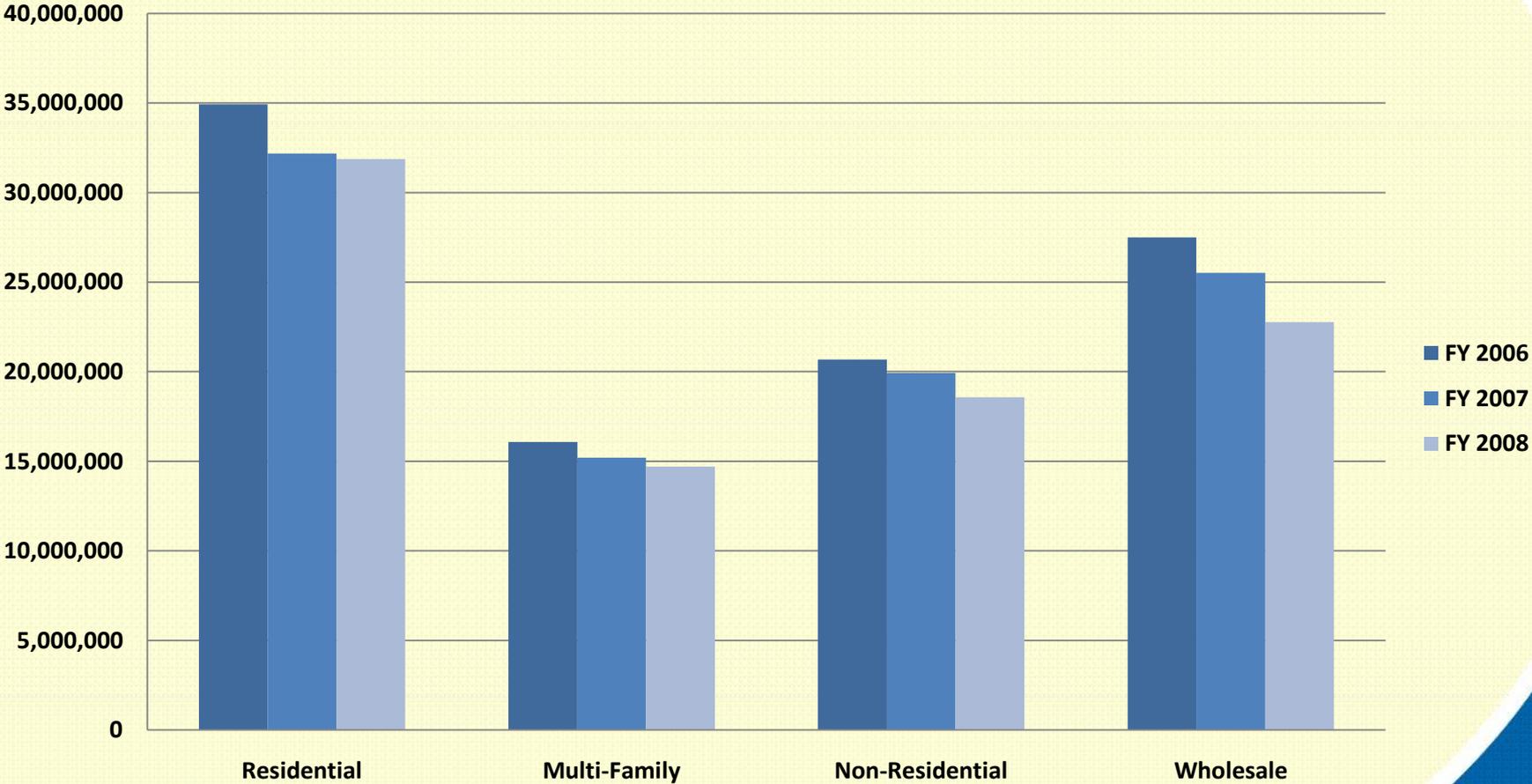
Water Savings Target vs Actual



Per Capita Consumption



Retail and Wholesale Water Consumption



The Cost and The Benefits

- The conservation program budget for BMP implementation is \$1 million/year
 - For a total of \$3 million since 2007 (WASD)
 - Received a total of \$534,950 from Water SIP.
- The target savings are calculated at 1.5 million gallons per day per year (pdpy)
- The overall reduction in water production has been as much as 30 mgd

Recognitions

- **National Association of Counties (NACO)**
 - **Achievement Award 2009**
- **Florida Section American Water Works Association**
 - **Water Conservation Awards of Excellence**
 - **Five Awards in 2009**
 - **Four Awards in 2008**
 - **Three Awards in 2007**
- **Environmental Protection Agency**
 - **National Mentor Program Designation since 2007**

Water Use Efficiency Program

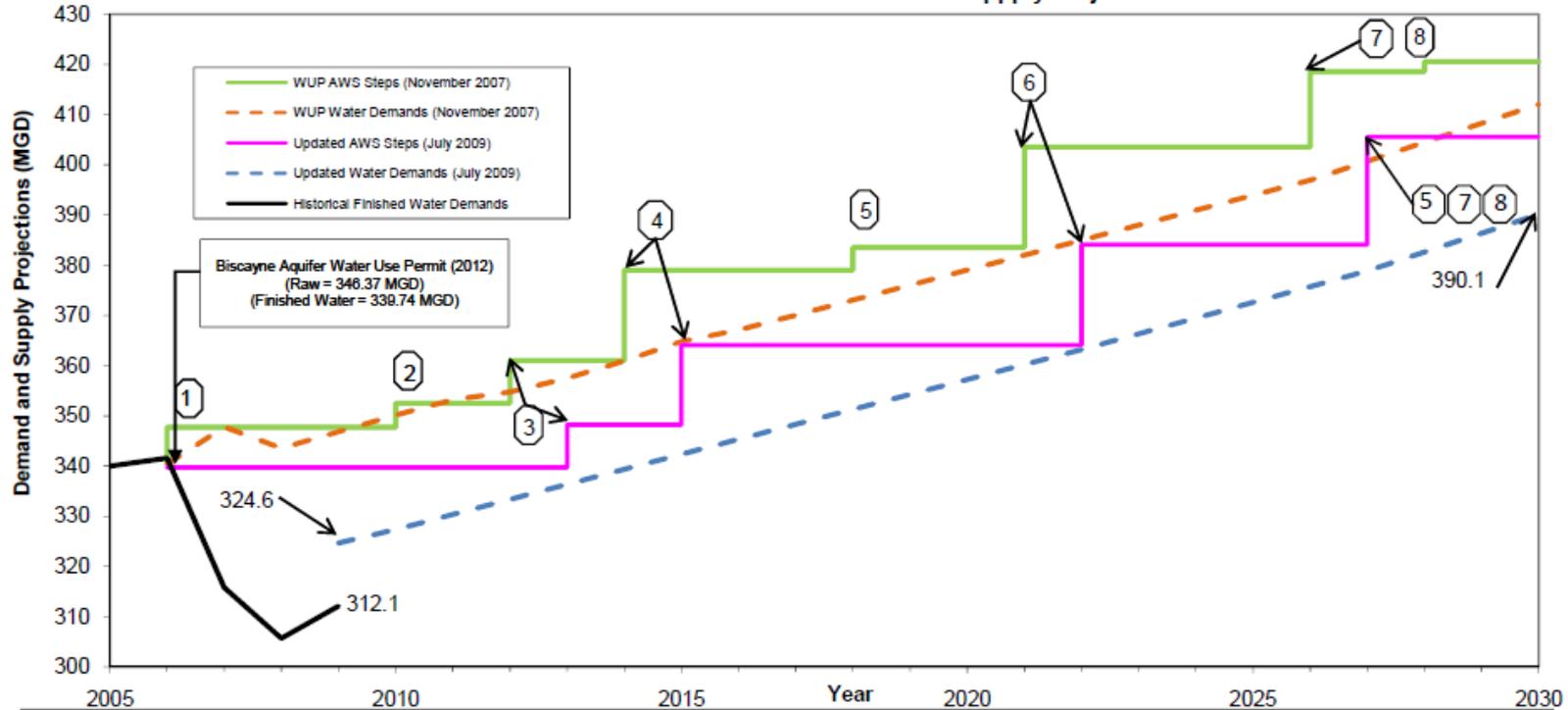
Water Loss Reduction Plan

- **Audit Water System and Repair Leaks**
 - Conduct system audit
 - Monitor water delivery system for leaks and make cost-effective repairs
- **Accuracy in Metering**
 - AMR Pilot project (SIP funding)
 - Metering accuracy testing project
 - Promote dedicated landscape meters
 - Require dedicated cooling tower meters



Revised Demand Water Projections & AWS Projects

MDWASD Finished Water Demands and Water Supply Projections



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1/11/2010
Comparison of WUP Projections and updated Per Capita Projections 011110.xls Revised Step Chart 111209

New Initiative

- **Miami-Dade** County Office of Sustainability
 - **GreenPrint**



Sustainability Assessment Plan

- [http://www.miamidade.gov/greenprint/milestone one.asp](http://www.miamidade.gov/greenprint/milestone%20one.asp)

Thank you