



# Lake Worth Lagoon Management Plan Update



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## 2019 Lake Worth Lagoon Initiative Legislative Funding Request

Ranking	Applicant	Project Title	Total Project Cost	Funding Request	Proposed Match
1	City of West Palm Beach	Washington Road Utilities & Stormwater Outfall Improvements, Phase I	\$1,500,000	\$500,000	\$1,255,000
2	Palm Beach County	Tarpon Cove Restoration, Phase II	\$2,000,000	\$1,000,000	\$1,000,000
3	Palm Beach County	Lake Worth Lagoon Monitoring	\$451,336	\$225,668	\$225,668
4	Palm Beach County	Singer Island Submerged Land Acquisition	\$500,000	\$250,000	\$250,000
5	City of Lake Worth	17th Avenue South Drainage Resiliency Project	\$816,326	\$408,163	\$408,163
6	City of Lake Worth	18th Avenue North & Wellesley Drive Drainage Resiliency Improvements	\$1,449,800	\$724,900	\$724,900
7	Town of Hypoluxo	Hypoluxo Septic to Sewer Conversion	\$667,320	\$333,660	\$333,660
		<b>Total Values:</b>	<b>\$7,384,782</b>	<b>\$3,442,391</b>	<b>\$4,197,391</b>



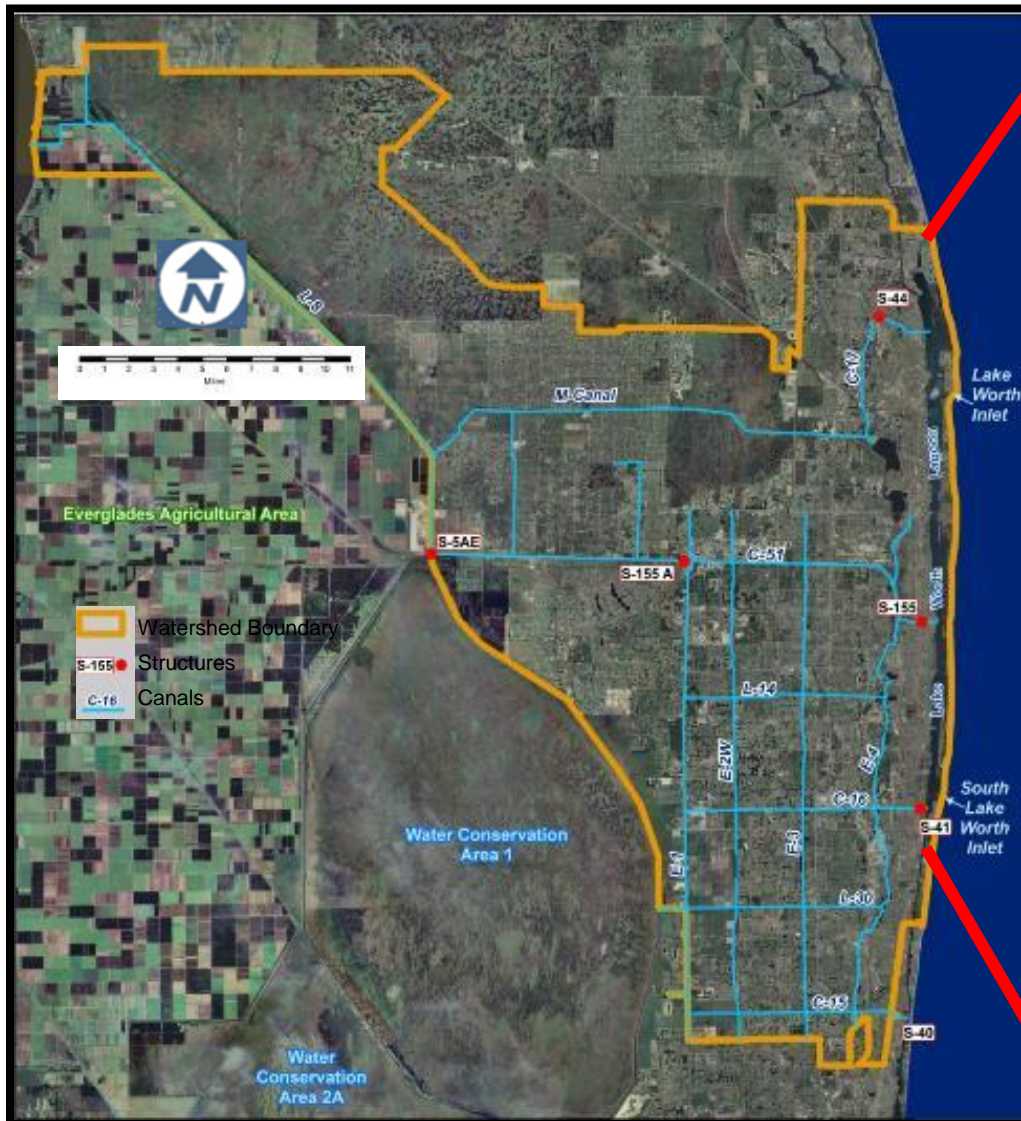
# Overview



- History of LWL Management Plans and Updates
- Review Mission and Goals for Management Plan
- Programmatic Areas and Action Plans
- Identify Subcommittees/Working Groups
- Priorities for Water and Sediment Quality Program
- Action Plan: Reduce Freshwater Discharges and Total Suspended Solids
- Tentative Timeline for Plan Update
- Identify Priorities for the Management Plan Update



# Palm Beach County Lake Worth Lagoon



# History of Lake Worth Lagoon Management Plan and Updates

Year	Document
1990	<ul style="list-style-type: none"><li>• LWL Natural Resources Inventory and Resource Enhancement Study (Dames and Moore, 1990)</li></ul>
1992	<ul style="list-style-type: none"><li>• Florida Estuarine Natural Resources Inventory and Resource Enhancement Study (PBC ERM)</li></ul>
1998	<ul style="list-style-type: none"><li>• Lake Worth Lagoon Management Plan (PBC ERM &amp; FDEP)</li></ul>
2008	<ul style="list-style-type: none"><li>• Lake Worth Lagoon Management Plan Revision (PBC ERM)</li></ul>
2013	<ul style="list-style-type: none"><li>• Lake Worth Lagoon Management Plan (PBC ERM)</li></ul>
2020	<ul style="list-style-type: none"><li>• Lake Worth Lagoon Management Plan</li></ul>

# Mission and Action Plans for LWL Management Plan

- Restore, conserve and manage the LWL ecosystem and to build and promote partnerships through the implementation of a scientifically sound, community supported management plan.
- Action Plans present proposed activities for the next five years with the projected funding and expenditures when applicable.
- The Action Plans are the core of the Plan implementation.

# 5 Programmatic Areas

\*identified since 1998

- Water and Sediment Quality\*
- Habitat Restoration and Enhancement\*
- Public Use and Outreach\*
- Interagency Planning and Coordination\*
- Funding

# Working Groups/Subcommittees for Management Plan Update

- Water Resources WG
- Habitat Restoration WG
- Public Outreach WG
- Identify Additional WGs



# Working Group/Subcommittee Members for Management Plan Updates

- Input from key policy leaders representing state, local and federal government
- Members of the region's scientific and technical communities
- Business and special interest groups
- Citizens throughout the region
- Agencies & Groups participating include: FDEP, USEPA, PBC Extension Service, PBC Soil & Water Conservation District, representatives from Town's and Cities within the LWL and its watershed, FIND, SFWMD, US FWS, FAU Center for Environmental Studies, PBC League of Cities, US Dept. of Agriculture, US Army Corps of Engineers, Lake Worth Drainage District, Marine Industries Association, PBC Department of Health, FWC, National Marine Fisheries Service, numerous concerned citizens and many others.

# Water and Sediment Quality Program Area

- Drainage from the Lagoon's watershed (42:1) is significant
- Primary threat to the Lagoon- suspended sediments from stormwater inputs
- Prior Action Plans:
  - Monitor the Lagoon's Water Quality (WQ)
  - Reduce Wastewater (WW)
  - Reduce Stormwater (SW)
  - Reduce Sediments (SE)

# **GOALS: Water and Sediment Quality Program Area**

- Continue water quality monitoring program in the Lagoon and perform trend analysis.
- Decrease inputs of suspended materials, and nutrients from point and nonpoint sources.
- Identify and reduce anthropogenic loadings of fecal contaminants and other pathogens.
- Increase additional sanitary sewer, wastewater, and stormwater retrofit projects.
- Manage sediments.

# **SW-1 ACTION PLAN: REDUCE DISCHARGE OF FRESHWATER AND TOTAL SUSPENDED SOLIDS**

**ACTION:** Reduce large volumes of freshwater and suspended sediment discharges through the C-51 Canal

## **BACKGROUND:**

- As part of restoration strategies for improving water quality in the Everglades, the South Florida Water Management District is implementing a technical plan to create additional Stormwater Treatment Areas and water storage through construction of flow equalization basins.
- Additional flow diversion and water storage includes the L-8 and C-51 Reservoirs potentially decreasing flow from the C-51 canal, which is the most significant source of freshwater to the LWL.

## **EXPECTED BENEFITS:**

- Reducing flow, nutrient and suspended sediment loads to LWL will maximize the potential growth of valued ecosystem components such as oysters and seagrasses.

# SW-1 ACTION PLAN Continued- Reduce FW and TSS Discharges

## **STRATEGY:**

Step 1 Quantify reduction of rate and/or volume of freshwater to the LWL from the water storage and flow diversion projects implemented.

Step 2 Assess sediment loads to the LWL from the C-17, C-51, and C-16 canals and municipal stormwater structures.

Step 3 Utilize deployed in-situ sonde salinity data to establish a correlation with flows and Valued Ecosystem Components.

Step 4 Perform additional surveys of the C-51 Canal and sediment trap to correlate discharge rates at the S-155 structure and to develop a sediment management plan and maintenance schedule.

# SW-1 ACTION PLAN Continued- Reduce FW and TSS Discharges

## **STRATEGY:**

Step 5 Conduct a feasibility study to identify and review options for sediment reduction prior to entering the LWL.

- Options include the creation of new sediment traps, canal dredging above the S-155 structure, and additional Stormwater Treatment Areas and water storage reservoirs.

## **POTENTIAL PARTNERS AND FUNDING SOURCES\*:**

SFWMD, ERM, USACE, FDEP, PBCWU, LWDD, Universities and local cities and municipalities

\*Listed Agencies have not committed funds and are subject to Agencies' budget approvals

# Tentative Timeline for LWL Management Plan Update

Activity	Timeline
<b>*Identify subcommittees/working groups</b>	June-Sept 2018
<b>*Recruit partners/agency/citizen participation in each subcommittee</b>	June-Oct 2018
<b>*Identify priority issues for the lagoon</b>	June-Dec 2018
<b>*Formulate action plans to ensure priorities are addressed</b>	Dec 2018- Feb 2020
<b>*Present final draft of Management Plan to agencies/ partners/citizens and solicit public input</b>	March 2020
<b>*Incorporate public comments and additional input into final version of Management Plan</b>	March-May 2020
<b>*2020 LWL Management Plan update adopted</b>	July 2020



*Discover a Local Treasure*

<http://lwli.org/managementplan.asp>

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