



Fiscal Year 2024 Cross Cut Budget

South Florida Ecosystem Restoration Task Force

www.evergladesrestoration.gov

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 FUNDING REQUESTS	11
2.1	Federal Comprehensive Everglades Restoration Plan (CERP) Projects and Funding Requests	13
2.2	Non-CERP Everglades Ecosystem Restoration Projects and Funding Requests	19
3.0	STATE OF FLORIDA EVERGLADES ECOSYSTEM RESTORATION PROJECTS AND FUNDING REQUESTS	39
3.1	State of Florida Comprehensive Everglades Restoration Plan (CERP) Projects and Funding Requests	41
3.2	Non-CERP Everglades Ecosystem Restoration Projects and Funding Requests	45
4.0	AGENCY CONTACTS	51

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Section 1.0

Overview

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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 (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) 2024 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 2017 through FY 2024. 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 this document.

Section 3.0 provides 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 2023-24 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 reflect 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.

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TABLE 1: FEDERAL FUNDING (ACTUAL \$)

EVERGLADES ECOSYSTEM RESTORATION PROJECTS	FY 2017 Enacted	FY 2018 Enacted	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Enacted	FY 2022 Enacted	FY 2023 Enacted	FY 2024 Requested
COMPREHENSIVE EVERGLADES RESTORATION PROGRAM (CERP)								
USACE - CERP (Part of Central and Southern Florida) ^{1,3}	78,435,000	92,053,578	97,253,000	233,800,000	244,900,000	1,445,967,736 ⁶	444,082,000	408,902,000
USACE - CERP O&M ^{1,5}	0	2,920,000	0	4,971,000	4,789,000	4,321,000	7,204,000	7,731,000
USDOJ - NPS CERP ²	5,236,000	5,236,000	5,236,000	5,359,000	5,359,000	5,480,000	5,629,000	5,783,000
USDOJ - FWS CERP	2,718,000	2,718,000	2,718,000	2,718,000	2,718,000	2,718,000	2,718,000	2,718,000
NON-COMPREHENSIVE EVERGLADES RESTORATION PROGRAM (CERP)								
USACE - Central and Southern Florida (excluding CERP) ¹	11,787,000	3,573,152	2,840,000	200,000	2,100,000	500,000	1,750,000	4,598,000
USACE - Non-CERP O&M ^{4,5}	5,703,010	2,996,000	6,537,000	8,850,000	5,263,000	4,629,000	3,461,000	5,166,000
USACE - Critical Projects	0	0	522,160	0	0	0	0	0
USACE - Kissimmee River Restoration	36,065,000	9,800,000	3,950,000	1,000,000	3,000,000	1,500,000	6,500,000	1,500,000
USDA - ARS	2,989,000	2,989,000	2,989,000	3,064,000	3,094,000	3,176,000	3,335,000	3,335,000
USDA - NRCS	45,017,889	13,613,458	11,636,400	9,729,800	10,927,600	14,665,200	18,056,100	20,000,000
US Department of Commerce - NOAA	1,155,000	1,155,000	1,081,500	1,031,460	1,084,000	1,654,000	1,581,000	2,446,000
USDOJ - OERI and the South Florida Ecosystem Restoration Task Force	1,330,000	1,330,000	1,330,000	1,363,000	1,363,000	2,368,000	2,374,000	2,390,000
USDOJ - NPS Park Management	30,181,000	30,605,000	30,420,000	31,058,000	31,918,000	32,752,000	34,196,000	36,879,000
USDOJ - NPS Everglades Research (Critical Ecosystem Studies Initiative)	3,876,000	3,876,000	3,876,000	3,970,000	3,970,000	4,014,000	4,068,000	4,095,000
USDOJ - NPS Land Acquisition (management)	636,000	660,000	830,000	900,000	0	0	0	0
USDOJ - FWS Ecological Services	3,246,000	3,246,000	3,246,000	3,246,000	3,246,000	3,246,000	3,246,000	3,950,000
USDOJ - FWS Refuges and Wildlife	4,771,000	4,771,000	4,771,000	4,771,000	4,771,000	4,771,000	4,771,000	5,144,000
USDOJ - FWS Migratory Birds	92,000	92,000	92,000	92,000	92,000	92,000	92,000	92,000
USDOJ - FWS Law Enforcement	568,000	568,000	568,000	568,000	568,000	568,000	568,000	568,000
USDOJ - FWS Fisheries	92,000	143,000	143,000	143,000	143,000	143,000	143,000	143,000
USDOJ - FWS Land Acquisition	2,500,000	2,500,000	2,000,000	3,700,000	2,000,000	0	0	0
USDOJ - USGS - Integrated Research, Planning and Interagency Coord.	7,727,000	8,327,000	8,192,000	8,197,000	8,375,000	7,699,000	8,424,000	8,424,000
USDOJ - BIA	580,000	390,000	1,066,000	988,000	380,000	1,032,000	380,000	380,000
USEPA	1,490,000	1,400,000	2,900,000	4,700,000	5,752,000	7,200,000	8,488,000	8,491,000

TABLE 2: FEDERAL FUNDING (ACTUAL \$)

EVERGLADES ECOSYSTEM RESTORATION PROJECTS	FY 2017 Enacted	FY 2018 Enacted	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Enacted	FY 2022 Enacted	FY 2023 Enacted	FY 2024 Requested
CERP Total (USACE and USDOJ)	86,389,000	102,927,578	105,207,000	246,848,000	257,766,000	1,458,486,736	459,633,000	425,134,000
Non-CERP Subtotal (USACE and USDOJ)	109,164,010	73,269,152	70,383,160	69,046,000	67,189,000	63,314,000	69,973,000	73,329,000
Non-CERP Subtotal (Other Federal Agencies)	50,651,889	19,157,548	18,606,900	18,525,260	20,857,600	26,695,200	31,460,100	34,272,000
Non-CERP Total (All Federal Agencies)	159,815,899	92,426,610	88,990,060	87,571,260	88,046,600	90,009,200	101,433,100	107,601,000
TOTAL CERP AND NON-CERP (USACE AND USDOJ)	195,553,010	176,196,730	175,590,160	315,894,000	324,955,000	1,521,800,736	529,606,000	498,463,000
TOTAL CERP AND NON-CERP (ALL FEDERAL AGENCIES)	246,204,899	195,354,188	194,197,060	334,419,260	345,812,600	1,548,495,936	561,066,100	532,735,000

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 NPS CERP funding includes GSA space rental costs in the following amount: \$410,000 per year from FY 2015 – FY 2023.

³ USACE FY 2015 enacted reflects reduction for the C&SF Upper St Johns River Project.

⁴ FY 2016 Enacted O&M data includes \$6,950,000 that will be executed in FY 2017 but was provided in FY 2016.

⁵ FY 2017 Enacted O&M data includes \$2,832,000 that will be executed in FY 2018 but was provided in FY 2017.

⁶ President’s Budget was increased by the Infrastructure Investment and Jobs Act (IIJA) of November 2021 by \$1,097,967,736.

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

EVERGLADES ECOSYSTEM RESTORATION PROJECTS	FY 2016-17 Enacted	FY 2017-18 Enacted	FY 2018-19 Enacted	FY 2019-20 Enacted	FY 2020-21 Enacted	FY 2021-22 Enacted	FY 2022-23 Enacted	FY 2023-24 Requested
COMPREHENSIVE EVERGLADES RESTORATION PROGRAM (CERP)								
Florida Department of Environmental Protection	163,461,458	173,783,678	176,041,563	322,702,810	233,900,000	273,461,850 ³	366,135,346	470,520,477
Florida Fish and Wildlife Conservation Commission	3,004,775	4,616,862	4,954,181	4,143,809	4,885,133	5,244,399	5,310,741	5,437,050
South Florida Water Management District	35,914,180 ¹	30,212,186 ¹	26,637,998 ¹	46,096,597 ¹	44,165,476 ¹	26,637,263 ¹	30,241,429 ¹	28,527,912 ²
NON- COMPREHENSIVE EVERGLADES RESTORATION PROGRAM (CERP)								
Florida Department of Agriculture/Consumer Services ³	4,332,449	4,332,449	4,332,449	21,220,449	21,220,449	23,232,449	22,220,449	22,220,449
Florida Department of Environmental Protection	168,264,771	131,836,360	121,866,650	120,267,355 ⁵	86,559,309 ⁵	139,861,306 ⁴	1,315,623,010 ⁵	627,332,183 ⁶
Florida Fish and Wildlife Conservation Commission	52,538,808	53,607,006	55,600,328	54,537,988	49,615,884	58,005,024	64,710,770	62,000,713
Florida Department of Transportation	8,969,139	44,518,584	17,369,656	5,386,700	8,756,201	4,961,117	14,768,989	16,135,493
South Florida Water Management District	395,390,671 ¹	374,751,716 ¹	370,673,830 ¹	400,839,404 ¹	478,081,506 ¹	422,684,105 ¹	397,755,823 ¹	352,758,511 ²
CERP SUBTOTAL:	202,380,413	208,612,726	207,633,742	372,943,216	282,950,609	305,343,512	401,687,516	504,485,439
NON-CERP SUBTOTAL:	629,495,838	609,046,080	569,842,913	602,251,896	644,233,349	648,744,001	1,815,079,041	1,080,447,349
STATE OF FLORIDA FUNDING TOTAL:	831,876,251	817,658,806	777,476,655	975,195,112	927,183,958	954,087,513	2,216,766,557	1,584,932,788

Footnotes:

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

² SFWMD FY 2023-24 Preliminary Budget less state and federal funds.

³ Total does not include FDEP FY 2021-22 funding of \$58.9 million for Everglades restoration and \$48 million for the C-51 Reservoir.

⁴ Total does not include Governor's budget recommendations of \$50,600,000 for FDEP FY 2020-21 grant funds for water quality improvements, some of which may go towards projects within the Everglades ecosystem.

⁵ Total does not include FDEP FY 2022-23 grant funding of \$20,000,000 for harmful algal bloom mitigation, some of which may go towards projects within the Everglades ecosystem.

⁶ Total does not include Proposed budget of \$50,000,000 for FDEP FY 2023-24 grant funds for harmful algal bloom mitigation, some of which may go towards projects within the Everglades ecosystem.

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Section 2.0

Federal Everglades Ecosystem Restoration Projects and Funding Requests

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Section 2.1: Federal Comprehensive Everglades Restoration Plan (CERP) Projects and Funding Requests (\$425,134,000)

U.S. Army Corps of Engineers (USACE) Construction (\$408,902,000)

Congress authorized the Comprehensive Everglades Restoration Plan (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. The 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 the WRDA 2007: the Indian River Lagoon South (IRL-S), 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 (WRRDA) of 2014 authorized four additional CERP projects: the Caloosahatchee River (C-43) West Basin Storage Reservoir, the C-111 Spreader Canal Western Project, the Broward County Water Preserve Areas (BCWPA), and the Biscayne Bay Coastal Wetland (BBCW) Phase 1 Project. The WRDA 2016 authorized the Central Everglades Planning Project (CEPP) and reauthorized the Picayune Strand Restoration Project. The WRDA 2018 authorized the CERP Central and Southern Florida Everglades Agricultural Area (EAA) Reservoir Project, subject to conditions. The WRDA 2020 authorized the Loxahatchee River Restoration Project, reauthorized the C-43 West Basin Storage Reservoir, and modified the CEPP authorization to incorporate the EAA Reservoir Project features into CEPP. The WRDA 2022 reauthorized the IRL Project.

The Infrastructure Investment and Jobs Act (IIJA) of November 2021 provided \$1,097,967,736 in funds to construct the CEPP South S-356 Pump Station, the IRL-S C-23/24 North Reservoir, and the BCWPA C-11 Impoundment, and to continue the Western Everglades Restoration Project (WERP) Implementation Report and the Biscayne Bay Southern Everglades Ecosystem Restoration Project (BBSEER) Implementation Report.

From a program perspective, FY 2023 and FY 2024 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 (IDS).

From a project perspective, the major focus of the USACE for FY 2023 and FY 2024 activities include: continuing construction management on the IRL-S project features; completing the C-44

Reservoir Operational Testing and Monitoring period (OTMP); continuing the design of the C-23/24 North Reservoir IRL project feature; oversight of the C-43 Caloosahatchee West Basin Storage Reservoir construction being performed by the South Florida Water Management District (SFWMD); continuing construction and construction management of the BBCW L-31 East Flow-way features, oversight of the SFWMD construction of the Cutler Wetlands features, and initiating OTMP; construction and construction management of CEPP features including continuing construction of the EAA reservoir and South Contract 1 L-67A and initiating the CEPP South S-355W Gated Spillway; construction and construction management of the Picayune Strand southwest protection features; continued construction management for BCWPA and design of the Water Conservation Area feature; initiating design oversight of the Loxahatchee River Watershed Restoration Project (LRWRP) features and executing the Project Partnership Agreement; and continuation of project adaptive assessment and monitoring activities used to monitor the effects of projects as they are implemented.

U.S. Army Corps of Engineers CERP Operations & Maintenance (O&M)
(\$7,731,000)

The FY 2024 O&M activities includes critical routine operations and maintenance activities associated with mitigation requirements on the BCWPA Project; maintenance of the Manatee Refugium at the Picayune Strand Restoration Project; and continuation of critical routine operations and maintenance activities for cost shared O&M responsibilities at the Melaleuca Eradication and Other Exotic Plants, Site 1, Picayune Strand, IRL, BCWPA, C-111 Spreader Canal, C-43, CEPP, and BBCW projects.

U.S. Department of the Interior (DOI) - National Park Service (NPS)
(\$5,783,000)

The National Park Service (NPS) is a major partner in the \$20 billion effort to restore the Everglades ecosystem, with large scale projects to modify water management and operations in south Florida. The goal of the multidecadal CERP is to restore, preserve, and protect the South Florida Ecosystem to achieve the unique ecological and hydrological characteristics of an undisturbed system. The CERP “Yellow Book” includes 68 project components to be constructed to restore the quantity, quality, timing, and distribution of water for the South Florida Ecosystem. Several of these projects within CERP will directly benefit the hydrological conditions within NPS lands by stopping or reversing decades of ecosystem decline. These projects will directly benefit and restore south Florida National park units, namely Everglades National Park (ENP), Biscayne National Park (BISC), Big Cypress National Preserve (BICY), and Dry Tortugas National Park (DRTO), unique ecosystems with temperate and subtropical species and habitats, complex biological processes, and a large number of threatened and endangered species that reside in these ecosystems, including the Florida panther, Everglades snail kite, American crocodile, and the West Indian manatee. These projects occur in phases and have a target completion date beyond 2038 until the full implementation of CERP. The NPS is closely working with the U.S. Fish and Wildlife Service (USFWS) and the U.S. Geological Survey (USGS), in collaboration with the State of Florida and the USACE, to support CERP projects. The NPS team is actively participating in the planning process of CERP projects through modeling of proposed

alternatives, developing performance measures, and projecting potential environmental benefits on NPS resources. To provide independent validation of the proposed alternatives, NPS hydrologists and modelers are performing technical data analysis and modeling efforts within the South Florida Natural Resources Center (SFNRC) high-performance computing system. The NPS team is also monitoring projects implementation and quantifying environmental benefits of completed projects.

The FY 2024 budget for Everglades restoration implementation is planning to support approximately 34 full-time ecologists, hydrologists, modelers, water quality experts and employees that will work on both CERP and non-CERP restoration projects. In FY 2023, the Everglades NPS CERP program at the SFNRC started implementing the outcomes from the comprehensive strategic planning conducted in FY 2022 guiding our work over the next five years. The culmination of several months of workshop, meetings, interviews, and hours of discussion was a reprioritization of the Center's restoration and stewardship efforts. This was a critical and timely endeavor mainly because of the President's Bipartisan Infrastructure Law and other appropriations that provided nearly \$1.1B capacity for the USACE to accelerate Everglades restoration. As a result, SFNRC refocused its mission and reshaped its organizational chart focusing on specific areas to match USACE acceleration. We created and repurposed 13 new positions - hydrologists, ecologists, and biologists - to advance Everglades restoration planning and implementation efforts. These new positions will have the expertise to track an individual CERP project from planning to construction, then through operations and monitoring, thus representing NPS interests throughout each project life cycle. These new positions will also add two major initiatives "Resiliency and Sustainability" and "Data Analysis", critical fields of work to assess impacts of climate change on South Florida and to evaluate ecological benefits of CERP project implementation. These added positions will also focus on the SFNRC critical role to coordinate technical information among agencies to advance Everglades restoration planning and implementation efforts.

In FY 2023, 3 new staff (Biological statistician, ecologist, and biological science technician) have been onboarded and applications are being reviewed for two data scientists, one ecological modeler, and one projects planning and implementation specialist. In FY 2024, the hiring process will continue. Once fully implemented, the plan will enhance the existing capacity of the SFNRC to be able to effectively advocate for NPS resources at a rate commensurate with our partners' efforts and will allow NPS to actively participate in multiple simultaneous interagency efforts planned for FY 2024 supporting the ongoing implementation of the Combined Operation Plan (COP), the development of the Central Everglades Planning Project Operational Plan (CEPP 1.0), and the CERP planning efforts for the BBSEER Project and WERP. Through monitoring and modeling, the NPS CERP Program will coordinate with partners to ensure that the planned, constructed, or operated projects will deliver maximum benefits to the parks and preserve.

The CERP project activities for FY 2024 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 will 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 will participate in the establishment of water reservations, minimum flows and levels, water supply plans, and standards for water quality (nutrients and contaminants).

- The NPS CERP program will also continue advance monitoring and assessment of projects oriented toward threatened and endangered species on NPS lands, providing technical input to the USFWS as well as state/federal implementing agency planning that supports restoration-oriented water operations. In FY 2024, NPS CERP staff will continue assessing the monitoring network of ecological performance measures to document and report on CERP and other foundational restoration benefits and to adaptively manage these projects. The new Data Sciences team will also work on merging biological and hydrologic databases, including analysis and synthesis of existing long-term hydrologic and biological data sets that will allow resource managers, decision-makers, and the public to understand the benefits of implementing Everglades restoration projects. The data analysis and synthesis will also allow staff to detect trends in NPS resources as they relate to water management changes.
- The NPS CERP program team will continue tracking the WERP progress. With drainage and water flows disruption, BICY has been adversely impacted by reduced water delivery and poor water quality. The WERP main goal for this ecosystem is focused on restoring the historic low nutrient sheetflow to reestablish ecological connectivity of the wetland-upland mosaic and the native flora and fauna. In FY 2024, the NPS CERP program will continue to be actively engaged in the WERP project process, evaluating the reformulation of the Tentatively Selected Plan (TSP) and developing and reviewing the Draft Environmental Impact Statement while documenting water quality concerns and ensuring that these concerns are addressed as we move into finalizing the TSP. The Chief's Report is expected in May 2024.
- The NPS CERP program team will continue providing technical analyses and support to water operations and restoration activities through BBSEER, with a Chief's Report expected in October 2025. The area and habitat for BBSEER are directly affected by projected sea level rise and project features may improve the volume, timing, and distribution of freshwater flows to BISC, which will help the ecosystem to be healthy and resilient. The NPS team will continue to be fully engaged in BBSEER public workshops and interagency technical meetings and will help to prepare the National Environmental Policy Act (NEPA) document. Through BBSEER and other upcoming CERP planning efforts, the NPS team will incorporate resilience and sustainability into their analyses to assess the integrated performance of this CERP project under future sea level rise scenarios. This is to guarantee that restoration investments are designed to be more resilient to future conditions. In FY 2024, the NPS CERP team will continue to work with all partners to finalize the alternatives, resolve model uncertainties, and finalize model performance measures, while optimizing benefits to NPS resources. In FY 2024, the NPS CERP team will be evaluating model simulation results to meet the needs of BISC and ENP, and making recommendations for the TSP. The NPS CERP team will make sure the BBSEER project will best meet its stated objectives and the needs of the national parks.
- In FY 2024, the NPS CERP program team will be directly involved in the development of the operational plan of the first phase of the CEPP 1.0 implementation. The NPS staff will also continue tracking implementation of CEPP features (North, South and New Water) through 2032 that will bring improvements in water quantity and quality, benefiting the ENP ecosystem. By monitoring project component designs, integrating this information

into what we know/learn about how the regional system operates, and connecting operations to expected responses of the landscape and wildlife, the NPS CERP program team has the opportunity to accelerate the environmental benefits derived from CEPP.

- In FY 2024, the NPS CERP team of hydrologists will continue to participate in its role within the Interagency Modeling Center (IMC). The NPS CERP team of modelers will set up model simulations and perform analysis of model output to inform NPS positions on restoration projects directly impacting DOI interests. From within the IMC, the NPS CERP team will work on ecosystem restoration and/or assessment project related investigative reports, technical work products, and hydrologic analyses. The team will also perform necessary data management and manipulation to support model development and to focus on optimizing benefits to NPS resources.
- 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 and recommend engineering solutions to minimize the risk of water quality exceedances. The team will work with the State of Florida (SFWMD/Florida Department of Environmental Protection [FDEP]), USACE, USFWS, U.S. Environmental Protection Agency (USEPA), and U.S. Department of Justice (DOJ) to track the 1992 Consent Decree compliance standards that protect ENP and the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Loxahatchee NWR).
- The CERP program team will continue to track and provide technical analysis and briefings on the detailed design and implementation of the State of Florida's Restoration Strategies project and its progress toward achieving the Water Quality Based Effluent Limit (WQBEL) for phosphorus entering the Everglades.

U.S. Department of the Interior (DOI) – U.S. Fish and Wildlife Service (USFWS) (\$2,718,000)

The FY 2024 request for CERP implementation will support approximately 12 full-time Ecological Services employees (i.e., Everglades Program Supervisor, (2) Supervisory Fish and Wildlife Biologists, and (9) Fish and Wildlife Biologists) that actively serve on planning teams for all the CERP and non-CERP restoration projects being conducted by the USACE. This will enable the USFWS 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 USFWS is an integral planning partner in formulating alternatives; designing, assessing, and monitoring; and adaptively managing the project components of CERP during its implementation. The USFWS is responsible for providing environmental expertise to the USACE and the SFWMD. The USFWS is also involved in guiding Everglades restoration at a system-wide scale through the following activities: system status reports, participation in RECOVER activities, and the Lake Okeechobee System Operating Manual (LOSOM).

In FY 2024, the USFWS 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 USFWS 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 USFWS will design features and project components that maximize natural resource benefits through active participation throughout the restoration planning process. During FY 2024, USFWS staff in the Everglades Program will be actively engaged in the following projects/activities: LOSOM, WERP, Picayune Strand Restoration Project (PSRP), LRWRP, IRL-S C-23/24 Reservoir and STA, Caloosahatchee River (C-43) Reservoir, BBCW, BBSEER, CEPP, EAA Reservoir and Stormwater Treatment Area (STA), Lake Okeechobee Watershed Restoration Plan (LOWRP), RECOVER Northern Estuaries, RECOVER Lake Okeechobee, RECOVER Southern Coastal Systems, RECOVER Greater Everglades, RECOVER Southwest Florida, and the Kissimmee Headwaters Revitalization. For more information, visit: Everglades Restoration | U.S. Fish & Wildlife Service (<https://fws.gov/project/everglades-restoration>).

The USFWS National Wildlife Refuge System (NWRS) is a premier system of federal lands set aside primarily for the purpose of conserving fish, wildlife, and plants. There are seventeen refuges within the CERP, Florida Bay, and Lake Okeechobee water management footprint. The Everglades Headwaters NWR & Conservation Area contains the headwaters of Lake Okeechobee and Kissimmee Lakes watershed, influencing water quality and quantity of flows entering Lake Okeechobee and the Loxahatchee NWR in the northern extent of the Everglades south of Lake Okeechobee, and provides flows south into the Greater Everglades to the Florida Keys. The NWRS is actively engaged in CERP planning and implementation through project delivery teams (PDTs) and sub-teams, such as the ecology, water quality, engineering, modeling, and plan formulation sub-teams. The NWRS is working cooperatively with multiple agencies and provides recommendations on water management and water quality improvements to the Everglades and estuary ecosystems.

In 1988, the United States sued the State of Florida for failing to preserve the Loxahatchee NWR and ENP for future generations due to water pollution. A 1992 consent decree established phosphorus limits and water quality compliance requirements for the Loxahatchee NWR and ENP. The NWRS works very closely with the State of Florida in water quality modeling, STA designs and operations, and compliance monitoring of water nutrients. The Refuge Supervisor of Florida is a consent decree USFWS principal, and the Refuge Ecologist is a member of the Technical Oversight Committee and Everglades Program Team. For more information, please visit: <https://www.fws.gov/refuges/>

Section 2.2: Federal Non-CERP Everglades Ecosystem Restoration Projects and Funding Requests (\$107,601,000)

U.S. Army Corps of Engineers Construction (\$6,098,000)

U.S. Army Corps of Engineers Construction (\$6,098,000)

Kissimmee River Restoration (\$1,500,000): This project involves restoring the historic habitat in much of the Kissimmee River floodplain and restoring water-level fluctuations and seasonal discharges from lakes Kissimmee, Cypress, and Hatchineha in the upper basin. The FY 2024 activities include work in-kind and lands, easements, rights-of-way, relocation, and disposal area reviews for crediting, and post construction ecological monitoring.

South Dade County, C-111 Project (\$4,598,000): 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 2024 activities include physical closeout; lands, easements, rights-of-way, relocation, and disposal area reviews for crediting; and design of S-332B and C pump station replacement.

U.S. Army Corps of Engineers Non-CERP Operations & Maintenance (O&M) (\$5,166,000)

The FY 2024 O&M activities include critical routine operations and maintenance activities associated with mitigation requirements specified in the USFWS Biological Opinion on the COP to protect threatened and endangered species, C&SF Programmatic, C-111 South Dade (C-111 SD) pump stations, and Modified Water Deliveries to Everglades National Park (Mod Waters) activities.

U.S. Department of Agriculture (USDA) - Agricultural Research Service (ARS) (\$3,335,000)

The USDA-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 species and assure the continued economic integrity of agriculture. Two major areas of research support the 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

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 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 USFWS, the Nature Conservancy, and many others.

Soil Conservation for Sustainable Sugarcane Production

The Sugarcane Field Station in Canal Point, Florida, develops high-yielding, disease-resistant sugarcane cultivars for both organic (muck) and sandy 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 aids livestock and dairy producers to apply Best Management Practices (BMPs), including waste management systems, to reduce off-farm nutrient discharges. A special effort in the EAA and C-139 basin is in place to assist the land user to meet requirements outlined in the 1994 Everglades Forever Act (EFA) 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 plant species. Financial assistance is provided through a variety of USDA Farm Bill Programs.

Farm Bill

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, the NRCS helps 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 component, the NRCS helps to restore, protect, and enhance enrolled wetlands.

**FY 2024 program funding is pending national approval of annual allocations to States.*

U.S. Department of Commerce - National Oceanic and Atmospheric Administration (NOAA) (\$2,446,000)

[NOAA](#) provides scientific information, monitoring results, and modeling tools critical to implementing and assessing CERP and other parts of the South Florida Ecosystem restoration effort. NOAA RECOVER Projects by NOAA Southeast Fisheries Science Center (SEFSC) and NOAA Atlantic Oceanographic Meteorological Laboratory provide pre-implementation and early implementation information needed to evaluate the downstream impacts of CERP's restoration activities on coastal resources. This information allows project managers to adjust project details 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.

Florida Keys National Marine Sanctuary (FKNMS)

The FKNMS coordinates the protection, management, and restoration of coral reefs, seagrasses, and other marine resources that comprise the southernmost extent of the South Florida Ecosystem. NOAA FY 2024 funding will continue to support the sanctuary's management activities, however that funding is not reflected in this document as it represents base program and operational funding. The sanctuary released a draft rule with proposed revisions to its regulations, marine zones, and management plan in FY 2022. This represents the first comprehensive update to the sanctuary's management since 1997. A final rule is under development, and the revised regulations, marine zones, and management plan for the FKNMS will be implemented following its completion. Key projects that support the South Florida

Ecosystem restoration goals include the Water Quality Protection Program (WQPP) and Mission: Iconic Reefs. The WQPP implements corrective actions, research, and monitoring to restore and maintain water quality necessary for healthy habitats and wildlife in the sanctuary. Mission: Iconic Reefs represents one of the largest investments in reef restoration in the world and is a multidecadal effort to restore seven iconic reef sites in FKNMS.

Recognizing the importance of water quality to the overall success of the sanctuary's management and restoration activities, and particularly the influence of upstream threats to local water quality, in 2021 the WQPP and Sanctuary Advisory Council established a new working group called the Florida Keys and South Florida Ecosystem Connectivity Team, which will continue in FY 2024. The purpose of this group is to increase awareness and facilitate collaboration between Keys' stakeholders, scientific experts, and agency representatives on Everglades restoration and other regional issues of importance to water quality within the FKNMS. This working group meets bimonthly and has advised the Sanctuary Advisory Council to pass resolutions on several activities related to South Florida Ecosystem restoration, with a particular focus on their connection and potential impacts on marine resources in the Keys.

Interdisciplinary Surveys of Coastal Waters/ Atlantic Oceanographic & Meteorological Laboratory (AOML)

Almost all inland restoration efforts in CERP 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 [AOML](#) (South Florida Ecosystem Research) have been conducting interdisciplinary observations of south Florida coastal waters. Large-scale surveys are planned for every other month of each year and cover the waters of the FKNMS and the southwest Florida shelf up to Tampa Bay. 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 [Southeast Fisheries Science Center \(SEFSC\)](#), in collaboration with other agencies and entities, conducts monitoring and assessment projects to support CERP. SEFSC scientists began working directly with the USACE, SFWMD, and other agencies in the southern estuaries as early as the 1990s and continue today, with a working knowledge of pre-project conditions, to assess the effects of CERP restoration components as they are implemented. In 2023, 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 2024, examines the impacts on Florida and Biscayne Bay ecosystems of changing freshwater runoff patterns as CERP components are implemented. Projects supporting CERP are conducted in Biscayne Bay and Florida Bay in collaboration with NOAA AOML, other agency partners, and academic institutions working under the CERP Monitoring and Assessment Plan (MAP) of RECOVER. In FY 2021, SEFSC research scientists became team members in the new BBSEER project, helping to develop performance measures, targets, and other metrics to use in selecting the best project plan among proposed alternatives. SEFSC involvement in BBSEER is expected to continue through FY 2024 and beyond.

Coral Reef Assessment and Research Lab (CoRAL)/National Marine Fisheries Service

The CoRAL at NOAA's SEFSC in Miami conducts demographic monitoring of the ESA-listed coral species *Acropora palmata* on reefs in the Upper Florida Keys in the FKNMS. This monitoring program, the longest running demographic monitoring dataset for *A. palmata*, is designed to provide information that can be directly applied to inform the management of threatened coral populations and coral reefs on relevant timescales. To complement this monitoring, the CoRAL team conducts field and lab-based experiments to guide the restoration of coral populations and reefs in Florida and throughout the Caribbean. Research efforts include assessing differences in thermal tolerance among genotypes and the heritability of disease resistance in ESA-listed coral species, and the role of coral density, genotypic diversity, and outplant design on coral outplant survival and success. The goal of this research is to make coral restoration efforts more successful given conditions experienced on contemporary and future coral reefs. As part of their monitoring and research, the CoRAL Team monitors coral spawning and collects gametes to produce larvae and recruits of multiple ESA-listed and other coral species. These larvae are shared with numerous partners to support research and restoration efforts. Funding for CoRAL comes primarily from NOAA's Coral Reef Conservation Program.

Biscayne Bay NOAA Habitat Focus Area (HFA) / NOAA, NMFS, and AOML

The [Biscayne Bay HFA](#) was one of the first 10 HFAs in NOAA's Habitat Blueprint Initiative. NOAA HFAs provide a forward-looking framework for coordination, both within NOAA and with partner organizations, to address growing challenges of coastal and marine habitat loss and degradation. In FY 2024, SEFSC and AOML and its partners continued to address major goals of the Biscayne Bay HFA, including reduction in habitat-degrading algal blooms. Unfortunately, algal blooms and fish kills in North Biscayne Bay were not prevented. These disastrous events appear to be spurring a monitoring network for the bay that will better capture conditions leading up to them, improving the ability to determine immediate and cumulative causes. In support of an ongoing watershed study of the Coral Gables Waterway, AOML is continuing its HFA efforts with development of a coupled hydrodynamic and water quality model of the bay and the Waterway. The model uses the EFDC (Environmental Fluid Dynamic Code) framework. EFDC is a multifunctional surface water modeling system that includes hydrodynamic, sediment-contaminant, and eutrophication components and can operate in 1, 2, or 3 dimensions. The Biscayne Bay application covers most of the bay (north to the 79th St Causeway and south to where U.S. 1 crosses Manatee Bay), although calibration has been focused on Central Biscayne Bay south of the Rickenbacker Causeway and the Coral Gables Waterway. While this is its present focus, development of the Biscayne Bay EFDC model offers the opportunity to apply it to other Biscayne Bay areas and uses if calibrated and tested for them. One opportunity, for example, would be to determine how management of the regional hydrologic system to affect one part of the bay might affect another. Another effort could apply connected hydrologic and water quality models to inform resource managers about the potential value of opening more channels for circulation into the North Biscayne Bay basins where fish kills have been occurring in the past few years and show where opening new channels could potentially be most effective. A modeling team from Mississippi State University, collaborating with AOML through the Northern Gulf Institute, is engaging with Biscayne Bay scientists and resource managers at local, regional, state, and federal (i.e., CERP) levels to determine where next to focus its efforts.

A recent contribution of NOAA SEFSC Miami as part of the Biscayne Bay HFA is a scientific paper documenting smalltooth sawfish presence in Biscayne Bay that was published in FY 2021

in the journal “Endangered Species Research.” The paper, led by a University of Miami (UM) author, provides new information that could influence future management of this endangered species, as well as its potential status as an indicator of CERP success. The recent presence of smalltooth sawfish in the Bay, along with well documented historical records, suggests a long-term sustained, if intermittent, presence of smalltooth sawfish in Biscayne Bay despite changes in some parts of the bay to a more urban environment. The paper was supported by a 40-unit Florida Atlantic Coast Telemetry (FACT) acoustic array in the Biscayne Bay HFA area that recorded presence, habitat, and movement patterns of acoustically tagged smalltooth sawfish. The array also records information on other acoustically tagged species and is presently focused on sharks and sea turtles.

In FY 2024, SEFSC and AOML will continue to work within CERP and with partners to protect and enhance Biscayne Bay’s ecosystem health and promote healthy populations of protected and fishery species. In FY 2024, the National Centers for Coastal Ocean Science (NCCOS), a part of another NOAA line office, the National Ocean Service (NOS), will initiate a new Multistressor project in south Florida.

U.S. Department of the Interior (DOI) - Office of Everglades Restoration Initiatives (OERI) and the South Florida Ecosystem Restoration Task Force (Task Force) (\$2,390,000)

Funding in FY 2024 will sustain the continued operations and activities of the Department of the Interior’s OERI. Since 1995, the OERI has provided senior executive level leadership and staffing in support of the congressionally mandated responsibilities of the Department and the Secretary in the restoration of America’s Everglades. The OERI will continue to provide support necessary to fulfill the Secretary’s role and responsibilities as chair of the intergovernmental Task Force. The OERI, under the leadership of the offices of the Assistant Secretary for Fish, and Wildlife and Parks and the Assistant Secretary for Water and Science, 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, projects, policymaking, and programs.

In FY 2024, the OERI leadership and staff will continue to support and work directly with the federal, state, local government, and Tribal representatives/partners on the Task Force. The OERI will also 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 the OERI in FY 2024 will include the Biennial Report, the Integrated Financial Plan, and the Cross- Cut Budget.

In the WRDA 2020, section 504, the Congress directed the Task Force to develop a priority list of invasive species that significantly impact the structure and function of ecological communities, native species, or habitats within the South Florida Ecosystem. The Task Force member agencies are also directed by the Congress to manage these species through coordination and collaboration. The Congress directs the Task Force to develop innovative strategies and tools; guide applied research; facilitate improved management; and prevent future introductions of nonnative species. Funding will directly support specialized staff expertise in invasive plants and

animals and the OERI will continue its role and responsibility for managing and guiding the Task Force's efforts in implementing the Invasive Species Strategic Action Framework. The OERI will also expand its lead role in supporting, communicating, and coordinating restoration programs, projects and policy implementation with the SFWMD and the USACE, who are primarily responsible for the "on the ground" construction projects dedicated to large-scale restoration of America's Everglades.

The OERI team will continue its staff support to the Florida Coral Reef Coordination Team (FCRCT) which was established on September 1, 2022, to serve as the principal advisory body to the Working Group and Science Coordination Group for issues impacting Florida's Coral Reef and associated resources.

In FY 2024, the OERI and Task Force will initiate and undertake updating and assessing the system-wide ecological indicators which are an integral component of the Task Force's Biennial Report. The OERI and Task Force will also continue to work with the USACE to update the IDS, including sponsoring periodic stakeholder engagement workshops. The OERI will also continue to maintain, enhance, and update the content of the www.EvergladesRestoration.gov website. This website remains recognized as an innovative and comprehensive resource and is the "go-to" resource for any current and historical information on the activities, projects, policies, and programs associated with the restoration of America's Everglades.

U.S. Department of the Interior (DOI) - National Park Service (NPS) **(\$40,974,000)**

The FY 2024 budget for Everglades restoration implementation is planning to support approximately 34 full-time ecologists, hydrologists, modelers, water quality experts, and employees that will work on both CERP and non-CERP restoration projects.

The Foundation Projects and non-CERP project activities for FY 2024 include the following:

- For the Mod Waters and C-111 SD Foundation Projects, the NPS will continue monitoring the implementation of COP and the Tamiami Trail Flow Formula (TTFF). The COP is utilizing the new project infrastructure to restore more natural water flows and improve natural resource conditions in ENP and adjacent areas. NPS staff also manage the ecological monitoring program and the COP Adaptive Management Plan to assess the effects of the constructed Mod Waters and C-111 SD projects, and to optimize the benefits for NPS/DOI lands and resources. Through adaptive management, the NPS team is managing COP to maximize the ecological benefits ensured from this operational plan. NPS staff are reporting that ecological benefits derived from the \$486 million investment in the Mod Waters project are significant and accumulating. The implementation of COP has significantly enhanced hydrologic and ecological conditions along the eastern boundary of ENP, with an increase in water depth and a shift in vegetation towards the presence of long-hydroperiod species. Soil oxidation potential in the eastern boundary of ENP also decreased by 63%, translating into increased wetland carbon storage and reduced risk of severe peat fires. Enhancements are also cascading to Florida Bay. Starting in FY 2024, the NPS staff will be engaged in CEPP 1.0 updating the COP to include new infrastructure as they are planned in CEPP.

- The NPS program team will continue the implementation of the Tamiami Trail Next Steps Phase 2 (TTNS2) project, which upon completion will restore an additional 75 to 80 billion gallons of water a year to flow into ENP and Florida Bay. In partnership with the Florida Department of Transportation (FDOT) and the Federal Highway Administration (FHWA), this second phase of the project includes elevating and reconstructing the entire Tamiami Trail roadway to withstand the higher water levels expected under Everglades Restoration. TTNS2 also includes the construction of six new slab bridges and modifications to seven culvert sets that will enhance the distribution of flow, and construction of stormwater treatment swales to improve water quality downstream within ENP. In addition to restoring more natural conditions in thousands of acres of the ENP, the project will also be completing wetland restoration of 9.4 acres of previously disturbed land to provide wetland mitigation for construction impacts. In August 2020, the FDOT awarded the TTNS2 low bid design/build contract for \$53 million, well under the government estimate. The Notice to Proceed was issued in October 2020. Construction of the TTNS2 started in April 2021 and NPS staff will continue to be involved in permitting, implementation, monitoring, and contractor oversight throughout the next couple of years. The Phase 2 project is currently at 67% percent of the overall contract time completion, with the official completion date now scheduled for February 2026.
- In FY 2024, the NPS staff will participate in the implementation of LOSOM, a new operational plan for Lake Okeechobee that serves as one of the major sources of water to south Florida during the dry season and is part of the complex water management operations. This network and its operations are overseen primarily by the State of Florida and the USACE in providing water to the diverse water interests of south Florida. Water can be brought south through the canals to supply water to the environment, agriculture, or urban areas. The water level and discharges of Lake Okeechobee are managed based on a regulation schedule maintained by the USACE. The LOSOM is a key step for regional water supply, improving the health of the lake and northern estuaries, and achieving Everglades restoration success, including NPS/DOI resource protection. In FY 2022, CERP funding supported NPS engagement on the LOSOM, to ensure incremental progress toward our goal of conserving our lands and waters for the enjoyment of future generations. Through our involvement in LOSOM, the NPS CERP program team diligently worked with the USACE on the modeling to guarantee an additional 63,000-acre feet of water per year to flow into ENP, mainly during the dry season. In FY 2023, LOSOM updated Lake Okeechobee operations and water movement after the construction and inclusion of infrastructure and for the operation of new projects. These projects include the Herbert Hoover Dike rehabilitation and the Kissimmee River Restoration Project. In FY 2024, the NPS CERP program team will be engaged in LOSOM from an implementation perspective to optimize operations in order to maximize benefits to NPS lands and resources.
- As a result of CEPP implementation, water levels are expected to increase substantially in ENP. The Osceola Camp, located directly within the CEPP South flow-way, must now be raised by several feet to protect the health and safety of the camp residents. In FY 2021, NPS hired an engineering firm to develop a flood protection “Cures” plan to determine a preliminary cost estimate and proposed design. Osceola Camp members, Miccosukee Tribal staff, and ENP staff worked together to complete a final preliminary design report outlining the required improvements at the camp: most of the outbuildings and the ground surface elevation throughout the camp will be required to be raised.

Improvements in the water and wastewater systems will also be mandatory to ensure the health and safety of the camp members. In FY 2023, a contract was awarded by the NPS to complete the 40% design for the Osceola Camp, generate a Class B estimate, and begin permitting the project. The Class B estimate for the raising of the camp is \$15.4 M. In FY 2024, NPS staff will work on drafting the final construction documents and will complete the final design of this project. The required NEPA/NHPA compliance will also be completed in April 2024.

Park Management (\$36,879,000)

Big Cypress National Preserve (BICY)

FY 2024 funding will support the preservation of management activities promoting public use and resource protection through the implementation and interpretation of an extensive backcountry off-road vehicle (ORV) trail system in BICY. In FY 2024, BICY will continue implementing its management guidelines for backcountry access and use to protect the preserve's natural and cultural resources. 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 (CCSS), and Florida manatee) and a large hydrology program that includes restoration of sheet-flow to ENP and the Ten Thousand Islands. The NPS will also continue to support monitoring and controlling invasive fauna and flora in Big Cypress. 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 Big Cypress 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 invasive 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.

In FY 2024, BICY will continue its involvement in the USACE Silver Jackets Resiliency Study to improve hydrologic and ecological connectivity of the western section of US 41. The outcome from this study will have direct impacts on BICY as this section of the road crossing BICY is greatly impacting our resources. There is a need for additional bridging or box culverts for long-term resilience, improved water conveyance, and increased ecosystem connectivity.

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

Biscayne National Park (BISC)

FY 2024 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 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 invasive 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 (DRTO)

Funding in FY 2024 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. The NPS will also continue to track the Stony Coral Tissue Loss Disease that was recently detected in the park and will continue to treat impacted corals. 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 DRTO 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)

Funding for ENP in FY 2024 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, almost seven million people

living within 100 miles of the park boundary (as of the 2022 census), and more than 1.15 million visitors in FY 2022, ENP has special challenges. The park engages in outreach programs to the local community and has traditionally sustained a large backcountry/wilderness operation. ENP 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 continues to conduct management of invasive plants and animals in conjunction with restoration partners. This includes treatment of some of the last remaining infestations of Australian pine and melaleuca and efforts to slow the spread of and reduce impacts to wildlife from invasive tegus, Burmese pythons, and several other species. These activities are important to protect park resources and are also integral to achieving the outcomes envisioned with Everglades restoration. This funding and activity complements efforts and funding through the Critical Ecosystem Studies Initiative (CESI) (see below).

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. Invasive plants have and are continuing to replace native plant communities in the park and adjacent natural areas. Invasive 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>

Everglades Research – Critical Ecosystem Studies Initiative (CESI) (\$4,095,000)

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 DOI 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 2024 will address scientific questions to support major restoration and management issues and support multiple restoration projects listed below. These applied scientific inquiries are critical to increase our understanding of the natural system. Moreover, the NPS program will gradually expand its capacity to create a new Resilience and Sustainability team and a new Data Sciences team. These two teams will conduct critical studies to assess impacts of climate change and sea level rise on the Everglades ecosystem and how Everglades restoration will mitigate those impacts. These two teams will also statistically analyze monitoring and modeled data to report on Everglades restoration benefits.

Restoration Project Monitoring, Planning, Assessment, and Decision Support

- Continuing the implementation of applied science and monitoring projects 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 SD projects on ENP resources. Projects include seasonal freshwater fish monitoring, assessment of the physical conditions of the wading birds habitats, and vegetation monitoring within the habitat of the CSSS.
- Initiating a study to disentangle the effects of rainfall and water management actions on the water levels and flows in ENP. Water levels in the ENP are joint influences of rainfall, evapotranspiration, and inflow from upstream watersheds driven by water management activities. To determine the effects of specific restoration projects on the ecosystem, there is a need to separate the combined effects of rainfall and frequent changes in water management operations due to restoration projects. Understanding such relationships enables us targeted, effective management of water resources to protect the Everglades ecosystem. The outcome of the project will help determine the most effective restoration options, which is of great importance for future restoration planning as well as retrospective assessment of earlier restoration efforts.
- Assessing the monitoring network and protocol as decision support tools to determine if the monitoring program is adequately informing CERP and non-CERP projects. A statistical analysis started in FY 2022 and will continue in FY 2024 with the new Data Sciences team to assess if the monitoring program is connected to formulated objectives from a restoration perspective, is developed with sufficient power to answer the questions asked, and is integrated into the management decision-making process.
- Continuing support of hydrologic, water quality, and ecological monitoring, modeling, and synthesis of knowledge to inform restoration project planning, design, implementation, and adaptive management and operations; this includes support of Mod Waters, TTNS2, the Upper Taylor Slough project, and the CEPP.
- Continuing research in BICY to determine periphyton composition in order to inform the development of a protective water quality threshold for the WERP project. Restoration plans to increase water flow to BICY while protecting wetlands from further degradation will require that inflowing water does not exceed critical water quality (mainly phosphorus) thresholds. Protecting the BICY from degradation will require documenting regional reference conditions and phosphorus driven ecological transition thresholds. Through this project, we will assess the nutrient content of periphyton across BICY to inform a study to establish water quality thresholds and cascading response indicators. This is essential to develop a quantitative methodology to document WERP benefits to this ecosystem.
- 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 NPS and DOI natural 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.
- Performing a detailed hydrologic investigation into the area of ENP south of the Main Park Road, using hydrodynamic modeling to assess surface- and groundwater movement and connectivity across this topographically complex region and to quantify the influences that man-made features in this area have on the local hydrology. Results of the modeling and analyses will be used to inform management decisions on removal of the Old Ingraham Highway and the Taylor Slough Flow Improvement Project, management of pine rocklands

and finger glades through Long Pine Key, and to quantify the progress of CERP towards achieving pre-historic conditions in this area.

- Conducting a water quality monitoring and a technical analysis to understand how floc is transported at the S333 structure leading to high phosphorus levels reaching Northeast Shark River Slough of ENP (NESRS). A similar investigation is currently conducted to assess impacts of Upper Taylor Slough project on phosphorus levels in soil downstream of the inflow location in ENP.
- Conducting a water quality investigation using a novel stable isotope approach to differentiate phosphorus sources in south Florida flowing into BISC and ENP: agricultural fertilizer, septic systems, as well as natural sources such as erosion and local biological activity. This project will generate new information about the importance of different sources of phosphorus entering BISC and Taylor Slough of ENP. We will expand this project to also investigate the potential pathways contributing to high phosphorus levels occurring at specific structures delivering water into ENP.
- Downscaling the CMIP6 precipitation data for south Florida from multiple sources for historical (retrospective simulations) and future periods. This is the first phase of a major project to assess the impacts of climate change on the south Florida parks and preserve and to investigate how Everglades restoration will mitigate those impacts.
- Assessing the influence of redistributing water toward NESRS on surface water mercury and methylation cycling drivers in fishes in the area. Mercury contamination remains a concern in the Florida Everglades food web. Spatially, high mercury levels correspond to areas with longer hydroperiods and peat soils that receive water from the canals along the northern boundary. Current water management actions are designed to shift the proportion of water inflow along the northern boundary into NESRS that could also shift mercury methylation and bioaccumulation risk. The interaction between the shift in water inflows and mercury accumulation will be assessed in this study.
- Continuing the assessment of the effects of fire history on coastal marsh peat collapse features in the northwest coastal Everglades of ENP. While fires are beneficial and indeed needed to maintain the coastal graminoid gradient within the coastal ENP, they can sometimes lead to the consumption of organic soils and lowering of surface elevations. This study will determine the role of fire in coastal marsh peat collapse and pond formation within the coastal Everglades.
- Continuing annual support to OERI and USACE for the Department's cost-share responsibility for the National Academies' Committee on Independent Scientific Review of Everglades Restoration Progress (CISRERP).

Invasive Species Management

- Expanding SFNRC capacity to develop technical tools to support land and ecosystem managers for the detection and control of invasive species. Maintaining strong partnerships and coordinating with our federal partners to support applied scientific studies and innovative tools to prevent establishment and spread of new invasive species and limit ecosystem damage from aggressive invasive species.
- Increasing support of applied science on the effects of invasive species on the natural resources of ENP, BICY, and BISC, and developing methods of detection and control of invasive species, with a focus on improving capacity for early detection and rapid response.
- Improving management of Burmese pythons in close coordination with state and federal partners. The NPS plays an active role in the statewide management of pythons, is a primary

contributor to a synthesis of python research and is refining an approach that uses radio-telemetry to find and remove large, breeding adult snakes. Through a partnership with state agencies, contractors are now removing over 1,000 pythons from NPS lands each year.

- Working to control other invasive reptiles that threaten NPS resources. The NPS maintains a tegu-lizard trapping program and has removed approximately 4,616 tegus since 2012 in and around ENP, with over 321 tegus removed so far in FY 2023. The NPS is improving management efficiency by developing better bait types, trap styles, and capacity for remote trap checks.
- Coordinating fire and invasive-plant management to better control invasive plants while protecting soils and native plants; targeting removal of invasive plants that destabilize coastal areas to improve resilience; continuing ongoing analysis of the combined influence of freshwater flow restoration and fire management on coastal wetlands soils as a means to minimize impacts from saltwater intrusion.

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 Florida Bay water quality, research to understand the 2015–2016 Florida Bay seagrass die-off and recovery, and researching the cause and effects of associated algal blooms that persist in the bay.
- Starting an investigation to understand the triggers, drivers, and stressors on the late fall recurring phytoplankton algae bloom in Florida Bay. This study will assess multiple factors, such as the high organic matter from the dead mangroves die-off, resuspension of the benthic sediments from the lack of seagrass roots, and inputs from lakes that are known to have high nutrient levels, that contribute to the timing and concentrations of these cyclic blooms observed in the bay since Hurricane Irma in 2017.
- Assessing how freshwater flow restoration affects salinity and other environmental factors and can benefit seagrass habitat and recreational fishing.
- Conducting a parkwide fish sampling (community structure and species abundance) in Florida Bay to assess the distribution responses to freshwater inflow water management modification in the ENP. Modifications of water management and operations will increase delivery of freshwater in Florida Bay, resulting in higher water levels and salinity reductions within ENP's estuarine waters. These changes will impact the distribution, abundance, and community structure of fish and macro-crustaceans in these areas. This study will give us a snapshot in time and the plan is to re-conduct this study in 10-15 years to determine the trend.

Threatened and Endangered Species, Biodiversity, and Wildlife

- Monitoring and supporting research on the endangered CSSS to enhance the ability to manage this species during the next decade as water inflows to ENP are redistributed. This project will be expanded in FY 2024 with an extensive demographic monitoring in two sub-populations to prepare for a pilot translocation study led by the USFWS and the University of Florida.
- 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, waterfowl, alligators, and crocodiles.
- Investigating the effect of hydroperiod on life history and production/density of Everglades crayfish in the western marl prairies of southern BICY which is also germane to western ENP. This project will identify specific hydrologic stressors and ideal conditions for production and

will support the development/validation of an Everglades crayfish model for use across the ecosystem. Everglades crayfish populations can be abundant in the marl prairies, and they were a large component of the nesting ibis diet in the explosive nesting year of 2018.

- Developing a multi-species optimization tool for landscape planning and operational forecasting. This will allow water managers to identify water management benefits for a suite of ecological communities, while explicitly quantifying the potential costs to others (e.g., endangered species, wading birds, prey fishes, seagrasses, landscape responses).

Resilience and Sustainability of the Natural System

- Gradually expanding NPS's SFNRC capacity and applied science efforts to address impacts of climate change and sea level on the South Florida Ecosystem and how Everglades restoration will mitigate those impacts. Coordinating with our federal partners to advance the President's Bipartisan Infrastructure Law to boost funding for applied scientific studies to inform the integration of sea level rise and climate change into Everglades restoration planning efforts. Incorporating the NPS climate-smart planning and management aspects into Everglades restoration. Developing research and modeling projects focusing on investigating climate change and sea level rise.
- Initiating research to integrate a geospatial and ecological assessment of Everglades freshwater marshes and coastal habitat vulnerability to sea level rise at a landscape level. The vulnerability of freshwater marshes and coastal wetlands to future sea level rise needs to be understood in terms of how local, site-specific processes that control elevation changes aggregate in space and time to produce larger scale, basin level changes.
- Improving monitoring and reporting of salinity and ecological conditions within Florida Bay and Biscayne Bay. This will be critical to understanding the effects of Everglades restoration efforts when considering climate change and sea level rise impacts on the ecosystem.

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

U.S. Department of the Interior - Fish and Wildlife Service (USFWS) **(\$9,897,000)**

Resource Management

Ecological Services (\$3,950,000)

These funds will allow the USFWS 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 2024 will also enable the USFWS 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 USFWS 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 USFWS 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 USFWS continues its historically active role in reviewing applications for impacts on wetlands under the FDEP 404 Program and USACE's regulatory program. In addition

to the analysis of direct, indirect, and cumulative impacts, the USFWS ensures that private development proposals are compatible with the CERP. The planning and building of several CERP components require careful review of applications by the local sponsor, mainly the SFWMD, through FEDP's or USACE's regulatory process. In FY 2024, the USFWS will continue consultation with the USACE on the CERP, as well as other ongoing or new federal projects. Further, the USFWS 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 2024, the USFWS 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 USFWS will ensure that ecosystem benefits are maximized consistent with Everglades restoration goals. The role of the USFWS will be to support and advance adaptive management and the principal goals of Everglades restoration management and the principal goals of Everglades restoration.

Refuges and Wildlife (\$5,144,000)

The NWRS has embarked on strategically and collaboratively addressing the mounting challenges faced with conserving America's wild plants, fish, and animals and their habitats in our rapidly changing world. These efforts are finding new ways to conserve America's wildlife and wildlife places. Management focuses on scientific excellence at a landscape scale for the benefit of a diverse public while nurturing the next generation of conservation leaders. The mission of the NWRS is to administer a national network of lands and waters for the conservation, management, and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats for the benefit of present and future generations of Americans.

The NWRS administers 17 refuges influencing Everglades restoration efforts. Resource management funds will foster the restoration and management of lands by water management, prescribe fire and other land management techniques, and protection of fish and wildlife including migratory birds and threatened and endangered species. These funds will support operations and management of refuges to address ecosystem restoration efforts, and impacts and threats associated with urban development, invasive species, increased freshwater demands, sea level rise, and a warming climate. The FY 2024 President's Budget Request includes a \$373,000 funding plus-up. This plus-up for NWRS will support operations and management on 17 NWRS

with a special emphasis on detection, suppression, and control of invasive species, especially invasive reptiles and plants. The following refuges are supported:

Everglades Headwaters, Lake Wales Ridge, Pelican Island, Archie Carr, Arthur R. Marshall Loxahatchee, Nathaniel P. Reed Hobe Sound, J.N. Ding Darling Complex, (including the Caloosahatchee, Island Bay, Matlacha Pass, and Pine Island NWRs), Florida Panther, Ten Thousand Islands, and refuges in Florida Bay and the Florida Keys, including Crocodile Lake, National Key Deer, Great White Heron, and Key West NWRs.

Migratory Birds (\$92,000)

While coordinating with the Service’s South Florida Ecological Services Field Office and the Arthur R. Marshall Loxahatchee NWR, the Division of Migratory Birds works cooperatively with the FWC 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 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. Illegal trafficking of foreign protected species and the unlawful "taking" of endemic species protected by the ESA and the MBTA remains prevalent throughout south Florida. Southwest Florida is one of the most ecologically sensitive and rapidly growing areas of the State of Florida, 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.

Fisheries (\$143,000)

These funds will support Fisheries and Aquatic Conservation staff scientific and technical management assistance, and efforts toward restoration of imperiled freshwater, anadromous, and coastal fish species within the blueprint of the Everglades ecosystem. Emphasis will be placed on ensuring that invasive fish and aquatic species are adequately evaluated for potential effects on restoration activities.

U.S. Department of the Interior - U.S. Geological Survey (USGS) (\$8,424,000)

Greater Everglades Restoration—Integrating Research, Planning, and Interagency Coordination

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 2024, the USGS will continue to support high-priority research needs identified by the Task Force through its Invasive Species Strategic Action Framework and requested by DOI and other partners.

(For more information, please see <https://www.evergladesrestoration.gov/invasive-species-strategic-action-framework>)

The Task Force-led Strategic Action Framework process included participation from federal, state, and local governments; Tribes; NGOs; academia; and private citizens, and it was updated in FY 2021. 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. In FY 2023, a synthesis of all research on Burmese python biology, impacts, and management tools was published in the journal *NeoBiota*. This publication summarized two decades of python science and will be a valuable tool to direct future research. Research continues to 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; collecting vital rate data to better understand python life history, which will support the development of population models and decision support tools to develop better monitoring and management efforts; and continued funding of an exploratory program to evaluate the feasibility of genetic biocontrol approaches to Burmese python control.

Greater Everglades Restoration Alternatives

The USGS will maintain and enhance existing products such as the Everglades Depth Estimation Network (EDEN, <https://sofia.usgs.gov/eden>), the publicly accessible, 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 is developing single-species models to predict the possible impacts of different Everglades restoration alternatives and using the Everglades Vulnerability Analysis to explore the vulnerability of Everglades habitats to climate change. These models have already been used in the planning and selection of Everglades restoration alternatives.

Everglades Water Quality and Water Flow

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 SFWMD. The USGS will continue its two-decade investigation into the driving forces behind the mercury problem, which results in fish consumption advisories throughout the Everglades. USGS scientists have identified sulfate as one of the primary drivers of mercury methylation – the conversion of elemental mercury to its most toxic form and has new data showing that the mercury problem continues to exist across the Everglades landscape. In addition, research has revealed important new information about which members of the Everglades microbial community are most responsible for mercury methylation. Methyl mercury continues to contaminate portions of the Everglades ecosystem, including ENP. The USGS also monitors water flows from the Everglades into Florida Bay and the Gulf of Mexico. 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 stream gages; and Federal Priority stream gage funds to support water-level and streamflow monitoring at one stream gage in the Everglades. Research is continuing to examine what leads to the formation of harmful algal blooms (HABs) caused by blue-green and other algae.

Federal Everglades Ecosystem Restoration Projects

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 2024, \$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 ESA in stormwater areas on the Seminole and Big Cypress reservations.

U.S. Environmental Protection Agency (USEPA) (\$8,491,000)

The USEPA priorities for the South Florida Ecosystem include continuing to work with federal and state partners to support environmental protection and restoration efforts via the USEPA authorities under the Clean Water Act, the Sanctuaries Act, and the NEPA through the following activities:

- Provide support for Everglades Water Quality Restoration Strategies.
- Provide one EPA staff member co-located with the USACE to promote early engagement efforts and face-to-face opportunities for the CERP, non-CERP, and other south Florida activities.

In addition, the USEPA will carry out the following activities in South Florida during FY 2024:

- Serve as co-chair with the FDEP for the FKNMS Water Quality Protection Program (WQPP) with the aim of aiding in the adoption of pollution control measures and best management practices to reduce and eliminate point and nonpoint source pollution impacting the FKNMS.
- Implement the comprehensive long-term, status and trends water quality, seagrass, and coral reef monitoring programs special studies, data management, and public education components of the FKNMS WQPP as required by the National Marine Sanctuaries Program Act of 1990.
- Protect Florida's Coral Reef by improving sewage and wastewater treatment, reducing stormwater runoff, and reducing contaminants.
- Support water quality and seagrass monitoring in the Florida Keys, Biscayne Bay, Florida Bay, and the St. Lucie and Caloosahatchee watersheds.

- Conduct a sampling effort throughout the Everglades and Big Cypress Preserve. USEPA's Everglades Regional Environmental Monitoring and Assessment Program (REMAP) has assessed the health of the Everglades since the 1990s. This program documents water quality and ecological conditions, environmental improvements from restoration, and efforts to control mercury and phosphorus.
- USEPA will administer additional Bipartisan Infrastructure Law funding of \$3.2M per year until 2026 to work with states, Tribes, local governments, and communities to address ecological pressures and threats to south Florida waters including freshwaters, nearshore waters, bays, estuaries, beaches, coral reefs, and source waters central to south Florida's economic and ecological well-being. This includes a focus on climate resiliency, addressing issues critical to disadvantaged communities, and natural infrastructure enhancement.

USEPA funding supports projects in the sixteen-county area covered by the SFWMD such as monitoring, research, and restoration of corals, seagrass, and benthic communities; research and mitigation of harmful algal blooms; improving water quality in residential canals; improving stormwater management; reducing emerging contaminants; identifying and understanding cause-effect relationships of pollutants; addressing specific management questions and concerns; and applying innovative approaches, methods, or techniques for preventing, treating, and preventing pollution from entering waterbodies.

For more information, please visit:

http://ocean.floridamarine.org/fknms_wqpp/home.htm

<https://www.epa.gov/everglades>

Section 3.0

State of Florida Everglades Ecosystem Restoration Projects and Funding Requests

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Section 3.1: State of Florida Comprehensive Everglades Restoration Plan (CERP) Projects and Funding Requests (\$504,485,439)

Florida Department of Environmental Protection (FDEP) (\$470,520,477)

The implementation of the CERP is a high priority for the 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. 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 2018 legislative session saw the passage of Senate Bill (SB) 10 which provides \$64,000,000 annually for the implementation of the EAA A-2 Reservoir and associated projects.

In 2023, Governor DeSantis issued Executive Order 23-06 (Achieving *Even More* Now for Florida's Environment), building upon his Executive Order 19-12, challenging the state to secure \$3.5 billion over four years for Everglades restoration and protection of the state's resources. The order directs the SFWMD to continue its mission of expediting CERP projects while making every effort to advance projects undertaken by the USACE to ensure meaningful progress over the next four years.

The proposed FY 2023-24 budget for CERP totals \$470,520,477 and is reflective of Executive Order 23-06. Project funds will be distributed through the FDEP to the SFWMD for the planning, design, engineering, and construction of various CERP projects including the C-43 West Basin Storage Reservoir, BBCW, CEPP, IRL-South, LRWRP, LOWRR, and the EAA Reservoir and associated projects.

Office of Water Policy and Ecosystems Restoration

The Office of Water Policy and Ecosystems Restoration (OWPER) oversees implementation of CERP projects. Tasks include policy, budget, 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 during FY 2022-23 include the EAA A-2 STA & Reservoir, C-51 Reservoir, C-111 South Dade, C-43 West Basin Storage Reservoir, C-44 Reservoir & STA, LOWRR, C-25 Reservoir & STA, C-23 to C-44 Interconnect Project, WERP, BBCW, BBSEER, Picayune Strand Restoration Project, CEPP, BCWPA, LRWRP, CERP Planning, and Restoration Strategies. <https://floridadep.gov/water-policy>

Florida Fish and Wildlife Conservation Commission (FWC) (\$5,437,050)

FWC contributes to CERP projects by providing technical assistance to the sponsoring agencies and ensuring that CERP activities address the needs of fish and wildlife and their associated habitats. The Office of Conservation Planning Services facilitates official agency consultations through various processes including the Coastal Zone Management Act, the Fish and Wildlife Coordination Act, and the NEPA. FWC maintains an Everglades Coordinator position housed within the Executive Office that leads an agency-organized inter-divisional team to prioritize and coordinate the agency's contributions to all South Florida Ecosystem restoration activities including CERP.

FWC's CERP related funding includes positions and salaries that directly support CERP planning, implementation, monitoring, and restoration. These include staffing various project and RECOVER teams, providing biologically based recommendations to state and federal water managers, and conducting various monitoring and management programs related to state and federally listed species within CERP project areas.

South Florida Water Management District (SFWMD) (\$28,527,912)

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 several projects. While some projects are in the planning and design phase, others such as the IRL-S C-23 Estuary Discharge Diversion, C-43 Reservoir, CEPP New Water Seepage Barrier Wall, CEPP EAA A-2 STA, and components of BBCW Phase I are currently under construction.

The IRL-S restoration project will reduce harmful freshwater inflows and generate habitat and water quality improvements in the St. Lucie Estuary and the IRL. The 6,300-acre C-44 STA and 3,400-acre Reservoir were completed in 2021. The project construction included up to a year of operational testing and monitoring through 2022; however, this has been extended until 2025. The design for the C-23 Estuary Discharge Diversion was completed at the beginning of FY 2023 and is now in construction. This project feature will improve water conditions in the middle St. Lucie Estuary. The C-23/24 South Reservoir is now being led by the SFWMD and is in initial design. Lastly, the SFWMD has completed land acquisition for the C-25 Reservoir and STA and is currently in the design stage.

The C-43 West Basin Storage Reservoir Project 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, construction of the irrigation pump station (195 cfs), and the intake pump station (1500 cfs) are complete. The embankment construction is underway and is scheduled for completion in 2024.

The CEPP 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 (WCA) 3, ENP, and Florida Bay. The CEPP is divided into four phases: CEPP EAA, CEPP North, CEPP South, and CEPP New Water. There are

several CEPP South projects currently in design or under construction including: the S-356E pump station, the S-334E structure located in the L-29 Canal, the S-355W divide structure, adding new structures to L-67A, filling agricultural ditches, and removing spoil piles portion of the L-67C levee, and the S-355W divide structure. Construction of the S-333N structure was completed in 2020, and in 2021 the SFWMD completed the removal of approximately 5 miles of Old Tamiami Trail. These project features facilitate additional deliveries of water from WCA 3A directly to ENP and aid in alleviating the high-water conditions being experienced in WCA 3A.

In September 2020, the SFWMD and USACE started drafting a Validation Report for the CEPP North phase. There are several CEPP North components currently in design and construction by the SFWMD including the L-6 Diversion, the L-5 Canal Improvements, and the L-4 Degrade. These features will move water into and through the northwest portion of WCA 3A in conjunction with other CEPP North conveyance components.

The CEPP EAA includes additional canal conveyance, 240,000 acre-feet of storage, and 6,500 acres of treatment south of Lake Okeechobee, to further reduce the volume of damaging discharges from Lake Okeechobee into the northern estuaries and to provide increased conveyance south to the Everglades. SFWMD's contractors have fully completed construction of the STA adjacent portions of the Inflow-Outflow and seepage canals, an 8-mile-long power distribution and access road and are more than 53% complete with buildout of the A-2 STA. Additionally, USACE contractors have mobilized and begun construction of the reservoir-adjacent portions of the Inflow-Outflow and seepage canals. Construction of the reservoir's foundation and seepage cutoff wall should begin soon.

For CEPP New Water, the SFWMD and USACE are drafting a Validation Report. In 2022, the SFWMD began construction of 5 miles of seepage barrier, adding on to the completed 2.3 miles of 8.5-Square Mile Area Limited Curtain Wall. The Miami Dade Limestone Products Association constructed the five miles of seepage barrier completed in 2016. These projects reduce underground seepage from ENP and WCA 3B retaining water in the natural system while managing flood risks to the east.

Substantial progress has been made by USACE in construction of the BBCW L-31E flow-way. The SFWMD expects to begin construction of the Cutler Wetlands component in late 2022. This component will provide freshwater flows to mangrove wetlands and Biscayne Bay via a 400 cfs pump station, a conveyance channel, and a spreader swale. Completion of all BBCW project features is expected by the end of 2025.

The purpose of the LOWRP is to improve the ecology of Lake Okeechobee, decrease regulatory releases to the St. Lucie and Caloosahatchee estuaries, restore freshwater wetlands in the watershed, and improve water supply for existing legal water users. A Third Revised Draft Integrated PIR and Environmental Impact Statement was released in August 2022 for public review. The recommended plan includes construction of up to 55 ASR wells located in clusters in various locations throughout the Lake Okeechobee watershed. The Florida State Legislature appropriated funding to the SFWMD for the design, engineering, and construction of ASR well components, designed to achieve the greatest reductions in harmful discharges to the Caloosahatchee and St. Lucie estuaries. A Final Chief's Report and Congressional Authorization

is pending for the project in the WRDA 2024. The SFWMD is proceeding with the design and construction of the ASR well program to be implemented based on a detailed Science Plan.

The SFWMD and USACE completed the IDS in 2015 and since 2018, continues to update the project schedules annually based on funding availability from the implementing agencies. The Final Draft 2022 IDS was completed in October 2022 and presented to the Task Force in November 2022. The LRWRP was authorized by Congress in 2020 and subsequently its components were added to the IDS. In addition to the planning studies underway (LOWRP, WERP, and BBSEER), the IDS includes the Southern Everglades Study, scheduled to begin in FY 2023.

In addition to the projects listed above, the SFWMD partners with the USACE on the C-111 West Spreader Canal, Picayune Strand Restoration, IRL-S C-23/C-24 North Reservoir and STA, and BCWPA, which are currently in different stages of design, construction, or operation.

Section 3.2: State of Florida Non-CERP Everglades Ecosystem Restoration Projects and Funding Requests (\$1,080,447,349)

Florida Department of Agriculture and Consumer Services (FDACS) **(\$22,220,449)**

Under the Florida Watershed Restoration Act (section 403.067, F.S.), the FDEP is charged with identifying impaired surface waters and establishing total maximum daily loads (TMDLs) for pollutants entering the impaired waters. Once a TMDL is adopted, the FDEP develops and adopts a basin management action plan (BMAP) for the applicable watershed. In south Florida, BMAPs have been developed for the Lake Okeechobee, St. Lucie, and Caloosahatchee basins. The BMAPs outline the load allocations for different source inputs and specific activities that stakeholders must undertake to reduce pollutants to meet the applicable TMDL. In watersheds with adopted BMAPs, nonpoint source agricultural landowners are required to either enroll in and implement the FDACS' BMPs or conduct water quality monitoring prescribed by the FDEP or a water management district. The FDACS has adopted by rule BMPs for cow/calf, citrus, vegetable and agronomic crops, nurseries, equine, sod, dairy, poultry, specialty fruit and nut, forestry, and silviculture operations. The FDACS Office of Agricultural Water Policy also works with agricultural landowners outside of BMAPs to implement water quality and water conservation BMPs to further water resource protection and ecosystem restoration. The FDACS provides technical and financial assistance to producers for the implementation of prioritized BMPs, as well as other innovative practices and projects. Some examples of other practices and projects include advanced precision agricultural practices, structures for onsite water management, wetland restoration, floating aquatic vegetative tilling, and hybrid wetlands treatment technology. BMPs are just one strategy used to achieve pollutant reductions within BMAPs. Other strategies and projects must also be implemented.

The FDACS also plays an important role in the management of public lands through the Florida Forest Service, which is the lead managing agency on the Picayune State Forest (Southern Golden Gate Estates and Belle Meade) and the state agency responsible for wildfire suppression and prevention and forest protection in south Florida.

The FWC's planned funding for South Florida Ecosystem restoration during FY 2023-24 includes:

- Division of Habitat and Species Conservation
- Law Enforcement
- Division of Freshwater Fisheries
- Fish and Wildlife Research Institute

Florida Department of Environmental Protection (FDEP) (\$627,332,183)

The FDEP's non-CERP South Florida Ecosystem restoration priorities include implementation of the Everglades Forever Act (EFA), Restoration Strategies, and the NEEPP. The proposed FY 2023-24 budget for Non-CERP includes funding for the following programs: \$58,000,000 for

Restoration Strategies (a series of projects designed to improve water quality in the Everglades Protection Area); \$76,084,653 for the implementation of the NEEPP and water storage projects that provide relief from discharges to the St. Lucie and Caloosahatchee rivers and estuaries; and \$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.

Additional funding is proposed for the following non-CERP restoration projects: C-43 West Basin Storage Reservoir WQ Component; Boma Flow Equalization Basin, Taylor Creek/Nubbin Slough-214, C-51 Restoration; the C&SF Project Comprehensive Review Study; Caloosahatchee River Water Quality Improvements; Caloosahatchee River & Estuaries Storage & Treatment Phase III, Dispersed Water Management; and funding to support the restoration programs in the Office of Resilience and Coastal Protection.

For the proposed FY 2023-2024, \$50 million is available for addressing harmful algal blooms. This includes \$30 million for addressing harmful algal blooms associated with Lake Okeechobee; \$10 million for continued 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; \$5 million for supporting county governments in responding to blue-green algae and other harmful algal blooms; and \$5 million is proposed for the FDEP red tide emergency grant program to support county governments in cleaning beaches and coastal areas to minimize the impacts of red tide. The funding for addressing harmful algal blooms is not included in the total for Non-CERP Everglades Ecosystems Restoration as the funds could be directed to address algal blooms outside of the Everglades region.

For more information: <https://protectingfloridatogether.gov/InnovativeTechnologies>

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; BMAPs; and research and monitoring. The FDEP Office of Resilience and Coastal Protection (RCP) manages more than 4 million acres of submerged lands and coastal uplands in Florida. With support from the NOAA, this office manages 42 aquatic preserves, three National Estuarine Research reserves, the FKNMS, the Coral Reef Conservation Program, the Coral Protection and Restoration Program, and the Resilient Florida Program. Proposed FY 2023-2024 funding for RCP includes \$432,236,970.

Non-CERP projects funded during FY 2023-24 include:

- Office of Water Policy and Ecosystems Restoration

The Office of Water Policy and Ecosystems Restoration 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. <https://floridadep.gov/water-policy> Non-CERP projects funded through the SOETF and LATF include: Restoration Strategies, Lakeside Ranch STA, C-111 South Dade land acquisition, Lake Hicpochee North Hydrologic Enhancement Project, Boma Flow Equalization Basin, Nubbin Slough, Dispersed Water

Management projects, and C-43 Water Quality Treatment projects. <https://floridadep.gov/water-policy>

- 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. <https://floridadep.gov/dear>

- Office of Resilience and Coastal Protection

Programs include the National Estuarine Research Reserve, the Coral Reef Conservation Program, Coral Protection and Restoration, Resilient Florida Program, the FKNMS, and the Aquatic Preserves Program. <https://floridadep.gov/rcp>

Florida Fish and Wildlife Conservation Commission (FWC) (\$62,000,713)

FWC stewards the state's executive responsibility for managing fish and wildlife resources for their long-term well-being and the benefit of people. To meet this 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 conservation laws protecting fish, wildlife, and their habitats are enforced. The Fish and Wildlife Research Institute (FWRI) administers research and monitoring programs that support the FWC's mission and integrates research activities with management efforts of other divisions and partnering programs. FWRI plays a key role supporting the CERP's RECOVER program through dedicated seagrass monitoring, oyster monitoring, fisheries independent monitoring, and RECOVER team support. FWC programs also support imperiled species management; freshwater and marine fisheries management; non-native species research, management, and removal; aquatic and terrestrial invasive plant management; monitoring and investigating harmful algal blooms, such as Florida red tide; and the recovery of endangered species such as the Florida panther, Everglade snail kite, red-cockaded woodpecker, marine mammals, and stony corals.

The FWC is either sole manager or a partnering manager on over three million acres of public lands throughout the South Florida Ecosystem. The FWC contributes to state land acquisition programs targeting lands within or contiguous to areas currently managed by the agency. Further, 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, federal, and tribal), 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 2023-24 includes:

- Division of Habitat and Species Conservation
- Law Enforcement
- Division of Freshwater Fisheries
- Fish and Wildlife Research Institute

Florida Department of Transportation (FDOT) (\$16,135,493)

The FDOT is a leader among transportation agencies in the nation for protecting wildlife, restoring habitat, and redesigning roadways to restore natural water flow to over-drained areas.

The FDOT's expenditures for South Florida Ecosystem restoration during FY 2022-23 was \$14,768,989 and included:

- Exotic and endangered/threatened species survey (\$270,154)
- Research to determine the effectiveness of wildlife crossings (\$78,911)
- Mitigation maintenance and monitoring (\$60,812)
- Removal of exotic vegetation (\$2,432,933)
- Wildlife and wetland mitigation (\$318,756)
- Water quality study (\$2,500)
- Seagrass and mangrove mitigation (\$96,990)
- Everglades restoration (\$11,507,933)

The FDOT's planned funding for South Florida Ecosystem restoration during FY 2023-24 is \$16,135,493 and includes:

- Exotic and endangered/threatened species survey (\$833,716)
- Research to determine the effectiveness of wildlife crossings (\$70,351)
- Mitigation maintenance and monitoring (\$121,787)
- Removal of exotic vegetation (\$2,902,987)
- Wildlife and wetland mitigation (\$728,332)
- Seagrass and mangrove mitigation (\$151,584)
- Everglades restoration (\$11,326,736)

South Florida Water Management District (SFWMD) (\$352,758,511)

The SFWMD is implementing the Long-Term Plan by including the structural and vegetation enhancements to the existing STAs, implementing BMPs, and working to ensure integration with CERP projects. In Water Year (WY) 2023 (May 1, 2022 – April 30, 2023), the STAs treated approximately 1.0 million acre-feet of water and recorded good annual performance, retaining 83% of phosphorus from water flowing through the treatment cells and treating water to a flow-weighted mean concentration of 25 parts per billion of phosphorus. During the water year, the STAs removed approximately 153 metric tons of phosphorus. For more information, please visit: <http://www.sfwmd.gov/sta>.

During WY 2022, BMPs in the EAA resulted in a 66% reduction in phosphorus, exceeding the 25% statutory requirement. For the thirteenth 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: <https://www.sfwmd.gov/bmps>.

During the 2013 legislative session, the 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, ten Restoration Strategies projects have been completed, three others are ongoing, and 69 of 74 consent order milestones have been achieved, 66 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. Eleven studies have been completed and ten are ongoing. For more information, please visit: <http://www.sfwmd.gov/restorationstrategies>.

Addressing the complex and varying problems in the Northern Everglades watersheds necessitates a multifaceted restoration approach including reducing nutrient loading and excess freshwater inflows and discharges to Lake Okeechobee and the St. Lucie and Caloosahatchee Rivers and estuaries. The focus on water quality and storage is intended to improve hydrology, water quality, and aquatic habitats in both the watersheds and receiving waters. As part of the Watershed Protection Plans, the SFWMD continues to implement various watershed construction projects with both water storage and water quality benefits to improve conditions across the Northern Everglades, which includes both regional and DWM projects. During the reporting period, 28 projects were operational across the Northern Everglades watersheds, including 22 DWM projects and 6 other regional restoration projects that provide storage benefits. Collectively, in WY2022, these projects provided an estimated storage volume of approximately 137,252 ac-ft (169.3 million m³).

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 2023-24 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.
- Completing the C-111 SD 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 NEEPP and associated watershed protection plans for the three northern watersheds (Lake Okeechobee, St. Lucie, and Caloosahatchee).
- Continuing implementation of provisions in the EFA 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.
- Updating and implementing regional water supply plans.
- Operating and maintaining one of the largest flood control systems 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.
- Constructing the 8.5 Square Mile Area Limited Curtain Wall to reduce seepage from current and future restoration flows to Northeast Shark River Slough in ENP.
- Focusing on resiliency efforts focus by assessing how sea level rise and extreme events, including flood and drought events, happen under current and future climate conditions and how they affect water resources management. The SFWMD is making significant infrastructure adaptation investments that are needed to successfully implement its mission of safeguarding and restoring South Florida's water resources and ecosystems, protecting communities from flooding, and ensuring an adequate water supply for all of south Florida's needs.

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 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 this Document.

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