

Chapter 5B: Alternative Water Supply Annual Report

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INTRODUCTION

Due to the limitations that exist on development of traditional freshwater sources within the South Florida Water Management District (SFWMD or District), most future increases in water needs will be met primarily through development of alternative water sources. Alternative water sources include nontraditional water supplies, such as brackish groundwater, surface water captured during wet weather, and expansion of reclaimed water systems. The District's grant program to support development of Alternative Water Supply (AWS) projects has been successful for more than a decade. Since 1996, this program has invested \$163 million for the construction of over 400 AWS projects.

In 2005, the Florida legislature revised state law and created the Water Protection and Sustainability Program (WPSP), or Senate Bill 444, which established annually recurring state funding (that must be matched by the water management districts) to support AWS development. Pursuant to Chapter 373.1961(2), Florida Statutes (F.S.), legislation requires each water management district to submit an annual report to the Florida legislature and governor on AWS funding efforts. State and SFWMD matching funds are administered through the District's Alternative Water Supply Funding Program and are only available for construction.

Prior to 2005, the District had provided annual grants to entities pursuant to Chapter 373.1961, F.S., which directed the water management districts to share their *ad valorem* tax revenues with public and private entities willing to develop suitable alternative water resources. During the three years preceding the WPSP legislation, Fiscal Years 2003 through 2005 (FY2003–FY2005) (October 1, 2002 through September 30, 2005), the District funded 79 projects with \$15 million that created 68 million gallons per day (mgd) of additional alternative water capacity. From FY2006 to FY2008, the District approved over \$116 million in funding (including WPSP funds) for 216 projects that created 218 mgd of additional alternative water capacity.

FISCAL YEAR 2009 PROJECT FUNDING

During the FY2009 solicitation process, the District received 62 funding applications. In September and November 2008, the District's Governing Board approved over \$27 million to fund 39 projects for FY2009, which are expected to create an additional 27 mgd and bring the anticipated total water made available under the new program to 245 mgd (for FY2006–FY2009). This includes four Big Cypress Basin Board projects. **Figure 5B-1** illustrates the geographical distribution of AWS projects funded in FY2009, and **Table 5B-1** summarizes project details. Funding was awarded for construction that occurs between October 1, 2008, and August 31, 2009. The \$27 million total funding includes \$3.81 million in FY2009 state funding, which represents a \$14.19 million reduction of the anticipated \$18 million from the WPSP, \$3.81 million of matching District *ad valorem* funds, and unspent funds from prior years.

Because many projects are constructed over several years, water made available was reported in two parts: (1) the quantity of water to be made available during this phase (by August 31, 2009) and (2) the total water made available upon project completion. Of the 39 projects funded, 9 are multiyear projects. Six of the multiyear projects will be completed in FY2009, while it is expected that the remaining three projects will require reapplication for funding in FY2010. Additionally, distribution/transmission capacity made available by reclaimed water pipelines and pump stations is not included in the water made available, as this water would have been counted during the treatment plant construction (see footnotes of **Table 5B-1**).

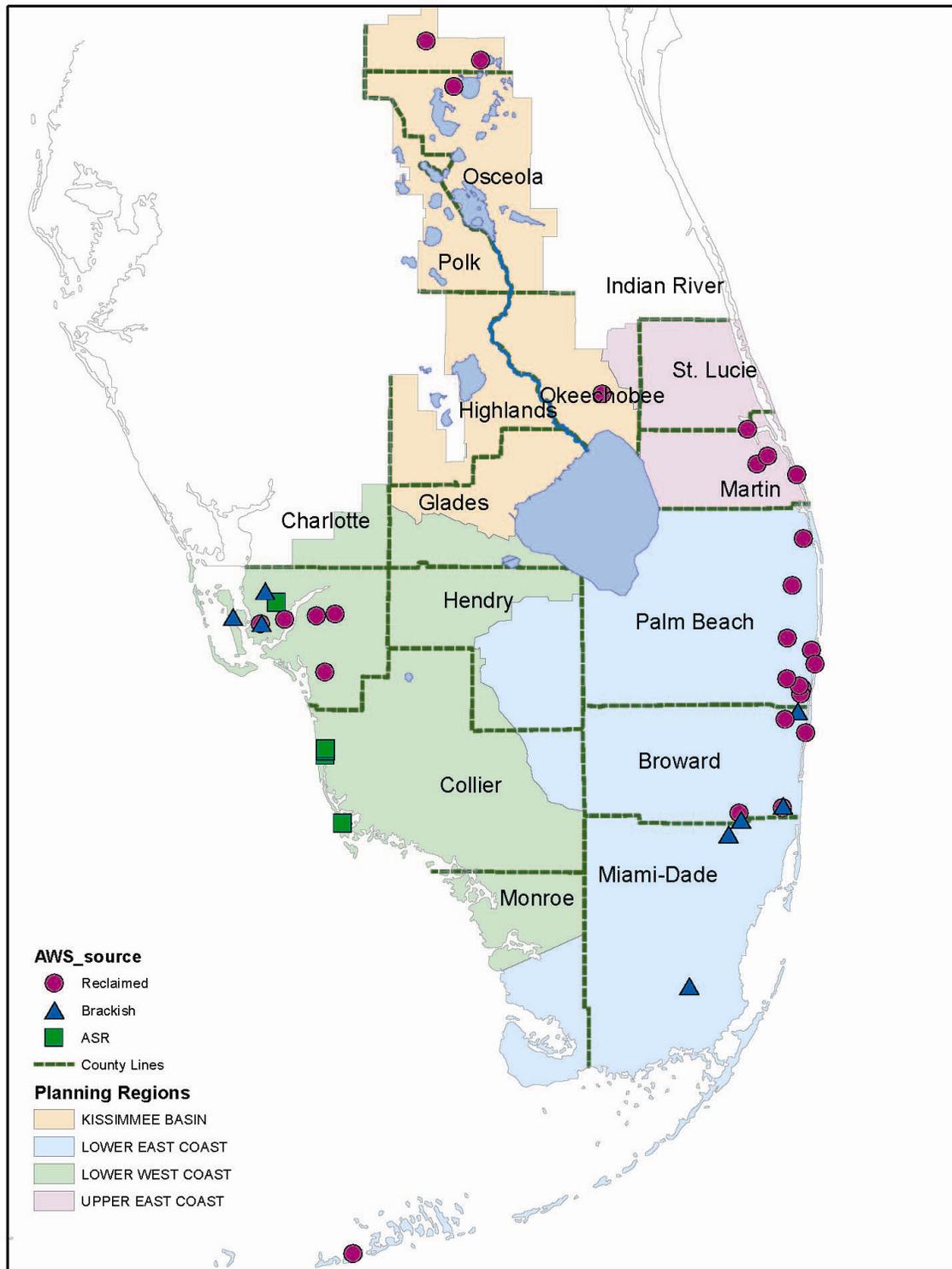


Figure 5B-1. Location of Alternative Water Supply (AWS) projects funded for Fiscal Year 2009 (FY2009) (October 1, 2008 through September 30, 2009).

Table 5B-1. Overview of AWS projects for FY2009.

Proposal Number	Project Name	Entity Name	AWS Source	Region	County	FY2009 Start Date	Phase Water Made Available (mgd)	Total Water Made Available (mgd)	FY2009 Construction Cost	State and SFWMD Funding
KB-23	Williamson Cattle Company 0.35 MGD Expanded Reuse System from Okeechobee Utility Authority	Okeechobee Utility Authority	Reclaimed	KB	Okeechobee	10/08	0.35 [a]	0.35 [a]	\$294,400	\$152,300
Total for Okeechobee County							0.00	0.00	\$294,400	\$152,300
KB-21	RESUBMISSION of Universal South Reuse Transmission Main (Canadian Court Reuse Transmission Main, PH 2)	Orange County Utilities	Reclaimed	KB	Orange	10/08	3.00 [a]	12.00 [a]	\$1,500,000	\$224,400
KB-22	RESUBMISSION of Southeast Reclaimed Water Main Project	Orange County Utilities	Reclaimed	KB	Orange	10/08	0.00	7.14 [a]	\$1,900,000	\$275,600
Total for Orange County							0.00	0.00	\$3,400,000	\$500,000
KB-17	Parkway WRF Reclaimed Water Storage Tank & Pumping Facility Improvements	Tohopekaliga Water Authority	Reclaimed	KB	Osceola	10/08	1.00 [a]	1.00 [a]	\$4,791,000	\$981,721
Total for Osceola County							0.00	0.00	\$4,791,000	\$981,721
Kissimmee Basin Total							0.00	0.00	\$8,485,400	\$1,634,021
LEC-65	Lincoln Park and New Lincoln Park Elementary School	Hollywood	Reclaimed	LEC	Broward	10/08	0.03 [a]	0.03 [a]	\$187,000	\$74,800
LEC-66	2.0 MGD Floridan RO System Expansion, PH 3	Hollywood	Brackish	LEC	Broward	10/08	2.00	4.00	\$3,367,900	\$509,300
LEC-70	2.0 MGD Reclaimed Water Expansion, PH 1 WWRF Treatment Plant	Miramar	Reclaimed	LEC	Broward	10/08	0.00	2.00 [b]	\$4,000,000	\$859,612
LEC-71	2.5 MGD RO Treatment Plant at West Water Plant - PH II	Miramar	Brackish	LEC	Broward	10/08	2.50	2.50	\$5,083,000	\$770,000
LEC-72	Reuse Distribution System Expansion, Service Area II	Pompano Beach	Reclaimed	LEC	Broward	10/08	0.07 [a]	0.07 [a]	\$370,000	\$148,000
LEC-77	West Water Treatment Plant 3 MGD RO Facility-PH II	Deerfield Beach	Brackish	LEC	Broward	10/08	3.00	3.00	\$5,890,950	\$1,308,000
LEC-84	West Reclaimed Water Delivery System for the City of Coconut Creek	Broward County BCC	Reclaimed	LEC	Broward	10/08	2.00 [a]	2.00 [a]	\$2,300,000	\$920,000
Total for Broward County							7.50	9.50	\$21,198,850	\$4,589,712

Table 5B-1. Continued.

Proposal Number	Project Name	Entity Name	AWS Source	Region	County	FY2009 Start Date	Phase Water Made Available (mgd)	Total Water Made Available (mgd)	FY2009 Construction Cost	State and SFWMD Funding
LEC-76	6 MGD Brackish Water Supply and Treatment, PH 3	Florida Keys Aqueduct Authority	Brackish	LEC	Miami-Dade	10/08	6.00	6.00	\$8,000,000	\$943,800
HIA-1	10 MGD Reverse Osmosis Water Treatment Plant (Expandable to 17.5 MGD) – State Line Item # 1778	Hialeah	Brackish	LEC	Miami-Dade	10/08	0.00	10.00 [b]	\$16,970,000	\$6,000,000
Total for Miami-Dade County							6.00	6.00	\$24,970,000	\$6,943,800
LEC-74	0.162 MGD Big Coppitt Service Area Reclaimed Water System, PH 1	Florida Keys Aqueduct Authority	Reclaimed	LEC	Monroe	10/08	0.00	0.162 [b]	\$2,209,901	\$500,000
Total for Monroe County							0.00	0.00	\$2,209,901	\$500,000
LEC-63	St. Andrews Country Club Reclaimed Water Main	St Andrews Country Club	Reclaimed	LEC	Palm Beach	10/08	0.85 [a]	0.85 [a]	\$868,440	\$347,400
LEC-64	Emerald Dunes Golf Club Reclaimed Water Main Connection to the Lake System	Emerald Dunes Golf Club	Reclaimed	LEC	Palm Beach	10/08	0.40 [a]	0.40 [a]	\$79,262	\$31,700
LEC-67	5.0 MG Reclaimed Water Storage Tank	Boca Raton	Reclaimed	LEC	Palm Beach	10/08	0.00	5.00 [a]	\$2,333,000	\$933,200
LEC-68	7.5 MGD Reclaimed Water Production Capacity Expansion	Boca Raton	Reclaimed	LEC	Palm Beach	10/08	0.00	7.50 [b]	\$4,150,000	\$1,187,700
LEC-69	Reclaimed Distribution System Expansion to Broken Sound Country Club	Boca Raton	Reclaimed	LEC	Palm Beach	10/08	0.88 [a]	0.88 [a]	\$1,257,544	\$503,000
LEC-78	The Isles HOA Conversion to Reclaimed Water	The Isles HOA	Reclaimed	LEC	Palm Beach	10/08	0.10 [a]	0.10 [a]	\$43,966	\$17,600
LEC-85	Phase 1-B Reclaimed Water Distribution System	Boynton Beach Utilities	Reclaimed	LEC	Palm Beach	10/08	0.37 [a]	0.66 [a]	\$1,399,700	\$559,900
LEC-86	Delray Beach Area 11 Reclaimed Water System (Phase A)	Delray Beach	Reclaimed	LEC	Palm Beach	10/08	0.23 [a]	4.84 [a]	\$2,794,900	\$1,118,000
LEC-88	The Grove Subdivision Reclaimed Water from PBC Water Utilities	The Grove	Reclaimed	LEC	Palm Beach	10/08	0.27 [a]	0.27 [a]	\$45,000	\$18,000
Total for Palm Beach County							0.00	0.00	\$12,971,812	\$4,716,500
Lower East Coast Total							13.50	15.50	\$61,350,563	\$16,750,012

Table 5B-1. Continued.

Proposal Number	Project Name	Entity Name	AWS Source	Region	County	FY2009 Start Date	Phase Water Made Available (mgd)	Total Water Made Available (mgd)	FY2009 Construction Cost	State and SFWMD Funding
LWC-53	Reclaimed Water Storage Tank and Pump Station	Villages at Country Creek	Reclaimed	LWC	Lee	10/08	0.30 [a]	0.30 [a]	\$619,000	\$247,600
LWC-54	8 MGD East Water Reclamation Campus, Phase I	Fort Myers	Reclaimed	LWC	Lee	10/08	0.00	4.00 [b]	\$8,880,000	\$172,200
LWC-55	.90 MGD Reverse Osmosis Water Plant Capacity Upgrade-PH II	Greater Pine Island Water Association	Brackish	LWC	Lee	10/08	0.34	0.90	\$992,682	\$397,100
LWC-56	8.4 MGD Southwest Water Reclamation Facility Expansion, PH III	Cape Coral	Reclaimed	LWC	Lee	10/08	8.40 [b]	8.40 [b]	\$39,130,000	\$900,000
LWC-57	Surface Water Aquifer Storage and Recovery Program	Cape Coral	ASR	LWC	Lee	10/08	1.80 [b]	1.80 [b]	\$3,750,000	\$303,800
LWC-60 & 62	12 MGD North RO Water Treatment Plant, PH 1 / North RO Wellfield Improvements PH III	Cape Coral	Brackish	LWC	Lee	10/08	12.00	12.00	\$44,888,000	\$2,712,500
LWC-61	4.9 MGD Everest Water Reclamation Facility Expansion, PH III	Cape Coral	Reclaimed	LWC	Lee	10/08	4.90 [b]	4.90 [b]	\$350,000	\$138,000
LWC-64	Eastwood Golf Course Onsite Reclaimed Water Storage	Fort Myers	Reclaimed	LWC	Lee	10/08	0.56 [a]	0.56 [a]	\$925,000	\$370,000
Total for Lee County							12.34	12.90	\$99,534,682	\$5,241,200
Lower West Coast Total							12.34	12.90	\$99,534,682	\$5,241,200
UEC-26	Irrigation Quality Water System Improvements Program, Phase 4	South Martin Regional Utility	Reclaimed	UEC	Martin	10/08	1.40 [a]	1.40 [a]	\$574,475	\$229,800
UEC-30	RO Membrane Cleaning System for the Tropical Farms Water Treatment Plant	Martin County Utilities	Brackish	UEC	Martin	10/08	0.80	0.80	\$350,000	\$140,000
UEC-31	David Anderson Middle School Conversion to Reuse	Martin County Parks and Recreation	Reclaimed	UEC	Martin	10/08	0.15 [a]	0.15 [a]	\$600,000	\$240,000
Total for Martin County							0.80	0.80	\$1,524,475	\$609,800
UEC-29	Veranda PUD-16"/12" IQ Mains, Master Irrigation Station and 2.5 MG Reuse Storage Pond	Port St. Lucie	Reclaimed	UEC	St. Lucie	10/08	0.35 [a]	0.35 [a]	\$3,045,000	\$1,218,000
Total for St. Lucie County							0.00	0.00	\$3,045,000	\$1,218,000
Upper East Coast Total							0.80	0.80	\$4,569,475	\$1,827,800
SUBTOTAL							26.64	29.20	\$173,940,120	\$25,453,033

Table 5B-1. Continued.

Proposal Number	Project Name	Entity Name	AWS Source	Region	County	FY2009 Start Date	Phase Water Made Available (mgd)	Total Water Made Available (mgd)	FY2009 Construction Cost	State and SFWMD Funding
-	ASR Well Gordon River Water Quality Park	Collier County Utilities - BCBB	Surface/Stormwater	BCBB	Collier - BCBB	10/08	0.00	0.00	\$8,000,000	\$500,000
-	ASR Wells Burning Tree Rd. Hole in The Wall	Naples - BCBB	Surface/Stormwater	BCBB	Collier - BCBB	10/08	0.00	0.00	\$10,000,000	\$300,000
-	Reclaimed Water Production Facility Expansion - Phase II	Marco Island - BCBB	Reclaimed	BCBB	Collier - BCBB	10/08	0.00	5.00 [b]	\$4,500,000	\$300,000
-	High Service Pump & standby Generator for ASR System	Marco Island - BCBB	Surface/Stormwater	BCBB	Collier - BCBB	10/08	0.00	14.25 [b]	\$4,000,000	\$500,000
Big Cypress Basin Total							0.00	0.00	\$26,500,000	\$1,600,000
GRAND TOTAL							26.64	29.20	\$200,440,120	\$27,053,033

[a] Distribution type project, water counted in plant capacity, not added to the table total

[b] Support facility/phased project; water previously counted or in future years, not added to the table total

Note: Resubmissions – a 25% funding reduction was applied to previously funded work that was not completed and is being resubmitted for funding