Cross-Cut Budget Request

Task Force Working Document

Fiscal Year 2020

South Florida Ecosystem Restoration Program

THIS PAGE WAS LEFT BLANK INTENTIONALLY

Table of Contents

1.0	Overview	3
1.1	Introduction	5
1.2	Federal and State of Florida Funding Summary Tables	7
2.0	FEDERAL EVERGLADES ECOSYSTEM RESTORATION PROJECTS AND	11
	Funding Requests	
2.1	Federal Comprehensive Everglades Restoration Plan	13
	(CERP) Projects and Funding Requests	
2.2	Non-CERP Everglades Ecosystem Restoration Projects	17
	and Funding Requests	
3.0	STATE OF FLORIDA EVERGLADES ECOSYSTEM RESTORATION	29
	Projects and Funding requests	
3.1	State of Florida Comprehensive Everglades Restoration	31
	Plan (CERP) Projects and Funding requests	
3.2	Non-CERP Everglades Ecosystem Restoration Projects	35
	and Funding requests	
4.0	AGENCY CONTACTS	41

THIS PAGE WAS LEFT BLANK INTENTIONALLY

Section 1.0

Overview

THIS PAGE WAS LEFT BLANK INTENTIONALLY

Section 1.0: Overview

Section 1.1: Introduction

This document provides coordinated budget requests for the Everglades ecosystem restoration efforts in south Florida with information provided by both federal and state agencies represented on the South Florida Ecosystem Restoration Task Force. 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 funding requests in the Fiscal Year (FY) 2020 Budget for represented federal and state agency members. This document is available online at: www.evergladesrestoration.gov.

This document consists of three sections. This overview (Section 1.0) includes summary tables for the federal and state funding requests. The tables in this edition provide enacted and requested funding for FY 2013 through FY 2020. Historical enacted funding dating back to FY 2002 is available online at: www.evergladesrestoration.gov.

Section 2.0 provides detailed information concerning the federal Everglades ecosystem restoration projects and funding requests. Section 2.1 addresses the Comprehensive Everglades Restoration Plan (CERP) projects and funding requests and Section 2.2 addresses non-CERP projects and funding requests. 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 requests. Section 3.1 addresses CERP projects and funding requests, and Section 3.2 addresses non-CERP projects and funding requests. The FY 2019/20 totals shown represent estimates for the South Florida Water Management District (SFWMD).

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 coordinated budget requests provided by federal agencies and Table 2 includes coordinated budget requests provided by the State of Florida agencies.

The funding requests 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 requests for other State of Florida agencies reflects a fiscal year that starts on July 1 and ends on June 30 of each year.

THIS PAGE WAS LEFT BLANK INTENTIONALLY

TABLE 1: FEDERAL FUNDING (ACTUAL \$)

EVERGLADES ECOSYSTEM RESTORATION PROJECTS	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Requested
COMPREHENSIVE EVERGLADES RESTO								
USACE - CERP (Part of Central and Southern Florida) 1,3,4,12,13	75,902,240	35,217,178	61,001,000	71,924,612	78,435,000	92,053,578	97,253,000	62,055,000
USACE - CERP O&M 1, 15,16	309,744	425,000	1,538,000	1,826,635	0	2,920,000	0	0
USDOI - NPS CERP 10	4,854,000	5,130,000	5,162,000	5,216,000	5,236,000	5,236,000	5,236,000	5,115,000
USDOI - FWS CERP	3,029,000	3,246,000	2,746,000	2,718,000	2,718,000	2,718,000	2,718,000	2,718,000
NON-COMPREHENSIVE EVERGLADES RESTO	RATION PROC	GRAM (CERP)						
USACE - Central and Southern Florida (excluding CERP) 1,3,4	12,800,000	8,800,000	7,550,000	23,071,529	11,787,000	3,573,152	2,840,000	200,000
USACE - Non-CERP O&M 14, 15	6,995,527	6,844,555	4,039,000	6,741,392	5,703,010	2,996,000	6,537,000	5,454,000
USACE - Critical Projects 3,4	0	0	0	0	0	0	522,160	0
USACE - Kissimmee River Restoration 3,4	0	0	0	31,411,789	36,065,000	9,800,000	3,950,000	1,000,000
USDA - ARS	3,443,300	2,989,000	2,989,000	2,989,000	2,989,000	2,989,000	2,989,000	2,989,000
USDA - NRCS	65,438,569	15,463,985	29,785,906	21,857,180	45,017,889	13,613,458	30,000,00016	TBD
US Department of Commerce - NOAA	418,000	307,242	357,242	1,190,593	1,155,000	1,155,000	1,081,500	1,000,500
USDOI - NPS Park Management	27,827,000	29,314,000	29,624,000	30,055,000	30,181,000	30,605,000	30,420,000	29,299,000
USDOI - OERI and the South Florida Ecosystem Restoration Task Force	1,234,000	1,311,000	1,316,000	1,325,000	1,330,000	1,330,000	1,330,000	1,277,000
USDOI - NPS Everglades Research (Critical Ecosystem Studies Initiative)	3,620,000	3,845,000	3,855,000	3,870,000	3,876,000	3,876,000	3,876,000	3,718,000
USDOI - NPS Modified Water Deliveries	8,000,000	0	0	0	0	0	0	0
USDOI - NPS Tamiami Trail Bridging	0	7,500,000	0	0	0	0	0	0
USDOI - NPS Land Acquisition (management)	685,000	665,000	668,000	636,000	636,000	660,000	830,000	660,000
USDOI - FWS Ecological Services	2,718,000	2,718,000	2,700,000	3,246,000	3,246,000	3,246,000	3,246,000	3,246,000
USDOI - FWS Refuges and Wildlife	3,747,000	4,016,000	4,271,000	4,771,000	4,771,000	4,771,000	4,771,000	4,771,000
USDOI - FWS Migratory Birds	92,000	92,000	92,000	92,000	92,000	92,000	92,000	92,000
USDOI - FWS Law Enforcement	568,000	608,000	568,000	568,000	568,000	568,000	568,000	568,000
USDOI - FWS Fisheries	86,000	92,000	92,000	92,000	92,000	143,000	143,000	143,000
USDOI - FWS Land Acquisition 11	3,000,000	5,000,000	3,000,000	4,591,000	2,500,000	2,500,000	2,000,000	0
USDOI - USGS - Integrated Research, Planning and Interagency Coord.	6,525,000	6,525,000	7,313,000	7,928,000	7,727,000	8,327,000	8,327,000	3,996,000
USDOI - BIA ¹⁶	370,000	390,000	390,000	743,000	580,000	390,000	380,000	380,000
USEPA	1,646,000	1,356000	1,418,000	1,069,000	1,490,000	1,400,000	2,900,000	0

TABLE 2: FEDERAL FUNDING (ACTUAL \$)

EVERGLADES ECOSYSTEM RESTORATION PROJECTS	FY 2013 Enacted	FY 2014 Enacted	FY 2015 Enacted	FY 2016 Enacted	FY 2017 Enacted	FY 2018 Enacted	FY 2019 Enacted	FY 2020 Requested
CERP Total (USACE and USDOI)	84,094,984	44,018,178	70,447,000	81,685,247	86,389,000	102,927,578	105,207,000	69,888,000
Non-CERP Subtotal (USACE and USDOI)	78,267,527	77,720,555	65,478,000	119,141,710	109,164,010	73,269,152	69,832,160	54,804,000
Non-CERP Subtotal (Other Federal								
Agencies)	70,945,869	20,116,227	34,280,148	27,105,773	50,651,889	27,659,000	36,970,500	3,989,500
Non-CERP Total (All Federal Agencies)	149,213,396	97,836,782	99,758,148	146,247,483	159,815,899	100,928,152	106,802,660	58,793,500
TOTAL CERP AND NON-CERP (USACE AND USDOI)	162,362,511	121,738,733	135,925,000	200,826,957	195,553,010	176,196,730	175,039,160	124,692,000
TOTAL CERP AND NON-CERP (ALL FEDERAL AGENCIES)	233,308,380	141,854,960	170,205,148	227,932,730	246,204,899	203,855,730	212,009,660	128,681,500

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:

- ¹USACE 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.
- Includes the transfer of \$17 million in unabligated balances from the USDOI-NPS Federal Land Acquisition to NPS Construction to further the Modified Water Deliveries project.
- 8 In 2004, \$5,000,000 in vior year balances from this line was transferred to the USDOI-FWS Resource Management Account, and \$9,924,000 to the USDOI NPS Park Management Transfer line. In 2005, \$702,000 was transferred from vior year balances from this line to the USDOI - NPS Park Management Transfer line.
- 9 Of the funds appropriated for USDOI 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
- 10NPS 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 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 FY 2016 Enacted O&M data includes \$6,950,000 that will be executed in FY2017 but was provided in FY2016.
 ¹⁵ FY 2017 Enacted O&M data includes \$2,832,000 that will be executed in FY2018 but was provided in FY2017.
- ¹⁶ FY 2019 program funding is pending national approval of annual allocations to States.

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

EVERGLADES ECOSYSTEM	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
RESTORATION PROJECTS	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Enacted	Requested
COMPREHENSIVE EVERGLADES	Lincoon	Zilactea	Ziideted	Zineten	Lineted	Lincoon	Lineten	ricquesicu
RESTORATION PROGRAM (CERP)								
Florida Department of Environmental Protection	28,527,828	73,164,611	61,336,618	49,371,486	163,461,458	173,783,678	176,041,563	254,744,328
Florida Fish and Wildlife Conservation	·							
Commission	1,187,999	2,001,704	1,732,157	2,151,735	3,004,775	4,616,862	4,954,181	4,143,809
South Florida Water Management District	66,537,2452	56,117,4161	52,836,1971	54,436,3801	35,914,1801	30,212,1861	26,637,9984	34,156,3054
NON- COMPREHENSIVE EVERGLADES								
RESTORATION PROGRAM (CERP)								
Florida Department of Agriculture/Consumer								
Services	3,000,0003	3,000,0003	3,000,0003	4,332,4493	4,332,4493	4,332,4493	4,332,4493	4,332,4493
Florida Department of Environmental Protection	29,750,012	63,080,365	82,993,974	37,923,719	168,264,771	131,836,360	121,866,650	98,163,615
Florida Fish and Wildlife Conservation								
Commission	57,355,349	40,209,004	48,216,417	50,832,728	52,538,808	53,607,006	55,600,328	54,537,988
Florida Department of Transportation	11,619,604	19,963,236	17,656,798	11,951,883	8,969,139	44,518,584	17,369,656	7,870,628
South Florida Water Management District	366,512,069	415,873,8611	418,794,1931	448,384,2501	395,390,6711	374,751,716 ¹	370,673,830 ¹	376,541,0244
CERP SUBTOTAL:	96,263,072	131,283,731	115,904,972	105,959,601	202,380,413	208,612,726	207,633,742	293,044,442
NON-CERP SUBTOTAL:	468,237,034	542,126,466	570,661,382	553,428,029	629,495,838	609,046,080	569,842,913	541,445,704
STATE OF FLORIDA FUNDING TOTAL:	564,500,106	673,410,197	686,566,354	659,387,630	831,876,251	817,658,806	777,476,655	834,490,146

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, FY 2017/18, FY 2018/19 and FY 2019/20.

⁴ SFWMD FY 2019/20 Preliminary Budget less state and federal funds

THIS PAGE WAS LEFT BLANK INTENTIONALLY

Section 2.0

Federal Everglades Ecosystem Restoration Projects and Funding Requests

THIS PAGE WAS LEFT BLANK INTENTIONALLY

Section 2.1: Federal Comprehensive Everglades Restoration Plan (CERP) Projects and Funding Requests (\$69,888,000)

U.S. Army Corps of Engineers Construction (\$62,055,000)

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. WRDA 2016 authorized the Comprehensive Everglades Planning Project (CEPP) and reauthorized the Picayune Strand Restoration Project. The Water Resources Reform and Development Act of 2018 authorized the Central and Southern Florida project and the Everglades Agricultural Area project, subject to conditions.

From a project perspective, the major focus of the U.S. Army Corps of Engineers (USACE) FY 2020 activities includes continuing construction management on the Indian River Lagoon South project features at C-44 and oversight of SFWMD construction of the pump station; oversight of the C-43 Caloosahatchee West Basin Storage Reservoir construction being performed by the SFWMD; complete design of the Biscayne Bay Coastal Wetlands L-31 East Flow-way Contract 5; initiate design of the CEPP PPA South component; completing design of the Picayune Strand southwest protection features; initiating construction of the Picayune Strand road removal east and west of Miller Boulevard and the Southwest Protection Features; 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 2020 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>U.S. Department of the Interior (DOI) - National Park Service (NPS)</u> (\$5,115,000)

The CERP is a multi-decadal framework to restore, protect, and preserve the water and natural resources of central and southern Florida. Projects affecting NPS lands and waters occur in phases through the end of CERP implementation (beyond 2030). The NPS works with the U.S. Fish and Wildlife Service (FWS) and the U.S. Geological Survey (USGS), in collaboration with the State of Florida and the USACE, to support CERP projects through the development of restoration performance measures, quantitative evaluations of the environmental benefits of proposed actions, and assessments of how completed projects are benefiting NPS resources.

Several non-CERP Foundation Projects were completed in 2019 and are now operational. The NPS is a lead on the Modified Water Deliveries (Mod Waters) and C-111 South Dade (C-111SD) projects, as well as the Tamiami Trail Next Steps (TTNS) Phase 1 bridging project. These projects focus on restoring water flows and improving habitats in the Northeast Shark River Slough and Taylor Slough regions within Everglades National Park (EVER or ENP) and portions of the Big Cypress National Preserve (BICY) and Biscayne National Park (BISC). In FY 2020, the NPS will actively participate in planning and design for several ongoing CERP projects, including early components of the CEPP, seepage management in the L-30/L-31N Canals, Biscayne Bay Coastal Wetlands Phase 2, and the Western Everglades Restoration Project. CERP funding also supports NPS involvement in water management operational improvements and assessing the effects of those projects on NPS/DOI resources. Continued NPS participation in these projects helps to ensure continued progress toward our goal of conserving our lands and waters for the enjoyment of future generations.

In addition to this project-level science, the NPS has a key role in programmatic-level science activities, such as the RECOVER Monitoring and Assessment Plan (MAP) led by the USACE and SFWMD. The MAP provides information to determine the landscape-scale ecological effects and overall restoration success. The NPS also is on the leadership team for RECOVER, which is the interagency scientific group responsible for science input to the CERP project teams.

Finally, the NPS will continue to participate in the DOI formal requirements on programmatic activities, including updates to the CERP Programmatic Regulations that specify how CERP projects will be built, operated, and evaluated; achievement of interim goals used to forecast restoration progress and provide benchmarks for the Five-Year Reports to Congress; and the identification of the appropriate quantity, timing, and distribution of water that will be produced—and reserved under federal and state law—for the natural system.

The Foundation and CERP project activities for FY 2020 include the following:

• For Federal projects, the CERP authorization directs the NPS to formally participate in CERP planning and assessment efforts, ensuring appropriate benefits to NPS natural and cultural resources and visitor opportunities. NPS staff participate in CERP system-wide monitoring, applying hydrological and ecological performance measures, developing interim goals, and producing programmatic guidance to evaluate restoration performance. For State of Florida projects, the NPS participates in the establishment of

- water reservations, minimum flows and levels, water supply plans, and standards for water quality (nutrients and contaminants).
- For the Mod Waters and C-111South Dade Foundation Projects, the NPS will continue to track the results of the ongoing incremental field tests and development of the Combined Operational Plan (COP) that utilizes the new project infrastructure to improve natural resource conditions in ENP and adjacent areas. The NPS has a lead role on the final water operations planning and its implementation. NPS staff also manage the ecological monitoring program used to assess the effects of the constructed Mod Waters and C-111 South Dade projects on NPS lands and resources.
- For the Tamiami Trail Next Steps project, the NPS will analyze the flow and marsh connectivity benefits of the 1-mile and 2.3-miles of eastern bridging completed in 2013 and 2019, respectively. The TTNS Phase 2 project recently received \$103.5 million in joint State/Federal funding. The NPS has the lead in completing the schematic design and in permitting and developing the design/bid/build package that will be awarded by the Florida Department of Transportation (DOT). The project will reconstruct the remaining 6.5 miles of unbridged roadway and upgrade six sets of existing culverts. Phase 2 is expected to be a 3.5-year design and construction effort.
- A new authorized CERP project that began in 2019 is the development of a revised Lake Okeechobee System Operating Manual (LOSOM) and an associated National Environmental Policy Act (NEPA) document. Lake Okeechobee is the single largest water storage feature in South Florida and is the central component connecting the Kissimmee River, northern estuaries, and the Everglades. The CERP envisioned reducing harmful Lake Okeechobee wet-season regulatory releases to the northern estuaries by redirecting this water southward as beneficial dry-season flows to the Everglades. LOSOM is a key step for Everglades restoration success and NPS resource protection.
- The NPS will be a cooperating agency on the LOSOM, participating in public workshops and interagency technical meetings and helping prepare the NEPA document. The outcome will be a series of incremental Lake Okeechobee regulation schedules that can be implemented as new infrastructure projects are completed over the next 10 to 15 years (Kissimmee River Restoration, Herbert Hoover Dike Rehabilitation, C-43/C-43 Reservoirs, Tamiami Trail bridging and roadway improvements, and the Central Everglades/Everglades Agricultural Area Reservoir project).
- The NPS CERP program will advance monitoring and assessment work oriented toward threatened and endangered species on NPS lands, providing technical input to the U.S. Fish and Wildlife Service (USFWS) as well as state/federal implementing agency planning that supports restoration-oriented water operations.
- The NPS CERP program team will continue to provide technical analyses and support to
 water operations and restoration activities that affect BISC and will track progress toward
 completion of components of the Biscayne Bay Coastal Wetlands project. A related largescale project that can affect BISC is the planned Florida Power and Light nuclear plant
 expansion and transmission corridors.
- The NPS CERP program team will continue to evaluate performance measures and restoration alternatives for the Loxahatchee River Watershed Restoration, Lake Okeechobee Watershed Restoration, and Western Everglades Restoration projects. These three ongoing CERP planning projects are expected to be authorized in WRDA 2020, and WRDA 2022.

- The NPS CERP program team will track the effects of current and proposed operations on Everglades water quality, and work with the USACE and the State of Florida to design water operations to minimize the risk of water quality exceedances. The team will work with the State (SFWMD/Florida Department of Environmental Protection [FDEP]), USACE, USFWS, Environmental Protection Agency (EPA), and Department of Justice (DOJ) to review the 1992 Consent Decree compliance standards that protect EVER and Arthur R. Marshall Loxahatchee National Wildlife Refuge water quality.

<u>U.S. Department of the Interior (DOI) – U.S. Fish and Wildlife Service (FWS)</u> (\$2,718,000)

The FY 2020 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 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 (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; designing, assessing, and monitoring; and adaptively managing the project components of CERP during its implementation. The FWS is responsible for providing environmental expertise to the USACE 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 Lake Okeechobee System Operating Manual.

In FY 2020, 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 myriad 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 Requests (\$58,793,500)

U.S. Army Corps of Engineers Construction (\$1,200,000)

Kissimmee River Restoration (\$1,000,000): 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 2020 activities include project oversight of ongoing construction, work in-kind and lands, easements, rights-of-way, relocation, and disposal area reviews for crediting, and ecological monitoring.

South Dade County, C-111 Project (\$200,000): This project consists of modifications to the Central & Southern Florida (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 2020 activities include completion of a Post Authorization Change Report focused on replacement of temporary pump facilities with permanent facilities.

U.S. Army Corps of Engineers Non-CERP Operations & Maintenance (\$5,454,000)

The FY 2020 Operations and Maintenance (O&M) activities includes critical routine operations and maintenance activities associated with mitigation requirements specified in the USFWS Biological Opinion on the Everglades Restoration Transition Plan to protect threatened and endangered species (funds specific C-111 South Dade and Modified Water Deliveries activities); maintenance of the Manatee Pass Gates which are located in southeast Florida at selected Okeechobee Waterway and C&SF Project navigation locks and water control structures.

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>U.S. Department of Agriculture (USDA)- Natural Resources Conservation</u> <u>Service (NRCS) (\$TBD*)</u>

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.

Farm Bill of 2018

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.

*FY 2019 program funding is pending national approval of annual allocations to States.

<u>U.S. Department of Commerce - National Oceanic and Atmospheric</u> <u>Administration (NOAA) (\$1,000,500)</u>

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 provide 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 1990s scientists from <u>AOML</u> (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 2020 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)

NOAA's <u>Southeast Fisheries Science Center</u>, in collaboration with other agencies and entities, conducts monitoring and assessment projects to support CERP. In FY 2019, NOAA's NMFS continued scientific activities to determine the impact of upstream restoration efforts and changing freshwater inflow on south Florida coastal systems. This research, which will continue in FY 2020, examines the impacts of changing freshwater runoff patterns on inshore and coastal ecosystems. These activities are conducted in Biscayne Bay and Florida Bay in collaboration with the NOAA AOML and with academic institutions and other agency partners working under the CERP Monitoring and Assessment Plan (MAP) of RECOVER.

Biscayne Bay NOAA Habitat Focus Area (HFA) / National Marine Fisheries Service

The Biscayne Bay HFA is one of 10 HFA's in NOAA's Habitat Blueprint Initiative, which 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 2019 the 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. An SEFSC project characterized spatial and temporal differences in epiphyton and phytoplankton community composition against a background of potentially influencing nutrient concentrations. A collaborative project led by AOML provided a view of water quality conditions, including nutrient concentrations, within a major canal discharging into Biscayne Bay, the Coral Gables Waterway. A recently launched watershed study for the Waterway will determine nutrient sources and input locations in detail. The watershed study is viewed as a pilot study to develop and display results of an approach for later application to other canals and associated watersheds discharging to the Bay. The SEFSC and the University of Miami have collaborated to establish and maintain a 39-unit FACT (Florida Atlantic Coast Telemetry) acoustic array in the Biscayne Bay HFA to determine presence, habitat, and movement patterns there of smalltooth sawfish and other acoustically tagged species. Through the Biscayne Bay HFA and existing programs, NOAA will continue to work within CERP and with 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) (\$34,954,000)

Park Management (\$29,299,000)

Big Cypress National Preserve (\$6,668,000)

FY 2020 funding will support area management activities promoting public use and resource protection through the implementation and interpretation of an extensive backcountry off-road vehicle (ORV) trail system. The NPS will continue to support mandated programs, such as the protection, inventory, and monitoring of 10 threatened and endangered species (including 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 and production, the largest recreational hunting wildlife management area in south Florida, implementation of the largest recreational ORV program in the lower 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 and monitoring of resources and a geographic information system.

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

Biscayne National Park (\$4,196,000)

Fiscal Year 2020 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 exist along the park's western boundary and are "upstream" with respect to surface- and groundwater flow into the park.

Park employees perform other area management activities associated with the protection of the park's natural, cultural, and historic resources, as well as maintenance of park facilities. Park staff protect 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. Park staff maintain three developed islands and two mainland sites that include six harbors/docking facilities, two campgrounds, six picnic areas, approximately 10 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. Staff make special efforts to prevent extensive damage to seagrass beds and coral reefs from boat groundings and to restore those areas. Park staff also make extensive efforts 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 (\$2,042,000)

Funding in FY 2020 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 parkfunded 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 (\$16,393,000)

Funding for ENP in FY 2020 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 more than 1.5 million acres of fragile resources, in excess of seven million people living within 100 miles of the park boundary (as of the 2010 census), and more than one million visitors each year, ENP has special challenges. The park engages in 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.

ENP 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. More than 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 (\$1,277,000)

Funding in FY 2020 will sustain the continued operations and activities of the Department of the Interior's Office of Everglades Restoration Initiatives (OERI). Since 1995, the OERI has provided senior executive level leadership in support of the congressionally mandated responsibilities of the Department and the Secretary in the restoration of America's Everglades. OERI will provide 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, will also continue in its role as the south Florida liaison for the Office of the Secretary in coordinating all departmental and bureau-level Everglades restoration activities and programs.

In FY 2020, the OERI leadership and staff will continue to work directly with the federal, state, local government, and tribal representatives on the Task Force and administer, manage, and support 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. Congressionally mandated reporting documents produced by OERI in FY 2020 will include the South Florida Ecosystem Restoration Strategy and 2020 Biennial Report, the annual Integrated Financial Plan, the Plan for Coordinating Science, and the FY 2021 Cross Cut Budget. OERI will also collaborate with the USACE in preparation of the 2020 Five Year Report to Congress. In addition to the key Everglades restoration support activities, 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 2020, the OERI will also continue maintaining and enhancing the everglades restoration.gov website, which serves as an innovative and comprehensive resource and as the primary information source on the restoration of America's Everglades.

Everglades Research – Critical Ecosystem Studies Initiative (CESI) (\$3,718,000)

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. CESI supports ecological and environmental monitoring and research, restoration project assessment, hydrologic and ecological model development, and information synthesis, enabling the provision of scientific information and insight needed to promote Everglades restoration and management success.

The CESI planned activities for FY 2020 will address major restoration and management issues and support multiple restoration projects:

Restoration Project Planning, Assessment, and Decision Support

- Implementation of applied science and monitoring to fill gaps in the Mod Waters monitoring program through cooperative agreements that track the effects of the operation of the Mod Waters and C-111 South Dade projects on ENP resources.
- Continuing support of hydrologic and ecological modeling and synthesis of ecological knowledge that improves forecasting capability and informs restoration project planning, design, and water operations planning; this includes support of Mod Waters, Tamiami Trail Next Steps, and CEPP.

- Continuing development and management of biological and hydrologic databases that
 organize and protect information, along with development of decision-support tools that
 enable rapid support for resource managers, decision makers, and the public about trends in
 ENP resources as they relate to resource management changes, restoration progress, and
 climatic events and variations; these databases contain more than 80 years of continuous
 measurements on some subjects.
- Continuing support of the Task Force and DOI's oversight of the Everglades Restoration Initiative.

Invasive Exotic Species Management

- Increasing support of applied science on the effects of exotic invasive species on the natural resources of EVER, BICY, and BISC and the development of methods of detection, suppression, and control of invasive species, especially invasive reptiles and plants; projects informing potential management of Burmese pythons and Argentine black and white tegus are ongoing.
- Assessment of fire management options to better control invasive exotic plants while
 protecting soils and native plants; ongoing analysis of the combined influence of freshwater
 flow restoration and fire management on coastal wetlands soils is particularly important to
 minimize saltwater intrusion impacts.

Florida Bay and Coastal Resource Management and Restoration

- Supporting marine and estuarine applied science and enhanced monitoring of the physical and ecological indicators of the health of Florida Bay, including monitoring and research of the 2015–2016 Florida Bay seagrass die-off and recovery and the cause and effects of associated algal blooms that persist in the bay.
- Assessment of how freshwater flow restoration affects salinity and other environmental factors and can benefit seagrass habitat and recreational fishing.
- Research and modeling on the effects of sea level rise on coastal resources and how Everglades restoration can best mitigate those effects.

Threatened and endangered species, biodiversity, and wildlife

- Continuing support of monitoring and research on the endangered Cape Sable seaside sparrow (CSSS) to enhance the ability to manage this species during the next decade, as water inflows to ENP are redistributed.
- Continuing critical long-term hydrologic and biological monitoring projects that support assessments of the effect of restoration projects on Everglades species, habitats, and communities, including monitoring of fish and macro-invertebrates, plant communities, wading birds, water fowl, and alligators and crocodiles.
- Research on how complementary combinations of water management and fire management can best protect and restore Everglades biodiversity, including the improvement of habitat for endangered butterflies and CSSS populations.

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

Land Acquisition Management (\$660,000)

Funding in FY 2020 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) (\$8,820,000)

Resource Management

Ecological Services (\$3,246,000)

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 2020 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 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 USACE's 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 2020, 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, nongovernmental 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 2020, 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 be to support and advance adaptive management and the principal goals of Everglades restoration.

Refuges and Wildlife (\$4,771,000)

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 (\$92,000)

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 cited partners, the USACE, 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 (\$568,000)

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 (\$143,000)

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 (\$3,996,000)

Greater Everglades Restoration – Integrating Research, Planning, and Interagency Coordination (\$1,821,000)

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 trees, Old World climbing ferns, the Burmese python, and most recently, the Argentine black and white tegu. In

FY 2020, the USGS will continue to support high-priority research needs identified by the Task Force through its Invasive Exotic Species Strategic Action Framework and requested by DOI and other partners.

For more information, please see https://www.evergladesrestoration.gov/content/ies/.

This Task Force-led process occurred over 1.5 years, with participation from federal, state, and local governments; tribes; NGOs; academia; and private citizens. Analysis identified early detection and rapid response (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 was developed by the USGS and is now being used by partner agencies. The Task Force, via the South Florida Ecosystem Restoration Working Group, will convene additional workshops in FY 2020 to update the list of high-priority research needs, and the USGS will focus research intended to address those priorities. Research will focus on aspects of EDRR, such as using environmental DNA (eDNA) to determine the northern extent of the Burmese python expansion; examining the biology, distribution, and impacts of tegus and pythons; using population models and decision-support tools to develop better monitoring and management efforts; and developing a synthesis document summarizing all research on Burmese pythons.

Greater Everglades Restoration Alternatives (\$1,681,000)

The USGS will maintain existing models such as the field scale physical model of sheet flow, the relationships between restoring hydropattern (i.e., the time series of water levels) and water quality, and the existing global-scale climate models that were downscaled for use on the Everglades system. The USGS will start to develop single-species models to predict the possible impacts of different Everglades restoration alternatives.

Groundwater Monitoring in the Everglades (\$411,000)

The USGS provides science to support management and restoration of America's Everglades in collaboration with federal and state partners, including the USACE and the State of Florida water management districts. The Groundwater and Streamflow Information Program/Water Observing System Program provides cooperative matching funds for groundwater monitoring in the Everglades, which supports monitoring of water levels in approximately 290 groundwater wells; cooperative matching funds for surface-water monitoring in the Everglades, which supports water-level only or water-level and streamflow monitoring at 63 streamgages; and Federal Priority Streamgage funds to support water-level and streamflow monitoring at one streamgage in the Everglades.

Federal Everglades Ecosystem Restoration Projects (\$83,000)

The Southeast Climate Adaptation Science Center will provide ad hoc technical assistance on climate science and data needs to support the Everglades area.

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

In FY 2020, \$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. That 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 including 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 Requests

THIS PAGE WAS LEFT BLANK INTENTIONALLY

Section 3.1: State of Florida Comprehensive Everglades Restoration Plan (CERP) Projects and Funding Requests (\$293,044,442)

Florida Department of Environmental Protection (\$254,744,328)

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 from the Land Acquisition Trust Fund (LATF) is used 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 2017/18 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 Governor's Recommended FY 2019/20 CERP funding includes a total of \$254,744,328. Of these funds, \$145,500,000 will be distributed through the FDEP to the SFWMD for the planning, design, engineering, and construction of various CERP projects (C-43 West Basin Reservoir, Lake Okeechobee Watershed Restoration Project, Loxahatchee River Watershed Restoration Project, and Western Everglades Restoration Project). An additional \$107,824,918 in funding is included to support the Everglades Agricultural Area reservoir and associated projects, which includes the \$64 million to be provided in accordance with Senate Bill 10.

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 \$440,000 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 26, 2019, totaled \$58,426,603. The additional projected expenditures through June 30, 2019, are \$74,972,673, for a total of \$133,399,277. 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 2018/19

include the Everglades Agricultural Area Reservoir, C-43 West Basin Storage Reservoir project, C-44 Reservoir and Stormwater Treatment Area (STA) project, Lake Okeechobee Watershed Project, Western Everglades Restoration Project, Biscayne Bay Coastal Wetlands, Picayune Strand Restoration project, C-111 Spreader Canal, CEPP South, CERP Project Modeling, 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.

Florida Fish and Wildlife Conservation Commission (FWC) (\$4,143,809)

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 2012/13, 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 (\$34,156,305)

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 <u>Indian River Lagoon South</u> 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, the S-404 System Discharge structure and the S-401 Pump Station. The 6,300-acre C-44 STA is currently under construction and expected to be completed in 2019. The C-44 Reservoir, which will store up to 550,600 acre-feet of water, is under construction by the USACE and expected to be complete in 2020/21.

The <u>Picayune Strand Restoration</u> project will restore 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 and Faka Union pump stations is complete and both pump stations have been transferred to the SFWMD for long term operations and maintenance. The Miller Pump Station is currently in the operational testing phase and is anticipated to be transferred to SFWMD for long term operations and maintenance in 2019. 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 <u>C-43 West Basin Reservoir Project</u> will capture and store approximately 170,000 acre-feet of Lake Okeechobee regulatory releases improving salinity balance for the Caloosahatchee Estuary by controlling peak flows during the wet season and providing essential flows during the dry season. Preloading, demolition work, and construction of the irrigation pump station (195 cfs) is complete. The intake pump station (1500 cfs) and embankment construction is underway and scheduled for completion in 2022 and September 2023, respectively.

The <u>Central Everglades Planning Project (CEPP)</u> 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 CEPP South components currently moving forward are the removal of approximately 5 miles of Old Tamiami Trail and increasing the conveyance capacity at the S-333 structure. These project features are anticipated to be completed by 2020 and will facilitate additional deliveries of water from WCA 3A directly to ENP and aid in alleviating the high water conditions being experienced in WCA 3A.

Congress approved the CEPP <u>Post Authorization Change Report (PACR)</u> as part of WRDA 2018. The project will provide additional canal conveyance, 240,000 acre-feet of storage, and 6,500 acres of treatment south of Lake Okeechobee, and in conjunction with other project components, will reduce the volume of damaging discharges from Lake Okeechobee to the northern estuaries and provide increased conveyance south to the Everglades. In 2019, the SFWMD began design of the canal conveyance improvements and stormwater treatment area and the USACE began design of the reservoir.

The SFWMD and USACE completed the <u>Integrated Delivery Schedule</u> (IDS) in 2015 and updated it again in 2018 based on funding availability from the implementing agencies. The 2019 IDS update is currently underway. In accordance with this publicly supported project delivery schedule, the agencies initiated the <u>Lake Okeechobee Watershed Restoration Project</u>, the <u>Western Everglades Restoration Project</u> and the <u>Loxahatchee River Watershed Restoration Project</u> in 2016. It is anticipated that the Lake Okeechobee and Loxahatchee River planning projects will be published in the Federal Register as Draft Integrated PIRs and Environmental Impact Statements for public and agency review in 2019.

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 operations and maintenance phase under the 50/50 cost share agreement between the USACE and the SFWMD. The <u>C-111 West Spreader Canal</u>, <u>Biscayne Bay Coastal Wetlands</u>, and <u>Broward County Water Preserve Areas</u> 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 Requests (\$541,445,704)

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) (\$98,163,615)

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 Governor's Recommended FY 2019-2020 budget includes funding for the following programs: \$32,000,000 for Restoration Strategies and \$29,876,213 for the implementation of NEEPP and water storage projects that provide relief from discharges to the St. Lucie and Caloosahatchee rivers and estuaries. The 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.

The Governor's Recommended Budget also includes \$10 million for the purpose of supporting the evaluation and implementation of innovative technologies and short-term solutions to combat or clean up harmful algal blooms and nutrient enrichment of Florida's fresh waterbodies, including lakes, rivers, estuaries, and canals.

Additional funding not included in the above total, but part of the Governor's Recommended Budget, includes \$100 million for grant funds for water quality improvements, some of which may go towards projects within the Everglades system, and \$40 million through the Department of Transportation's work program for the Tamami Trail road raising project.

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 Office of Resilience and Coastal Protection manages more

than 4 million acres of submerged lands and coastal uplands in Florida. With support from the NOAA, this office 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/rcp

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 26, 2019, totaled \$99,960,830. The additional projected expenditures through June 30, 2019, are \$53,121,792, for a total of \$153,082,622 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 and LATF during FY 2018/19 include Herbert Hoover Dike, Restoration Strategies, 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.

• Office of Resilience and Coastal Protection

Programs include the National Estuarine Research Reserve, the Coral Reef Conservation Program, the FKNMS, and the Aquatic Preserves Program.

• Water Restoration Assistance

Projects include Caloosahatchee River Valued Ecosystem Component Restoration, Loxahatchee River Preservation Initiative, and Glades County Caloosahatchee River & Estuary Area Wastewater.

Office of Water Policy

Efforts include land management activities within the South Florida Ecosystem.

Florida Fish and Wildlife Conservation Commission (FWC) (\$54,537,988)

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 alligator management throughout research, and the South Florida Ecosystem.

The FWC is either sole manager or a partnering manager on over three million acres of public lands throughout the South Florida Ecosystem. 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 2019/20 includes:

- Division of Habitat and Species Conservation (\$33,458,597)
- Law Enforcement (\$24,133,281)
- Division of Freshwater Fisheries (\$415,000)
- Fish and Wildlife Research Institute (\$531,110)

Florida Department of Transportation (\$7,870,628)

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. Notable expenditures in this fiscal year's plan:

• FDOT District Six is funding Everglades Restoration as part of the Tamiami Trail Next Steps project.

The FDOT's expenditures for South Florida Ecosystem restoration during FY 2018/19 was \$17,369,656 and includes:

- Exotic and endangered/threatened plant survey (\$192,240)
- Research to determine the effectiveness of wildlife crossings (\$21,142)
- Mitigation maintenance and monitoring (\$243,350)
- Removal of exotic vegetation (\$1,710,190)
- Wildlife and wetland mitigation (\$410,255)
- Water Quality Study (\$4,025)
- Seagrass and mangrove mitigation (\$87,560)
- Everglades Restoration (\$14,700,894)

The FDOT's planned funding for South Florida Ecosystem restoration during FY 2019/20 is \$7,870,628 and includes:

- Exotic and endangered/threatened plant survey (\$76,500)
- Research to determine the effectiveness of wildlife crossings (\$1,439,152)
- Mitigation maintenance and monitoring (\$464,100)
- Removal of exotic vegetation (\$1,781,874)
- Wildlife and wetland mitigation (\$4,028,000)
- Water Quality Study (\$3,002)
- Seagrass and mangrove mitigation (\$53,000)
- Everglades Restoration (\$25,000)

South Florida Water Management District (\$376,541,024)

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 2018 (May 1, 2017 – April 30, 2018), the STAs treated approximately 1.6 million acre-feet of water and recorded good annual performance, retaining 77% of phosphorus from water flowing through the treatment cells and treating water to a flow-weighted mean concentration of 36 parts per billion of phosphorus. During the water year, the STAs removed more than 275 metric tons of phosphorus.

For more information, please visit: http://www.sfwmd.gov/sta.

BMPs in the Everglades Agricultural Area resulted in a 66% reduction in phosphorus exceeding the 25% statutory requirement. For the ninth 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, six Restoration Strategies projects have been completed, seven others are ongoing, and 47 of 74 consent order milestones have been achieved, 45 of them ahead of their deadlines. In 2018, the SFWMD updated the *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. Five studies have been completed, one is nearing completion, and eight are 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 continues to partner with agencies and private landowners to bolster the Dispersed Water Management (DWM) Program. Detaining or treating 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 excess 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, two water farming project, six large public/private projects under the NEEPP, and two projects on District Lands. Since its inception in 2005, the DWM Program's estimated average annual retention volume has grown to more than 123,000 acre-feet per year in operation and maintenance with an additional estimated average annual retention volume of over 224,000 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 2019/20 include:

- Restoring the Kissimmee River and floodplain (in cooperation with the USACE) through construction, backfilling 22 miles of canal, reshaping 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.

- Updating the Lake Okeechobee Watershed Protection Plan (LOWPP) by March 1, 2020, in accordance with F.S. 373.4595(3)(a), to ensure that it is consistent with the Lake Okeechobee Basin Management Action Plan adopted pursuant to s. 403.067.
- 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
- 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 <u>flood control systems</u> in the world that includes over 650 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.

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 2020 Working Document.

Federal Agencies: Marsha Bansee Lee Department of the Interior, Office of Everglades Restoration Initiatives	954/377-5916 1	marsha_bansee@evergladesrestoration.gov					
Kevin Burger Department of the Interior, Office of Everglades Restoration Initiatives	954/377-5968	Kevin_Burger@ios.doi.gov					
Nancy Diersing U.S. Department of Commerce - NOAA	305/852-7717	Nancy.Diersing@noaa.gov					
Cecelia Ann Harper U.S. Environmental Protection Agency	470/249-3125	Harper.Cecelia@epa.gov					
Michael Magley U.S. Army Corps of Engineers	404/562-5206	Michael.E.Magley@usace.army.mil					
Steve Farrell 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					
Christina Woods U.S. Department of Agriculture - ARS	301/504-4482	christina.woods@ars.usda.gov					
State of Florida Agencies:							
James Erskine Florida Fish and Wildlife Conservation Comm	561/625-5122 ission	James.Erskine@MyFWC.com					
Jordan Pugh Florida Department of Environmental Protecti	850/245-3183 on	Jordan.Pugh@dep.state.fl.us					
Brenda Low South Florida Water Management District	561/682-2209	blow@sfwmd.gov					
Jason Watts Florida Department of Transportation	850/414-4316	jason.watts@dot.state.fl.us					
Rebecca Elliott Florida Department of Agriculture and Consu	561/682-6040 mer Services	relliott@sfwmd.gov					