

Appendix 1-6: Northern Everglades and Estuaries Protection Program Annual Report

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INTRODUCTION

In 2007, the Florida legislature substantially expanded the Lake Okeechobee Protection Act to the Northern Everglades and Estuaries Protection Program [NEEPP; Section 373.4595, Florida Statutes (F.S.)]. Consequently, the Lake Okeechobee and Estuary Recovery Plan, announced in October 2005, was migrated into this program. The NEEPP requires the coordinating agencies [the South Florida Water Management District (SFWMD or District), the Florida Department of Environmental Protection (FDEP), and the Florida Department of Agriculture and Consumer Services (FDACS)] to develop watershed protection plans for the Lake Okeechobee, St. Lucie, and Caloosahatchee watersheds, with updates every three years. The purpose of the watershed protection plans is to identify and implement programs and projects necessary to achieve water quality and quantity objectives for the watersheds.

The NEEPP requires annual progress reporting as part of the consolidated annual report required in Subsection 373.036(7), F.S., including a summary of the conditions of the hydrology, water quality, and aquatic habitat in the Northern Everglades based on the results of the Research and Water Quality Monitoring Programs, status of the Lake Okeechobee Watershed Construction Project, status of the Caloosahatchee River Watershed Construction Project, and status of the St. Lucie River Watershed Construction Project. Furthermore, while the authority to use Save Our Everglades Trust Fund (SOETF) funds is provided in Section 373.470, F.S., the NEEPP also provides requirements for annual reporting on NEEPP expenditures from the SOETF.

Additional evaluations are also required on a three-year cycle in accordance with Paragraphs 373.4595(3)(b)3 and (4)(d), F.S. The reporting requirements vary by watershed but generally require additional evaluation of data, goals, and modifications to the construction projects. The Lake Okeechobee Protection Plan was originally submitted to the Florida legislature on January 1, 2004 (SFWMD et al. 2004), the Lake Okeechobee Watershed Construction Project Phase II Technical Plan was submitted to the Florida legislature in February 2008 (SFWMD et al., 2008), and three-year evaluations to the Lake Okeechobee Watershed Protection Plan were completed in 2011 and 2014 as required by the NEEPP (SFWMD et al. 2011, Bertolotti et al. 2014). Both the St. Lucie River Watershed Protection Plan (SFWMD et al. 2009a) and the Caloosahatchee River Watershed Protection Plan (SFWMD et al. 2009b) were submitted to the legislature in

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January 2009, and three-year evaluations to the LOWPP were completed in 2012 (SFWMD et al., 2012) and 2015 (SFWMD et al., 2015).

In addition, Paragraph 373.026(8)(b), F.S., states that prior to the release of state funds for the implementation of the Lake Okeechobee Watershed Protection Plan or the river watershed protection plans (RWPP), on an annual basis, the District shall prepare an annual work plan as part of the consolidated annual report required in Section 373.036(7), F.S.

Subsequent sections of this appendix are intended to meet the reporting requirements in Section 373.4595, F.S. and annual work plan requirements in Paragraph 373.026(8)(b), F.S.

ANNUAL PROGRESS REPORT AND THREE-YEAR UPDATES

A detailed cross-reference for the NEEPP annual and RWPP three-year reporting in this volume is summarized below in **Table 1**.

Table 1. Cross-reference for NEEPP reporting in the
2016 South Florida Environmental Report (SFER) – Volume I.

Description	Cross-Reference in the 2016 SFER – Volume I
<i>Lake Okeechobee Watershed Protection Plan</i>	
Status of the Lake and Watershed	Chapter 8
Lake Okeechobee Watershed Construction Project Status	Chapter 8
Research and Water Quality Monitoring Program Results	Chapter 8
<i>St. Lucie and Caloosahatchee River Watershed Protection Plans</i>	
Status of the River Watersheds and Estuaries	Chapter 10
River Watershed Construction Project Updates	Chapter 10
Research and Water Quality Monitoring Program Results	Chapter 10
<i>Other Reporting</i>	
SOETF Expenditures	Appendix 1-6
NEEPP Annual Work Plan	Appendix 1-6

SAVE OUR EVERGLADES TRUST FUND EXPENDITURES

The NEEPP requires that the annual progress report contain detailed annual accounting of the expenditure of SOETF funds, including information concerning the amount and use of funds from federal, state, or local government sources, and the funds being requested to be applied to meet match requirements. **Table 2** on the next page provides an accounting of NEEPP expenditures during the District's Fiscal Year 2014-15. The report is prepared in cooperation with the other coordinating agencies and affected local governments.

Construction Projects: Reducing nutrient loading and excess freshwater discharge and inflow to the St. Lucie Estuary, Caloosahatchee River Estuary, and Lake Okeechobee requires action at the regional, subregional, and local levels. NEEPP Construction Project components include a suite of activities at each of these spatial scales. The focus on water quality and storage is intended to improve hydrology, water quality, and aquatic habitats in both the watersheds and receiving waters. The suite of projects builds upon the Source Control Program and includes water quality and quantity projects such as local stormwater retrofits, stormwater treatment areas (STAs), reservoirs, and habitat restoration. Construction projects and activities that comprised the Fiscal Year 2014-2015 (October 1, 2014–September 30, 2015) expenditures include the following: Rolling Meadows Restoration, Lakeside Ranch STA, Lake Hicpochee Hydrologic Enhancement, C-43 Water Quality Treatment and Testing Project, Dispersed Water Management Projects, in-lake phosphorus control projects, ecological and physical monitoring, Kissimmee River Restoration Plan land acquisition and other activities associated with the Lake Okeechobee regulation schedule and watershed protection plan implementation. Comprehensive Everglades Restoration Plan (CERP) components of the NEEPP Construction Project are reported in the 470 Report (Appendix 1-4 of this volume) and not included here to avoid duplicative reporting and tracking.

District and FDACS Source Control Programs: The Pollutant Source Control Program is a multi-faceted approach for improving the management of pollution sources within the Northern Everglades watersheds. It includes source control programs, such as best management practices (BMPs), on-site treatment technologies, stormwater and wastewater infrastructure upgrades and master planning, and regulatory programs focused on water quality and quantity. Source control programs that use SOETF funds include the District's 40E-61 Regulatory Source Control Program (per Chapter 40E-61, Florida Administrative Code) and the FDACS Agricultural BMP Program.

Research and Water Quality Monitoring Program: This program primarily assesses ecological health and progress toward achieving the water quality and storage targets and the plans, programs, and other responsibilities in the watershed protection plans. The activities comprising Fiscal Year 2014-2015 expenditures include ecological and water quality monitoring, applied research, model application and development, and exotic species control.

Table 2. Accounting of NEEPP Expenditures for Fiscal Year 2014-2015
(October 1, 2014 – September 30, 2015).

Plan/Program	Expenditures by Funding Source			
	SOETF	Other State	Federal	District Ad Valorem ^a
Lake Okeechobee Protection Plan (LOPP)				
Construction Projects ^b (e.g. Kissimmee River Restoration land acquisition)		\$4,380,894		\$2,209,399
District Source Control Program				\$957,901
District Research and Water Quality Monitoring Program				\$2,441,691
LOPP Fiscal Year 2014-2015 Expenditures	\$0	\$4,380,894	\$0	\$5,608,991
St. Lucie River Watershed Protection Plan (SLRWPP)				
Construction Projects ^b (e.g., St. Lucie River Issues Team Projects)		\$345,572		\$6,091
District Source Control Program				\$526,388
District Research and Water Quality Monitoring Program		\$39,100		\$ 534,148
SLRWPP Fiscal Year 2014-2015 Expenditures	\$0	\$384,672	\$0	\$1,066,627
Caloosahatchee River Watershed Protection Plan (CRWPP)				
Construction Projects ^{b, c}	\$418,915			\$ 1,086,715
District Source Control Program				\$375,925
District Research and Water Quality Monitoring Program				\$545,129
CRWPP Fiscal Year 2014-2015 Expenditures	\$418,915	\$0	\$0	\$2,007,769
Dispersed Water Management Fiscal Year 2014-2015 Expenditures^c	\$828,552	\$4,520,544	\$882,291	\$1,603,916
FDACS Agricultural BMP Program^d	\$250,000	\$2,000,000		
FDACS Lake Okeechobee Restoration Agricultural Projects^d		\$4,716,120		
TOTAL	\$1,497,467	\$16,002,230	\$882,291	\$10,287,303

a. These figures include SFWMD personnel services.

b. These figures do not include CERP projects in NEEPP watersheds, including C-44 STA/Reservoir, Lake Okeechobee Retention/Phosphorous Removal, Ten Mile Creek Water Preserve Area, and C-43 West Storage Reservoir, totaling \$56.4 million (see Appendix 1-4 of this volume, Comprehensive Everglades Restoration Plan Annual Report – 470 Report).

c. CRWPP SOETF expenses include Lake Hicpochee North Hydrologic Enhancement (\$334,233) and Spanish Creek/Four Corners Hydrologic Restoration (\$84,683), and exclude \$245,703 of expenditures incurred for Lake Hicpochee by SFWMD during Fiscal Year 2014-2015, for which the District will seek reimbursement from FDEP and will be reported in the 2016 SFER. Dispersed Water Management SOETF expenses are for Nicodemus Slough.

d. The FDACS expenditures are for the FDACS fiscal year from July 1, 2014 through June 30, 2015. The FDACS Lake Okeechobee Restoration Agricultural Projects are fixed-capital outlay money, so FDACS has three years to expend those funds.

NORTHERN EVERGLADES ESTUARIES PROTECTION PLAN FISCAL YEAR 2015-2016 ANNUAL WORK PLAN

This Northern Everglades Annual Work Plan was prepared pursuant to the requirements of Paragraph 373.026(8)(b), F.S., which states that prior to the release of state funds for implementation of the Lake Okeechobee Watershed Protection Plan or the RWPPs, SFWMD must prepare an annual work plan, as part of the annual consolidated report, that is consistent with the goals and objectives of Section 373.4595, F.S. Upon a determination by the FDEP secretary of the annual work plan's consistency with the goals and objectives of Section 373.4595, F.S., the secretary may approve the release of state funds.

The coordinating agencies have requested to spend SOETF dollars for implementation of the projects identified in the Lake Okeechobee, Caloosahatchee River, and St. Lucie River watershed protection plans. The projects collectively identified by the coordinating agencies that will be implemented in Fiscal Year 2015-2016 using SOETF funding are listed below with an asterisk (*) and are an integral part of the Lake Okeechobee and RWPP. To provide a more comprehensive picture, projects that will be implemented in Fiscal Year 2015-2016 to further the goals and objectives of the NEEPP but will be funded by other sources are also included in the list. A key to the lead or local sponsor of the projects is provided below the list. It should be noted that this work plan is subject to change throughout the fiscal year as deemed appropriate by the coordinating agencies.

LAKE OKEECHOBEE WATERSHED

I. Construction Project and Other Related Activities

- Lake Okeechobee Basin Management Action Plan ¹
- Lakeside Ranch – Phase I North [Operations and Maintenance] ²
- Lakeside Ranch STA Phase II* ²
- Taylor Creek and Nubbin Slough Critical Project STAs (Operations and Maintenance) ²
- Kissimmee River Restoration and Headwaters Revitalization ^{6,2}
- Rolling Meadows Wetland Restoration ²
- Dispersed Water Management Program
 - Florida Ranchlands Environmental Services Project ²
 - Nicodemus Slough Water Management Project ²
 - Istokpoga Marsh Watershed Improvement District – Water Quality Improvement Project ^{1,2,3}
 - Northern Everglades Payments for Environmental Services Program ²
 - Public Lands Projects ²
- Feasibility and Conceptual Planning Studies
 - Evaluation of Storage and Water Quality Alternatives at the Grassy Island and Brady Ranch Properties ²
 - Northern Everglades Water Storage (NEWS) ²
- Lake Okeechobee Regulation Schedule Support ²
- In-lake Navigation/Recreation Enhancements ⁴

- Local Cost-Share Stormwater Projects ^{2,4}

II. Pollutant Control Program

- Agricultural ³ and Urban ¹ Best Management Practices (BMPs)
- SFWMD Regulatory Nutrient Source Control Program ²
- BMP Demonstration and Optimization on District Lands ²
- Innovative Treatment Technologies
 - Hybrid Wetland Treatment Technology ³ and Floating Aquatic Vegetation Tilling ³

III. Research and Water Quality Monitoring Program

This program is described in the Research and Water Quality Monitoring Plan (Bertolotti et al. 2014).

- Regional Phosphorus Control Project Monitoring (Taylor Creek STA, Nubbin Slough STA, Lakeside Ranch STA) ²
- Water Quality Assessment and Reporting (Lake Okeechobee Operating Permit) ²
- Sub-basin Monitoring Flow Network (United States Geological Survey) ³ and Subbasin Water Quality Monitoring ²
- Lake Okeechobee Watershed Assessment (LOWA) Monitoring in Upstream Tributaries ²
- Kissimmee River-related Ecological, Water Quality, and Flow Monitoring and Modeling ²
- Lake Okeechobee In-Lake Assessments ²
- Exotics and Nuisance Species Control ²
- Upper Chain of Lakes Nutrient Budget Development ²
- Lake Okeechobee Watershed Tributary Nutrient Loading Trend Analysis ²
- Lake Okeechobee In-lake and Watershed Modeling ²
 - Lake Okeechobee Water Quality Model ²
 - Watershed Assessment Model Calibration, Sensitivity and Uncertainty Analyses ^{1,2,3}
 - Wading Bird Foraging Prediction Model ²
- Development of New or Revised In-lake Ecological Performance Measures ²

CALOOSAHATCHEE RIVER WATERSHED

I. Construction Project and Other Related Activities

- Caloosahatchee Basin Management Action Plan ¹
- C-43 BOMA – Water Quality Treatment and Testing ²
- C-43 West Basin Storage Reservoir Phase I* ²
- Lake Hicpochee North Hydrologic Enhancement Project* ²
- Local Cost-Share Stormwater Projects ⁴
- Dispersed Water Management Program

- Northern Everglades Payment for Environmental Services Program ²
- Northern Everglades Cost-Share Projects ^{2,4}
- BOMA ²
- Public Lands Projects ²

II. Pollutant Control Program

- Agricultural ³ and Urban ¹ BMPs
- SFWMD Regulatory Nutrient Source Control Program ²
- BMP Demonstration and Optimization on District Lands ²
- Innovative Treatment Technologies ³
 - Floating Aquatic Vegetation Tilling ³

III. Research and Water Quality Monitoring Program

The program is described in the Research and Water Quality Monitoring Plan (Buzzelli et al. 2015).

- Caloosahatchee Monitoring Stations Maintenance ²
- Ecological Monitoring (Oysters and Seagrass) ²
- Applied Research, Model Development, and Application²
- Dissolved Organic Nitrogen Study²
- Adaptive Protocol Research Studies²
- Caloosahatchee Estuary Sediment Nutrients & Cycling²

ST. LUCIE RIVER WATERSHED

I. Construction Project

- St. Lucie Basin Management Action Plan ¹
- CERP Indian River Lagoon-South (IRL-S)*
 - C-44 Project ^{6,2}
 - Other Indian River Lagoon - South Activities ²
- 10 Mile Creek Water Preserver Area ^{2,6}
- Local Cost-Share Stormwater Projects ^{2,4}
- Dispersed Water Management Program
 - Northern Everglades Payment for Environmental Services Program ²
 - Private Lands Projects ²
 - Public Lands Projects ²
 - Water Farming Pilot Projects ²
 - Allapattah Conservation & Recreation Area ^{2,5}

II. Pollutant Control Program

- Agricultural ³ and Urban ¹ BMPs
- SFWMD Regulatory Nutrient Source Control Program ²
- Innovative Treatment Technologies ³
 - Hybrid Wetland Treatment Technology ³
- BMP Demonstration and Optimization on District Lands ²

III. Research and Water Quality Monitoring Program

The program is described in the Research and Water Quality Monitoring Plan (Buzzelli et al. 2015).

- United States Geological Survey St. Lucie Estuary Monitoring ²
- St. Lucie Tributary Monitoring ²
- River Watershed Assessment Monitoring in Upstream Tributaries ²
- Applied Research, Model Development and Application ²
 - St. Lucie Watershed (WaSh) Model Upgrades ^{1,2}
 - St. Lucie Estuary Sediment Nutrients and Cycling ²
 - Linkages between Water Quantity and In-Estuary Water Quality ²

Lead and/or Local Sponsor:

¹ Florida Department of Environmental Protection

² South Florida Water Management District

³ Florida Department of Agriculture and Consumer Services

⁴ Local government

⁵ Natural Resources Conservation Services

⁶ United States Army Corps of Engineers

* The projects collectively identified by the coordinating agencies that will be implemented in Fiscal Year 2015-2016 using SOETF funding.

LITERATURE CITED

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