

Cross-Cut Budget

Task Force Working Document

Fiscal Year 2019
South Florida Ecosystem Restoration Program

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Section 1.0

Overview

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Section 1.0: Overview

Section 1.1: Introduction

This document provides a consolidated overall budget for the Everglades ecosystem restoration efforts in south Florida with information provided by both federal and non-federal agencies. The information in this report is compiled and prepared by the U.S. Department of the Interior's Office of Everglades Restoration Initiatives (OERI) on an annual basis and includes a summary accounting of all funds in the Fiscal Year (FY) 2019 Budget Requests for participating federal and state agency members. This document, as well as expended restoration funding information for FY 2000 and FY 2001, is available on OERI's website at: www.evergladesrestoration.gov.

This document consists of three sections. This overview (Section 1.0) includes summary tables for the federal and state budget requests. The funding tables in this edition provide enacted and requested appropriations for FY 2012 through FY 2019. [To view historical enacted appropriations dating back to FY 2002, please click here.](#)

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 not specifically designated for restoration for some federal agencies are not included in the document.

Section 3.0 provides the detailed information concerning the State of Florida's 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) 2018/2019 totals shown represent estimates for the South Florida Water Management District (SFWMD). The FY 2018/2019 actual budget totals for the SFWMD will be posted on the Task Force website when the final budget is approved by their Governing Board.

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

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TABLE 1: FEDERAL FUNDING SUMMARY (ACTUAL \$)

EVERGLADES ECOSYSTEM RESTORATION PROJECTS	FY 2012 Enacted	FY 2013 Enacted	FY 2014 Enacted	FY 2015 Enacted	FY 2016 Enacted	FY 2017 Enacted	FY 2018 Enacted	FY 2019 Requested
COMPREHENSIVE EVERGLADES RESTORATION PROGRAM (CERP)								
USACE - CERP (Part of Central and Southern Florida) ^{1,3,4,12,13}	7,886,000	75,902,240	35,217,178	61,001,000	71,924,612	78,435,000	92,053,578	66,900,000
USACE - CERP O&M ^{1, 15,16}	330,000	309,744	425,000	1,538,000	1,826,635	0	2,920,000	
USDOJ - NPS CERP ¹⁰	5,101,000	4,854,000	5,130,000	5,162,000	5,216,000	5,236,000	5,236,000	5,203,000
USDOJ - FWS CERP	3,246,000	3,029,000	3,246,000	2,746,000	2,718,000	2,718,000	2,718,000	2,631,000
NON-COMPREHENSIVE EVERGLADES RESTORATION PROGRAM (CERP)								
USACE - Central and Southern Florida (excluding CERP) ^{1,3, 4}	35,986,000	12,800,000	8,800,000	7,550,000	23,071,529	11,787,000	3,573,152	0
USACE - Non-CERP O&M ^{14, 15}	4,842,000	6,995,527	6,844,555	4,039,000	6,741,392	5,703,010	2,996,000	0
USACE -Critical Projects ^{3, 4}	3,000,000	0	0	0	0	0	0	0
USACE - Kissimmee River Restoration ^{3,4}	45,614,000	0	0	0	31,411,789	36,065,000	9,800,000	600,000
USDA - ARS	4,660,300	3,443,300	2,989,000	2,989,000	2,989,000	2,989,000	2,989,000	2,989,000
USDA - NRCS	83,463,776	65,438,569	15,463,985	29,785,906	21,857,180	45,017,889	22,115,000	20,000,000
US Department of Commerce - NOAA	724,716	418,000	307,242	357,242	1,190,593	1,155,000	1,155,000	1,160,000
USDOJ - NPS Park Management	29,611,000	27,827,000	29,314,000	29,624,000	30,055,000	30,181,000	30,605,000	30,012,000
USDOJ - OERI and the South Florida Ecosystem Restoration Task Force	1,303,000	1,234,000	1,311,000	1,316,000	1,325,000	1,330,000	1,330,000	1,318,000
USDOJ - NPS Everglades Research (Critical Ecosystem Studies Initiative)	3,822,000	3,620,000	3,845,000	3,855,000	3,870,000	3,876,000	3,876,000	3,838,000
USDOJ - NPS Modified Water Deliveries	7,987,000	8,000,000	0	0	0	0	0	0
USDOJ - NPS Big Cypress Sustainable Trail System	2,669,000	0	0	0	0	0	0	0
USDOJ - NPS Tamiami Trail Bridging	0	0	7,500,000	0	0	0	0	0
USDOJ - NPS Federal Land Acquisition Projects	30,511,000	0	0	0	0	0	0	0
USDOJ - NPS Land Acquisition (management)	634,000	685,000	665,000	668,000	636,000	636,000	632,000	575,000
USDOJ - FWS Ecological Services	2,913,000	2,718,000	2,718,000	2,700,000	3,246,000	3,246,000	3,246,000	3,110,000
USDOJ - FWS Ecological Services	2,913,000	2,718,000	2,718,000	2,700,000	3,246,000	3,246,000	3,246,000	3,110,000
USDOJ - FWS Refuges and Wildlife	4,016,000	3,747,000	4,016,000	4,271,000	4,771,000	4,771,000	4,771,000	4,524,000
USDOJ - FWS Migratory Birds	99,000	92,000	92,000	92,000	92,000	92,000	92,000	87,000
USDOJ - FWS Law Enforcement	608,000	568,000	608,000	568,000	568,000	568,000	568,000	567,000
USDOJ - FWS Fisheries	92,000	86,000	92,000	92,000	92,000	92,000	143,000	87,000
USDOJ - FWS Land Acquisition ¹¹	1,500,000	3,000,000	5,000,000	3,000,000	4,591,000	2,500,000	2,500,000	0
USDOJ - USGS - Integrated Research, Planning and Interagency Coord.	6,882,000	6,525,000	6,525,000	7,313,000	7,928,000	7,778,000	7,727,000	1,877,000
USDOJ - BIA ¹⁶	390,000	370,000	390,000	390,000	743,000	580,000	390,000	380,000
US EPA	2,058,000	1,646,000	1,356,000	1,418,000	1,069,000	1,490,000	1,400,000	0

TABLE 2: FEDERAL FUNDING SUMMARY (ACTUAL \$)

EVERGLADES ECOSYSTEM RESTORATION PROJECTS	FY 2012 Enacted	FY 2013 Enacted	FY 2014 Enacted	FY 2015 Enacted	FY 2016 Enacted	FY 2017 Enacted	FY 2018 Enacted	FY 2019 Requested
CERP Total (USACE and USDOJ)	66,563,000	84,094,984	44,018,178	70,447,000	81,685,247	86,389,000	102,927,578	74,734,000
Non-CERP Subtotal (USACE and USDOJ)	182,479,000	78,267,527	77,720,555	65,478,000	119,141,710	109,164,010	72,249,152	46,975,000
Non-CERP Subtotal (Other Federal Agencies)	90,906,792	70,945,869	20,116,227	34,280,148	27,105,773	50,651,889	27,659,000	24,149,000
Non-CERP Total (All Federal Agencies)	273,375,792	149,213,396	97,836,782	99,758,148	146,247,483	159,815,899	99,908,152	71,124,000
TOTAL CERP AND NON-CERP (USACE AND USDOJ)	249,042,000	162,362,511	121,738,733	135,925,000	200,826,957	195,553,010	175,176,730	121,709,000
TOTAL CERP AND NON-CERP (ALL FEDERAL AGENCIES)	339,948,792	233,308,380	141,854,960	170,205,148	227,932,730	246,204,899	202,835,730	145,858,000

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:

¹ USACE CERP activities are part of the Central and Southern Florida Project (C&SF), but are presented separately from other C&SF activities.

² USACE FY 2006 Enacted reflects reductions for rescission and congressionally directed funding for the C&SF Upper St. Johns River project.

³ Enacted numbers for USACE reflect reductions for any rescissions, but do not account for reductions due to savings and slippage. FY 2013 numbers reflect approved work allowances.

⁴ Beginning with the FY 2006 Budget Request these projects are now included as part of one USACE line item referred to as the "South Florida Everglades Ecosystem Restoration" Program.

⁵ Enacted numbers for FY 2005 and FY 2006 reflect additional Emergency Watershed Protection Program funding due to hurricanes.

⁶ Modified Water Deliveries project funding for this year was \$35,199,000, reflecting \$19,199,000 for construction and \$16,000,000 for land acquisition.

⁷ Includes the transfer of \$17 million in unobligated balances from the USDOJ- NPS Federal Land Acquisition to NPS Construction to further the Modified Water Deliveries project.

⁸ In 2004, \$5,000,000 in prior year balances from this line was transferred to the USDOJ - FWS Resource Management Account, and \$9,924,000 to the USDOJ - NPS Park Management Transfer line. In 2005, \$702,000 was transferred from prior year balances from this line to the USDOJ - NPS Park Management Transfer line.

⁹ Of the funds appropriated for USDOJ - NPS Land Acquisition Grants to the State of Florida, the following amounts are reflected within the total appropriated to NPS: in 2002 \$8,796,000 was used in support of the Modified Water Deliveries project; in 2004, \$10,000,000 was used in support of the Modified Water Deliveries project, and \$17,291,000 was reprogrammed for other NPS and FWS Everglades related activities; and in 2005 \$1,083,000 was transferred to the FWS Resource Management account for Everglades activities.

¹⁰ 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; FY 2012 - \$410,000; FY 2013 - \$410,000; FY 2014 - \$410,000 - FY 2015 - \$410,000; FY 2016 - \$410,000; FY 2017 - \$410,000.

¹¹ Enacted number for 2012 reflects a reprogramming within the FWS land acquisition account for acquisition at the Everglades Headwaters National Wildlife Refuge and Conservation Area.

¹² USACE FY 2014 enacted reflects reduction for the C&SF Upper St Johns River Project

¹³ USACE FY 2015 requested reflects reduction for the C&SF Upper St Johns River Project

¹⁴ FY2016 Enacted O&M data includes \$6,950,000 that will be executed in FY2017, but was provided in FY2016.

¹⁵ FY2017 Enacted O&M data includes \$2,832,000 that will be executed in FY2018, but was provided in FY2017.

TABLE 3: STATE OF FLORIDA FUNDING SUMMARY TABLE (ACTUAL \$)

EVERGLADES ECOSYSTEM RESTORATION PROJECTS	2011-12 Enacted	FY 2012-13 Enacted	FY 2013-14 Enacted	FY 2014-15 Enacted	FY 2015-16 Enacted	FY 2016-17 Enacted	FY 2017-18 Enacted	FY 2018-19 Requested
COMPREHENSIVE EVERGLADES RESTORATION PROGRAM (CERP)								
Florida Department of Environmental Protection	31,006,243	28,527,828	73,164,611	61,336,618	49,371,486	163,461,458	173,783,678	179,360,830
Florida Fish and Wildlife Conservation Commission	1,640,302	1,187,999	2,001,704	1,732,157	2,151,735	3,004,775	4,616,862	4,128,324
South Florida Water Management District	52,664,416 ²	66,537,245 ²	56,117,416 ¹	52,836,197 ¹	54,436,380 ¹	35,914,180 ¹	30,212,186 ¹	26,799,280 ³
NON- COMPREHENSIVE EVERGLADES RESTORATION PROGRAM (CERP)								
Florida Department of Agriculture/Consumer Services	3,000,000 ³	3,000,000 ³	3,000,000 ³	3,000,000 ³	4,332,449 ³	4,332,449 ³	4,332,449 ³	4,332,449 ³
Florida Department of Environmental Protection	24,901,512	29,750,012	63,080,365	82,993,974	37,923,719	168,264,771	131,836,360	127,978,456
Florida Fish and Wildlife Conservation Commission	55,075,189	57,355,349	40,209,004	48,216,417	50,832,728	52,538,808	53,607,006	56,948,613
Florida Department of Transportation	20,173,349	11,619,604	19,963,236	17,656,798	11,951,883	8,969,139	44,518,584	22,225,804
South Florida Water Management District	400,452,489	366,512,069	415,873,861 ¹	418,794,193 ¹	448,384,250 ¹	395,390,671 ¹	374,751,716 ¹	350,721,412 ³
CERP SUBTOTAL:	85,310,962	96,263,072	131,283,731	115,904,972	105,959,601	202,380,413	208,612,726	210,288,434
NON-CERP SUBTOTAL:	503,602,539	468,237,034	542,126,466	570,661,382	553,428,029	629,495,838	609,046,080	562,206,734
STATE OF FLORIDA FUNDING TOTAL:	588,913,500	564,500,106	673,410,197	686,566,354	659,387,630	831,876,251	817,658,806	772,495,168

Footnotes:

¹ Reflects SFWMD adopted budget appropriations less any state and federal funds.

² Reflects SFWMD adopted budget appropriations less any River of Grass project funds which are accounted for in the Non-CERP Everglades Ecosystem Restoration Projects category.

³ The number reflected does not include Forestry's contribution for FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10, and FY 2010-11. FY 2011-12, FY 2012-13, FY 2013-14, FY 2014-15, FY 2015-16, FY 2016-17 and FY 2017-18.

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Section 2.0

Federal Everglades Ecosystem Restoration Projects and Funding

Section 2.1: Federal Comprehensive Everglades Restoration Plan (CERP) Projects and Funding (\$74,734,000)

U.S. Army Corps of Engineers Construction (\$66,900,000)

Congress authorized the CERP in the Water Resources Development Act (WRDA) of 2000. The objective of the program is to restore, protect, and preserve water resources in central and southern Florida, including the Everglades. 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. The 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. Congress authorized three projects in WRDA 2007: the Indian River Lagoon South, the Picayune Strand Restoration, and the Site 1 Impoundment projects. An additional project, the Melaleuca Eradication Facility, was authorized for construction in accordance with the programmatic authority provision of WRDA 2000. The Water Resources Reform and Development Act of 2014 authorized four additional CERP projects: the Caloosahatchee River (C-43) West Basin Storage, the C-111 Western Spreader Canal, the Broward County Water Preserve Areas, and the Biscayne Bay Coastal Wetland Phase 1 projects. The WRDA of 2016 authorized the Comprehensive Everglades Planning Project (CEPP), now referred to as the Central Everglades Project (CEP).

From a project perspective, the major focus of the U.S. Army Corps of Engineers (USACE or Corps) FY 2019 activities includes continuing construction on the Indian River Lagoon South project features at C-44; oversight of the C-43 Caloosahatchee West Basin Storage Reservoir construction being performed by The South Florida Water Management District; design for the Indian River Lagoon C-23/24 South Reservoir, design of the Broward County Water Preserve Areas' C-11 Impoundment, continuing the Western Everglades Restoration PIR, completing the Lake Okeechobee Watershed PIR, construction of the Picayune Strand road removal north of the tie-back levee, and continuation of project adaptive assessment and monitoring activities used to monitor the effects of projects as they are implemented, as well as the CERP Design program level activities.

From a program perspective, FY 2019 CERP activities include 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.

U.S. Department of the Interior (DOI) - National Park Service (NPS)
(\$5,203,000)

The CERP is a multi-decadal 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 the U.S. Fish and Wildlife Service (FWS) and the 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 planning for such projects including the Central Everglades Planning Project (CEPP), seepage management in the L-30/L-31N Canals, phase 1 of the C-111 Spreader Canal project, Biscayne Bay Coastal Wetlands, C-43 West Basin Reservoir, and Broward County Water Preserve Areas. CERP funding also supports work to implement project operations and assess the effects of these projects as well as the Foundation Projects, as successful implementation of these foundation projects is required for the CERP plan to achieve significant restoration benefits.

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 the DOI 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 2019 include:

- For federal projects, the program will continue to represent the NPS on technical issues related to CERP system-wide monitoring, development of performance measures for use in evaluating project alternatives, interim goals, and programmatic guidance. For Florida state projects, the program would continue to represent the NPS on issues relating to the establishment of water reservations, minimum flows and levels, and water supply planning, as well as water quality and contaminants.
- For the Modified Water Deliveries (Mod Waters) and C-111 South Dade (SD) projects, the program will focus on providing technical support to track the results of the ongoing incremental field tests and the development of a combined operational plan that utilizes the new project infrastructure to improve natural resource conditions in ENP and adjacent areas. Technical support will be provided for the remaining items required for full implementation of these projects, leading to the final water operations plan. Staff will also

manage a modified monitoring program to assess the effects of the constructed Mod Waters and C-111 SD projects on NPS lands and resources.

- The program will continue to provide hydrologic and ecological technical support to analyze the benefits of bridging the Tamiami Trail. This support would include analyzing the effects of the 1-mile bridge implemented in 2013, as well as support to the 2.6-mile additional bridging project which is currently under construction.
- The program will continue to provide technical support to the revised CEP, including synthesis of current information for a one-year detailed planning effort to support the goal of project construction, beginning in FY 2019.
- The program will elevate monitoring and assessment work oriented toward threatened and endangered species on NPS lands, providing technical input to the FWS as well as federal implementing agency planning that supports restoration-oriented water operations while protecting threatened and endangered species.
- The program will continue to provide analysis and technical support to water operations that affect BNP and would participate in tracking the progress toward completion of components of this project.
- The program will continue to participate in three ongoing CERP planning efforts, the Western Everglades Restoration Project, The Loxahatchee River Restoration Project, and the Lake Okeechobee Watershed Project. NPS efforts are currently directed at development of project performance measures and initial restoration alternatives, with the focus on the environmental analyses of impacts to NPS resources. Additional large-scale projects that affect NPS resources and link with restoration projects include the planned Florida Power and Light nuclear plant expansion and transmission corridors.
- The program will track the effects of current operations on water quality, work with the State of Florida to design water operations to minimize the risk of water quality exceedances, and work with the State and other federal agencies, including the U.S. Environmental Protection Agency (EPA) and the Department of Justice (DOJ), to review the 1992 Consent Decree nutrient standards that protect ENP water quality. The program would continue to provide technical support to DOI and DOJ processes that pertain to the quality of water entering the Everglades.
- The program will track and provide technical analysis and briefings on the detailed design and implementation of the Restoration Strategies project and its progress toward achieving the Water Quality Based Effluent Limit for phosphorus entering the Everglades.

For more information, please visit:

<https://evergladesrestoration.gov> and <https://www.nps.gov/ever/learn/nature/cerp.htm>

U.S. Department of the Interior (DOI)- U.S. Fish and Wildlife Service (FWS)
(\$2,631,000)

The FY 2019 request for CERP implementation will support approximately 14 full-time employees that actively serve on planning teams for all CERP and non-CERP restoration projects being conducted by the Corps. 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 (MBTA), 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, and designing, assessing and monitoring, and adaptively managing CERP project components during its implementation. The FWS is responsible for providing environmental expertise to the COE and the SFWMD. The FWS is also involved in guiding Everglades restoration at a system-wide scale through the following activities: biannual system status reports, participation in RECOVER activities, the River of Grass Initiative, and the System Operating Manual.

In FY 2019, the FWS will continue to participate in the development and execution of major restoration projects throughout the Everglades. These activities will include assistance in restoration 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 provides biological and ecological expertise and is an integral planning and implementation partner in the 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.

For more information, please visit:

<http://www.fws.gov/verobeach/EvergladesRestoration.html>

Section 2.2: Federal Non-CERP Everglades Ecosystem Restoration Projects and Funding (\$71,124,000)

U.S. Army Corps of Engineers Construction (\$600,000)

Kissimmee River Restoration (\$600,000): 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 2019 activities include project oversight of ongoing work and construction repairs to the backfill reaches impacted from Hurricane Irma.

U.S. Department of Agriculture - Agricultural Research Service (\$2,989,000)

The U.S. Department of Agriculture (USDA) Agricultural Research Service (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. Two major areas of research support South Florida Ecosystem restoration and agriculture: biological control of invasive species and improved crop production systems.

Development and Evaluation of Biological Control Agents for Invasive Species Threatening the Everglades and other Natural and Managed Systems (\$2,626,100).

The ARS Invasive Plant Research Laboratory (IPRL) in Fort Lauderdale, Florida, and its satellite lab in Gainesville, Florida, conduct research to (1) identify and collect natural enemies for control of melaleuca, Brazilian peppertree, Old World climbing fern, downy rose myrtle, Chinese tallow, air potato, water hyacinth, water lettuce, and other invasive pest plants; (2) evaluate biological control agents for release against invasive weed and insect species in a risk analysis context; (3) obtain approval for release of host specific natural enemies; (4) mass-rear and distribute approved agents on natural area weeds; (5) evaluate individual and community level impacts of established agents on weed targets; (6) quantify the effects of biological control agents on food webs; and (7) develop biological based integrated weed management strategies that are efficient, economical, and environmentally sound. Many of the biological control agents that are developed by the IPRL were discovered by scientists at the ARS Australian Biological Control Laboratory in Brisbane or the Foundation for the Study of Invasive Species near Buenos Aires. Landscape level weed suppression programs that maximize biological control agents are designed in close cooperation with client groups like the SFWMD, the Florida Fish and Wildlife Conservation Commission (FWC), the USACE, the NPS, the FWS, the Nature Conservancy, and many others.

Soil Conservation for Sustainable Sugarcane Production (\$362,900)

The Sugarcane Field Station in Canal Point, Florida, develops high-yielding, disease-resistant sugarcane cultivars for both organic (muck) and sand soils. Development of new, improved sugarcane cultivars impacts the cultural practices used in commercial sugarcane production. In particular, harvest residue and application of chemicals during production affect critical components of sustainable production such as soil dynamics. The biggest challenge for sugarcane growers in Florida is orange rust disease, which causes considerable yield losses and increases production costs with multiple fungicide applications. The development of new cultivars with resistance to economically limiting diseases is a high priority because of the impact of brown and orange rust diseases. Promising molecular markers for resistance to orange rust have been identified in sugarcane germplasm and these markers are being validated for their use in marker-assisted breeding for the incorporation of disease resistance into new cultivars.

For more information, please visit:

<https://www.ars.usda.gov/southeast-area/canal-point-fl/sugarcane-field-station/>

U.S. Department of Agriculture (USDA)- Natural Resources Conservation Service (NRCS) (\$20,000,000)

The NRCS provides technical assistance on a voluntary basis to private landowners and operators, 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 South Florida Ecosystem. Financial assistance is provided through a variety of USDA Farm Bill Programs.

The 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 Everglades Agricultural Area 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.

Agricultural Act of 2014

Environmental Quality Incentives Program (EQIP)

The 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.

Agricultural Conservation Easement Program (ACEP)

The ACEP provides financial and technical assistance to help conserve agricultural lands and wetlands and their related benefits. Under the Agricultural Land Easements component, NRCS helps Indian tribes, state and local governments, and non-governmental organizations protect working agricultural lands and limit non-agricultural uses of the land. Under the Wetlands Reserve Easements (WRE) component, NRCS helps to restore, protect and enhance enrolled wetlands.

Wetlands Reserve Program (WRP)

The 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. The NRCS goal is to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every acre enrolled in the program. This program offers landowners an opportunity to establish long-term conservation and wildlife practices and wetland protection.

**U.S. Department of Commerce - National Oceanic and Atmospheric Administration
(NOAA) (\$1,160,000)**

The [NOAA](#) provides science, monitoring, and modeling projects critical to implementing and assessing the CERP and other parts of the South Florida Ecosystem restoration effort. NOAA projects are providing pre-implementation and early implementation information critical in evaluating the downstream impacts of restoration activities on coastal resources. This information allows project managers to make adjustments through the adaptive management process. NOAA scientists and resource managers, including those from the [Florida Keys National Marine Sanctuary Program \(FKNMS\)](#), participate in various management and science coordination activities related to South Florida Ecosystem restoration. While many NOAA programs support restoration efforts, the following NOAA projects directly support CERP implementation.

Atlantic Oceanographic & Meteorological Laboratory (AOML)

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 changes in surface water flows to coastal systems is critical in determining the overall success of restoration activities. Since the early 1990's scientists from [AOML](#) (South Florida Program) have been conducting interdisciplinary observations of south Florida coastal waters. In 2018, NOAA funds supported large-scale shipboard surveys conducted from the R/V Walton Smith. Large-scale surveys are planned for 2019 and will cover the waters of the FKNMS. Data collected will continue to improve the predictive capabilities and enhance the understanding of the south Florida coastal ecosystem and its connectivity to the Everglades, allowing NOAA to contribute to adaptive management of CERP and fulfill its responsibility to CERP.

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

The NOAA [Southeast Fisheries Science Center](#), in collaboration with other agencies and entities, conducts monitoring and assessment projects to support CERP. In FY 2018, NOAA's NMFS supported scientific activities to determine the impact of upstream restoration efforts and changing freshwater inflow on south Florida coastal systems. This fisheries research, which will continue in FY 2019, examines the impacts of changing freshwater runoff patterns on inshore and coastal habitats and associated fishery resources.

Biscayne Bay NOAA Habitat Blueprint Focus Area / National Marine Fisheries Service

Implementation of NOAA's plan for the Biscayne Bay Habitat Focus Area (HFA) continued through FY 2017 and FY 2018. The Biscayne Bay HFA is one of 10 HFA's in [NOAA's Habitat Blueprint Initiative](#). This initiative provides a forward looking framework for coordination within NOAA and with partner organizations to address growing challenges of coastal and marine habitat loss and degradation. In FY 2018 the Southeast Fisheries Science Center (SEFSC) continued with collaborators at AOML and elsewhere to address a major goal of the Biscayne Bay HFA: improved understanding of factors causing algal blooms in the bay to guide their prevention. The SEFSC project characterized spatial and temporal differences in phytoplankton community composition against a background of potentially influencing nutrient concentrations. AOML projects examined the historical record of chlorophyll a in the bay and found increasing trends. Under a NOAA HFA grant, a local NGO examined the effectiveness of regulations affecting water quality, developed economic and social information about the value of the bay to the south Florida region, and improved communication with policy makers and the public about threats to the bay's health and the importance of a healthy bay to the region's economy and wellbeing. Florida Sea Grant, with support from AOML, provided citizen-science water quality monitoring to augment decreased agency monitoring in the bay. Through the Habitat Blueprint initiative and existing programs, NOAA will continue to work within CERP and other partners to protect and enhance Biscayne Bay's ecosystem health and promote healthy populations of protected and fishery species.

U.S. Department of the Interior (DOI) - National Park Service (NPS) **(\$35,743,000)**

Park Management (\$30,012,000)

Big Cypress National Preserve (\$6,839,000)

Fiscal Year 2019 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 (ORV) trail system. The NPS will continue to support mandated programs such as the protection, inventory, and monitoring of ten threatened and endangered species (such as the Florida panther, Cape Sable seaside sparrow, and Florida manatee) 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 ORV program in the 48 States, and 22 American Indian (Seminole, Miccosukee, and independent) sites 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 26 employee housing units, two major visitor support facilities, public utility systems, five primitive campgrounds, three developed campgrounds, and 66 miles of roads; and management of approximately 460 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.

For more information, please visit: <http://www.nps.gov/bicy/index.htm>

Biscayne National Park (\$4,294,000)

Fiscal Year 2019 funding will support the 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.

The 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, eight known terrestrial cultural sites, 67 known submerged cultural sites, approximately 20 historic structures, and two 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, and hard bottom communities; monitor water quality; document and mitigate impacts due to visitor and commercial uses; control exotic vegetation; and monitor 17 federally-listed 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.

For more information, please visit: <http://www.nps.gov/bisc/index.htm>

Dry Tortugas National Park (\$2,093,000)

Funding in FY 2019 will support operations of this 65,000-acre marine and historical park located 70 miles west of Key West. Current funding will continue to support natural and cultural resource management, including a preservation and maintenance program for Fort Jefferson. The NPS 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. Natural resource activities include continuation of park-

funded science and monitoring to analyze the efficacy of the Dry Tortugas Research Natural Area, natural resource damage assessment and restoration, and monitoring of sea turtles. Natural resource activities are performed by Dry Tortugas National Park natural resources staff, with technical and additional staff support provided by ENP (South Florida Natural Resources Center).

For more information, please visit: <http://www.nps.gov/drto/index.htm>

Everglades National Park (ENP) (\$16,786,000)

Funding for ENP in FY 2019 will support area management activities including operations, natural and cultural resource 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 six million people, and over one million visitors each year, ENP has special challenges. The park has outreach programs to the local community and has traditionally sustained a large backcountry/wilderness operation.

The park operates major visitor use areas at Flamingo, Shark Valley, and Everglades City, and oversees multiple 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, two campgrounds, 48 backcountry campsites, and two fee collection stations.

The park remains one of the most ecologically complex parks in the nation and is unique in that it has an unprecedented four international treaty designations. It is home to approximately 750 native plant species, 61 of which are considered critically imperiled in south Florida, and hosts 39 species of orchids of which 12 species are critically imperiled. Over 360 species of birds have been found in the park. Florida Bay, making up about 40 percent of the ENP area, is continuing to experience dramatic changes, including 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 the park and adjacent natural areas. Exotic animals, particularly reptiles, have become a major natural resource management issue for the park.

For more information, please visit: <http://www.nps.gov/ever/index.htm>

Office of Everglades Restoration Initiatives and the South Florida Ecosystem Restoration Task Force (\$1,318,000)

Funding in FY 2019 will sustain the continued operations and activities of the Department of the Interior's Office of Everglades Restoration Initiatives (OERI). Since 1996, the OERI has provided senior executive level leadership and associated staff to support the congressionally mandated responsibilities of the Department and the Secretary in the restoration of America's Everglades. OERI also provides staff support necessary to fulfill the Secretary's role and responsibilities as chair of the intergovernmental South Florida Ecosystem Restoration Task Force (Task Force). The OERI, under the leadership of the office of the Assistant Secretary for Fish, Wildlife and Parks, serves as the south Florida liaison for the Office of the Secretary in coordinating all departmental and bureau-level Everglades restoration activities.

The OERI works directly with the federal, state, local government, and tribal representatives on the Task Force and administers, manages, and supports the priorities, activities, meetings, and the required reporting responsibilities of the Task Force, its Working Group, the Science Coordination Group, and any designated advisory bodies. The required reporting documents produced by the OERI include the South Florida Ecosystem Restoration Strategy and Biennial Report, the annual Integrated Financial Plan, the Plan for Coordinating Science, and the annual Cross-cut Budget. In addition to the key Everglades restoration support activities described above, the OERI has been designated by the Task Force to lead and coordinate the implementation of the Invasive Exotic Species Strategic Action Framework. In FY 2019, the OERI will also continue maintaining and enhancing the [evergladesrestoration.gov](http://www.evergladesrestoration.gov) website, which serves as an innovative, thorough, and convenient source of information on the restoration of America's Everglades.

For more information about OERI and the restoration of America's Everglades, please visit: <http://www.evergladesrestoration.gov/>

Everglades Research - Critical Ecosystem Studies Initiative (CESI) (\$3,838,000)

Since its inception in 1997, the 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 2018 include:

- Emphasizing critical long-term hydrologic and biological monitoring projects that support assessments of the effect of restoration projects on NPS resources. Ongoing projects on fish and macro-invertebrates, marsh water level and flow monitoring, threatened and endangered species, and vegetation communities most likely impacted by implementation of the ecosystem restoration projects will continue.
- Implementing applied science and monitoring to fill gaps in the Mod Waters monitoring program through cooperative agreements that track the effects of the Mod Waters project and C-111 South Dade Project on ENP resources.
- Supporting marine and estuarine applied science and enhanced monitoring of the physical and ecological indicators of the health of Florida Bay due to the 2015/2016 Florida Bay seagrass die-off and associated algal blooms.
- Continuing to support the Task Force and DOI's oversight of the Everglades Restoration Initiative.
- Continuing work on biological and hydrologic databases, including analysis of existing long-term hydrologic and biological data sets that will allow resource managers, decision-makers, and the public to understand the trends in ENP resources as they relate to water management changes and climate variation.
- Continuing support of hydrologic and ecological modeling and synthesis of ecological information and ecosystem services that the DOI would use during detailed planning and design for the CEPP and in design of water operations plans.
- Increasing support of applied science on the effects of exotic invasive species on the natural resources of ENP, BCNP, and BNP, and on the development of methods of

detection, suppression, and control of invasive species, especially invasive plants and reptiles.

- Continuing to support scientific work on the endangered Cape Sable seaside sparrow, to enhance the ability to manage this species during the next decade as water inflows to ENP are redistributed.
- Increasing support for scientific work on the potential effects of climate change and sea level rise as these factors affect coastal resources and interact with plans for Everglades restoration.

For more information, please visit: <https://www.nps.gov/ever/learn/scienceresearch.htm>

Land Acquisition (\$575,000)

Land Acquisition Management (\$575,000)

Funding in FY 2019 will administer the federal land acquisition program in south Florida to enable completion of land acquisition and to meet the schedule established by DOI.

U.S. Department of the Interior - Fish and Wildlife Service (FWS) (\$8,375,000)

Resource Management

Ecological Services (\$3,110,000)

These funds will allow the FWS to continue coordination, technical assistance, and partnering efforts with the NPS, the USGS, tribal governments, state agencies, and private organizations involved in the restoration of the South Florida Ecosystem. The funds for FY 2019 will also enable the FWS to continue implementing the Multi-Species Recovery Plan, which provides a blueprint for protecting, conserving, and managing 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, the 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 Corps' 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 Corps' regulatory process. In FY 2019, the FWS will continue consultation with the Corps 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 2019, 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 myriad 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.

Refuges and Wildlife (\$4,524,000)

The FWS administers 16 national wildlife refuge units in south Florida, as well as the new Everglades Headwaters National Wildlife Refuge and Conservation Area in south-central Florida. The FWS 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 South Florida Ecosystem restoration Working Group, the FWS will continue to undertake important on-the-ground restoration activities.

Migratory Birds (\$87,000)

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 and the SFWMD to provide technical expertise relative to MBTA implications on the various CERP projects, especially for avian protection plans and management of invasive exotics species such as the purple swamp hen. Effective implementation of the CERP with the above partners, the Corps, 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.

Law Enforcement (\$567,000)

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.

Fisheries (\$87,000)

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.S. Department of the Interior – U.S. Geological Survey (\$1,877,000)

Greater Everglades Restoration – Integrating Research, Planning, and Interagency Coordination (\$1,877,000)

South Florida is particularly vulnerable to the introduction and spread of invasive plants and animals and is home to a wide variety of non-native species such as melaleuca, Old World climbing fern, the Burmese python, and most recently, the Argentine black and white tegu. In FY 2019, the Ecosystem Mission Area and the USGS Greater Everglades Priority Ecosystem Sciences program will continue to support high priority research needs identified by the Task Force through its Invasive Exotic Species Strategic Action Framework.

For more information please see: (<http://www.evergladesrestoration.gov/content/ies/ies.html>)

This Task Force-led process occurred over 1.5 years, with participation from federal, state, and local governments, tribes, NGOs, academia, and private citizens, and identified EDRR as the best way to stop invasive species early in their invasion process. It also identified the need for a risk assessment framework to help natural resource managers decide how to allocate limited resources in the face of new invasive threats. An initial framework has been developed by USGS. The USGS research will address priorities established by the Working Group. Research will focus on aspects of EDRR such as improving detection of rare species using techniques including environmental DNA (eDNA), developing and assessing screening tools to identify potentially invasive species, and filling key biological and ecological information gaps to better predict potential ranges and impacts of invasive species.

U.S. Department of the Interior – Bureau of Indian Affairs (BIA) (\$380,000)

In FY 2019, \$380,000 will be used for continuing efforts to restore the South Florida Ecosystem for the Seminole Tribe of Florida and the Miccosukee Tribe of Indians of Florida. This funding (\$190,000 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 Endangered Species Act in stormwater areas on the Seminole and Big Cypress reservations.

U.S. Environmental Protection Agency (EPA) (\$0)

The proposed EPA budget eliminates funding for specific regional efforts such as the South Florida Geographic Initiative, which includes the non-CERP Everglades Ecosystem Restoration Projects and Funding. The proposed budget returns the responsibility for funding local environmental efforts and programs to state and local entities, allowing the EPA to focus on its highest national priorities.

For more information, please visit: <https://www.epa.gov/everglades>

Section 3.0

State of Florida Everglades Ecosystem Restoration Projects and Funding

Section 3.1: State of Florida Comprehensive Everglades Restoration Plan (CERP) Projects and Funding (\$210,288,434)

Florida Department of Environmental Protection (\$179,360,830)

The implementation of the CERP is a high priority for the Florida Department of Environmental Protection (FDEP), in partnership with the SFWMD; other state, federal, and local agencies; tribes; and environmental groups.

The FDEP administers the Save Our Everglades Trust Fund (SOETF), which is used to pay for a portion of the State's share of CERP (<https://floridadep.gov/eco-pro>). Additional Everglades restoration funding was received in FY 2018-2019 from the Land Acquisition Trust Fund (LATF) to fund CERP, the Northern Everglades and Estuaries Protection Program (NEEPP) and the Restoration Strategies Regional Water Quality Plan (Restoration Strategies), which will be discussed further in section 3.2. The Florida Legacy bill was signed into law during the 2016 legislative session and provides continual funding beginning in FY 2017-2018 with a minimum of \$200 million for Everglades project implementation with a preference given to projects that reduce harmful discharges from Lake Okeechobee to the St. Lucie or Caloosahatchee estuaries.

The FY 2018-2019 CERP funding includes a total of \$179,360,830. Of these funds, \$111,072,295 will be distributed through the FDEP to the SFWMD for the planning, design, engineering, and construction of various CERP projects (Central Everglades Project South, C-43 West Basin Reservoir, Lake Okeechobee Watershed Project, Loxahatchee River Watershed Restoration project, and Western Everglades Restoration Project). An additional \$64,000,000 in funding was provided in accordance with Senate Bill 10 to expedite the Everglades Agricultural Area reservoir project.

The FDEP also administers the Florida Forever Program and the Florida Forever Trust Fund (FFTF; <https://floridadep.gov/lands/environmental-services/content/florida-forever>). Approximately \$530,000 from the FFTF will be used to complete the Picayune Strand Restoration Project land acquisition.

The FDEP CERP-related project expenditures during the past fiscal year, as of April 2018, totaled \$77,219,004. The additional projected expenditures through June 30, 2018, are \$43,501,432, for a total of \$120,720,436 in this Fiscal Year. These expenditures included the following activities:

- Office of Ecosystem Projects
 - The Office of Ecosystem Projects oversees implementation of CERP projects. Tasks include policy, regulatory, planning, program coordination, technical and engineering support, and coordination with other FDEP staff regarding issues related to CERP and Non-CERP projects. Projects funded through the SOETF and LATF during FY 2017-2018 include the Everglades Agricultural Area reservoir project, C-43 West Basin Storage Reservoir project, C-44 Reservoir and Stormwater Treatment Area (STA)

- project, Lake Okeechobee Watershed Project, Loxahatchee River Watershed Restoration project, Western Everglades Restoration Project, Biscayne Bay Coastal Wetlands, Picayune Strand Restoration project, C-111 Spreader Canal, L-8 Flow Equalization Basin, Central Everglades Project South, and CERP Water Quality Studies.
- Waste Management in Tallahassee
 - Tasks include technical support and review of potential impacts from residual agrochemicals on lands acquired for restoration projects and CERP Water Quality Studies.
 - Division of State Lands
 - Restoration land acquisition for the Picayune Strand Restoration Project.
 - South District
 - None for this Fiscal Year.
 - Southeast District
 - None for this Fiscal Year.

Florida Fish and Wildlife Conservation Commission (FWC) (\$4,128,324)

The FWC contributes to CERP projects by providing technical assistance to the sponsoring agencies, ensuring that CERP activities address the needs of fish and wildlife and their associated habitats. The Office of Conservation Planning Services facilitates official consultations for CERP projects through various processes including inter-agency planning teams, the Coastal Zone Management Act, the Fish and Wildlife Coordination Act, and the National Environmental Policy Act (NEPA).

FWC's Office of Strategic Initiatives (OSI) identifies and coordinates programs with boundary-spanning implications that benefit wildlife and their habitats. In FY 2012/2013, 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 CERP. In 2016, the FWC created an Everglades Coordinator position, housed within OSI, to work across FWC divisions and regions and to ensure that the FWC is strategically positioned to support restoration of the South Florida Ecosystem.

South Florida Water Management District (\$26,799,280)

The SFWMD is the local sponsor for the majority of the 68 projects included in the CERP. Planning, design, and construction are currently underway on some of these projects. While some projects are in the planning and design phase, others such as the Indian River Lagoon South C-44 Reservoir and STA Project, C-43 Reservoir Project, and Picayune Strand Restoration Project are currently under construction.

The Indian River Lagoon South restoration project will reduce harmful freshwater inflows and generate habitat and water quality improvements in the St. Lucie Estuary and the Indian River Lagoon. The SFWMD has completed construction of the C-44 Communication Tower and System Discharge. The 6,300-acre C-44 STA is currently under construction and expected to be completed in June 2018. Additionally, the reservoir pump station is under construction and expected to be complete by September 2018. The C-44 Reservoir, which will store up to 50,600 acre-feet of water, is under construction by the USACE and expected to be complete in 2020.

The Picayune Strand Restoration project will reestablish natural sheetflow to enhance wetlands in the 55,000-acre Picayune Strand and provide more natural freshwater inflow to the Ten Thousand Islands National Wildlife Refuge. The SFWMD initiated construction of the Manatee Mitigation Feature of the Picayune Strand Restoration Project in late Spring 2015 and construction is now complete. The operational testing and monitoring period for the Merritt Pump Station is complete and the pump station has been transferred to the SFWMD. The Faka Union Pump Station Operational Testing and Monitoring Period is complete, and the pump station was transferred to SFWMD in January 2018. The Miller Pump Station is currently in the Endurance Testing Phase and Operational Testing and Monitoring will begin in 2018. The design level seepage analysis and modeling work for the southwestern protection feature is in progress and the acquisition of remaining project lands in the Belle Meade area is underway with the majority of parcels now in SFWMD ownership.

The C-43 West Basin Reservoir Project will capture and store approximately 170,000 acre-feet of water, reducing damaging discharges to the Caloosahatchee Estuary. The project will capture and store stormwater runoff from the C-43 Basin and Lake Okeechobee. It will also improve the salinity balance for the Caloosahatchee Estuary by controlling peak flows during the wet season and providing essential flows during the dry season. The SFWMD has started construction of this project. Preloading and demolition work has been completed. Construction of the Irrigation (195 cfs) Pump Station began in June 2016 and is currently scheduled to be complete in August 2018. The Intake Pump Station (1500 cfs) construction is underway with a Notice to Proceed in March 2018 and scheduled completion in May 2022.

The CEP includes a suite of storage, treatment, conveyance and seepage management measures that will provide the necessary components to deliver additional fresh water from Lake Okeechobee south to Water Conservation Area 3, ENP and Florida Bay. The project was authorized by Congress in December 2016.

The CEP South components currently moving forward are the removal of approximately 6 miles of Old Tamiami Trail between the ENP Tram Road and the L-67 Extension Levee which will provide a net gain of wetland acreage, facilitate additional deliveries of water from WCA 3A directly to ENP and aid in alleviating the high water conditions currently being experienced in WCA 3A. In addition, the increase in conveyance capacity at the S-333 structure is currently being designed with construction anticipated to begin in October 2018.

The Central Everglades Planning Project Post Authorization Change Report (CEPP-PACR) identifies a tentatively selected plan that seeks to increase the storage, treatment, and conveyance of the “new water component” of the congressionally authorized CEPP. This project plan will further reduce damaging discharges to the northern estuaries, deliver additional clean water for

Everglades restoration, and achieve water quality standards. On March 26, 2018, the SFWMD submitted the PACR to the Assistant Secretary of the Army for Civil Works for federal review, approval, and submittal to Congress.

The SFWMD and USACE updated the Integrated Delivery Schedule in 2016 and, in accordance with this publicly supported schedule, initiated the [Lake Okeechobee Watershed Project](#), the [Western Everglades Restoration Project](#) and the [Loxahatchee River Watershed Restoration Project](#) in 2016. The SFWMD and USACE are using the Corps' SMART planning process for current CERP planning projects.

In addition to the projects listed above, the SFWMD partners with the USACE on several other projects. The Melaleuca Mass Rearing Annex project to raise biological control agents to aid in the eradication of exotic plant species in the Everglades was the first CERP project transferred into the OMRRR phase under the 50/50 cost share agreement between the USACE and the SFWMD. The [C-111 West Spreader Canal](#), [Biscayne Bay Coastal Wetlands](#), and [Broward County Water Preserve Areas](#) are in different stages of design and construction. Status of these projects can be found in the Everglades Restoration Progress document at <https://www.sfwmd.gov/our-work/everglades>.

Section 3.2: State of Florida Non-CERP Everglades Ecosystem Restoration Projects and Funding (\$562,206,734)

Florida Department of Agriculture and Consumer Services (FDACS) (\$4,332,449)

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 Total Maximum Daily Loads (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 agricultural non-point sources. The FDACS also plays an important role in the management of public lands through the Florida Forest Service (formerly the Division of Forestry). The Florida Forest Service 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.

Florida Department of Environmental Protection (FDEP) (\$127,978,456)

The FDEP's non-CERP South Florida Ecosystem restoration priorities include implementation of the Everglades Forever Act, Restoration Strategies Regional Water Quality Plan (Restoration Strategies) and the Northern Everglades and Estuaries Protection Program (NEEPP; <https://floridadep.gov/eco-pro>). The FY 2018-2019 budget provides funding from the SOETF and LATF for the following programs: \$32,000,000 for Restoration Strategies and \$31,000,000 for the implementation of NEEPP and water storage projects that provide relief from discharges to the St. Lucie and Caloosahatchee rivers and estuaries. The FY 2018-2019 budget also includes \$5 million distributed through the FDEP to the SFWMD for Dispersed Water Management, a shallow water storage program initiated by the state that retains water on public and private lands providing local basin runoff relief.

A new initiative passed during the 2017 Florida legislative session, advancing the completion of the Herbert Hoover Dike Rehabilitation Project (HHD), a USACE project. For this effort, a \$50,000,000 appropriation will be applied as "Contributed Funds" to expedite the completion of the HHD project. The FY 2018-2019 budget includes an additional \$50,000,000 for HHD. These funds will aid the Corps in completing critical components of the HHD project two years in advance of their schedule.

In addition, the FDEP implements water quality improvement programs for the Clean Water Act Section 303d-listed water bodies; ecosystem restoration project management; watershed planning and coordination activities; Basin Management Action Plans (BMAPs), and research and monitoring. The FDEP Florida Coastal Office (FCO) manages more than 4 million acres of submerged lands and coastal uplands in Florida. With support from the NOAA, FCO manages 41 aquatic preserves, three National Estuarine Research reserves, the FKNMS, and the Coral Reef Conservation Program.

For more information, please visit: (<https://floridadep.gov/fco>).
(<https://floridadep.gov/dear/water-quality-restoration/content/basin-management-action-plans-bmaps>)

The FDEP's related project expenditures during the past fiscal year, as of April 2018, totaled \$113,297,974. The additional projected expenditures through June 30, 2018, are \$33,336,994, for a total of \$146,634,969 in this fiscal year. These expenditures included the following activities:

- Office of Ecosystem Projects
 - The Office of Ecosystem Projects also oversees implementation of non-CERP projects. Tasks include policy, regulatory, planning, program coordination, technical and engineering support, and coordination with other FDEP staff regarding issues related to non-CERP projects. Non-CERP projects funded through the SOETF during FY 2017-2018 include Restoration Strategies, Lake Hicpochee North Hydrologic Enhancement, Lakeside Ranch STA, Kissimmee River Restoration land acquisition, C-111 South Dade, and Dispersed Water Management projects.
- Division of Environmental Assessment and Restoration
 - Tasks include TMDL and BMAP development, water quality sampling and technical support, the South Florida Canal Study, mercury research and monitoring, aquatic ecology and quality assurance assistance and reviews, and water quality-related issues associated with the Everglades.
- Florida Coastal Office
 - Programs include the National Estuarine Research Reserve, the Coral Reef Conservation Program, the Florida Keys National Marine Sanctuary, the Aquatic Preserves Program, and a Miami-Dade County flood modeling project.
- Water Restoration Assistance
 - Projects include Caloosahatchee River Valued Ecosystem Component Restoration, Loxahatchee River Preservation Initiative Cypress Creek Weir Construction, and Loxahatchee River Preservation Initiative Moonshine Creek Oxbow Restoration.
- Office of Water Policy
 - Land management activities.
- South District
 - None for this Fiscal Year.
- Southeast District
 - None for this Fiscal Year.

Florida Fish and Wildlife Conservation Commission (FWC) (\$56,948,613)

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 (Division of Freshwater Fisheries Management, Division of Habitat and Species Conservation, Division of Hunting and Game Management, and Division of 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 FWC's mission and integrates its research activities with management efforts of other divisions. A significant contribution in this regard are the GIS-based species habitat models 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, invasive plant management, Florida panther restoration research, and alligator management throughout the South Florida Ecosystem.

The FWC is either sole manager or a partnering manager on over one million acres of public lands throughout the region. Additionally, the FWC contributes to state land acquisition programs targeting lands within or contiguous to areas currently managed by the FWC. Further, the FWC administers an on-going lake enhancement and restoration program to maintain quality habitat for wetland-dependent fish and wildlife.

Partnerships and Outreach: Partnerships with other governmental agencies (local, state and federal), NGOs, and individuals help achieve conservation goals for wildlife. Working with partners, the FWC provides both technical assistance and grant support to build public-private conservation partnerships with Florida landowners wishing to sustain fish and wildlife habitat on their properties. FWC partnerships also support the agency's broad outreach goals that encourage the responsible use of natural resources, education, and conservation.

The FWC's planned funding for South Florida Ecosystem restoration during FY 2018/2019 includes:

- Division of Habitat and Species Conservation (\$32,242,332)
- Law Enforcement (\$24,133,281)
- Division of Freshwater Fisheries (\$408,000)
- Fish and Wildlife Research Institute (\$165,000)

Florida Department of Transportation (\$22,225,804)

The Florida Department of Transportation (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. The FDOT highlights two projects in this fiscal year's plan:

- FDOT District Six is funding Everglades Restoration as part of the Tamiami Trail Next Steps project.
- FDOT District Four is funding snail kite mitigation associated with the State Road 7 Extension Project.

The FDOT's expenditures for South Florida Ecosystem restoration during FY 2017/18 was \$44,518,584 and includes:

- Exotic and endangered/threatened plant survey (\$65,513)
- Research to determine the effectiveness of wildlife crossings (\$336,578)
- Mitigation maintenance and monitoring (\$432,928)
- Removal of exotic vegetation (\$1,234,064)
- Wildlife and wetland mitigation (\$2,729,594)
- Water Quality Study (\$435)
- Seagrass and mangrove mitigation (\$634,631)
- Everglades Restoration (\$39,150,317)

The FDOT's planned funding for South Florida Ecosystem restoration during FY 2018/19 is \$22,225,804 and includes:

- Exotic and endangered/threatened plant survey (\$51,000)
- Research to determine the effectiveness of wildlife crossings (\$1,469,419)
- Mitigation maintenance and monitoring (\$436,500)
- Removal of exotic vegetation (\$1,287,834)
- Wildlife and wetland mitigation (\$4,244,600)
- Water Quality Study (\$5,000)
- Seagrass and mangrove mitigation (\$45,000)
- Everglades Restoration (\$14,692,496)

South Florida Water Management District (\$350,721,412)

The SFWMD is implementing the Long-Term Plan by including the structural and vegetation enhancements to the existing STAs, implementing Best Management Practices (BMPs), and working to ensure integration with CERP projects. In Water Year 2017 (May 1, 2016 - April 30, 2017), the STAs treated approximately 1.1 million acre-feet of water and recorded excellent annual performance, retaining 84% of phosphorus from water flowing through the treatment cells and treating water to a flow-weighted mean concentration of 15 parts per billion of

phosphorus, the lowest concentration on record. During the water year, the STAs removed more than 108 metric tons of phosphorus. For more information, please visit: <http://www.sfwmd.gov/sta>

BMPs in the Everglades Agricultural Area produced a 152 metric ton (70%) reduction in phosphorus exceeding the 25% statutory requirement. For the sixth consecutive year, BMPs in the C-139 Basin complied with the requirement of maintaining historic phosphorus loads. Additionally, the SFWMD works closely with the FDEP and other local, state, federal, and tribal governments on other non-CERP programs to restore and protect the South Florida Ecosystem. For more information, please visit: <http://www.sfwmd.gov/sourcecontrols>

During the 2013 legislative session, the Everglades Forever Act (EFA) was modified to incorporate the Restoration Strategies Regional Water Quality Plan, dated April 27, 2012, into the Long-Term Plan. Since the EFA and National Pollutant Discharge Elimination System permits and consent orders were issued in September 2012, five Restoration Strategies projects have been completed, five others are ongoing, and 36 of 74 consent order milestones have been achieved, 35 of them ahead of their deadlines. In 2013, the SFWMD also prepared a *Science Plan for the Everglades Stormwater Treatment Areas* to identify studies that investigate the critical factors that collectively influence ultralow treatment performance and phosphorus reduction in the STAs. Implementation of nine initial Science Plan studies is currently under way. For more information, please visit: <http://www.sfwmd.gov/restorationstrategies>

As part of an ongoing effort to maximize water storage in the greater Everglades system, the SFWMD is continuing to partner with agencies and private landowners to bolster the Dispersed Water Management (DWM) Program. Detaining and retaining water on public and private lands is one tool to help reduce the amount of water flowing into Lake Okeechobee and/or discharged to the Caloosahatchee and St. Lucie estuaries during times of high water conditions throughout south Florida. This year, the SFWMD has led efforts to plan, implement, or operate one Florida Ranchlands Environmental Services Project, eight first solicitation Northern Everglades Payment for Environmental Services projects, six second solicitation projects on ranchlands, three Water Farming Pilot Projects on fallow citrus lands, and six large public/private projects under the NEEPP. Since its inception in 2005, the DWM Program's estimated average annual retention volume has grown to more than 64,000 acre-feet per year in Operation and Maintenance with an additional estimated average annual retention volume of over 314,000 acre-feet per year in the planning, design/permitting, or construction phase. For more information, please visit: <http://www.sfwmd.gov/storage>

Restoration of the Northern and Southern Everglades is integral to the core mission of the SFWMD and several initiatives and construction projects are now underway to revitalize and protect the South Florida Ecosystem. The SFWMD's priority non-CERP South Florida Ecosystem restoration and protection projects for FY 2018-2019 include:

Restoring the Kissimmee River and floodplain (in cooperation with the Corps) through construction, backfilling 22 miles of canal, recarving 9 miles of remnant river channel, rehydrating 25,000 acres of river floodplain, and a comprehensive ecological evaluation program. For more information, please visit: <http://www.sfwmd.gov/kissimmee>

- Implementing the C-111 South Dade Project to improve hydrologic conditions in Taylor Slough, its headwaters, the Rocky Glades and the eastern panhandle of ENP and to increase freshwater flows to northeast Florida Bay.
- Continuing implementation of the NEEPP and associated protection plans for the three northern watersheds (Lake Okeechobee, St. Lucie, and Caloosahatchee). For more information, please visit: <http://www.sfwmd.gov/northerneverglades>
- Evaluating the feasibility of implementing deep injection wells (DIWs) as an interim and long-term solution to better manage high Lake Okeechobee stages and reduce harmful discharges to the Caloosahatchee and the St. Lucie estuaries. The concept includes developing clusters of DIWs around Lake Okeechobee and within the Caloosahatchee and the St. Lucie River watersheds. The facilities will only operate as alternative discharge locations in lieu of making damaging flood control discharges to the Northern Estuaries.
- Continuing implementation of provisions in the Everglades Forever Act and Long-Term Plan including STA operation and optimization, regulation, managing invasive exotic and nuisance vegetation on SFWMD lands, and implementing cost-effective solutions to improve water quality treatment, reduce nutrient loads, and achieve water quality standards. For more information, please visit: <http://www.sfwmd.gov/sta>
- Updating and implementing regional water supply plans. For more information, please visit: <http://www.sfwmd.gov/watersupply>
- Operating and maintaining one of the largest flood control systems in the world that includes over 600 water control structures, 621 project culverts, 77 pump stations, approximately 2,100 miles of canals, and 2,000 miles of levees/berms.

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; 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, environmental resource permitting, and intergovernmental coordination.

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Section 4.0

Agency Contacts

The following individuals are designated as points of contacts concerning their agency information as provided in the Cross-Cut Budget 2019 Working Document.

Federal Agencies:

<i>Marsha Bansee Lee</i> Department of the Interior, Office of Everglades Restoration Initiatives	954/377-5916	marsha_bansee@evergladesrestoration.gov
<i>Kevin Burger</i> Department of the Interior, Office of Everglades Restoration Initiatives	954/377-5968	Kevin_Burger@ios.doi.gov
<i>Nancy Diersing</i> U.S. Department of Commerce - NOAA	305/852-7717	Nancy.Diersing@noaa.gov
<i>Cecelia Ann Harper</i> U.S. Environmental Protection Agency	470/249-3125	Harper.Cecelia@epa.gov
<i>Michael Magley</i> U.S. Army Corps of Engineers	404/562-5206	Michael.E.Magley@usace.army.mil
<i>Steve Farrell</i> U.S. Department of the Interior	202/208-6690	Steven_Farrell@ios.doi.gov
<i>Jeff Schmidt</i> U.S. Department of Agriculture - NRCS	561/792-2811	Jeff.Schmidt@fl.usda.gov
<i>Christina Woods</i> U.S. Department of Agriculture - ARS	301/504-4482	christina.woods@ars.usda.gov

State of Florida Agencies:

<i>James Erskine</i> Florida Fish and Wildlife Conservation Commission	561/625-5122	James.Erskine@MyFWC.com
<i>Jordan Pugh</i> Florida Department of Environmental Protection	850/245-3183	Jordan.Pugh@dep.state.fl.us
<i>Brenda Low</i> South Florida Water Management District	561/682-2209	blow@sfwmd.gov
<i>Jason Watts</i> Florida Department of Transportation	850/414-4316	jason.watts@dot.state.fl.us
Rebecca Elliott Florida Department of Agriculture and Consumer Services	561/682-6040	relliott@sfwmd.gov