

Miami-Dade County Water Supply Facilities Work Plan Overview

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Requirements

- Initiated by Growth Management Bill 360
- Required by Section 163.3177(6)(c), F.S.
- Miami-Dade County Comprehensive Development Master Plan (CDMP) adoption required by August 15, 2008
 - Within 18 months of South Florida Water Management District (SFWMD) Lower East Coast (LEC) Water Supply Plan Update -approved February 15, 2007
- Updates every 5 years consistent with LEC Plan Update

Status

Miami-Dade County 20-Year Work Plan

- Presented to Board of County Commissioners (BCC) on November 27, 2007
- Transmitted to the Department of Community Affairs (DCA) December 2007
- Comments from DCA anticipated by February 2008
- Work Plan to BCC for final approval by April 2008

Work Plan Overview

- Section 1 - Introduction
 - Background, purpose and objectives
- Section 2 - Water Service Area
 - Geographic subareas
 - List of wholesale customers
- Section 3 – Existing Water Supply Facilities
 - Description and capacity of water treatment plants and wellfields
 - Storage facilities
 - Water distribution facilities

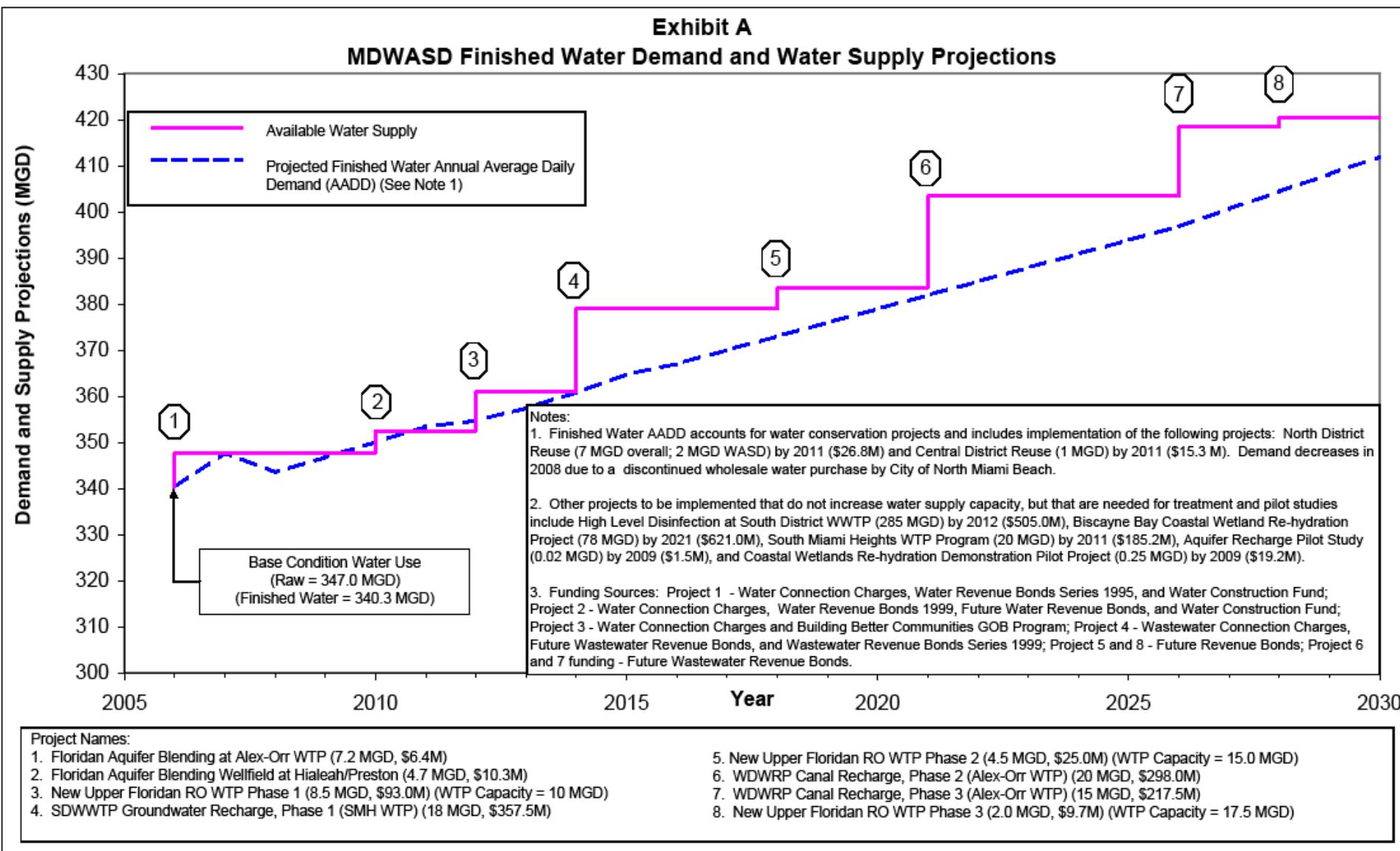
Work Plan Overview – Cont.

- Section 4 – Population and Water Demand Projections
 - Transportation Analysis Zone (TAZ) population projections
 - System wide historical water use and water demand projections through 2030
 - 155 system wide gallons per capita per day (gpcd)
 - Water Conservation and Reuse
 - 20-Year Water Use Efficiency Goal Based Plan
 - Approved by SFWMD on May 7, 2007
 - System wide per capita reduction to 148 gpcd by 2030
 - Plan available at:
<http://www.miamidade.gov/conservation/>
 - Irrigation reuse projects

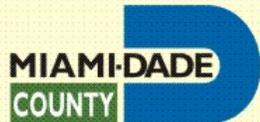
Work Plan Overview – Cont.

- Section 5 – Water Supply Facilities Work Plan
 - Description of water supply facilities required to meet water demands through 2030
 - New water treatment plant
 - Alternative water supply projects
 - Project schedules
 - Capital improvement projects

Alternative Water Supply Plan



Project Name	Expenditure (In Millions of Dollars)						Six Year Totals
	2007/ 2008	2008/200 9	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	
Sewer Facilities							
Village of Key Biscayne Reuse Distr. System	2.85	0.00	0.00	0.00	0.00	0.00	2.85
Coastal Wetlands Rehydration Demonstration Project (0.25 mgd)	0.11	2.98	9.12	5.56	0.00	0.00	17.77
Aquifer Recharge Pilot Study (20,000 gpd)	0.24	2.00	0.00	0.00	0.00	0.00	2.24
North District WWTP Reuse Projects (2.0 mgd)	1.53	6.17	12.93	6.16	0.00	0.00	26.79
Central District WWTP Reuse Projects (1.0 mgd)	0.90	3.36	7.03	4.00	0.00	0.00	15.29
South District WWTP GWR Projects Phase 1 (18 mgd)	8.93	17.87	34.48	78.81	121.40	96.00	357.49
South District WWTP Reuse Projects Phase 2 (or equal) ^(b) (20 mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
South District WWTP Reuse Projects Phase 3 (or equal) ^(b) (15 mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coastal Wetlands Rehydration Project (TBD)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Facilities							
South Miami Heights WTP and Wellfield	13.14	19.12	26.58	12.92	12.48	0.00	84.24
ASR UV for West and Southwest Well fields (7.2 mgd)	6.83	0.00	0.00	0.00	0.00	0.00	6.83
Hialeah-Preston Floridan Aquifer Blending Wellfield (4.7 mgd)	0.82	2.57	6.60	0.00	0.00	0.00	9.99
New Upper Floridan Aquifer RO WTP Phase 1 (8.5 mgd)	10.49	18.29	34.44	26.67	2.66	0.00	92.55
New Upper Floridan Aquifer RO WTP Phase 2 (4.5 mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New Upper Floridan Aquifer RO WTP Phase 3 (2.0 mgd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Totals	45.84	72.36	131.18	134.12	136.54	96.00	616.04



MDWASD Water/Alternative Water Supply Capital Improvement Program

Alternative Water Supply Plan

Project	Flow (MGD)	Date	Capital Cost (\$ Million)
Alex Orr Blending	7.4	2006	6.4
HP Blending	4.8	2009	10.3
CDWWTP Reuse	1	2010	15.3
Hialeah RO Phase I	10	2011	93.0
SMH WTP	18	2011	185.2
SMH Recharge		2014	357.5
Hialeah RO Phase II	2.5	2017	25.0
Alex Orr Recharge	20	2020	298.0
Alex Orr Recharge	15	2026	217.5
Hialeah RO	2.5	2027	9.7
Water Conservation	19	2026	20
Total	100		1237.9

Work Plan Overview – Cont.

- Appendix A
 - Wellfield Data Tables
- Appendix B
 - Miami-Dade County Capital Improvements Element Tables for water and sewer projects

Work Plan Overview – Cont.

- Appendix C
 - Water Supply for Municipalities
 - TAZ Population and water demand projections through 2030
 - Water demand based on system wide per capital of 155 gpcd
 - Water Conservation
 - Best Management Practices (BMPs) currently implemented county-wide
 - Funded through Water and Sewer Department's (WASD) operating budget
 - › **Wholesale Customers**
 - Water Conservation Plan required to be submitted to WASD – County Ordinance 06-177, Section 32-83.1 of Miami-Dade County Code
 - BMPs to be assigned according to specific demographics
 - › **Retail Customers**
 - BMPs under implementation
 - Water consumption to be identified to develop targets according to specific demographics

Work Plan Overview – Cont.

- Appendix D
 - Water Use Efficiency Recommendations
 - Advisory Committee developed list of recommendations
 - Presented to BCC on June 5, 2007
 - Anticipated to be adopted by Ordinance in February 2008
 - Ordinance will require that a manual for implementation of the recommendations be developed by July 2008
 - The list of recommendations is posted in the Miami-Dade Water Conservation Portal.

<http://www.miamidade.gov/conservation/library/DRAFRecommendationsTablesFinal.pdf>

Summary

MDWASD 20-Year Water Supply Facilities Work Plan

- 20-Year Work Plan includes the following:
 - Population and water demand projections
 - Existing water sources and facilities
 - Alternative water sources, conservation, and reuse
 - Capital improvement projects
- Work Plan is consistent with 20-Year Water Use Permit issued by SFWMD on November 15, 2007
- Alternative water supply projects consistent with projects identified in LEC Plan Update

How Can Work Plan Help Meet Local Requirements?

- Population and water demand projections identified in Appendix C, Exhibits 3-1 through 3-3
- Alternative Water Supply Projects included in Section 5
- Water Conservation mentioned in Appendix C
 - Reference County's requirements
 - Implementation commitment
- Reuse incorporated in Section 5, Table 5-1
 - North and Central District Wastewater District Plants Reuse (purple pipes)
 - For City of North Miami, North Miami Beach and Key Biscayne
 - Recharge projects for Alexander Orr and South Dade Subareas

Questions

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