

Chapter 5B: Alternative Water Supply Annual Report

Stacey C. Adams and Patrick Martin

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 and conservation. Alternative water sources include nontraditional water supplies, such as brackish groundwater, surface water captured during wet weather, and reclaimed water. The District's program to support development of Alternative Water Supply (AWS) projects has been successful for more than a decade. Since 1997, this program has approved \$178.8 million for the construction of 437 AWS projects.

In 2005, the Florida legislature revised state law and created the Water Protection and Sustainability Program (WPSP) [Chapter 373, Florida Statutes, F.S.], which established annually recurring state funding (that must be matched by the water management districts) to support AWS development. Pursuant to Chapter 373.707, 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 funding to entities pursuant to Chapter 373.707, 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 (FY) 2003 through 2005 (October 1, 2002, through September 30, 2005), the District funded 79 projects with \$14.8 million that created 106 million gallons per day (mgd) of additional alternative water supply capacity. From FY2006–FY2010, the District approved over \$141.6 million in funding (including WPSP funds) for 255 projects that created 400 mgd of additional alternative water capacity.

FISCAL YEAR 2011 PROJECT FUNDING

Due to budget constraints at state and local levels, the State of Florida has not allocated funding for Alternative Water Supply projects in FY2011; however, the District has allocated \$6,050,000 in the FY2011 budget. In October 2010, the District's Governing Board approved \$2.6 million for five Big Cypress Basin Board projects. In November 2010, the Governing Board approved \$3.45 million to fund 19 projects from 36 applications received during the solicitation process for FY2011. These projects are designed to create an additional 11.5 mgd of alternative water supply capacity. **Figure 5B-1** illustrates the geographical distribution of AWS projects funded in FY2011, and **Table 5B-1** summarizes project details. Funding was awarded for construction that occurs between October 1, 2010, and August 31, 2011.

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, 2011) and (2) the total water made available upon project completion. Of the 19 projects funded, five are multiyear projects. One of the multiyear projects will be completed in FY2011, while the other four will require reapplication for funding in subsequent years for future phases if funds are available. Additionally, distribution/transmission capacity made available by reclaimed water pipelines and pump stations is not included in the water made available, as this capacity would have been counted during the treatment plant construction (see footnotes of **Table 5B-1**).

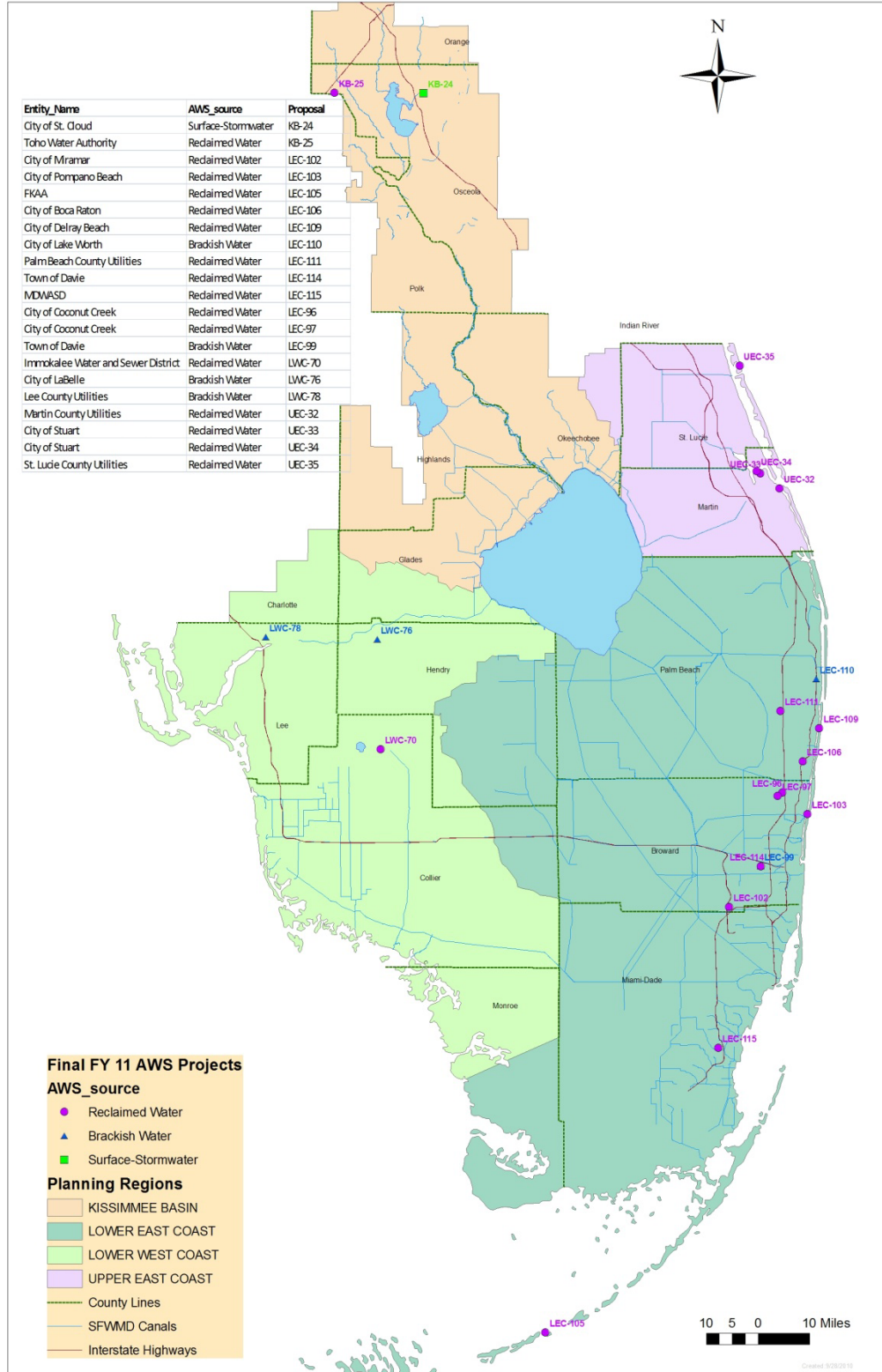


Figure 5B-1. Location of Alternative Water Supply (AWS) projects funded for Fiscal Year 2011 (FY2011) (October 1, 2010–August 31, 2011); see **Table 5B-1** for more information.

Table 5B-1. Overview of Alternative Water Supply projects for Fiscal Year 2011 (FY2011) (October 1, 2010–September 30, 2011).

Project Name	Entity Name	Alternative Water Source	Region	County	FY2010 Start Date	Phase Water Made Available (MGD)	Total Water Made Available (MGD)	FY2011 Construction Cost	SFWMF Funding
2 MGD Reclaimed Water/ Stormwater Augmentation	St. Cloud	Surface/ Stormwater	KB	Osceola	October 2010	2.00 ^a	2.00 ^a	\$1,500,000	\$245,300
Reunion – East 24-inch Reclaimed Water Main Connection	Tohopekaliga (Toho) Water Authority	Reclaimed	KB	Osceola	October 2010	1.00 ^a	1.00 ^a	\$1,109,000	\$183,900
Total for projects in Osceola County						0.00	0.00	\$2,609,000	\$429,200
Kissimmee Basin Total						0.00	0.00	\$2,609,000	\$429,200
Wiles Road Reclaimed Water Line Extension: Phase 1 Sable Pines Park and Phase II	Coconut Creek	Reclaimed	LEC	Broward	October 2010	0.50 ^a	0.50 ^a	\$1,000,000	\$163,500
6 MGD Reverse Osmosis Water Treatment Plant	Davie	Brackish	LEC	Broward	October 2010	0.00	6.00	\$11,117,710	\$200,000
3.5 MGD Reclaimed Water Facility	Davie	Reclaimed	LEC	Broward	October 2010	0.00	3.50	\$699,960	\$50,000
Reclaimed Water Distribution System Expansion: 148 th Avenue	Miramar	Reclaimed	LEC	Broward	October 2010	1.20 ^a	1.63 ^a	\$1,840,000	\$147,200
Reclaimed Water Distribution Expansion Service Area II: Southeast	Pompano Beach	Reclaimed	LEC	Broward	October 2010	0.10 ^a	0.10 ^a	\$354,000	\$57,900
Total for projects in Broward County						0.00	9.50	\$15,011,670	\$618,600
42-inch Reclaimed Water Main Phase I-A	Miami-Dade Water and Sewer Department (MDWASD)	Reclaimed	LEC	Miami-Dade	October 2010	0.00	0.00	\$2,840,103	\$1,000,000
Total for projects in Miami-Dade County						0.00	9.50	\$2,840,103	\$618,800

Project Name	Entity Name	Alternative Water Source	Region	County	FY2010 Start Date	Phase Water Made Available (MGD)	Total Water Made Available (MGD)	FY2011 Construction Cost	SFWMD Funding
Duck Key Reclaimed Water Distribution, Phase 1-3: Bimini Drive through Schooner Drive	Florida Keys Aqueduct Authority (FKAA)	Reclaimed	LEC	Monroe	October 2010	0.03 ^a	0.10 ^a	\$1,417,560	\$113,400
Total for projects in Monroe County						0.00	0.00	\$1,417,560	\$113,400
20-inch Reclaimed Water Distribution System Expansion along Airport Road	Boca Raton	Reclaimed	LEC	Palm Beach	October 2010	0.00	8.00 ^a	\$1,200,000	\$175,000
Area 11 Reclaimed Water Distribution System (Phase B)	Delray Beach	Reclaimed	LEC	Palm Beach	October 2010	0.19 ^a	5.71 ^a	\$1,290,000	\$210,900
4.5 MGD Reverse Osmosis Water Treatment Plant, Phase 4	Lake Worth	Brackish	LEC	Palm Beach	October 2010	4.50 ^b	4.50 ^b	\$6,000,000	\$100,000
Acme Dairy Reclaimed Water Main Project	Palm Beach County Utilities	Reclaimed	LEC	Palm Beach	October 2010	1.60 ^a	5.00 ^a	\$142,500	\$25,000
Total for projects in Palm Beach County						0.00	0.00	\$8,632,500	\$510,900
Lower East Coast Total						0.00	9.50	\$27,901,833	\$2,242,900
3 MGD Reclaimed Water Facility	Immokalee Water and Sewer	Reclaimed	LWC	Collier	October 2010	3.00	3.00	\$2,479,000	\$200,000
Total for projects in Collier County						3.00	3.00	\$2,479,000	\$200,000
1.5 MGD Reverse Osmosis Water Treatment Plant, Phase 1A	LaBelle	Brackish	LWC	Hendry	October 2010	1.50	1.50	\$494,500	\$100,000
Total for projects in Hendry County						1.50	1.50	\$494,500	\$100,000
North Lee County Reverse Osmosis Wellfield Expansion, Phase 2A	Lee County Utilities	Brackish	LWC	Lee	October 2010	2.00	5.00 ^b	\$3,113,463	\$200,000
Total for projects in Lee County						2.00	0.00	\$3,113,469	\$200,000
Lower West Coast Total						6.50	4.50	\$6,086,963	\$500,000

Project Name	Entity Name	Alternative Water Source	Region	County	FY2010 Start Date	Phase Water Made Available (MGD)	Total Water Made Available (MGD)	FY2010 Construction Cost	SFWMD Funding
Miles Grant 8-inch Reclaimed Water Main	Martin County Utilities	Reclaimed	UEC	Martin	October 2010	0.10 ^a	0.10 ^a	\$353,014	\$28,200
Reclaimed Water Transmission Main, Phase IV and IV-A: Martin County Interconnect and Sailfish Park	Stuart	Reclaimed	UEC	Martin	October 2010	0.89 ^a	2.33 ^a	\$2,808,308	\$224,700
Total for projects in Martin County						0.00	0.00	\$3,161,322	\$252,900
North Hutchinson Island Reclaimed Water Storage Facility Expansion	St. Lucie Utilities	Reclaimed	UEC	St. Lucie	October 2010	1.20 ^b	2.70 ^b	\$1,030,000	\$25,000
Total for projects in St. Lucie County						0.00	0.00	\$3,161,322	\$252,900
Upper East Coast Total						0.00	0.00	\$4,191,322	\$277,900
North County Water Reclamation Facility – Pond Liner (Pond #4)	Collier County Utilities	Reclaimed	LWC-BCBB	Collier – BCBB	October 2010	0.00	0.00	\$2,100,000	\$500,000
ASR Well Program – Wells #3 & #4	Naples	Reclaimed	LWC-BCBB	Collier – BCBB	October 2010	0.00	0.00	\$2,800,000	\$400,000
Intake Structure and Pump Station at Golden Gate Canal	Naples	Reclaimed	LWC-BCBB	Collier – BCBB	October 2010	0.00	0.00	\$3,700,000	\$1,000,000
Reclaimed Water Production Facility Phase III – Expansion	Marco Island	Reclaimed	LWC-BCBB	Collier – BCBB	October 2010	5.00	5.00	\$10,000,000	\$200,000
Finished Water Storage Tank for Reverse Osmosis Plant Expansion	Marco Island	Reclaimed	LWC-BCBB	Collier – BCBB	October 2010	0.00	0.00	\$2,000,000	\$500,000
Big Cypress Basin Board Total						5.00	5.00	\$20,600,000	\$2,600,000
GRAND TOTAL						11.50	19.00	\$61,389,118	\$6,050,000

BCBB – Big Cypress Basin Board

^a Distribution type project; water counted in plant capacity

^b Phased project; water previously counted or will be in future year