## Cross-Cut Budget Task Force Working Document

### Fiscal Year 2011

South Florida Ecosystem Restoration Program

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## Section 1.0

Overview

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#### **Section 1.0: Introduction**

#### **Section 1.1: Overview**

The information in this document is reported annually by the members of the South Florida Ecosystem Restoration Task Force and Working Group and is compiled by the Office of the Executive Director. It consists of three sections. Section 1.0 provides an overview and includes summary tables for the federal and state budget requests.

Section 2.0 provides detailed information concerning the federal Everglades Ecosystem restoration projects and funding. Section 2.1 addresses the Comprehensive Everglades Restoration Plan (CERP) projects and funding, and Section 2.2 addresses non-CERP projects and funding. The base program and operational funding requests for some federal agencies are not included in the document.

Section 3.0 provides the detailed information concerning state Everglades Ecosystem restoration projects and funding. Section 3.1 addresses CERP projects and funding, and Section 3.2 addresses non-CERP projects and funding. The Fiscal Year (FY) 2010/11 totals shown represent estimates for the South Florida Water Management District (SFWMD). When finalized the FY 2010/11 actual budget totals for SFWMD will be posted on the website <a href="https://www.sfrestore.org">www.sfrestore.org</a>.

#### Section 1.2: Federal and State of Florida Funding Summary Tables

The following tables provide a summary of the detailed funding information found in Sections 2.0 and 3.0 of this document. Table 1 includes budget information provided by federal members and Table 2 includes budget information provided by the State of Florida members.

The funding for the federal agencies and SFWMD reflects a fiscal year that begins on October 1 and ends on September 30 of each year. The funding for other state agencies reflects a fiscal year that starts on July 1 and ends on June 30 of each year.

TABLE 1: FEDERAL FUNDING SUMMARY (ACTUAL \$)

EVERGLADES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
ECOSYSTEM	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Requested
RESTORATION										
PROJECTS										
COMPREHENSIVE EVEL	RGLADES REST	ORATION PRO	OGRAM (CERP)	)						
USACE- CERP (Part of										
Central and Southern										
Florida) 1	27,961,000	37, 062,000	39, 063,000	64, 446,000	62,610,0002	64, 000,000	64, 000,000	83, 640,000	119, 966,000	112, 655,000
USACE- CERP										
(American Recovery and										
Reinvestment Act of										
2009) 13								1,100,000	86,796,000	
USDOI - NPS CERP <sup>10</sup>	5,544,000	5,513,000	5,463,000	5,213,000	5,174,000	5,212,000	5,132,000	5,108,000	5,198,000	5,159,000
USDOI - FWS CERP	3,351,000	3,329,000	3,309,000	3,304,000	3,269,000	3,269,000	3,251,000	3,251,000	3,251,000	3,251,000
NON- COMPREHENSIV	E EVERGLADES	S RESTORATIO	N PROGRAM	(CERP)						
USACE - Central and										
Southern Florida										
(excluding CERP) 3,4	64,949,000	49,983,000	64,906,000	8,029,000	9,126,000	6,447,000	14,505,000	9,075,000	10,600,000	39,675,000
USACE - Non-CERP										
American Recovery and										
Reinvestment Act of										
2009 13									7,516,000	
USACE - Critical										
Projects <sup>3, 4</sup>	19,876,000	19,526,000	14,760,000	25,813,000	11,880,000	8,289,000	8,156,000	3,472,000	2,725,000	5,170,000
USACE-Kissimmee										
River Restoration <sup>3,4</sup>	25,846,000	23,727,000	17,616,000	17,871,000	13,042,000	50,264,000	30,968,000	28,361,000	44,673,000	22,500,000
USACE - Biscayne Bay <sup>3</sup>	240,000	200,000	0	74,000	0	0	0	239,000	0	0
USACE- Modified Water										
Deliveries <sup>4</sup>					34,650,000	35,000,000	9,840,000	0	0	0
USDA - ARS	4,846,900	5,216,800	5,415,100	6,101,000	4,908,600	4,941,000	4,754,500	4,764,700	4,865,000	4,806,600
USDA- NRCS	37,752,000	21,376,000	23,580,000	62,539,337 5	61,505,271 <sup>5</sup>	5,143,335	13,240,175	61,017,879	TBD 11	17,223,000
US Department of										
Commerce - NOAA	4,065,000	4,065,000	4,359,000	4,389,000	3,000,000	3,000,000	3,000,000	3,000,000	1,910,000	1,910,000

EVERGLADES ECOSYSTEM	FY 2002 Enacted	FY 2003 Enacted	FY 2004 Enacted	FY 2005 Enacted	FY 2006 Enacted	FY 2007 Enacted	FY 2008 Enacted	FY 2009 Enacted	FY 2010 Enacted	FY 2011 Requested
RESTORATION	Enacted	Enacted	Enacteu	Enacted	Enacteu	Enacteu	Enacted	Enacteu	Enacted	Requesteu
PROJECTS										
NON- COMPREHENSIV	E EVERGLADES	S RESTORATIO	ON PROGRAM	(CERP)						
USDOI - NPS Park										
Management	23,635,000	23,874,000	23,991,000	25,266,000	25,832,000	26,377,000	28,481,000	29,852,000	31,413,000	32,566,000
USDOI - South Florida										
Ecosystem Restoration										
Task Force	1,325,000	1,320,000	1,308,000	1,290,000	1,286,000	1,307,000	1,303,000	1,303,000	1,320,000	1,320,000
USDOI - NPS Critical										
Ecosystem Studies										
Initiative	4,000,000	3,974,000	3,937,000	3,882,000	3,840,000	3,864,000	3,849,000	3,849,000	3,873,000	3,873,000
USDOI - NPS Modified										
Water Deliveries	35,199,000 6	9,935,000	12,830,000	7,965,000	24,962,000 <sup>7</sup>	13,330,000	14,299,000	60,000,000	8,400,000	8,000,000
USDOI - NPS Big										
Cypress Sustainable										
Trail System										3,559,000
USDOI - NPS American										
Recovery and										
Reinvestment Act of										
2009 12								21,052,000		
USDOI - NPS Land										
Acquisition										
(management)	2,800,000	2,782,000	1,800,000	1,500,000	690,000	500,000	750,000	730,000	775,000	775,000
USDOI - NPS Land										
Acquisition Grants to										
Florida	15,000,000	15,421,000	(5,000,000) 8	0	0	0	0	0	0	0
USDOI - FWS Ecological										
Services	2,554,000	2,537,000	2,523,000	2,518,000	2,516,000	2,521,000	2,475,000	2,475,000	2,475,000	4,250,000
USDOI - FWS Refuges										
and Wildlife	3,706,000	3,682,000	9,784,000	4,787,000	4,086,000	4,086,000	4,022,000	4,022,000	4,022,000	4,022,000
USDOI - FWS Migratory										
Birds					101,000	101,000	99,000	99,000	99,000	99,000
USDOI - FWS Law										
Enforcement	636,000	632,000	628,000	627,000	619,000	619,000	609,000	609,000	609,000	609,000

EVERGLADES	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
ECOSYSTEM	Enacted	Requested								
RESTORATION										
PROJECTS										
USDOI - FWS Fisheries	100,000	99,000	98,000	99,000	95,000	95,000	92,000	92,000	92,000	92,000
USDOI - FWS American										
Recovery and										
Reinvestment Act of								2 212 000		
200912								2,212,000		
USDOI - FWS Land										
Acquisition	8,500,000	2,484,000	0	740,000	0	0	1,028,000	0	0	0
USDOI - USGS -										
Integrated Research,										
Planning and										
Interagency										
Coordination	8,636,000	7,847,000	7,847,000	7,738,000	7,771,000	7,042,062	6,800,000	6,907,000	6,907,000	6,907,000
USDOI - BIA	396,000	393,000	539,000	536,000	382,000	382,000	390,000	390,000	390,000	390,000
US EPA	4,666,800	3,352,100	3,139,600	2,882,300	3,439,400	3,683,000	2,009,000	2,161,000	2,168,000	2,148,000

	FY 2002 Enacted	FY 2003 Enacted	FY 2004 Enacted	FY 2005 Enacted	FY 2006 Enacted	FY 2007 Enacted	FY 2008 Enacted	FY 2009 Enacted	FY 2010 Enacted	FY 2011 Requested
										•
CERP Total (USACE	24054000	45 004 000	45 005 000	<b>T2</b> 0 ( <b>2</b> 000	<b>54</b> 0 <b>50</b> 000	<b>T2</b> 404 000	<b>T2 202</b> 000	02 000 000	21 - 21 1 222	101 075 000
and USDOI)	36,856,000	45,904,000	47,835,000	72,963,000	71,053,000	72,481,000	72,383,000	93,099,000	215,211,000	121,065,000
Non-CERP Subtotal (USACE and USDOI)	217,398,000	168,416,000	157,567,000	108,735,000	140,878,000	160,224,062	127,666,000	174,739,000	125,889,000	133,807,000
Non-CERP Subtotal										
(Other Federal										
Agencies)	51,330,700	34,009,900	36,493,700	75,911,637	72,853,271	16,767,335	23,003,675	70,943,579	8,943,000	26,087,600
Non-CERP Total (All										
Federal Agencies)	268,728,700	202,425,900	194,060,700	184,646,637	213,731,271	176,991,397	150,669,675	245,682,579	134,832,000	159,894,600
TOTAL CERP AND										
NON-CERP (USACE										
AND USDOI)	254,254,000	214,320,000	205,402,000	181,698,000	211,931,000	232,705,062	200,049,000	267,838,000	341,100,000	254,872,000
TOTAL CERP AND										
NON-CERP (ALL										
FEDERAL										
AGENCIES)	305,584,700	248,329,900	241,895,700	257,609,637	284,784,271	249,472,397	223,052,675	338,781,579	350,043,000	280,959,600

Note: Base program and operational funding requests for the U.S. Environmental Protection Agency, U.S Department of Commerce, U.S. Department of Agriculture, and the U.S. Army Corps of Engineers are not included in the information provided within this Cross-Cut Budget Working Document.

#### Footnotes:

<sup>&</sup>lt;sup>1</sup> USACE CERP activities are funded under the Central and Southern Florida Project (C&SF).

<sup>&</sup>lt;sup>2</sup> USACE FY 2006 Enacted reflects reductions for rescission and congressionally directed funding for the C&SF Upper St. Johns River project.

<sup>&</sup>lt;sup>3</sup> Enacted numbers for USACE reflect reductions for any rescissions, but do not account for reductions due to savings and slippage.

<sup>&</sup>lt;sup>4</sup> Beginning with the FY 2006 Budget Request these projects are now included as part of one Corps of Engineers line item referred to as the "South Florida Everglades Ecosystem Restoration" Program.

<sup>&</sup>lt;sup>5</sup> Enacted numbers for FY 2005 and FY 2006 reflect additional Emergency Watershed Protection Program funding due to hurricanes.

<sup>&</sup>lt;sup>6</sup> Reflects \$19,199,000 for construction and \$16,000,000 for land acquisition.

<sup>7</sup> Includes the transfer of \$17 million in unobligated balances from the NPS Federal Land Acquisition Account to NPS Construction to further the Modified Water Deliveries project.

<sup>8</sup> Reflects the transfer of \$5,000,000 in prior year balances from the USDOI – NPS Land Acquisition Account to the USDOI-FWS Resource Management Account.

<sup>&</sup>lt;sup>9</sup> 2009 and 2010 numbers for NOAA are still pending.

<sup>&</sup>lt;sup>10</sup> NPS CERP funding includes GSA space rental costs in the following amounts: FY 2004 - \$741,000; FY 2005 - \$556,000; FY 2006 - \$554,000; FY 2007 - \$554,000; FY 2008 - \$475,000; FY 2009 - \$409,000; FY 2010 - \$409,000; FY 2011 - \$409,000. This report updates rental costs for 2008 and 2009, and provides estimates for 2010 and 2011.

<sup>11</sup> All Wetlands Reserve Program funding amounts for FY11 are not available at this time. The table will be updated as appropriate when data is available.

<sup>12</sup> The NPS and FWS have funded projects at Everglades parks, refuges, and field offices through the American Recovery and Reinvestment Act of 2009. The funding shown above reflects the latest project cost estimates.

<sup>13</sup>The Corps of Engineers has funded Everglades restoration projects through the American Recovery and Reinvestment Act of 2009. The funding shown above reflects the latest project cost estimates.

TABLE 2: STATE OF FLORIDA FUNDING SUMMARY TABLE (ACTUAL \$)

EVERGLADES	FY 2001-02	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	2007-08	2008-09	2009-10	2010-11
ECOSYSTEM	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Requested
RESTORATION										
PROJECTS										
COMPREHENSIVE EVERGLAI	DES RESTORA	ΓΙΟΝ PROGRAM	1 (CERP)							
Florida Department of										
Environmental Protection	90,380,949	150,279,126	105,586,702	128,972,634	128,637,628	136,615,473	102,093,964	57,205,964	48,590,234	51,808,839
Florida Fish and Wildlife										
Conservation Commission	411,000	409,000	419,000	336,359	336,359	0	0	4,465,301	2,722,651	1,496,946
South Florida Water										
Management District	91,708,816 1	133,284,6451	107,887,4691	101,119,5691	253,715,473 <sup>1</sup>	507,980,226 <sup>1</sup>	411,690,864 1	114,260,4391	106,295,718 <sup>1</sup>	84,305,6642
NON- COMPREHENSIVE EVEI	RGLADES RES	FORATION PRO	GRAM (CERP	)						
Florida Department of										
Agriculture/Consumer Services	7,608,917	15,523,202	16,215,100	8,531,378	5,132,269	6,928,051 <sup>3</sup>	6,000,0003	3,000,0003	3,000,0003	5,000,0003
Florida Department of										
Community Affairs	15,314,720	51,580,680	29,781,074	31,349,633	23,340,316	24,252,571	24,499,270	31,616,692	TBD <sup>4</sup>	TBD <sup>4</sup>
Florida Department of										
Environmental Protection	72,654,344	109,393,692	92,364,834	102,222,540	176,467,770	408,365,782	203,236,072	78,118,780	47,179,935	21,058,307
Florida Fish and Wildlife										
Conservation Commission	19,681,000	21,306,000	25,729,000	27,466,653	27,579,153	27,579,153	28,682,319	4,714,329	54,582,358	43,409,812
Florida Department of										
Transportation	4,931,000	10,528,832	1,940,300	7,905,314	5,400,000	14,375,043	9,453,057	9,766,285	18,004,018	8,364,651
South Florida Water										
Management District	395,314,127 <sup>1</sup>	372,701,387 1	381,868,047 1	299,820,508 1	316,312,557 1	478,050,397 1	420,993,9751	675,800,5021	1,113,120,0181	320,288,9152
CERP SUBTOTAL:	182,500,765	283,972,771	213,893,171	230,428,562	382,689,460	644,595,699	513,784,828	175,931,704	157,608,603	137,611,449
NON-CERP SUBTOTAL:	515,504,108	581,033,793	547,898,355	477,296,026	554,232,065	959,550,997	692,864,693	803,016,588	1,235,886,329	398,121,685
STATE OF FLORIDA										
FUNDING TOTAL:	698,004,873	865,006,564	761,791,526	707,724,588	936,921,525	1,604,146,696	1,206,649,521	978,948,292	1,393,494,932	535,733,134

Footnotes: <sup>1</sup> Reflects SFWMD adopted budget appropriations less any state and federal funds.
<sup>2</sup>Since the publication date of each year's Cross-Cut Budget precedes the budget cycle for the SFWMD and FDEP, the FY 2010-11 totals shown represents estimates. When FY 2010-11 budget totals are available, they will be posted on the website link to the Cross-Cut Budget 2011 Working Document at <u>www.sfrestore.org</u>. The same information will also be included in the FY 2012 Cross-Cut Budget document.

3The number reflected does not include Forestry's contribution for FY 2006-07, FY 2007-08, 2008-09, 2009-10 and 2010-11.

4 These figures are the Florida Communities Trust grants that are awarded to local governments in the South Florida Ecosystem. They can only be identified and calculated after the June 30 close of each Fiscal Year. Since this is a statewide competitive grant program, an estimate of

these figures prior to June 30 is not possible

## Section 2.0

## Federal Everglades Ecosystem Restoration Projects and Funding

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## Section 2.1: Federal Comprehensive Everglades Restoration Plan (CERP) Projects and Funding (\$121,065,000)

#### U.S. Army Corps of Engineers (Corps) (\$112,655,000)

Congress authorized the CERP in the Water Resources Development Act (WRDA) of 2000. The objective of the program is to restore, protect, and preserve the South Florida Ecosystem, while providing for other water related needs of the region. The CERP includes numerous projects that work together to achieve the plan's restoration goals. WRDA 2000 requires the completion of Project Implementation Reports (PIRs) for these projects. The PIRs provide further information on plan formulation and evaluation, engineering and design, estimated benefits and costs, and environmental effects of planned restoration activities. PIRs serve to bridge the gap between the conceptual level of detail contained in the CERP and the detailed design plans and specifications required to proceed with construction. Additionally, Congress authorized three projects in WRDA 2007. Authorized projects included the Indian River Lagoon South, Picayune Strand Restoration, and the Site 1 Impoundment projects.

From a project perspective, the major focus of the Corps' FY 2011 activities includes continuing construction on the Picayune Strand Project and the Site 1 Impoundment project; initiation of construction on the Indian River Lagoon South project features at C-44 and the Melaleuca Eradication facility; continuing monitoring on L-31N Seepage Management Pilot Project; continuation of detailed design on completed PIRs; continuation of detailed design on pilot projects, including the testing and monitoring of Aquifer Storage and Recovery; completion of one PIR and one feasibility study; continuation of other ongoing PIRs; and continuation of project adaptive assessment and monitoring activities used to monitor the effects of projects as they are implemented.

From a program perspective, FY 2011 CERP activities include completion of revisions to the Programmatic Regulations and continuation of Restoration Coordination and Verification (RECOVER), an inter-agency scientific group charged with system-wide assessments of planned and completed projects as well as with programmatic level activities. RECOVER's science-based activities include evaluation and assessment on the performance of the CERP, review of the effects that other restoration projects may have on CERP, and provision of a system-wide perspective throughout the restoration process. Other program level activities include continued reassessment of project sequencing to optimize delivery of benefits as contained in the Integrated Delivery Schedule (IDS), public outreach and involvement, and environmental and economic equity program efforts.

#### U.S. Department of the Interior (DOI) National Park Service (NPS) (\$5,159,000)

The CERP is a framework and guide to restore, protect, and preserve the water resources of central and southern Florida. Projects affecting NPS lands and waters occur in phases through the end of CERP implementation. The NPS works with Fish and Wildlife Service (FWS) and U.S. Geological Survey (USGS) to support CERP projects through the development of restoration performance measures and quantitative evaluations of the environmental benefits of proposed actions.

CERP projects will have significant effects on Big Cypress National Preserve (BCNP), Biscayne National Park (BNP), and Everglades National Park (ENP). The NPS continues to concentrate on projects that are essential to the restoration of federal lands in south Florida. The NPS actively participates in the Project Development Teams for such projects including seepage management in the L-30/L-31N Canals, early features in the Water Conservation Area (WCA) 3 Decompartmentalization and Sheetflow Enhancement, the C-111 Spreader Canal project, and the Biscayne Bay Coastal Wetlands. The NPS also supports work on important, large-scale projects that are critical precursors to CERP.

To support these project-level activities, the NPS, in cooperation with other federal, state, and local partners, is implementing a Monitoring and Assessment Plan for CERP, which will provide the information to determine the ecological effects and overall restoration success of CERP projects. Additionally the NPS will continue to participate in RECOVER, the interagency group responsible for science input to the CERP.

Finally the NPS will continue to participate in DOI's formal requirements on programmatic activities including: updates to the CERP Programmatic Regulations, guidance memoranda to formalize how CERP projects will be built, operated, and evaluated; interim goals that will be used to track restoration progress and provide five-year status reports to Congress; and the identification of the appropriate quantity, timing, and distribution of water that will be produced, and pursuant to federal and state law, dedicated and managed for the natural system.

#### The CERP planned activities for FY 2011 include:

- At the federal level, the program will continue to represent the NPS on technical issues
  related to CERP programmatic regulations, interim goals, and guidance memoranda. At
  the state level, the program will continue to represent the NPS on the establishment of
  water reservations, minimum flows and levels, and water supply planning.
- For the Modified Water Deliveries (MWD) to Everglades National Park project, the program will participate in further development of the Conveyance and Seepage Control component of the project, and the Combined Operational Plan. Staff will track the results of pilot tests that are conducted as features of the Modified Water Deliveries project are brought on line.
- Staff will participate in planning activities for additional modifications to the Tamiami Trail, a critical component of restoration that must be completed prior to implementation of key CERP projects that restore flow to the system.
- For the State's Everglades Construction Project (ECP), the program will continue to track the water quality improvements from completion of 43,500 acres of stormwater treatment areas (STAs) designed to treat agricultural runoff before it enters the northern Everglades watershed.
- Staff will continue to participate in technical workshops organized by the State party, that are oriented toward developing consensus on the amounts and quality of water needed to restore the Everglades ecosystem. These workshops form part of the technical input to the State's River of Grass initiative.
- Staff will participate in technical workshops and required environmental analysis of projects initiated by the private sector, that have the potential to significantly affect the trajectory of CERP and restoration of the south Florida national parks. These projects

- include a proposal to construct shallow seepage barriers (rock mining industry), and proposals to increase the production capacity and distribution of nuclear energy in south Florida.
- For ongoing, but longer-term CERP projects the program will continue to track the effects of implementing upstream water management improvements (Lake Okeechobee Watershed Study, Everglades Agricultural Area Storage Reservoirs). For CERP projects in the planning phase, staff will participate in interagency project design teams, and teams for system-wide science input to the CERP (RECOVER). Staff will provide evaluation reports and other technical and scientific input for the projects that directly affect NPS managed lands: Seepage Management Pilot, C-111 Spreader Canal Project, Biscayne Bay Coastal Wetlands, and Water Conservation Area (WCA) 3A Decompartmentalization and Sheetflow Enhancement.

## <u>U.S. Department of the Interior: U.S. Fish and Wildlife Service (FWS)</u> (\$3,251,000)

The FY 2011 request for CERP implementation will support approximately 30 full-time employees that actively serve on planning teams for all CERP and non-CERP restoration projects initiated by the USACE. This will enable the FWS to fulfill its Trust Resource responsibilities under the Endangered Species Act (ESA), Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, and other statutes as well as the CERP Programmatic Regulations as part of the restoration effort. The FWS is an integral planning partner in formulating alternatives, designing, assessing and monitoring, and adaptively managing CERP project components during its implementation. The FWS is responsible for providing environmental expertise to the Corps and the SFWMD. The Service also is involved in guiding Everglades restoration at a system-wide scale through the following activities: biannual system status reports, participation in RECOVER activities, River of Grass Initiative, and System Operating Manual.

In FY 2011, the FWS will participate in the development and execution of the following projects: WCA-3 Decompartmentalization and Sheetflow Enhancement, the Combined Structural and Operational Plan, Everglades Agricultural Area (EAA) Reservoir, Kissimmee River Restoration, Kissimmee Chain of Lakes, Lake Okeechobee Watershed, C-43 Reservoir, Indian River Lagoon, Water Preserve Areas, Picayune Strand Restoration Project, North Palm Beach County - Part 1, ENP Seepage Management, and other major restoration projects. These activities will include assistance in plan formulation and ecological benefit analysis, ESA Section 7 consultation, recovery plan implementation, monitoring and adaptive management, restoration and management activities on DOI lands, CERP project planning, preparation of Fish and Wildlife Coordination Act Reports, system-wide water quality improvement, land acquisition, migratory bird and fisheries conservation, and a myriad of multi-agency planning, science, and outreach efforts. As a recognized leader in the science of ecosystem restoration, the FWS participates as the biological and ecological expert and is an integral planning and implementation partner in CERP to ensure that ecosystem benefits are maximized consistent with long-term CERP project goals. The FWS will design features and project components that maximize natural resource benefits through active participation throughout the restoration planning process.

## Section 2.2: Federal Non-CERP Everglades Ecosystem Restoration Projects and Funding (\$159,894,600)

#### U.S. Army Corps of Engineers (\$67,345,000)

#### Central and Southern Florida Project (C&SF) (\$39,675,000)

NOTE: The \$39,675,000 indicated above does not reflect \$112,655,000 in funding requested for CERP projects, which is reported in Section 2.1.

#### • South Dade County, C-111 Project

This project consists of modifications to the C&SF Project to provide more natural hydrologic conditions in Taylor Slough and to minimize damaging flood releases to Barnes Sound/Manatee Bay, while maintaining flood protection for adjacent agricultural lands. The FY 2011 activities include initiating construction of the north detention area and L-31 W tie-back levee, continued engineering and design of remaining detention areas and culverts, canal backfilling, water quality monitoring, and levee vegetative removal.

#### • West Palm Beach Canal, Canal-51/Stormwater Treatment Area 1 East (C-51/STA 1E) Project

This project consists of design and construction of the C-51/STA 1E project to provide flood control for the western C-51 basin, provide water quality enhancement, and to restore a portion of the historic Everglades flows. FY 2011 activities include completion of monitoring on the field test of the Periphyton Storm Water Treatment Area (PSTA) within the STA 1E and culvert repair work.

#### Everglades and South Florida Ecosystem Restoration Critical Projects (\$5,170,000)

This program involves the implementation of "critical restoration projects" authorized in Section 528 of WRDA 1996, as modified by WRDA 2007, Section 6006. FY 2011 activities include continuation of construction on the Seminole Big Cypress project and completion of the Post Authorization Change (PAC) report for the Ten Mile Creek project.

#### **Kissimmee River Restoration (\$22,500,000)**

This project involves restoring the historic habitat in much of the Kissimmee River floodplain and restoring water-level fluctuations and seasonal discharges from Lakes Kissimmee, Cypress, and Hatchineha in the upper basin. The FY 2011 activities include construction of the U-shaped weir and continuation of design on remaining features.

#### Modified Water Deliveries (MWD) to Everglades National Park

NOTE: Funding for FY 2011 activities (\$8,000,000) are budgeted under the National Park Service construction account and provided to the Corps of Engineers.

The MWD project involves construction of modifications to the C&SF Project water management system and related operational changes to provide improved water deliveries to ENP. The project consists of structural features with the intended purpose of restoring conveyance between WCAs north of ENP and the Shark River Slough within the Park. It will also provide flood mitigation to the 8.5 Square Mile Area, a residential area adjacent to the Park expansion boundary in the East Everglades. The FY 2011 activities include continuation of

construction on the Tamiami Trail (Eastern Segment) to improve historic flow of Shark River Slough to ENP project and continued design and initiate construction on the Conveyance and Seepage Control features.

## <u>U.S. Department of Agriculture (USDA) - Agricultural Research Service (ARS)</u> (\$4,806,600)

ARS conducts an integrated research program that addresses the needs of agriculture and complements the CERP. The goal of the research is to develop and transfer improved scientific technologies and enhanced management strategies that control invasive exotic species and assure the continued economic integrity of agriculture. Four major areas of research support south Florida restoration and agriculture: hydrology and water quality, improved crop/animal production systems, biological control of invasive species, and decision support systems/model development. Individual projects supporting these priority areas are as follows:

#### Hydrology and Water Quality

• Integrated Horticultural Production Systems for Water Quality Protection and Water Conservation (\$832,400)

The Horticultural and Breeding Research Unit at Fort Pierce, Florida, conducts research to develop management practices and production systems that promote water conservation and protect water quality while sustaining or improving crop quality, production, and profitability. Research objectives of the project are to: 1) gain fundamental knowledge of the plant-substrate-water-nutrient system to identify factors that control effects of chemical stressors and to develop irrigation strategies for the efficient and effective application of poor-quality water to ornamental crops; and 2) understand the impact of nutrients and pesticides on aquatic biota that inhabit onsite retention ponds. The expected impact of the research is information to be used in the development of BMPs that will allow producers to maximize profits and minimize the impact of production on water resources, and better define water fate and transport on nursery operations. Successfully accomplishing these goals will preserve or improve Florida's economy and the quality of life for the state's citizens.

#### Improved Crop/Animal Production Systems

• Environmentally Friendly Forage-Livestock Systems for the Subtropical U.S.A. (\$128,200)

The Beef Cattle Research Unit in Brooksville, Florida, conducts research to develop better forages and grazing practices that will improve the profitability of beef cattle production as well as protect water quality for the subtropical areas of the United States. Major findings have shown that cattle congregation sites in beef cattle operations are not nutrient-rich; and, therefore, are not likely to contribute significant nutrient loadings to surface and groundwater supplies under south Florida conditions.

• Soil Conservation For Sustainable Sugarcane Production (\$396,700)

The Sugarcane Field Station in Canal Point, Florida, develops high-yielding, diseaseresistant sugarcane cultivars. Current research efforts are targeted at improving yield
and genotypes for sugarcane grown under high water tables, flooded conditions and
sandy soils. Improved knowledge of the physiologic, morphologic, and agronomic

responses of sugarcane genotypes to high water table and flood will help improve adaptation, yields, and selection for these conditions.

#### **Biological Control of Invasive Species**

Development and Evaluation of Biological Control agents for Invasive Species Threatening the Everglades and other Natural and Managed Systems (\$2,841,800) The ARS Invasive Plant Research Laboratory in Fort Lauderdale, Florida, and its satellite lab in Gainesville, Florida, conduct research to identify and collect natural enemies for control of melaleuca and other invasive pest plants; evaluate biological control agents for release against invasive weeds and insects species in a risk analysis context; obtain approval for release of host specific natural enemies; and develop biological based integrated weed management strategies that are efficient, economical, environmentally sound. The integration of biological control with other management tactics has been included in a comprehensive management plan, called TAME Melaleuca (crafted by scientists and natural resource managers from ARS, NPS, SFWMD, the Corps, the Florida Department of Environmental Protection (FDEP), and many south Florida county governments), for managing invasive species problems. Research will continue to develop management strategies and biological control agents that are sustainable, efficient, economical, and environmentally sound. Current funding related to Everglades restoration totals \$2,557,300 in Florida and \$284,500 in Australia and Southeast Asia.

#### **Decision Support Systems/ Model Development**

• Enhancing water quality from horticultural and floricultural production systems in South Florida. (\$607,500)

The Subtropical Horticultural Research Unit/Everglades Hydrology Project in Miami, Florida addresses the following objectives: 1) to develop best management practices (BMPs) to improve growth media utilized within containerized horticultural and floricultural production systems to enhance production efficiency; 2) to develop BMPs to reduce or mitigate nutrient leaching from containerized horticultural and floricultural production systems and to enhance water quality in irrigation return flow in South Florida; and 3) to determine soil physical and hydrological characteristics of containerized horticultural and floricultural production systems for development of on and off-site water quality decision support systems. The Everglades Agro-Hydrology Model, previously developed in cooperation with the Corps and the USGS, is being used by the SFWMD and The University of Florida Tropical Research and Education Center for selection of Best Management Practices in flood prone areas; this model has been linked with the south Florida regional model for use in future planning of CERP activities.

#### <u>U.S. Department of Agriculture (USDA) - Natural Resources Conservation</u> <u>Service (NRCS) (\$17,223,000)</u>

The NRCS provides technical assistance on a voluntary basis to private landowners and operators, Indian Tribes and others for the planning of conservation practices and installation of needed conservation management systems with the goal of achieving natural resource sustainability. This includes the design, layout, and consultation services associated with the

conservation practice application or management guidance provided. Technical assistance is targeted towards nutrient management, water quality, and water conservation concerns associated with animal feeding, livestock grazing operations, and fruit and crop production within the Everglades Ecosystem. Financial assistance is provided through a variety of USDA Farm Bill Programs.

NRCS provides assistance to livestock and dairy producers to apply Best Management Practices, including waste management systems, to reduce off farm nutrient discharges. A special effort in the EAA and C-139 basin is in place to assist the land user to meet requirements outlined in the 1994 Everglades Forever Act to reduce phosphorus loading into the Everglades Protection Area. Other areas of assistance are provided on private and tribal lands to restore wetlands, improve wildlife habitat and control invasive exotic plant species. Financial assistance is provided through a variety of USDA Farm Bill Programs.

#### Food, Conservation and Energy Act of 2008

Environmental Quality Incentives Program (5,100,000)

The Environmental Quality Incentives Program (EQIP) provides financial and technical assistance to farmers and ranchers who face threats to soil, water, air, and related natural resources on their land. Through EQIP, the NRCS develops contracts with agricultural producers to implement conservation practices to address environmental natural resource problems. Payments are made to producers once conservation practices are completed according to NRCS requirements on agricultural lands that will improve or maintain the health of natural resources in the area including water quality.

#### Wetlands Reserve Program (\$9,200,000)

The Wetlands Reserve Program (WRP) is a voluntary program that provides technical and financial assistance to private landowners and tribes to restore, protect, and enhance wetlands in exchange for retiring eligible land from agriculture.

#### Wildlife Habitat Incentives Program (\$23,000)

The Wildlife Habitat Incentive Program (WHIP) is a voluntary program for developing or improving high quality habitat that supports fish and wildlife populations of national, state, tribal, and local significance. Through WHIP, the USDA's NRCS provides technical and financial assistance to private and Tribal landowners for the development of upland, wetland, aquatic, and other types of wildlife habitat.

#### Grassland Reserve Program (0)

The Grassland Reserve Program (GRP) is a voluntary program for landowners and operators to protect grazing uses and related conservation values by conserving grassland, including rangeland, pastureland, shrubland, and certain other lands. The program emphasizes support for working grazing operations; enhancement of plant and animal biodiversity; and protection of grassland and land containing shrubs and forbs under threat of conversion. Eligible land includes privately owned or tribal grasslands; land that contains forbs (including improved rangeland and pastureland or shrubland) for which grazing is the predominant use; or land that is located in an area that historically has been dominated by grassland, forbs, or shrubland that has the potential to serve as wildlife habitat of significant ecological value.

Farm and Ranch Land Protection Program (FRPP) (\$2,900,000)

The Farm and Ranch Land Protection Program (FRPP) protects working agricultural lands from conversion to non-agricultural uses through the purchase of easements in partnership with local and state governments, Indian Tribes, and non-governmental organizations.

#### <u>U.S. Department of Commerce - National Oceanic and Atmospheric</u> Administration (NOAA) (\$1,910,000)

NOAA provides science, monitoring, and modeling projects critical to implementing and assessing the CERP and other portions of the South Florida Ecosystem restoration effort. NOAA supports the only portion of the ecosystem restoration effort exclusively devoted to monitoring, restoring, and managing the coastal portions of the South Florida Ecosystem. These projects will provide information critical to the design and implementation of inland restoration projects and to the evaluation of the downstream impacts of restoration activities on coastal resources. This information will allow project managers to efficiently monitor the results of restoration projects on downstream resources, and make adjustments, if necessary, through the adaptive management process.

While many NOAA programs support an integrated effort among federal, tribal, state and nongovernmental partners to halt the degradation of the South Florida Ecosystem, the following NOAA projects directly support CERP implementation.

#### South Florida Ecosystem Modeling/National Ocean Service (NOS)

NOS and partners have funded several years of research to gain a sufficient understanding of processes in and around Florida Bay and the Florida Keys National Marine Sanctuary (FKNMS) so that a predictive capability could be established to assess the impacts of alternative management strategies for the restoration of the Everglades on these water bodies. In FY 2010 NOS will fund competitive proposals to utilize and build upon this research to support development of quantitative, coupled, management-relevant ecosystem models that will provide specific outcomes (e.g. water quality measures, seagrass distribution, etc.) for water diversion scenarios. This work will be conducted with complementary efforts being overseen by other federal and state agencies.

### Interdisciplinary Coastal Oceanographic Observations / Oceanic and Atmospheric Research

Almost all of the replumbing and inland restoration efforts will ultimately affect the flow of water, nutrients, and other elements to coastal bays and estuaries. Understanding the impacts of replumbing water flow from inland areas to coastal systems, as part of the restoration effort, is critical to determine overall success. FY 2010 funding will support a suite of research and monitoring activities in south Florida coastal waters downstream of major restoration projects, such as the FKNMS, Florida Bay, and Biscayne Bay.

#### Restoration Science and Assessment/National Marine Fisheries Service (NMFS)

NMFS will continue research in FY 2010 that defines the impact of inland restoration efforts and changing freshwater inflow on Florida Bay and other south Florida natural systems. These funds will be used to assess the impacts of changing freshwater runoff patterns on inshore and coastal habitats and associated fishery resources. Projects to be supported in FY 2010 include

continued work on impacts of freshwater on pink shrimp recruitment in Florida Bay, factors affecting the distribution of snapper/grouper larvae in various Florida Bay habitats, and factors impacting the distribution and health of coral species in coastal waters adjacent to Florida Bay (including elkhorn and staghorn corals species proposed for protection under the ESA). Ongoing visual assessments of reef fish along the Florida Keys reef tract (including reefs of the FKNMS) will also be continued.

Additionally, NOAA will participate in various management activities, including the South Florida Ecosystem Restoration Task Force, the Working Group, and the Science Coordination Group; the Water Resources Advisory Commission of the SFWMD; and the Program Management Committee (PMC) for the Florida Bay and Adjacent Marine Systems Science Program.

## U.S. Department of the Interior (DOI) - National Park Service (\$50,093,000) Park Management (\$32,566,000)

#### • Big Cypress National Preserve (\$7,636,000)

FY 2011 funding will support area management activities promoting public use and resource protection through the implementation and interpretation of an extensive back-country off-road vehicle trail system. NPS will continue to support mandated programs such as the protection, inventory, and monitoring of ten threatened and endangered species (Florida panther, Cape Sable sparrow, Florida manatee, etc.) and a large hydrology program that includes restoration of sheet flow to ENP and the Ten Thousand Islands. Additional mandated programs include special uses such as oil exploration/production, the largest recreational hunting wildlife management area in south Florida, implementation of the largest recreational off-road vehicle program in the 48 States, and 11 American Indian (Seminole and Miccosukee) villages on Preserve lands. The Preserve also supports the largest prescribed fire program in the NPS; visitor and resources protection of 728,000 acres of predominately backcountry areas; maintenance of 47 employee housing units, two major visitor support facilities, public utility systems, eight primitive campgrounds, three developed campgrounds and 66 miles of roads; and management of 394 known archeological sites.

The natural resources management program will continue to collect baseline data in formats that are compatible with interagency regional hydrologic and community/species-based models, control non-native plants, protect threatened and endangered species, mitigate visitor impacts, and manage funds to support direct inventory/monitoring of resources and a geographic information system (GIS).

#### • *Biscayne National Park* (\$4,673,000)

FY 2011 funding will support Biscayne National Park's area management activities including: promoting public use and mitigation of public use; interpretation and education programs; protection of resources; and efforts to address impacts and threats associated with urban sprawl, increased urban freshwater use, four solid waste landfills, and a nuclear power facility. All of these threats are located along the park's western boundary and are "upstream" with respect to surface- and ground-water flow into the park.

Biscayne National Park performs other area management activities associated with the protection of the park's natural, cultural, and historic resources as well as maintenance of park facilities. The park protects 173,000 acres of resources that include Biscayne Bay, the largest living coral reef system in the NPS, 8 known terrestrial cultural sites, 67 known submerged cultural sites, approximately 20 historic structures, and 2 national historic districts within a boundary that has unlimited access points. The park maintains three developed islands and two mainland sites that include six harbors/docking facilities, two campgrounds, six picnic areas, approximately ten miles of trails, six residences, an environmental education camp, and a major visitor center.

The Park's natural resources management will continue to protect Biscayne Bay estuarine resources, coral reefs, seagrass beds, hard bottom communities, monitor water quality, document and mitigate impacts due to visitor and commercial uses, control exotic vegetation, and monitor seventeen federally threatened and endangered species. Special efforts are applied to prevent and restore extensive damage to seagrass beds and coral reefs from boat groundings. Extensive efforts are made to work with local, state, and federal government agencies on development and impact issues.

#### • Dry Tortugas National Park (\$1,782,000)

Funding in FY 2011 will support operations of this 65,000-acre marine and historical national park located 70 miles west of Key West. Current funding will continue a preservation and maintenance program for Fort Jefferson. Efforts will continue to document and recommend management strategies for submerged cultural resources. These efforts are supported by park staff, with overall technical direction provided by the NPS Submerged Cultural Resources Unit.

#### • Everglades National Park (\$18,475,000)

Funding for Everglades National Park (ENP) in FY 2011 will support area management activities including operations, natural resources management, planning, maintenance, and ecosystem restoration. The park continues to attract significant national and international attention as a symbol of the effort to restore the Everglades and of the balance being sought in striving to secure south Florida's future. With over 1.5 million acres of fragile wilderness immediately adjacent to approximately 6 million people, and over 1.5 million visitors each year, ENP has special challenges. The park has extensive outreach programs to the local community and sustains a large backcountry/wilderness operation.

The ENP operates major visitor use areas at Flamingo, Shark Valley, Everglades City, and Chekika, and oversees three concessions operations. Infrastructure requires extensive short-term maintenance, as well as long-term upgrades. The park has 82 miles of surfaced roads, 160 miles of trails, three campgrounds, 48 backcountry campsites, and three fee collection stations. The park is unique in the sense that it has an unprecedented three international treaty designations. It is home to over 1,000 species of plants, 400 species of birds, and two rare orchids, and is a refuge for 14 threatened and endangered species.

The ENP remains one of the most ecologically complex parks in the nation. Florida Bay is continuing to experience dramatic changes, including striking alterations between hypo-

and hyper-salinity, increased turbidity, seagrass die-offs, and persistent and increasing spreads of algae blooms. Exotic plants have and are continuing to replace native plant communities in ENP and adjacent natural areas.

#### South Florida Ecosystem Restoration Task Force (Task Force) (\$1,320,000)

Funding in FY 2011 will support the operations of the Task Force and the Office of the Executive Director (OED), which is responsible for coordinating and integrating the activities of the participating federal, state, local, and tribal agencies involved in the Everglades Ecosystem Restoration Program and for reporting to Congress on restoration programs and funding requirements. The WRDA of 1996 directs the Task Force to implement procedures to facilitate public participation in the advisory process; to maintain records and make the proceedings of meetings available for public inspection; and to submit biennial reports to Congress, summarizing the activities of the Task Force, the policies, strategies, projects, and priorities developed or implemented, and the progress made toward the restoration. In subsequent Congressional guidance, the Task Force was also directed to develop, implement, and maintain an outcome-oriented strategic plan; an improved process for resolving conflicts/disputes; and a comprehensive strategy for federal land acquisition projects.

In FY 2011, OED will continue its coordination role and related reporting activities in support of the Task Force, Working Group, and Science Coordination Group initiatives, projects, priorities, and programs. This will include the coordinating, tracking, and monitoring of all aspects of CERP implementation; producing the biennial update of the strategic plan as required by the Congress; reporting progress and accomplishments on Goals 1, 2, and 3 of the strategic plan; maintaining a tracking system and compiling and preparing the annual updates of the land acquisition strategy; engaging, as necessary, in the established dispute resolution process; implementing activities associated with the Task Force plan to coordinate science; and compiling and preparing the annual update of the Cross Cut Budget and the restoration project sheet information (Integrated Financial Plan) that includes a synopsis, start and end date, and cost estimate for each project.

#### Everglades Research (\$3,873,000)

Since its inception in 1997, the Critical Ecosystem Studies Initiative (CESI) has been the primary investment by DOI to provide scientific information to advise restoration decision-making and to guide its own land management responsibilities for South Florida Ecosystem restoration.

The CESI planned activities for FY 2011 include:

- Continuing critical long-term monitoring projects that support restoration assessments, such as the comprehensive fish and macro-invertebrate monitoring program, marsh water level/water quality/flow monitoring, monitoring of threatened and endangered species, and sampling vegetation communities that will most likely to be impacted by implementation of the MWD, C-111 Canal Project, and CERP projects.
- Continuation of a project to monitor the detailed aspects of water quality and flow in the Loxahatchee National Wildlife Refuge, which provides critical data to the Department of the Interior for analysis of Consent Decree requirements.
- Finalization of climate change modeling studies that link sea level rise and climate predictions with expected hydrological and ecological responses to ongoing restoration actions. A study of the potential effect of sea level rise on rare plants will provide a link

between restoration actions and in-Park natural resources management. Additionally, continuation of studies of the potential of Everglades natural habitats to sequester carbon would provide insight as to the potential effects of Everglades restoration on the overall carbon budget of the South Florida Ecosystem.

- Continuation of work to synthesize the large body of scientific information gathered in
  the past decade of research on the Everglades freshwater habitats. This work would
  produce a book or a dedicated journal issue, and would emphasize organization and
  synthesis of existing information on key topics (such as water quality, and the role of
  flow) for presentation to decision-makers.
- Continued emphasis on field and modeling studies on the rates and patterns of sheetflow and projected changes in ridge and slough topography and vegetation patterns; including developing models that link marsh sheetflow, sediment transport, and landscape-scale vegetation patterns.
- Continued emphasis on examining the impacts of invasive exotic plants and animals on the Everglades ecosystem, and development of appropriate methods of containment and control.

#### Modified Water Deliveries Project (MWD) (\$8,000,000)

The MWD project is authorized by Section 104 of the Everglades National Park Protection and Expansion Act of 1989. This project involves construction of modifications to the C&SF Project water management system and related operational changes to provide improved water deliveries to ENP. In FY 2011, the NPS has requested \$8.0 million for the MWD Project.

The current status and plans for FY 2011 are described below:

- The 8.5 Square Mile Area component provides flood mitigation to an agricultural and urban area adjacent to ENP due to the expectation of higher water levels in that area resulting from the construction of the MWD's restoration features. The component features include a perimeter levee, an internal canal and levee system, a pump station and storm water treatment area, and the acquisition of lands adjacent to the ENP boundary and west of the perimeter levee. Construction was completed in FY 2008. ENP and the Corps are now developing a plan for the transfer of the lands and the transfer of the project features to the local sponsor, the SFWMD; this is expected to be completed in 2010/11.
- The Tamiami Trail Modifications (TTM) component will modify the existing highway in a manner consistent with the expected modified water flows and levels resulting from the conveyance components of the project. In addition, these modifications must be designed to be consistent with Florida Department of Transportation road safety requirements. Construction on the plan approved in the Corps' 2008 Limited Reevaluation Report (LRR), which specified the construction of a one-mile bridge and the raising of the balance of the 10.7 mile corridor, was initiated in early 2010 and is expected to be completed by the end of 2012.
- The Conveyance and Seepage Control (CSC) component will convey water through reservoirs upstream of ENP into the Shark Slough drainage basin of ENP more consistent with historic hydrologic conditions. In addition, these project features will also return project-induced increased seepage from the project area to ENP in order to maintain flood protection to adjacent areas. Some of the features of this project component have been completed: the S-356 pump station, back-filling of the lower four

miles of the L-67 extension canal, and construction of the S-355 structures in the L-29 levee. Revisions to the TTM component require complementary design refinements to the C&SC components. Revised planning documents for the conveyance features and the combined water control plan are currently in development. It is the intent of the USACE to have features associated with both completed coincident with the completion of the Tamiami Trail LRR features.

 Project Implementation Support provides funding for conducting environmental monitoring, developing improved operational plans, completing the needed modifications to the Osceola Camp flood mitigation features, as well as supporting the requisite ENP and Corps' personnel. FY 2011 activities will include the continuation of personnel support and environmental monitoring and initiation of design for the Osceola Camp modifications.

The completion of the MWD project is required prior to the construction of certain components of the CERP.

### Stabilize and Construct Off Road Vehicle Trails at Big Cypress National Preserve (\$3,559,000)

This project will provide a designated, stable, and sustainable trail system for off-road vehicle (ORV) use within Big Cypress National Preserve.

In 1995 the NPS was sued by the Florida Biodiversity Project regarding the use of ORVs in the Preserve. The plaintiffs argued that the NPS had violated federal statutes in connection with use of ORVs in Big Cypress. Later in 1995 a settlement agreement was reached that stated that Big Cypress would develop an ORV Management Plan. This ORV management plan, completed in 2000, stated that the designated trail system will be in place by 2010.

The Preserve met the 2010 deadline for designating the trails. The 2011 request provides funding to continue trail stabilization throughout the designated trail system. Once completed, 22,000 miles of dispersed use will be reduced to approximately 400 miles of designated use. Six thousand acres of land impacted by ORVs will be restored, and additional land will be allowed to revegetate naturally through removal of ORVs.

#### Land Acquisition Management (\$775,000)

Funding in FY 2011 will be used to administer the federal land acquisition program in south Florida to enable completion of land acquisition and to meet the schedule established by the Department.

#### U.S. Department of the Interior: Fish and Wildlife Service (FWS) (\$9,072,000)

Resource Management - Ecological Services (\$4,250,000) Ecological Services - Everglades Base (\$2,475,000)

These funds will allow the FWS to continue coordination, technical assistance, and partnering efforts with NPS, USGS, tribal governments, state agencies, and private organizations involved in the restoration of the South Florida Ecosystem. These funds for FY 2011 will also enable the FWS to continue implementing the Multi-Species Recovery Plan, which provides a blueprint for

protecting, conserving, and managing the threatened and endangered fish and wildlife resources. The FWS is undertaking comprehensive habitat based strategies for restoration and recovery of species. Examples of this include the establishment of panther conservation banks and multi-species management plans.

The FWS will continue consulting with and providing technical assistance to the USACE, NPS, and other federal agencies relative to those agency activities that potentially affect federally listed species. The FWS continues its historically active role in reviewing applications for impacts on wetlands under the USACE Regulatory Program. In addition to the analysis of direct, indirect, and cumulative impacts, the FWS ensures that private development proposals are compatible with the CERP. The planning and building of several CERP components requires careful review of applications by the local sponsor (mainly the SFWMD) through the USACE's regulatory process. In FY 2011, the FWS will continue consultation with the USACE on the CERP, as well as other ongoing or new federal projects. Further, the FWS will evaluate the potential need to list additional species pursuant to the ESA, and develop cooperative agreements with landowners for the protection and conservation of listed species through Candidate Conservation Agreements, Safe Harbor Agreements, and Habitat Conservation Plans.

Also included in this program category, the South Florida Coastal Habitat Restoration Program actively forms partnerships with other federal and state agencies, local governments, non-governmental entities, and private property owners to implement "on-the-ground" restoration projects as well as to conduct research, monitoring, and public outreach activities. The Coastal Program complements the larger, more comprehensive South Florida Ecosystem Restoration Initiative by implementing immediate "on-the-ground" actions designed to protect, conserve, and restore coastal living resources. For the past several years, the importance of "on-the-ground" restorative actions has been reflected by the distribution of half of the Coastal Program's budget toward actual habitat restoration.

In FY 2011, the FWS will address new USACE project starts and continue to be actively involved in threatened and endangered species consultation and recovery, private land partnerships, environmental contaminant reviews, coastal restoration projects, preparation of Fish and Wildlife Coordination Act Reports, system-wide water quality improvement, and a myriad of multi-agency planning, science, and outreach efforts. The FWS will ensure that ecosystem benefits are maximized consistent with Everglades restoration goals. The role of the FWS will support and advance adaptive management and the principal goals of Everglades Restoration.

#### **Ecological Services - Everglades Treasured Landscapes Initiative (\$1,775,000)**

The FWS combines the strengths of multiple program expertise in working toward a unified landscape level goal to restore south Florida ecosystems. These funds will support the FWS' role in the greater Everglades ecosystem through three mechanisms: (1) Endangered Species Act consultation; (2) threatened and endangered species recovery; and (3) developing solutions to address contaminant concerns in the Everglades to advance restoration projects.

#### • Endangered Species Act Consultation (\$700,000)

The Section 7 and Section 10 consultation processes under the Endangered Species Act are particularly important in the Everglades because of the high number of threatened and endangered species (67 in total) and the many threats they face such as habitat loss, invasive species, continued human development, climate change, and the deteriorating conditions in the ecosystem caused by the limitations of existing water management infrastructure.

Specifically, these funds will build upon recent landscape-level partnerships to:

- o Develop conservation plans for 150,000 acres of Florida panther habitat;
- Develop and implement interim plans to protect highly endangered birds during the transition to Everglades restoration;
- o Create a state-wide conservation strategy for sea turtles; and
- Develop conservation strategies for highly imperiled species in the low lying Florida Keys - an area that is particularly vulnerable to climate change and sea level rise.

#### • Threatened and endangered species recovery (\$900,000)

The FWS is charged with recovering 67 imperiled species, including some of the greatest species recovery challenges in the Nation such as the Florida panther, Cape Sable seaside sparrow, and Everglade snail kite. Until restoration is completed, however, species conservation and recovery in south Florida will be faced with significant challenges. A portion of these funds will allow the FWS to work with many partners to conserve imperiled birds and other species during the transitional period between today and the completion of Everglades restoration and beyond.

- Specifically, the effort includes three central components: (1) maximize benefits for multiple species in the short term; (2) improve our scientific understanding for management and emergency planning; and (3) monitor species health for adaptive management purposes.
- In addition, recovery of the 67 imperiled species in south Florida requires managing new threats as well as existing threats to the species' survival. The most recent new threat, and maybe the most significant, is the non-native Burmese python. The Burmese python continues to expand its range in Florida, and land managers are increasingly concerned about the impacts of this invasive snake on listed species. For example, Burmese pythons were recently found in the northern Florida Keys, and had consumed three endangered Key Largo woodrats. The best estimate of the woodrat population is 200 individuals. Burmese python populations are known to overlap populations of other federally listed species such as the Cape Sable seaside sparrow.

Addressing the Burmese python threat in South Florida will require a three-pronged approach to include: (1) developing, field testing, and deploying traps for Burmese pythons; (2) developing and implementing an early detection and rapid response team for pythons; and 3) designing and implementing a public awareness campaign.

#### • Solutions for Contaminants of Concern in the Everglades (\$175,000)

The FWS provides critical technical assistance in the effort to restore America's Everglades. Everglades restoration will benefit wading birds and other wildlife by transforming thousands of acres of former agricultural lands into healthy wetlands; however, some of the contaminants historically used to maximize crop yield lie dormant and have the potential to harm bald eagles, wood storks, and other important wildlife when restoration occurs if remediation is not completed. This funding will allow the Contaminants Program to evaluate potential risks, create and apply the science needed to make sound management decisions, and ensure that the Everglades restoration effort maximizes its contribution to ecosystem-level conservation, improving conditions across thousands of acres of habitat.

#### Resource Management - Refuges and Wildlife (\$4,022,000)

The FWS administers 16 national wildlife refuge units in south Florida. The Service manages all actions under the ESA, provides comments on comprehensive wetland programs (including permitting), carries out authorities of the Fish and Wildlife Coordination Act, and enforces federal wildlife laws. As a member of the Working Group, the FWS will continue to undertake important on-the-ground restoration activities.

#### Resource Management - Migratory Birds (\$99,000)

While coordinating with the Service's South Florida Ecological Services Field Office and the Arthur R. Marshall Loxahatchee National Wildlife Refuge, the Division of Migratory Birds works cooperatively with the Florida Fish and Wildlife Conservation Commission (FWC) and the SFWMD to provide technical expertise relative to Migratory Bird Treaty Act (MBTA) implications on the various CERP projects, especially for Avian Protection Plans and management of invasive exotics species such as the purple swamphen. Effective implementation of CERP with the above partners, the USACE, and the NPS, and others is critical to restoring water quantity, quality, timing, and distribution for the benefit of people, migratory birds, and other wildlife and their habitats.

#### Resource Management - Law Enforcement (\$609,000)

Funding will be used to enhance law enforcement's ability to handle the quickly escalating regional workload. There has been a marked increase in the illegal trafficking of exotic protected species and the unlawful "taking" of endemic species protected by the ESA and the MBTA throughout south Florida. Southwest Florida is one of the most ecologically sensitive and rapidly growing areas of the state, requiring the highest priority for establishing an increased law enforcement presence. Funding will allow the purchase of vehicles, boats, and marine equipment needed by law enforcement personnel to conduct investigations in remote areas. Additional personnel will be detailed to "task force" enforcement operations within the ecosystem as needed. Increased efforts to educate the public regarding the law and illegal activities will be emphasized.

#### Resource Management - Fisheries (\$92,000)

Efforts will be directed toward restoration of anadromous and coastal fish species in south Florida. Emphasis will be placed on ensuring that non-indigenous fish species are adequately evaluated for potential effects on restoration activities.

#### <u>U.S. Department of the Interior - U.S. Geological Survey (USGS)</u> Everglades Restoration - Integrating Research, Planning, and Interagency Coordination (\$6,907,000)

Funding in FY 2011 will support the USGS, through its Priority Ecosystems Science activities, in continuing to provide planning, research, and interagency coordination efforts needed for Everglades restoration in accordance with the terms of the Memorandum of Understanding between the USGS, FWS, and NPS. This coordinated science effort allows the DOI bureaus to leverage resources, maximize the value of federal research funds, and ensure that the best available research products and monitoring and assessment tools are developed to meet the priority needs in the Everglades. In FY 2005 the USGS, in partnership with the FWS and NPS, updated the Department's Everglades science plan to better identify emerging science needs. The revised science plan was then used as the basis for the selection of new studies which were initiated in FY 2006 and the following years. The DOI Everglades science plan serves as the template upon which to define and prioritize studies to address critical decision-related information needs. The DOI Greater Everglades Science Team used the science plan coupled with near-term plans for the CERP, MWD project, and other restoration activities as well as other emerging issues (e.g., sea level rise and climate change) to generate a priority list of research, monitoring, and modeling studies needed to address immediate and near-term decision-related information needs. USGS, in partnership with FWS, NPS, and other restoration partners, is continuing to prioritize its research to support and conduct timely and relevant decision-critical science.

USGS activities provide a fundamental understanding of ecosystem process, structure, and function. A significant part of USGS activities is to integrate the ecosystem science through continued development of decision support tools. This is accomplished through continued development and improvement of integrative models, including hydrologic models, ecological models, chemical models, and geographic and landscape models. These ecosystem models are being integrated into decision support tools to aid in restoration-related planning decisions by the FWS, NPS, USACE, FDEP, the Environmental Protection Agency (EPA), and the SFWMD to predict the consequences of varied management alternatives, set ecological goals by providing yardsticks to measure the success of the restoration, and manage the natural resources of the system. In support of the revised science plan and the updated list of critical/priority research, monitoring, and modeling needs, the USGS will continue high-priority work that includes longterm hydrologic monitoring, coastal salinity monitoring, continued development and enhancement of ecological models including models for adaptive assessment, and development of simulation-based decision support tools. These tools will continue to be used in planning and implementing the CERP, MWD, and other Everglades restoration projects. A continuing challenge is to make all ecological models an integral part of the decision support tools available to restoration practitioners. USGS has initiated work with the Interagency Modeling Center (IMC) to incorporate the USGS process-based hydrologic models into the IMC's modeling 'tool box'. This process will not only put ecological models into the IMC 'tool box', but will provide a mechanism for improving the models by providing feedback between model application, model research and development, and model improvement via integration with monitoring.

Since paleoecological data also include a record of sea-level fluctuations, USGS will be reevaluating sea-level rise data within the context of projected future freshwater flows and accelerated sea-level rise. This information will help us better refine the target(s) for freshwater

flows to coastal systems, and better understand the dynamics of the interaction of restoration with coastal change. Also, an ongoing USGS study on the paleoecology of freshwater marshes, specifically marl prairie marshes, is providing the FWS with information useful in their reevaluation of the current distribution of species within the context of both the historical and the projected 'future' Everglades having more water than today's current Everglades.

#### U.S. Department of the Interior - Bureau of Indian Affairs - (\$390,000)

In FY 2011, funds will be used for continuing efforts to restore the South Florida Ecosystem for the Seminole and Miccosukee Tribes. This funding (\$195,000 each) is included within each Tribe's base funding and is provided to support research, studies, and planning on water quality and distribution systems, ecosystem development and management, and planning for compliance with the ESA in storm water areas on the Seminole and Big Cypress reservations.

#### U.S. Environmental Protection Agency (EPA) (\$2,148,000)

EPA priorities for restoring and protecting the South Florida Ecosystem in FY 2011 include continuing to work with the Corps and the State of Florida to implement the CERP via the National Environmental Policy Act (NEPA) and the Clean Water Act (CWA) program areas; work with the State of Florida and federal agencies to implement appropriate phosphorus control programs that will attain water quality standards within the Everglades Ecosystem; supporting development of Total Maximum Daily Loads (TMDLs) for the Lake Okeechobee watershed; assisting the State of Florida and the SFWMD in evaluating the appropriateness of Aquifer Storage and Recovery technology as a key element of the restoration strategy for south Florida; updating and implementing the South Florida Wetlands Conservation Strategy to include protecting and restoring critical wetland habitats in the face of tremendous growth and development pressures; continuing to implement the comprehensive monitoring program (water quality, coral reef, and seagrass), special studies, data management, and public education components of the FKNMS Water Quality Protection Program as required by the National Marine Sanctuaries Program Amendments Act of 1992; and protecting coral reef ecosystems of southeast Florida by reducing land-based sources of pollution on a watershed scale, including controlling discharges from point sources.

## Section 3.0

## State of Florida Everglades Ecosystem Restoration Projects and Funding

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#### Section 3.1: State of Florida Comprehensive Everglades Restoration Plan (CERP) Projects and Funding (\$137,611,449)

#### Florida Department of Environmental Protection (FDEP) (\$51,808,839)

The implementation of the CERP, in partnership with the SFWMD, tribes, other state, federal and local agencies, and environmental groups, is a high priority for the FDEP.

The FDEP administers the Save Our Everglades Trust Fund. The State has bonding authority, if needed, to fund Florida's commitment to Everglades restoration.

Restoring America's Everglades, \$50 million - The Florida Legislature appropriated \$50 million in FY 2010/11 to continue the state-federal partnership, established in 2000, to restore America's Everglades and establish a more natural flow of water across the 2.4 million-acre marsh, and to implement the Northern Everglades and Estuaries Program (NEEPP). These funds are provided for the design and construction of CERP components, Lake Okeechobee Protection Plan components, Caloosahatchee and St. Lucie River Watershed Protection Plan components, and for the acquisition of lands for the projects included in these plans. To date, the state has committed approximately \$2.4 billion toward the \$10.9 billion CERP. The funding plan ensures that the projects needed for the restoration of the Everglades can continue to restore a more natural water flow and improve water quality.

The FDEP's Tallahassee Office of Ecosystem Projects (Office of the Secretary) and the Restoration Planning and Permitting Section (Division of Water Resource Management) estimate costs of \$243,746 and \$837,841.67 respectively to oversee the Everglades Forever Act (EFA) and CERP implementation in FY 2010/11. The FDEP's Southeast Florida District office in West Palm Beach and South Florida District in Fort Myers estimate expenditures of approximately \$510,000 and \$16,480 respectively in support of CERP projects and other south Florida related restoration activities, including a grant of \$200,772 to the Division of Recreation and Parks for a restoration project on Key Largo. The project involves wetland restoration from a previous dredge-and-fill project associated with a portion of an undeveloped subdivision.

#### Florida Fish and Wildlife Conservation Commission (FWC) (\$1,496,946)

The FWC contributes to CERP projects by providing technical assistance to the sponsoring agencies in order to ensure that CERP activities address the needs of fish and wildlife and their associated habitats. In FY 2010/11, the agency organized an inter-divisional team to prioritize and coordinate the agency's contributions to all inter-agency ecosystem restoration activities in south Florida including the CERP. The Office of Planning and Policy Coordination facilitates official consultations for the CERP through various processes including inter-agency planning teams, the Coastal Zone Management Program, the Fish and Wildlife Coordination Act, and the National Environmental Policy Act.

#### South Florida Water Management District (SFWMD)(\$84,305,664)

The SFWMD is the local sponsor for the majority of the over 50 projects included in the CERP. Planning and design is currently underway on many of these projects. The focus of the SFWMD's efforts during FY 2010/11 will be on continued work in partnership with the Corps on planning and design efforts associated with completion of PIRs and detailed design for

several expedited projects. The SFWMD will also continue construction on several expedited projects (including non-CERP as described in Section 3.2 below) during this period.

The SFWMD is also engaged in acquisition of lands needed for CERP and other Everglades restoration projects. Current efforts are focused on acquisition of lands needed for construction within the next five years based on the implementation schedules for the CERP and the Northern Everglades.

In addition to these project efforts, the SFWMD is partnering with the Corps on several programmatic efforts that are necessary for implementation of the CERP. These programmatic activities include: implementation of public outreach and environmental and economic equity plans; CERP data management and quality control oversight; completion of a Master Recreation Plan for the CERP; implementation of RECOVER, including a system-wide monitoring plan, an adaptive assessment program, and the use of Incremental Adaptive Restoration; and continued operation of the interagency modeling center to support CERP projects.

## Section 3.2: State of Florida Non-CERP Everglades Ecosystem Restoration Projects and Funding (\$398,121,685)

## Florida Department of Agriculture and Consumer Services (FDACS) (\$5,000,000)

The FDACS, through its Office of Agriculture Water Policy, addresses water issues relating to agriculture and ecosystem restoration. The FDACS is responsible for addressing agriculture non-point source water pollution and for implementing TMDLs in water bodies and segments statewide. Lake Okeechobee is the first recipient of a TMDL in Florida and the FDACS has implemented a program in the Lake's basin to deal with agriculture non-point sources. The FDACS also plays an important role in the management of public lands through its Division of Forestry. The Division is the lead managing agency on the Picayune State Forest (Southern Golden Gate Estates and Belle Meade) and is the state agency responsible for wildfire suppression and prevention and forest protection in south Florida.

#### Department of Community Affairs (DCA) (\$ To Be Determined\*)

DCA's Florida Communities Trust offers competitive grants to local governments to acquire conservation, recreation, and green space lands throughout Florida and including the 16 counties within the boundaries of the SFWMD. Furthermore, DCA participates on the Working Group and its committees, providing expertise on comprehensive land use planning, growth management, affordable housing, disaster relief, and hazard mitigation.

\*These figures are the Florida Communities Trust grants that are awarded to local governments in the South Florida Ecosystem.

\*These figures are the Florida Communities Trust grants that are awarded to local governments in the South Florida Ecosystem. They can only be identified and calculated after the June 30 close of each Fiscal Year. Since this is a statewide competitive grant program, an estimate of these figures prior to June 30 is not possible.

#### Florida Department of Environmental Protection (FDEP) (\$21,058,307)

The FDEP's non-CERP South Florida Ecosystem restoration priorities include implementation of the EFA, the Lake Okeechobee Protection Program, the Lake Okeechobee and Estuary Recovery (LOER) Program (in cooperation with the SFWMD), land acquisition for conservation

purposes, and providing funds in support of the Indian River Lagoon Initiative and Issue Team and St. Lucie River Issues Team.

The Lake Okeechobee Protection Plan is a comprehensive plan to accelerate the restoration and recovery of Lake Okeechobee, which started in 2000 and was expanded by the Florida Legislature in FY 2007/08 to include the protection and restoration of the Northern Everglades including the Lake Okeechobee watershed and the Caloosahatchee and St. Lucie estuaries. The Florida Legislature appropriated \$94 million in FY 2010/11 to:

- Implement projects identified in Phase I of the Lake Okeechobee Protection Plan identified in section 373.4595 (3)(b), F.S.; the development of the Phase II Technical Plan identified on section 373.4595 (3)(b), F.S.; and the acquisition of lands needed for restoration.
- Implement project components which benefit the hydrology, water quality, and aquatic habitats of the Caloosahatchee and St. Lucie watersheds, including project components in the Lake Okeechobee watershed for the planning, design and engineering of a stormwater treatment area in association with the C-43 reservoir, including work necessary to complete the Phase II Project Implementation Report; and for the acquisition of lands needed for restoration.
- Implement pilot projects that are cost-effective biologically based, hybrid wetland/chemical, and other innovative nutrient control technologies pursuant to section 373.4595 (3) (b), F.S.
- Implement projects within the Caloosahatchee River watershed identified for the purposes of improving the hydrology, water quality, and aquatic habitats.
- Implement projects within the St. Lucie River watershed identified for the purposes of improving the hydrology, water quality, and aquatic habitats.

Saving Lake Okeechobee - Recognizing the importance of the heart of America's Everglades, the Florida Legislature continued its commitment to Lake Okeechobee by recommending funding for the implementation of projects identified in phase I of the Lake Okeechobee Protection Plan and projects identified in the Northern Everglades and Estuaries Program. Funds for these projects will come from the \$50 million appropriated for overall Everglades restoration. These efforts will enhance the ecological health of the lake, rivers, and downstream coastal estuaries.

Launched in 1999, Florida Forever is the largest conservation program of its kind in the world. The ten-year, \$3 billion program permanently protects environmentally sensitive land, vital waterways, and important cultural and historical landmarks.

The FDEP anticipates the expenditure of \$6 million in FY 2010/11 to acquire non-CERP conservation lands in south Florida. In addition, the FDEP supports water quality improvement programs for Section 303d, Clean Water Act, listed water bodies; ecosystem restoration project management; regulatory, watershed planning, and coordination activities; and research and monitoring. The FDEP's budget for FY 2010/11 has projected funding of approximately \$40,932,055 for the following activities in south Florida:

- State park operations and management (\$17,537,225)
- Mercury research and monitoring (\$1,300,000)
- Coastal and aquatic managed areas (\$2,221,082)

#### Florida Fish and Wildlife Conservation Commission (FWC) (\$43,409,812)

The FWC embodies the state's executive responsibility for managing Florida's freshwater, marine, and terrestrial fish and wildlife. In order to meet its mission, the agency contributes to South Florida Ecosystem restoration and conservation both operationally and through partnerships.

Operations: Four of the agency's divisions manage fish and wildlife resources (Divisions of Freshwater Fisheries Management, Habitat and Species Conservation, Hunting and Game Management, and Marine Fisheries Management), while the Division of Law Enforcement ensures that laws protecting fish, wildlife, and their habitats are enforced. The Fish and Wildlife Research Institute administers the research and monitoring programs that support the agency's mission. A significant contribution in this regard are the GIS-based species habitat models that are used to identify those lands that need to be conserved in support of imperiled species management plans. FWC programs support non-native species research and management, aquatic plant management, panther restoration research, and alligator management throughout the Everglades Ecosystem.

The agency is either sole manager or a partnering manager on over one million acres of public lands throughout the region. Further, the FWC contributes to state land acquisition programs through its Inholdings and Additions program, targeting lands within or contiguous to areas currently managed by the FWC. Lastly, the agency administers an on-going lake enhancement and restoration program and in FY 2007/08, the FWC conducted restoration activities in Lakes Okeechobee, Tohopekaliga, and Trafford.

Partnerships and Outreach: The FWC took lead responsibility for developing the state's Comprehensive Wildlife Conservation Strategy in 2005. The strategy, which relies heavily on partnering to achieve its objectives, identifies eighteen priority habitats for conservation, and many of these areas occur in south Florida. In FY 2007/08, the agency began working on the strategy's land conservation element. Known as the Conservation Blueprint, this effort has been dove-tailed into the Century Commission's Critical Lands and Waters Identification Plan. In addition, multiple programs of the FWC support outreach and education in the region, including the Everglades Youth Camp, Urban Fishing Programs, Wildlife Curriculum support, and general fish and wildlife outreach. Also in FY 2007/08, the agency began developing a strategy and work plan for providing technical assistance to local governments during growth management planning activities. Finally, the agency partners with the FWS, NRCS, and FDACS to provide both technical assistance and grant support to those private landowners wishing to sustain fish and wildlife habitat on their properties.

The FWC's planned funding for South Florida Ecosystem restoration during FY 2009/10 includes:

- Law Enforcement (\$16,000,000)
- Division of Freshwater Fisheries (\$460,000)
- Florida Wildlife Research Institute (\$11,644,222)
- Division of Habitat and Species Conservation (\$16,802,536)

#### Florida Department of Transportation (FDOT) (\$8,364,651)

The FDOT is a leader among transportation agencies in the nation for protecting wildlife and redesigning roadways to restore natural water flow to over-drained areas. The FDOT is also a leader in providing funding and technical assistance to plan and implement greenways and trails. Many of these programs have been implemented in south Florida, particularly the Big Cypress Swamp (Interstate 75/Alligator Alley), Tamiami Trail, and U.S. 1 to the Florida Keys. The FDOT also funds wildlife and habitat mitigation efforts ranging from seagrass restoration in the Indian River lagoon and sea turtle lighting along the southeast coast to the purchase of panther habitat in southwest Florida.

The FDOT's expenditures for South Florida Ecosystem restoration during FY 2009/10 was \$18,004,018 and includes:

- Research to determine the effectiveness of wildlife crossings (\$65,000)
- Mitigation maintenance and monitoring (\$191,103)
- Removal of exotic vegetation (\$2,316,563)
- Wildlife and wetland mitigation (\$11,981,352)
- Water Quality Study (\$600,000)
- Seagrass and mangrove mitigation (\$2,850,000)

The FDOT's planned funding for South Florida Ecosystem restoration during FY 2010/11 is \$8,364,651 and includes:

- Research to determine the effectiveness of wildlife crossings (\$75,000)
- Mitigation maintenance and monitoring (\$176,750)
- Removal of exotic vegetation (\$2,572,550)
- Wildlife and wetland mitigation (\$1,040,351)
- Seagrass and mangrove mitigation (\$4,500,000)

#### South Florida Water Management District (\$320,288,915)

The SFWMD is implementing the Long-Term Plan for Achieving Water Quality Goals in the Everglades Protection Area (Long-Term Plan) including the structural and vegetation enhancements to the ECP as required by the 2003 amendments to the EFA. Critical initiatives underway include construction of over 11,000 acres of additional stormwater treatment areas (the build-out phase of the 18,000 acre total ECP expansion) as part of an expedited project initiative for removing phosphorus from inflows to the Everglades. Additionally, the SFWMD works closely with the FDEP and other state, federal, and tribal governments on other non-CERP programs to restore and protect the South Florida Ecosystem.

Underscoring the state's commitment to greater Everglades ecosystem restoration, the Florida Legislature in 2007 expanded the Lake Okeechobee Protection Act to include protection and restoration of the interconnected Kissimmee, Lake Okeechobee, Caloosahatchee, and St. Lucie watersheds. This interagency initiative, known as the Northern Everglades and Estuaries Protection Program (NEEPP), is focusing on the water storage and water treatment needed to help improve and restore the Northern Everglades and coastal estuaries. As part of the Northern Everglades Initiative, the SFWMD and the State will expand water storage areas, construct treatment marshes, and expedite environmental management initiatives to enhance the ecological health of the lake and downstream coastal estuaries. The NEEPP requires

collaborating agencies in cooperation with local government to develop 1) the Lake Okeechobee Watershed Construction Project Phase II Technical Plan, 2) the St. Lucie River Watershed Protection Plan (SLRWPP), and 3) the Caloosahatchee River Watershed Protection Plan (CRWPP). The Phase II Technical Plan was submitted to the legislature in February 2008 whereas the SLRWPP and CRWPP were submitted in January 2009. While Northern Everglades projects have been conceptually identified in these plans, specific projects and activities will be included in an Annual Work Plan for each fiscal year and published in the South Florida Environmental Report (SFER). The Northern Everglades Annual Work Plan for FY 2010/11 contains the next steps for the restoration of the Northern Everglades region and includes restoration efforts for the Lake Okeechobee Watershed as well as the Caloosahatchee and St. Lucie River Watersheds.

The SFWMD's priority non-CERP South Florida Ecosystem restoration and protection projects for FY 2010/11 include:

- Activities associated with River of Grass Land Acquisition.
- Study and design of a nitrogen-removing constructed wetland in the Caloosahatchee River watershed.
- Implementation of provisions in the EFA: water quality restoration in the Everglades Protection Area through continued implementation of the ECP and the Long-Term Plan; and continued implementation of the control of exotic plants, research and monitoring, and regulation.
- Restoration of the Kissimmee River and floodplain (in cooperation with the Corps) through land acquisition (completed in FY 2006), construction, backfilling 22 miles of canal, excavation of 10 miles of new river channel, reestablishment of approximately 40 miles of contiguous river channel, and a comprehensive ecological evaluation program.
- Implementation of the Lake Okeechobee Protection Program (in cooperation with FDACS, FDEP, and the Corps) which is focused on restoration and protection of the lake by reducing nutrient loading, controlling the spread of nuisance and exotic plants, restoring isolated wetlands, and addressing extreme high and low water levels.
- Restoration of the southern Everglades and Florida Bay, in cooperation with the Corps and ENP, through the C-111 South Dade and MWD projects, land acquisition, and operational changes to restore natural water flows to ENP and Florida Bay.
- Updates and implementation of regional water supply plans.
- Acquisition, management, and mitigation of lands needed for ongoing and future non-CERP restoration projects and for conservation and protection of critical habitat.
- Implementation of Critical Restoration Projects in cooperation with the Corps.
- Restoration of coastal ecosystems through pollutant load reduction and habitat restoration and identification of storage needs to meet salinity targets.
- Restoration of wetlands and associated upland buffer habitat in the Kissimmee Chain of Lakes, Indian River Lagoon, and Loxahatchee River basins (in cooperation with the USDA - NRCS).
- Operation and maintenance of the flood control system that includes over 500 primary water control structures, 64 pump stations, approximately 2,669 miles of canals and levees, and 2,000 secondary structures which control inflows from secondary sources into the SFWMD's primary system.

The Florida Legislature also requires the SFWMD to: manage water and related land resources; promote conservation, development, and use of surface and groundwater for reasonable beneficial uses; manage dams, impoundments, and other "Works of the District" to provide water storage; prevent flood and soil erosion damage; maintain navigable rivers and harbors; and promote outdoor recreation on publicly owned lands.

In addition to ecosystem restoration projects, the SFWMD expends a significant amount of staff time and contract dollars toward implementation of restoration program support activities such as land management, control of invasive exotic plants and animals, research and monitoring, environmental resource permitting, and intergovernmental coordination.

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# Section 4.0 Agency Contacts

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The following individuals are designated as points of contacts concerning their agency information as provided in the Cross Cut Budget 2011 Working Document.

Federal Agencies:

Karen Abrams U.S. Department of Commerce - NOAA	202/482-2461	Karen.Abrams@noaa.gov
Kevin Burger South Florida Ecosystem Restoration Task Forc Office of the Executive Director	305/348-1665 e	kmbsr@sfrestore.org
Tonya Jackson U.S. Department of the Interior	202/208-3303	Tonya_Jackson@ios.doi.gov
Cardell Johnson U.S. Environmental Protection Agency	202/564-9831	johnson.cardell@epa.gov
Marsha Bansee Lee South Florida Ecosystem Restoration Task Forc Office of the Executive Director	305/348-6746 e	mbansee@sfrestore.org
Michael Magley U.S. Army Corps of Engineers	404/562-5206	Michael.E.Magley@usace.army.mil
Mark R. Walbridge U.S. Department of Agriculture - ARS	301/504-4731	mark.walbridge@ars.usda.gov
Edward Wright U.S. Department of Agriculture - NRCS	386/329-4116	edward.wright@fl.usda.gov
•	386/329-4116	edward.wright@fl.usda.gov
U.S. Department of Agriculture - NRCS	386/329-4116 850/922-1600	edward.wright@fl.usda.gov  Sheri.Coven@dca.state.fl.us
U.S. Department of Agriculture - NRCS  State of Florida Agencies:  Sheri Coven		
U.S. Department of Agriculture - NRCS  State of Florida Agencies:  Sheri Coven Florida Department of Community Affairs  Fred Noble	850/922-1600 850/414-5269 850/245-2089	Sheri.Coven@dca.state.fl.us
U.S. Department of Agriculture - NRCS  State of Florida Agencies:  Sheri Coven Florida Department of Community Affairs  Fred Noble Florida Department of Transportation  John Outland	850/922-1600 850/414-5269 850/245-2089	Sheri.Coven@dca.state.fl.us Fred.Noble@dot.state.fl.us
U.S. Department of Agriculture - NRCS  State of Florida Agencies:  Sheri Coven Florida Department of Community Affairs  Fred Noble Florida Department of Transportation  John Outland Florida Department of Environmental Protection  Ray Scott	850/922-1600 850/414-5269 850/245-2089 on 850/410-6714 ner Services 772/778-5094	Sheri.Coven@dca.state.fl.us Fred.Noble@dot.state.fl.us John.outland@dep.state.fl.us