The Florida Senate

COMMITTEE MEETING EXPANDED AGENDA

ENVIRONMENTAL PRESERVATION AND CONSERVATION
Senator Dean, Chair
Senator Abruzzo, Vice Chair

MEETING DATE: Thursday, January 24, 2013
TIME: 10:30 a.m.—12:30 p.m.
PLACE: *Toni Jennings Committee Room,* 110 Senate Office Building

MEMBERS: Senator Dean, Chair; Senator Abruzzo, Vice Chair; Senators Altman, Bullard, Gardiner, Grimsley, Latvala, Simpson, and Soto

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1		Update on Numeric Nutrient Criteria by the Department of Environmental Protection	Presented
2		Update on the status of Everglades Restoration by the South Florida Water Management District	Presented
3		Presentation on federal funding of Everglades Restoration by the Everglades Foundation	Presented
4		Other related meeting documents	

Numeric Nutrient Criteria

NNC Update

Drew Bartlett
Director, Division of Environmental Assessment and Restoration
Florida Senate
Environmental Preservation and Conservation Committee
January 24, 2013

Numeric Nutrient Criteria Timeline

Necessity Determination

EPA's NNC for lakes & flowing waters

EPA's NNC challenged;

FDEP's NNC approved by ERC.

Court upheld EPA's NNC, except for streams – all parties appeal;

FDEP's NNC challenged, fully upheld;

EPA proposed new/revised NNC & approved FDEP's NNC in entirety.

Will EPA's lakes & springs NNC go into effect?

EPA final rulemaking deadline in Sept.

Approval of State Nutrient Criteria

- On Nov. 30, 2012, EPA approved FDEP's nutrient criteria for 100% of Florida's rivers, streams, lakes, and south FL estuaries.
- EPA also amended its Jan. 2009 "necessity determination," acknowledging that FDEP's criteria protect downstream waters.
- Currently, the only criteria in full effect are for south Florida estuaries.
  - Effective dates for remaining criteria vary, while the state narrative criteria and established TMDLs apply in the interim.

Silver Springs

EPA's Proposed Criteria

- Simultaneously, EPA proposed draft federal nutrient criteria for waters not covered by FDEP's criteria in response to a consent decree.
- EPA's proposed coverage includes:
  - Remaining estuaries
  - Open ocean waters
  - Point where south Florida canals enter estuaries
  - Scientifically challenging areas like tidal creeks and managed water conveyances.

(1)

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

1/24/13
Meeting Date

Topic Numeric Nutrient Criteria Bill Number _____ *(if applicable)*

Name Drew Bartlett Amendment Barcode _____ *(if applicable)*

Job Title Director, Division of Environmental Assessment & Restoration

Address FDEP Phone _____
Street

_____ E-mail _____
City *State* *Zip*

Speaking: ☐ For ☐ Against ☑ Information

Representing FDEP

Appearing at request of Chair: ☐ Yes ☐ No Lobbyist registered with Legislature: ☐ Yes ☐ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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S-001 (10/20/11)

THE FLORIDA SENATE

APPEARANCE RECORD

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JAN. 24, 2013
Meeting Date

Topic N.N.G.

Bill Number —
(if applicable)

Name Doug Mann

Amendment Barcode
(if applicable)

Job Title —

Address 310 W. College Ave.
Street

Tallahassee FL 32301
City *State* *Zip*

Phone 222-7535

E-mail doug@littlejohnmann.com

Speaking: ☐ For ☐ Against ☑ Information

Representing AIF

Appearing at request of Chair: ☐ Yes ☐ No

Lobbyist registered with Legislature: ☑ Yes ☐ No

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S-001 (10/20/11)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Everglades Restoration Progress and Opportunities

Ernie Barnett
Director of Everglades Policy

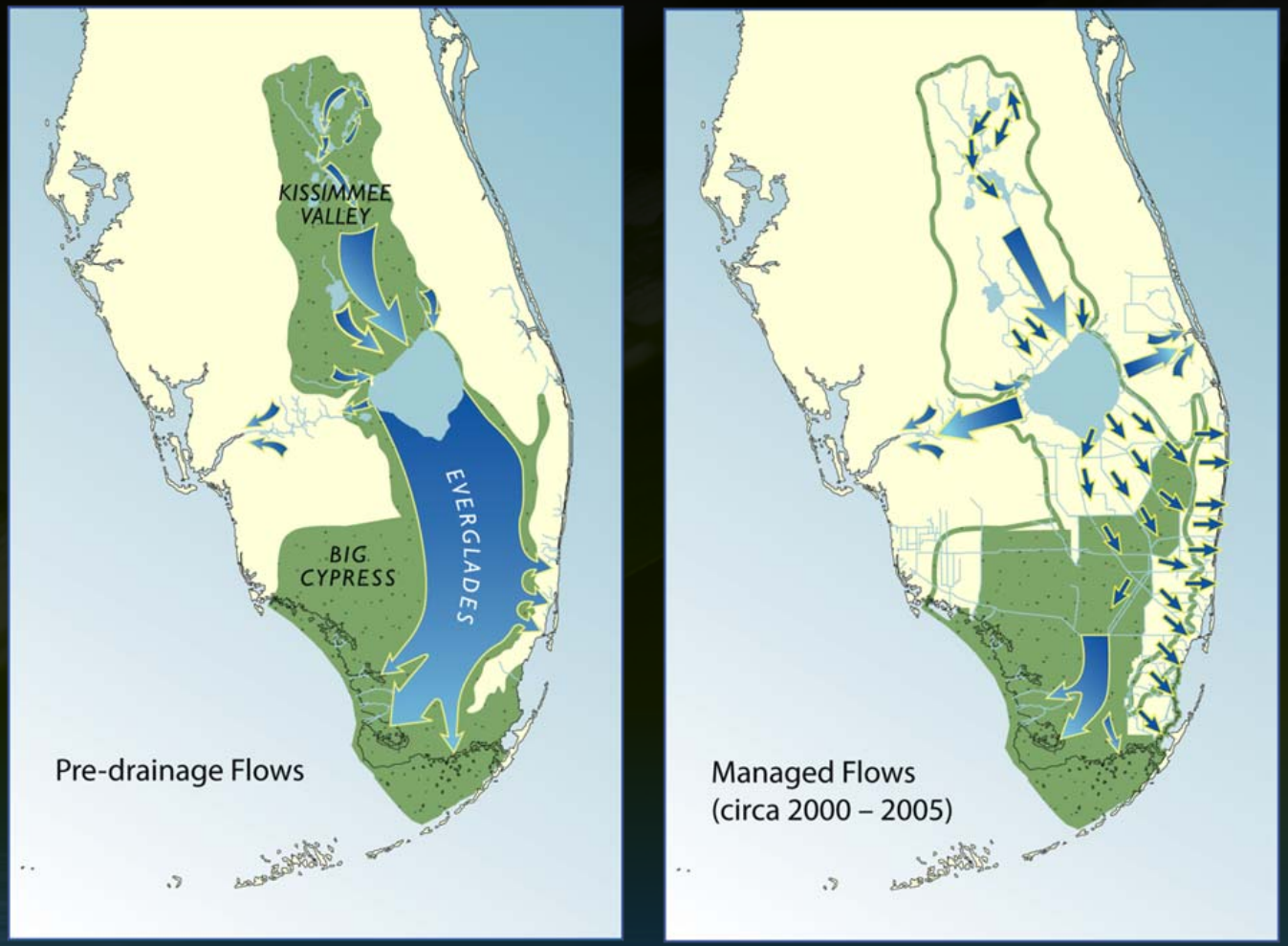
January 24, 2013

sfwmd.gov

Today's Presentation

- **The Challenge**
- **The Solution: Three-Part Strategy**
  - **Everglades Water Quality**
  - **State-Federal Partnership**
    - Kissimmee River Restoration
    - Comprehensive Everglades Restoration Plan
    - Central Everglades Planning Project
  - **State Projects and Programs**
- **Next Steps**

Water Flows


KISSIMMEE VALLEY
EVERGLADES
BIG CYPRESS
Pre-drainage Flows
Managed Flows
(circa 2000 – 2005)
Natural Areas
Water Flows
Pre-drainage Boundary

Impacts of Alterations on the Natural System

- Disruption in timing, distribution, quality and quantity of water
  - Imbalance of natural flora and fauna
  - Extreme high and low lake levels
  - Harmful freshwater discharges to the St. Lucie and Caloosahatchee estuaries
- Compartmentalization of remnant Everglades impedes natural flow:
  - Extreme high and low water levels
  - Undesirable shifts in vegetation
  - Loss of natural ridge and slough characteristics

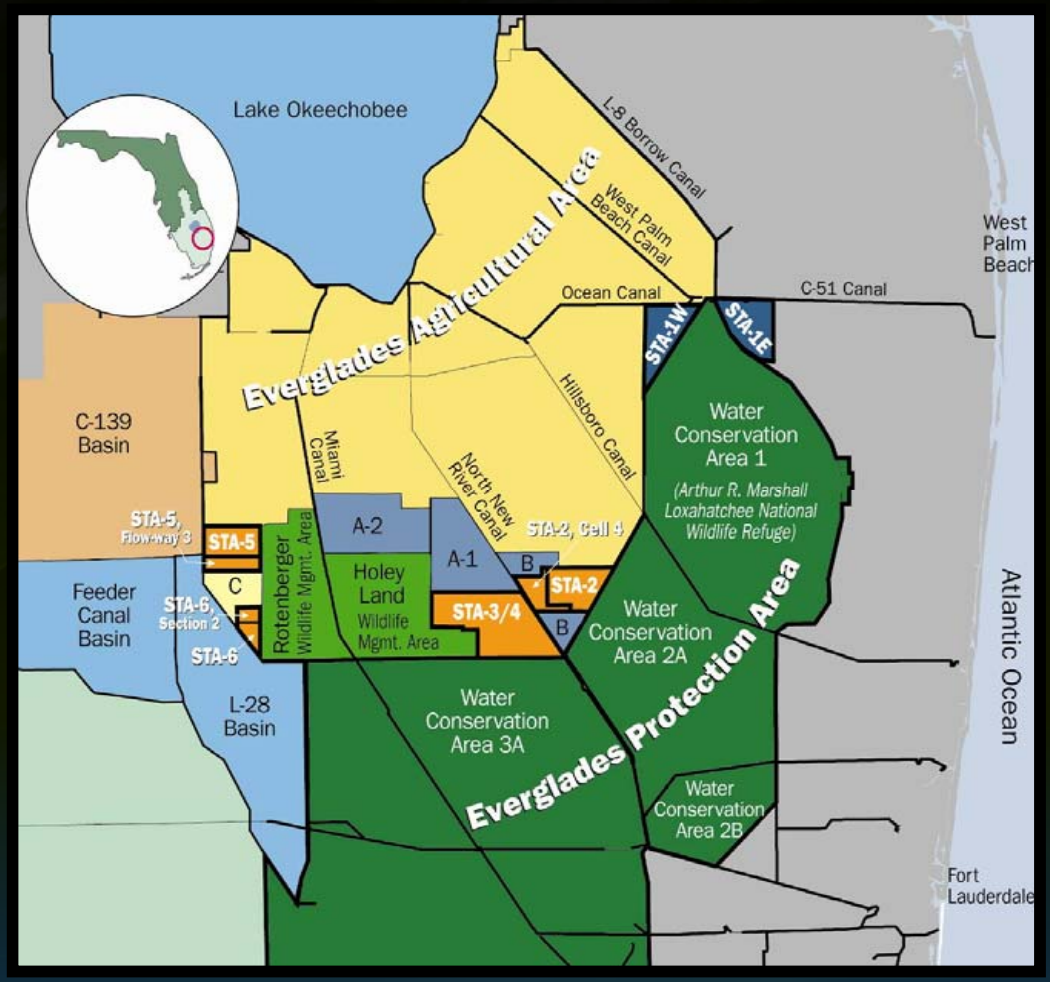
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Part I
Water Quality

sfwmd.gov

Water Quality
Florida's Commitment to Date

- $1.8 billion invested to date in Stormwater Treatment Area (STA) construction
  - 45,000 acres of effective treatment area constructed
  - Additional 11,700 acres under construction (2012 completion)
  - WY2011: STAs treated 735,000 acre-feet of water; reduced total phosphorus loads to the Everglades Protection Area by 79%
- Implemented Best Management Practices on 640,000 acres of land
  - Average phosphorus reduction of 55% over program's 16-year history (more than twice the amount required by law)
  - Active BMP program with continuous evaluation



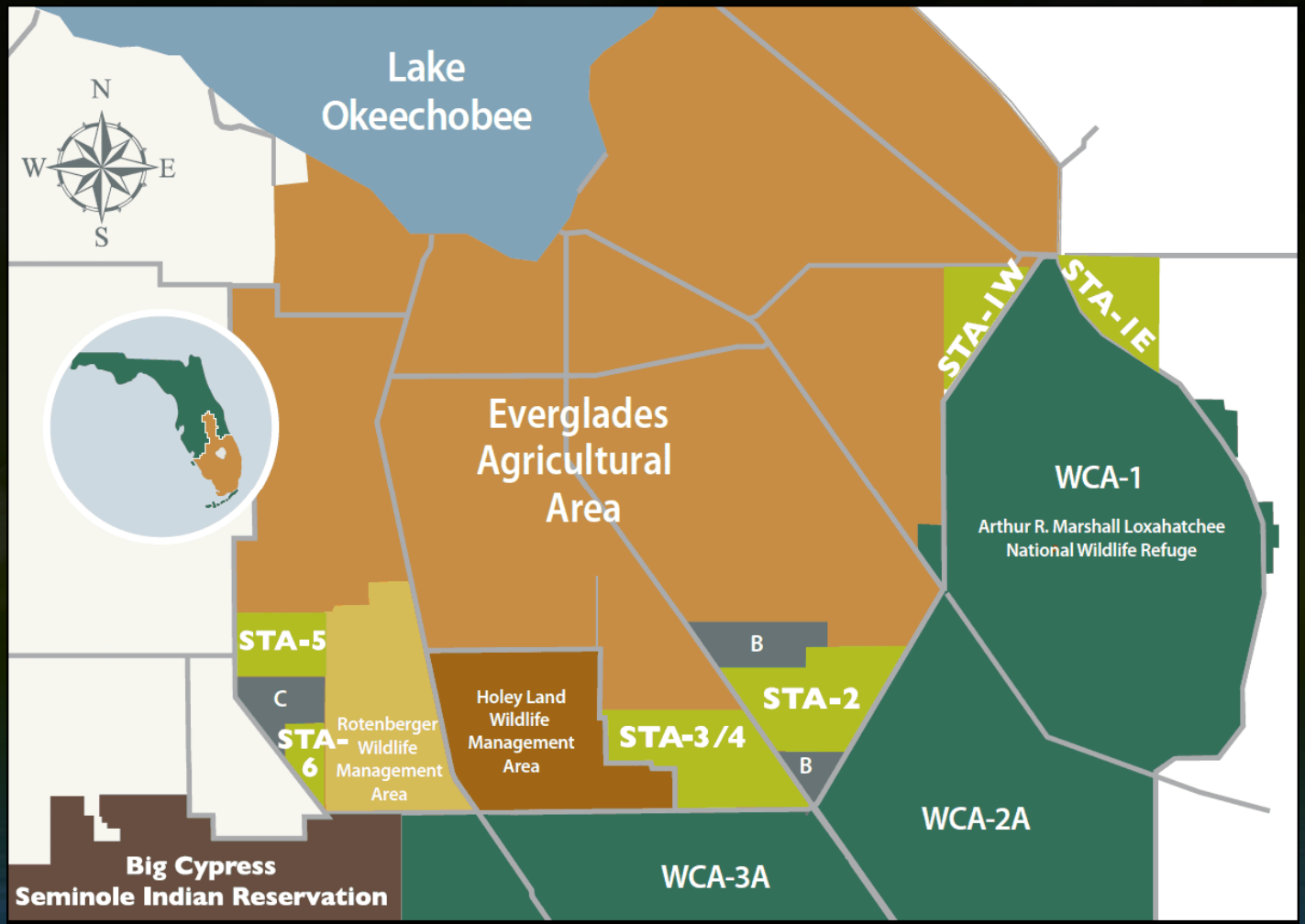
Stormwater Treatment Areas

Agricultural Land

Constructed Wetland

Constructed wetlands designed to remove phosphorus through natural physical, chemical and biological processes

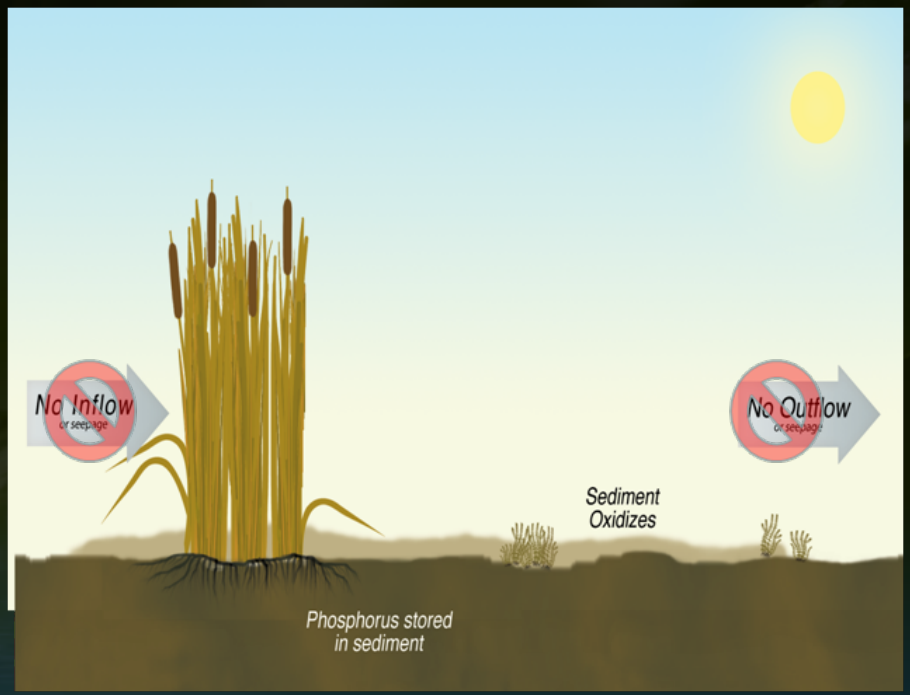
Stormwater Treatment Areas



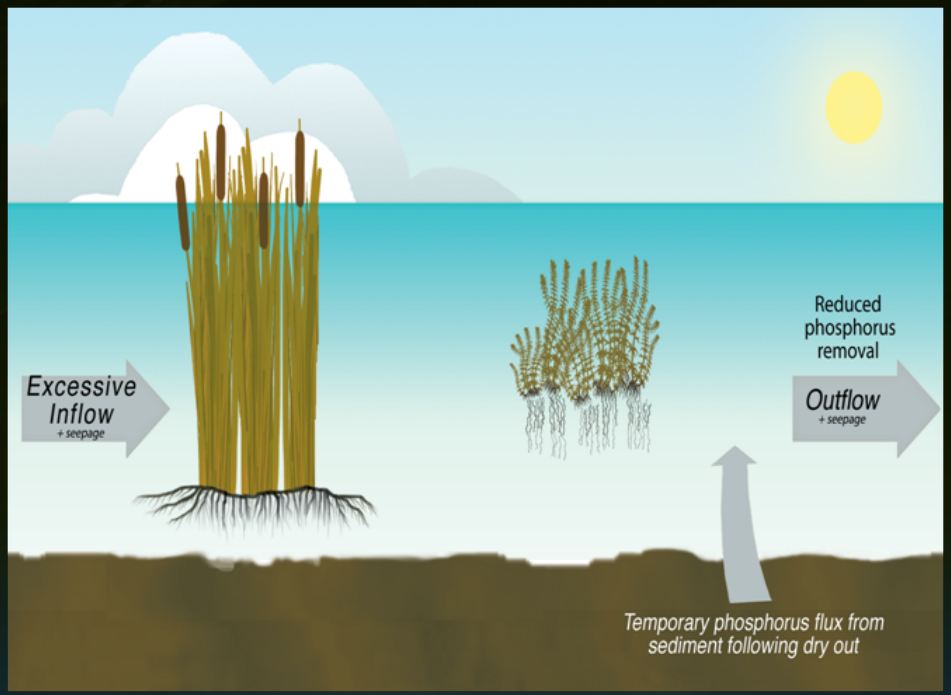
Areas in gray marked with a "B" or "C" represent the current expansion of existing Stormwater Treatment Areas

Stormwater Treatment Areas

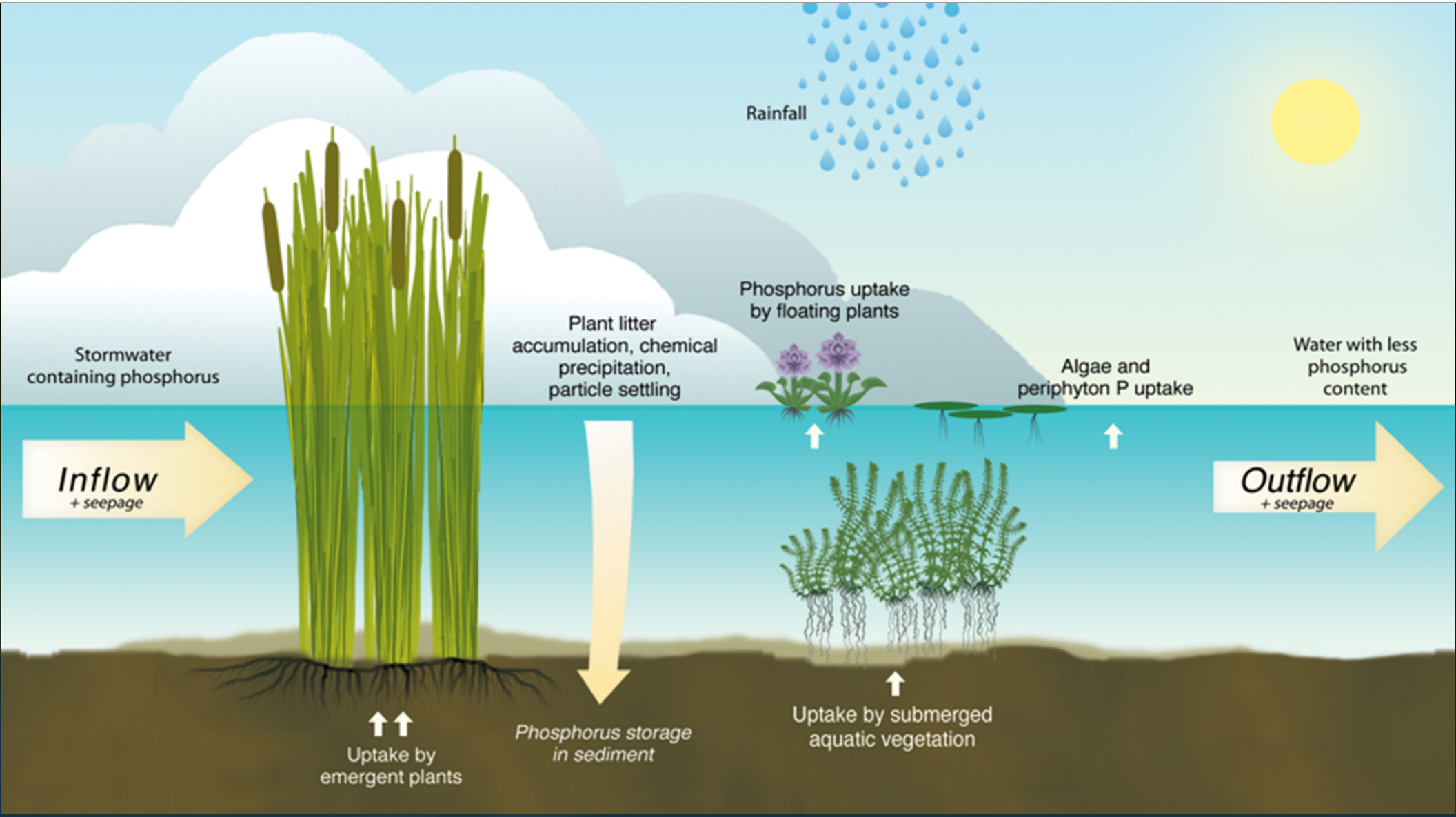
Dry Out -
No Flow Conditions



Deep Water -
Excessive Flow Conditions

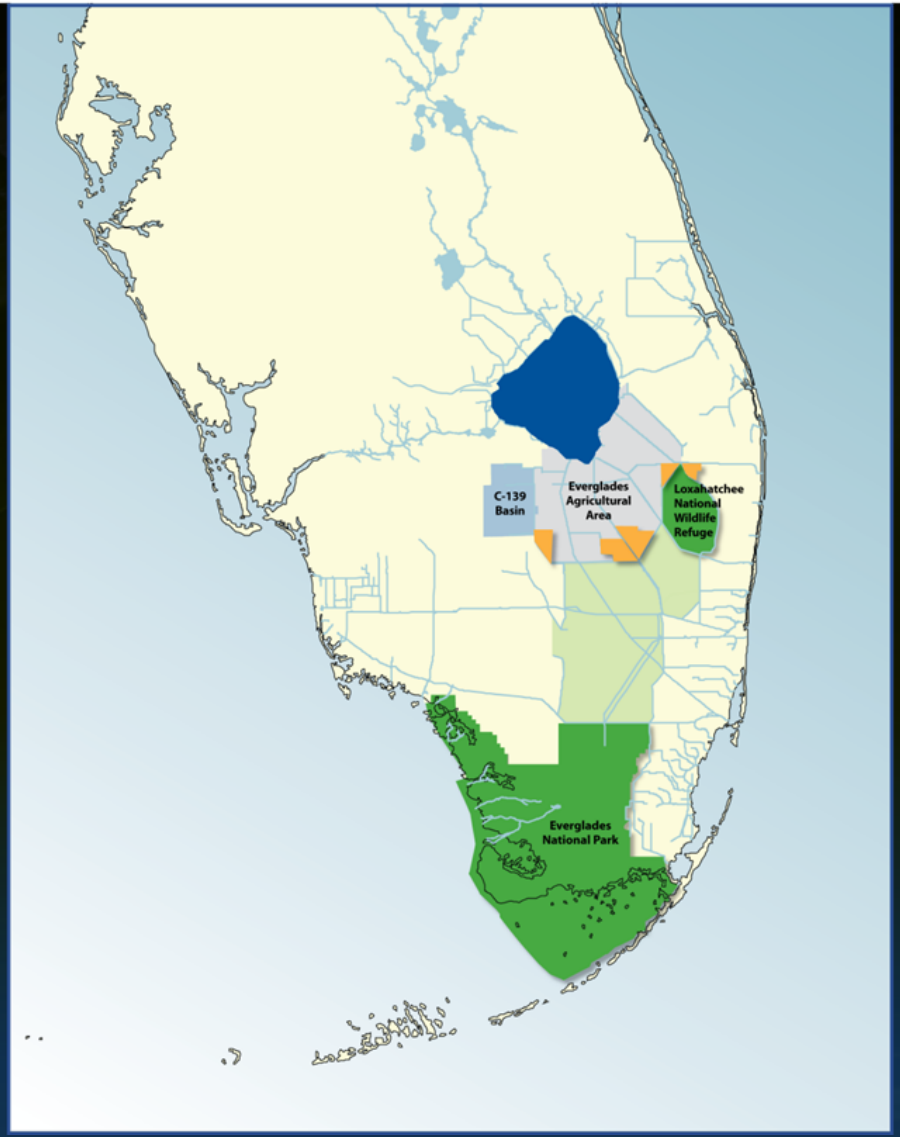


Stormwater Treatment Areas
Deep Water or Rewetting after Dry Conditions



Water Quality Background

- **July 2008**: Judge Alan Gold enjoined EPA and DEP from issuing new NPDES permits for Stormwater Treatment Areas
  - Ordered EPA to review State's Phosphorus Rule for compliance with Clean Water Act (a "Determination Letter")
- **September 3, 2010:** EPA issues "Amended Determination" with water quality-based effluent limits (WQBEL) for Stormwater Treatment Area discharges; projects and timeframe for achieving WQBEL
  - Invites alternative proposals from the District



Water Quality Background & Status

- **October 2011:** Governor Scott meets with USDOI, USEPA, USACE, USDOJ
- **June 2012**: Dialogue with USEPA results in agreement on revised Water Quality Plan
- Development of a technical plan, including:
  - Water Quality-Based Effluent Limit
  - Projects to achieve WQBEL
    - Stormwater Treatment Areas
    - Flow Equalization Basins
    - Science Plan
  - Implementation Schedule
- Draft NPDES permits and Consent Order incorporating components of the technical plan

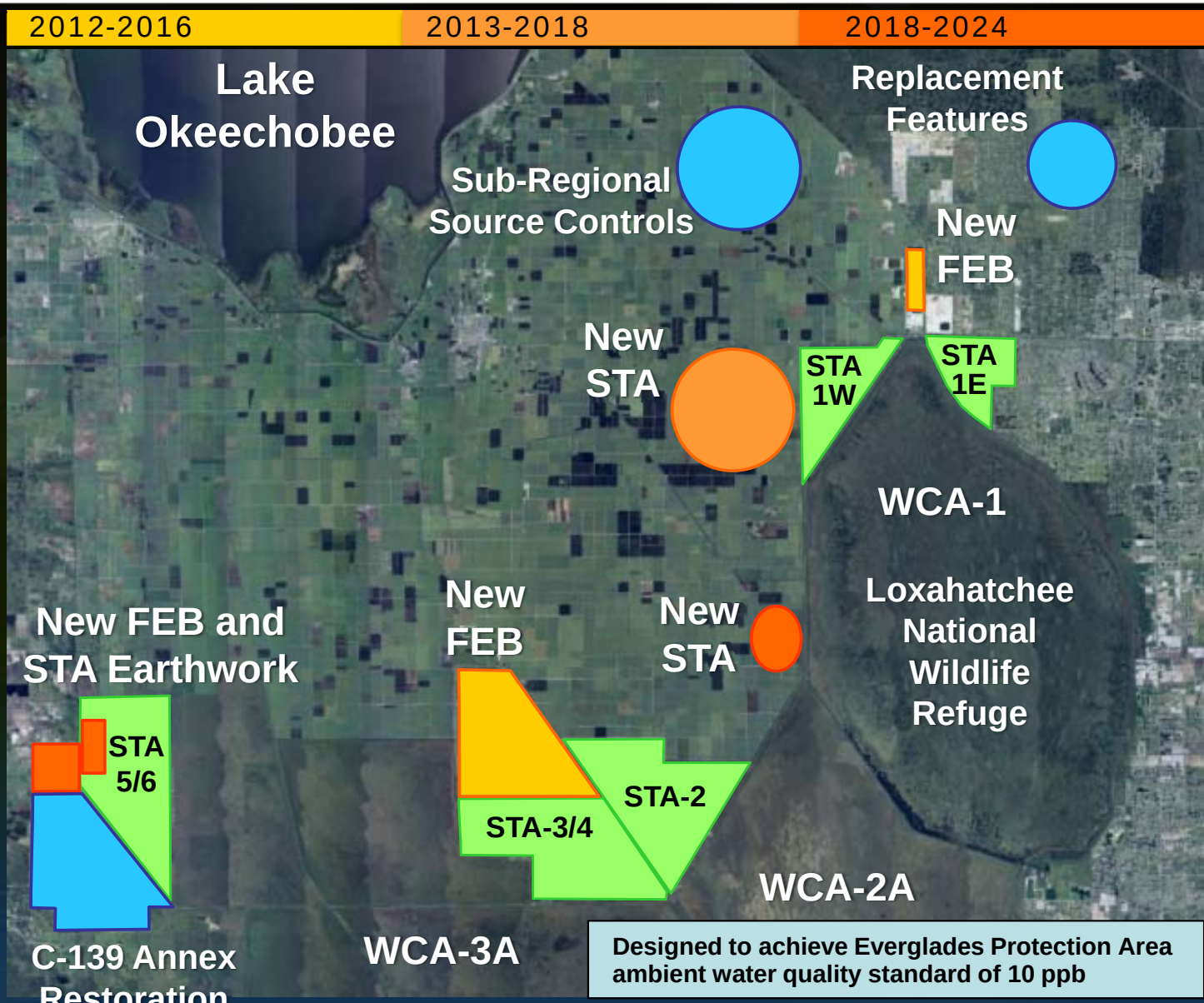
Water Quality Key Projects

- Proposed projects developed to meet discharge limit necessary to achieve 10 parts per billion ambient water quality criterion established in rule for Everglades Protection Area
  - More than 100 modeling simulations
- Project Types
  - STA expansions
  - Flow equalization basins (FEBs)
- Additional Components
  - Sub-regional source controls
  - Habitat restoration

Key Projects
Construction Schedule

Summary

- **Storage and Treatment Facilities** *(2012-2024)*
  - 6,500 acres of Stormwater Treatment Area (STA)
  - 110,000 acre-feet of shallow storage (Flow Equalization Basins)
  - 800 acres of earthwork within existing STAs to maximize effective treatment area
- **Sub-Regional Source Controls** *(2015 – 2020)*
- **Replacement Features**
  - Phase 1 *(2015 – 2020)*
  - Phase 2 *(2019 – 2024)*
- **C-139 Annex Restoration Mitigation Project** *(2014-2018)*



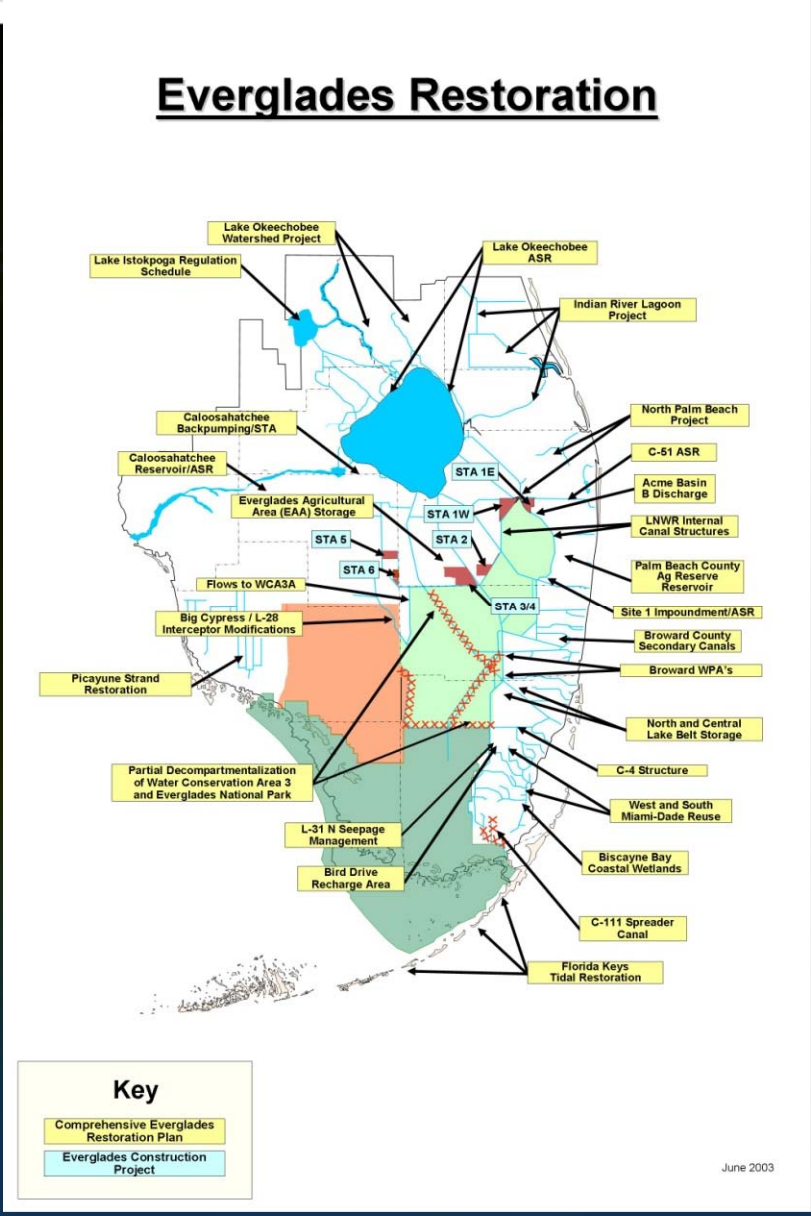
Part II
State-Federal Partnership

State-Federal Partnership
Florida's Commitment to Date

- Kissimmee River Restoration
  - Acquired 103,000 acres for Kissimmee River Restoration
- Comprehensive Everglades Restoration Plan (CERP)
  - Invested $2.4 billion
  - Acquired 243,194 acres of land ($1.68 billion investment)
  - Kick-started construction on six restoration projects ($377 million investment)
  - 6 Project Implementation Reports completed; 4 Project Partnership Agreements executed

Comprehensive Everglades Restoration Plan

- Plan includes 54 Projects (68 components) to be implemented over 35 years.
- Purpose: to revitalize the Everglades ecosystem by restoring and enhancing the performance of the Central & Southern Florida Project.
- 50/50 Cost Share

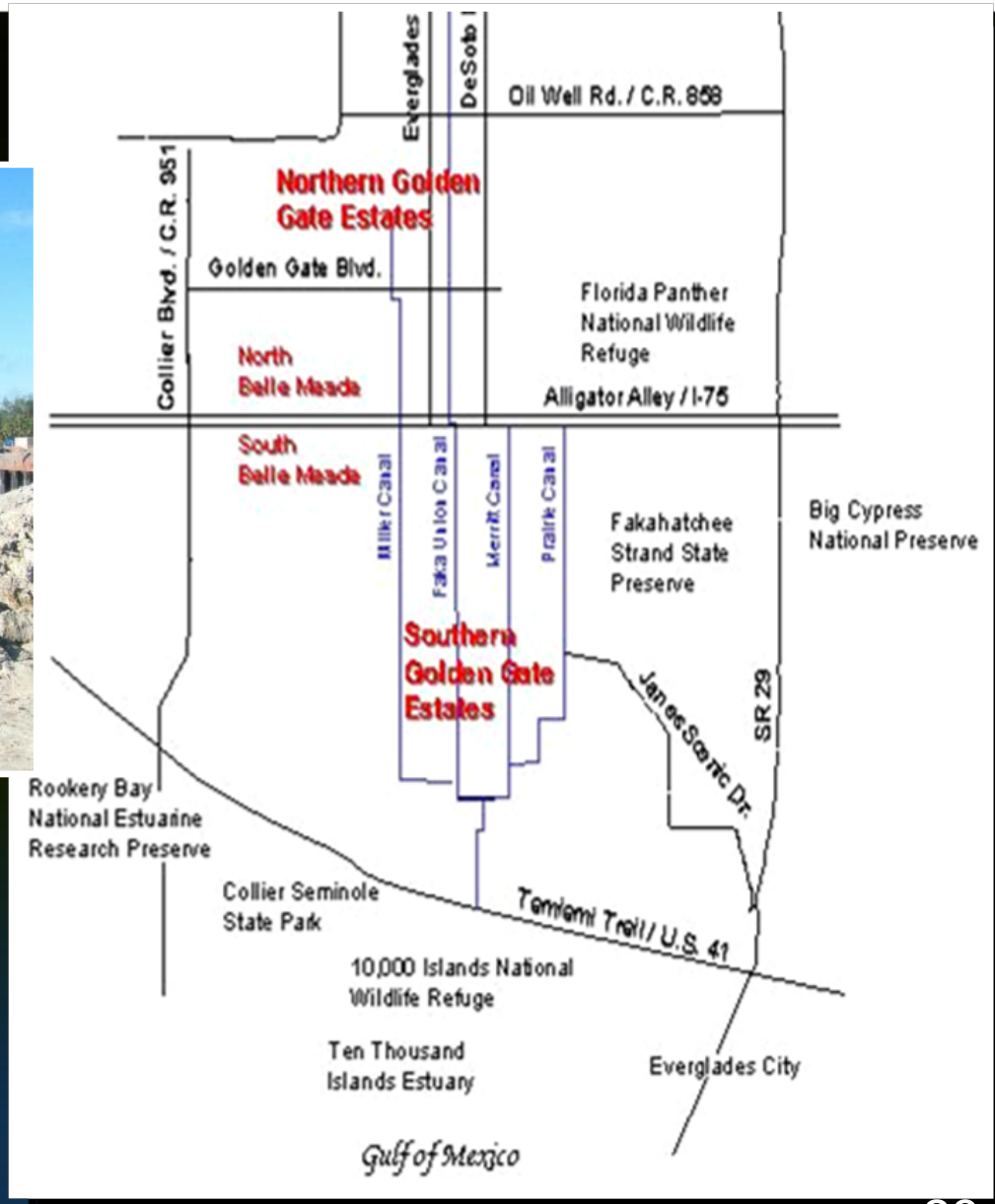


CERP Projects
Authorized and Underway

- Picayune Strand
- C-111 Spreader Canal Western Project

Picayune Strand

Merritt Pump Station

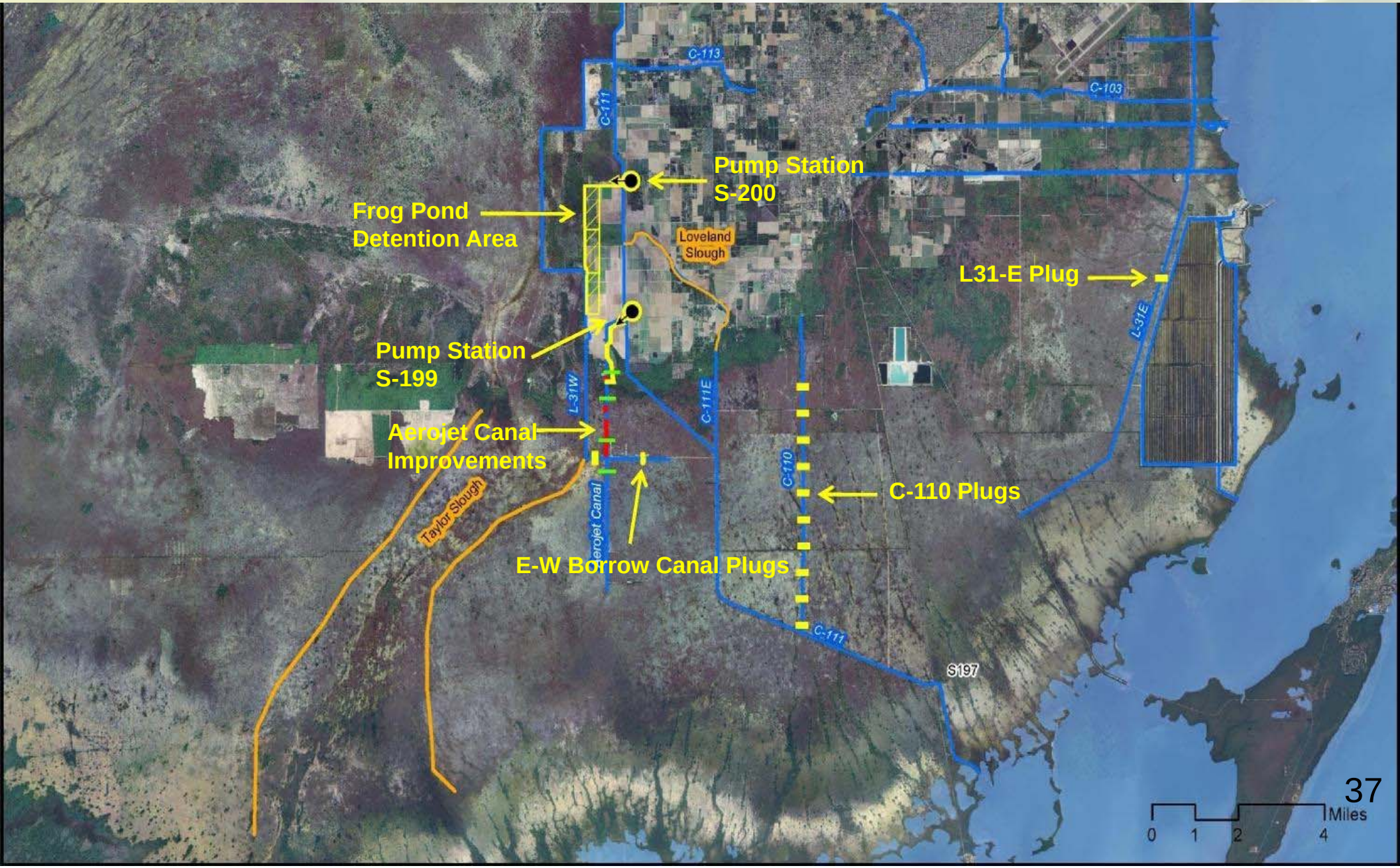


Picayune Strand

Components:

- 3 Spreader Canals
- 3 Pump Stations
- 100+ Canal Plugs
- Roadways
- Levees

C-111 Spreader Canal Western Project



State-Federal Partnership
Moving Forward

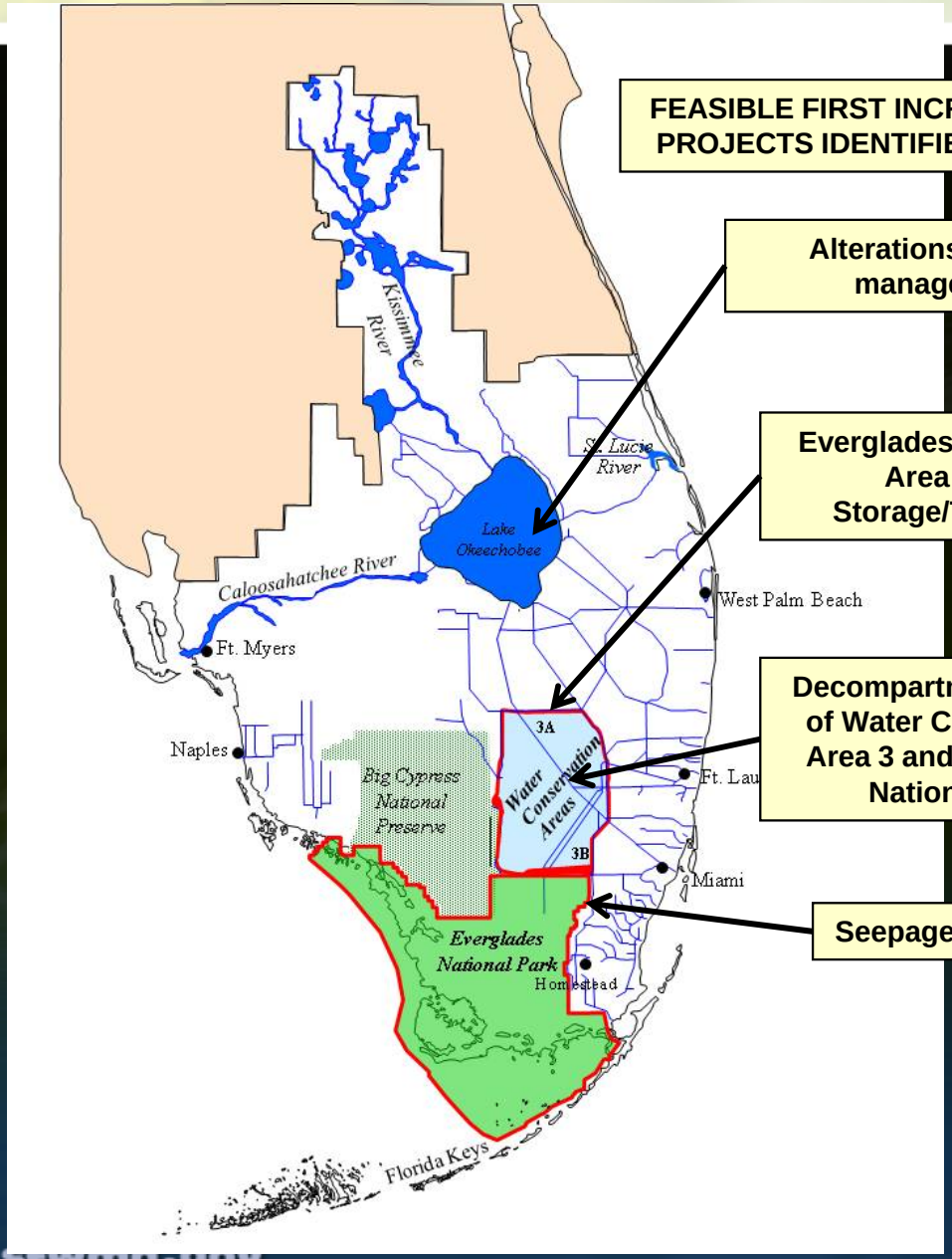
Central Everglades Planning Project

- Streamlined planning effort to get projects in the heart of the Everglades system readied for Congressional authorization and appropriation within 2 years

State/SFWMD Commitment

- Provide technical expertise
- Modeling
- Plan formulation
- Facilitate public participation
- Serve as local sponsor

State-Federal Partnership
Central Everglades Projects



Objectives

- Move water south
- Use land in District ownership
- Increase water storage and water deliveries in the Central Everglades
- Improve water quality
- Restore sheetflow and improve water deliveries through historic Everglades to Everglades National Park and Florida Bay

State-Federal Partnership
Central Everglades – Benefits

- **Revitalizes the state-federal restoration partnership**
  - Replaces litigation with cooperative approach
- **Restoration progress in the heart of the Everglades**
- **Creates momentum for Congressional action**
  - Improves potential for project authorizations and appropriations and, subsequently, for State to receive *cost-share credit* for work already completed and lands acquired
- **Capitalizes on a streamlined Corps planning process**
  - Ability to get projects planned and readied for Congressional authorization and appropriation within 2 years
  - Currently, average time for completion of Corps planning process is 6+ years
- **Focuses projects on lands already acquired**

Part III
State Projects and Programs

Part III
State Projects and Programs

- Northern Everglades and Estuaries Protection Program
  - Source Controls
  - Dispersed Water Management
  - Construction Projects
  - Alternative Treatment Technologies
  - Basin Management Action Plans (BMAP) Developed for all impaired water bodies not meeting the Total Maximum Daily Load (TMDL)

Next Steps

- **Part 1: Water Quality**
  - Acquire real estate for STA expansion
  - Finish Construction of L-8 FEB
  - Finish Engineering and Design of Central FEB and STA expansion
  - Begin construction
- **Part 2: State-Federal Partnership**
  - Central Everglades Planning Project public workshops under way
  - Complete planning process over next 12 months
  - Ensure Projects rely on existing land and existing state CERP credit; requires Congressional authorization of existing state projects
- **Part 3: State Projects and Programs**
  - Implement dispersed water management, habitat restoration projects, other solutions

Questions?

2

THE FLORIDA SENATE

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1/24/13
Meeting Date

Topic Everglades Restoration

Bill Number _____ *(if applicable)*

Name Ernie Barnett

Amendment Barcode _____ *(if applicable)*

Job Title Director Everglades Policy

Address 3301 Gun Club Rd
Street
West Palm Bch FL 33406
City *State* *Zip*

Phone 561 951-2840

E-mail ebarnett@sfwmd.gov

Speaking: ☐ For ☐ Against ☑ Information

Representing SFWMD

Appearing at request of Chair: ☑ Yes ☐ No

Lobbyist registered with Legislature: ☑ Yes ☐ No

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FOUNDATION

The Everglades Foundation

- Support efforts to restore and protect the greater Everglades ecosystem through:
  - -Science
  - -Education
  - -Partnerships

EVER GLADES FOUNDATION


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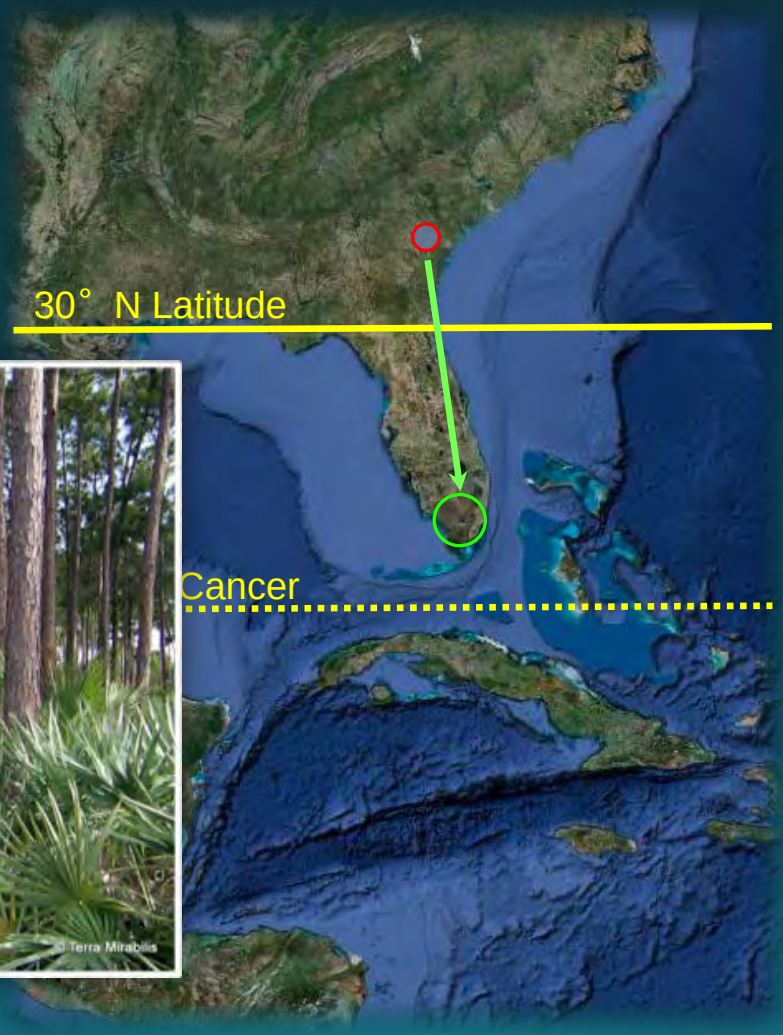
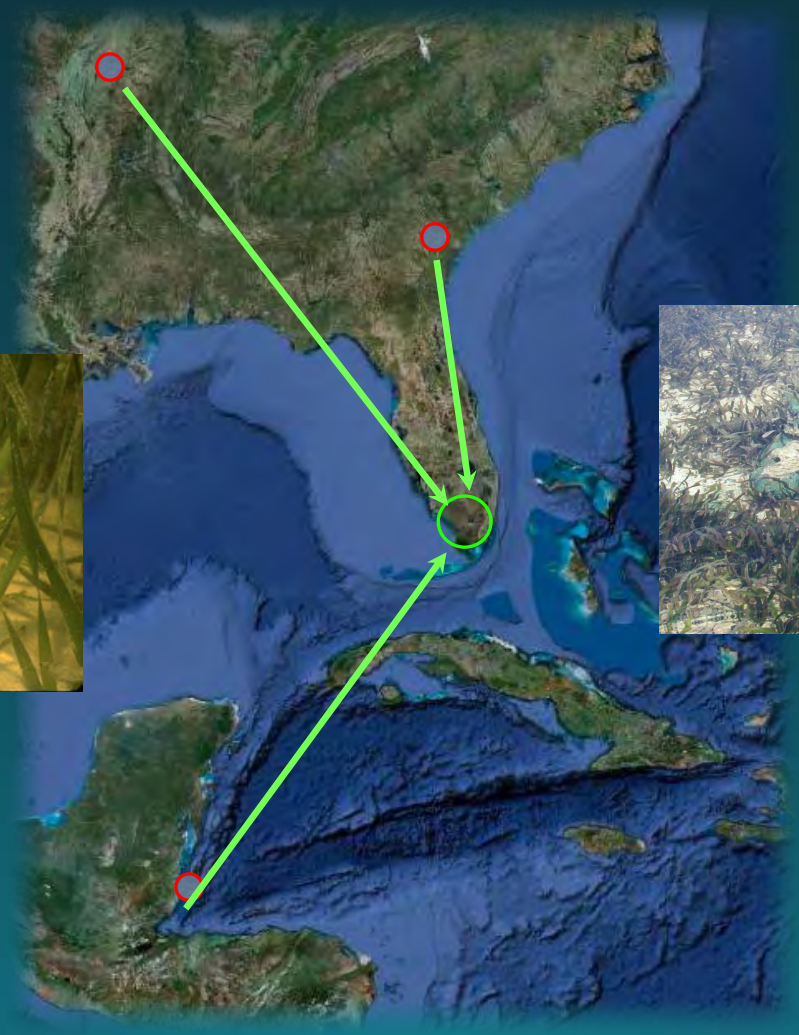

30° N Latitude
Cancer

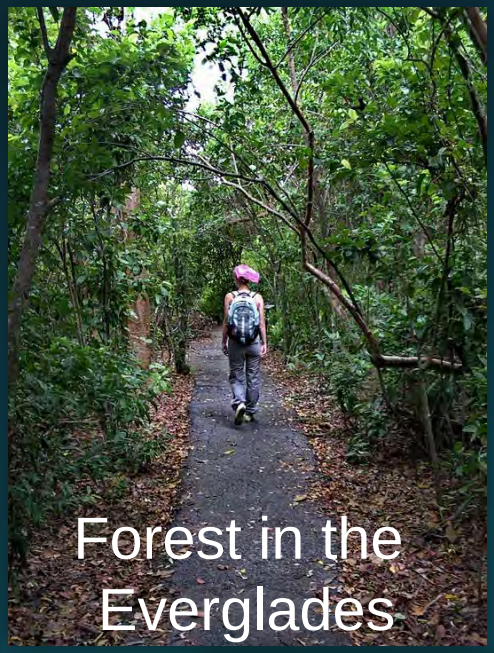

Cypress
forest in
Missouri


Cypress forest in Florida

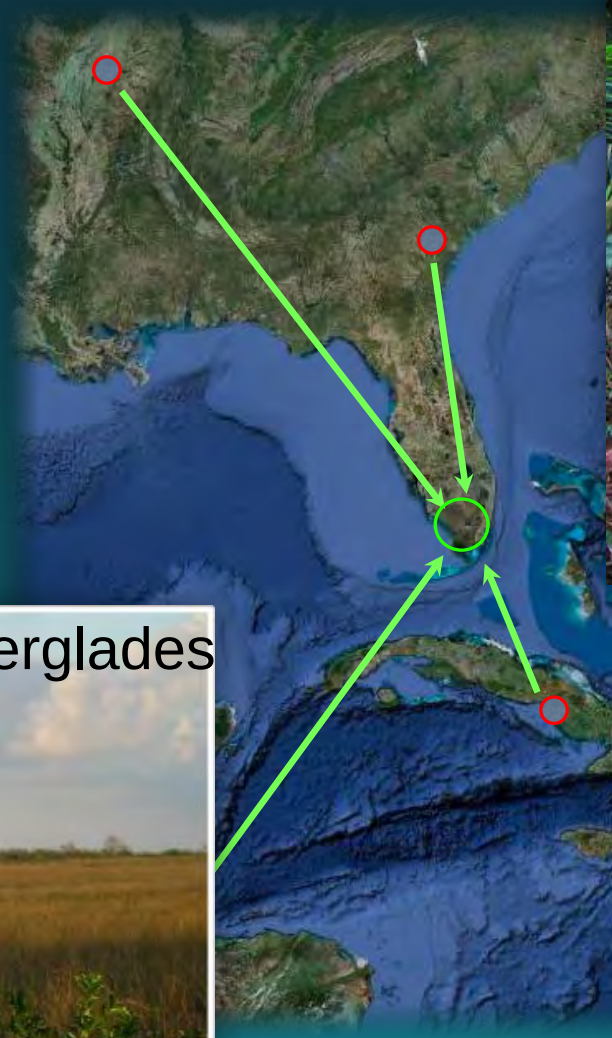


Florida

Yucatan Peninsula



Forest in the Everglades



Forest in Puerto Rico

Marsh in the Everglades

Marsh in Cuba

Florida’s economy depends on a clean & healthy Everglades and the water it provides.

Everglades-related Tourism, Fishing, Boating, and Hunting:

Big Business for Florida

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Tourism Industry Depends on the Everglades & Our Natural Resources

- Roughly 5.5 million people annually engage in Everglades recreational activities
- $935 million in Direct Spending
- $912 million in Indirect Spending

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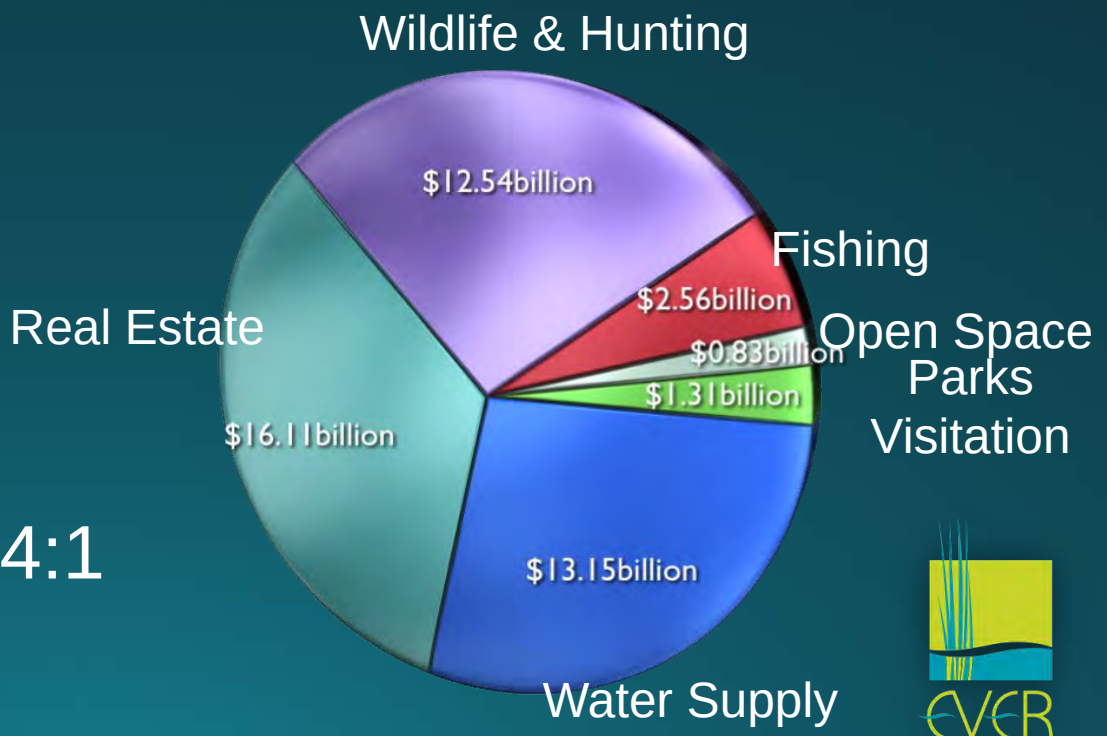
Economic Benefits of Restoration

- Benefits will accrue across many sectors:
  - #1: real estate
  - #2: water supply
- Benefit to Cost ratio is 4:1
- Total benefit: $46.5 billion



Source: "Measuring Economic Benefits of America's Everglades Restoration: An Economic Evaluation of Ecosystem Services Affiliated with the World's Largest Ecosystem"

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Saving the Everglades = Protecting our Water Supply

The more than 7 million residents of South Florida (about 1 out of 3 Floridians) rely on the Everglades for their water supply. The future of our state, our businesses and our homes depends on maintaining and protecting our source of clean, fresh water.

1 When rain falls on the cities of South Florida, much of it has to be drained away to protect our homes, businesses and farms. But in the Everglades, the rains fill up the grassy waters.

2 The wetlands of the Everglades act like an enormous sponge, storing up the rain that falls during the rainy season. The water stored in the Everglades gives life to a myriad of plants and animals found nowhere else on Earth.

3 When the rains stop and the dry season sets in, water seeps through a very porous aquifer, acting like an underground river, recharging the water supplies of the nearby cities, towns, and farms.

4 South Florida cities tap this underground supply with wells, and then distribute it through a network of pipes directly to homes and businesses. Each person in South Florida uses an average 150 gallons every day.

To learn more on how to protect our water supply, visit our Web site **www.evergladesfoundation.org** or call us today at **1-888-383-7452**

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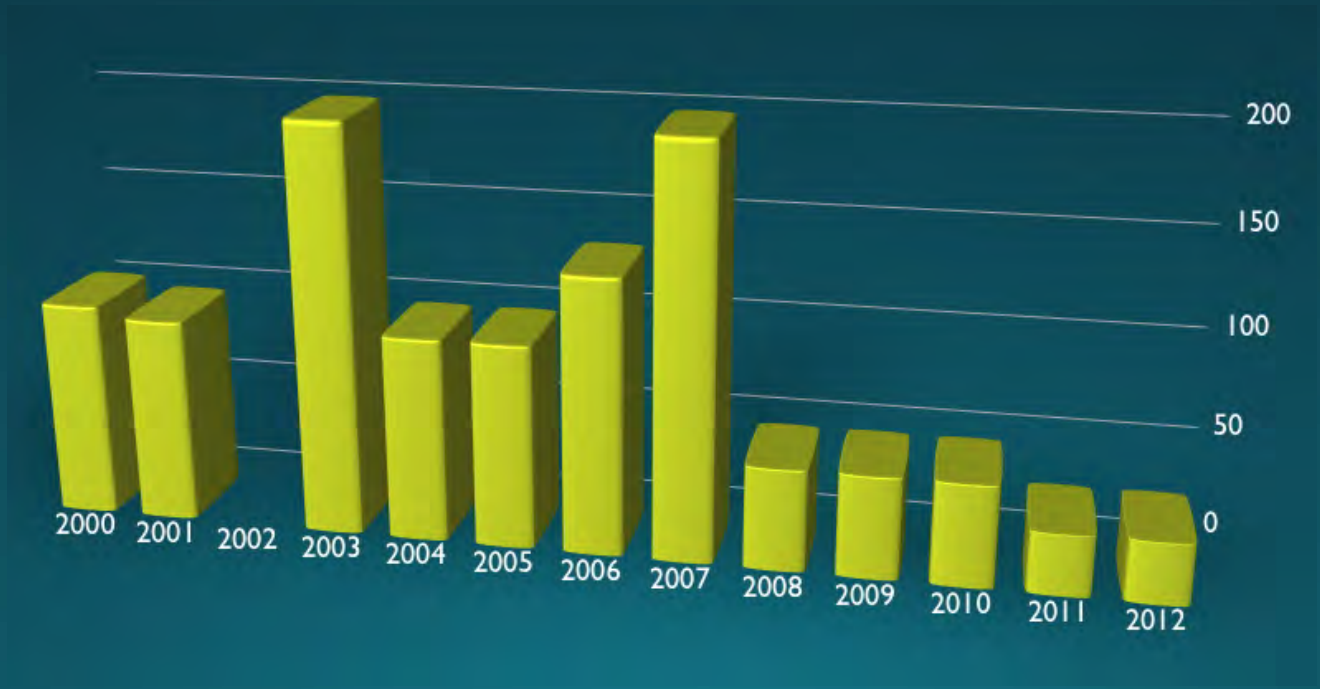
Everglades Appropriations



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2013 Request

- $60 million
  - -$32 million for Gov. Scott's water quality plan.
  - -$28 million for restoration projects.

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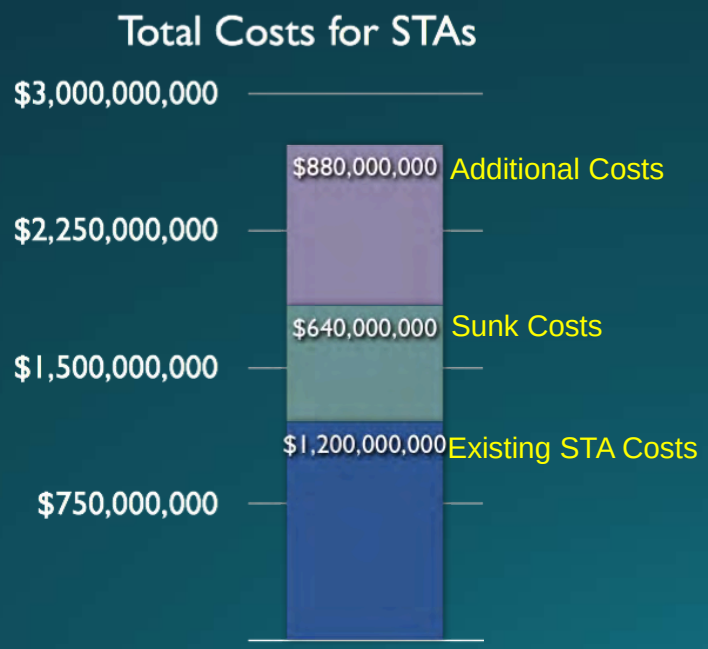
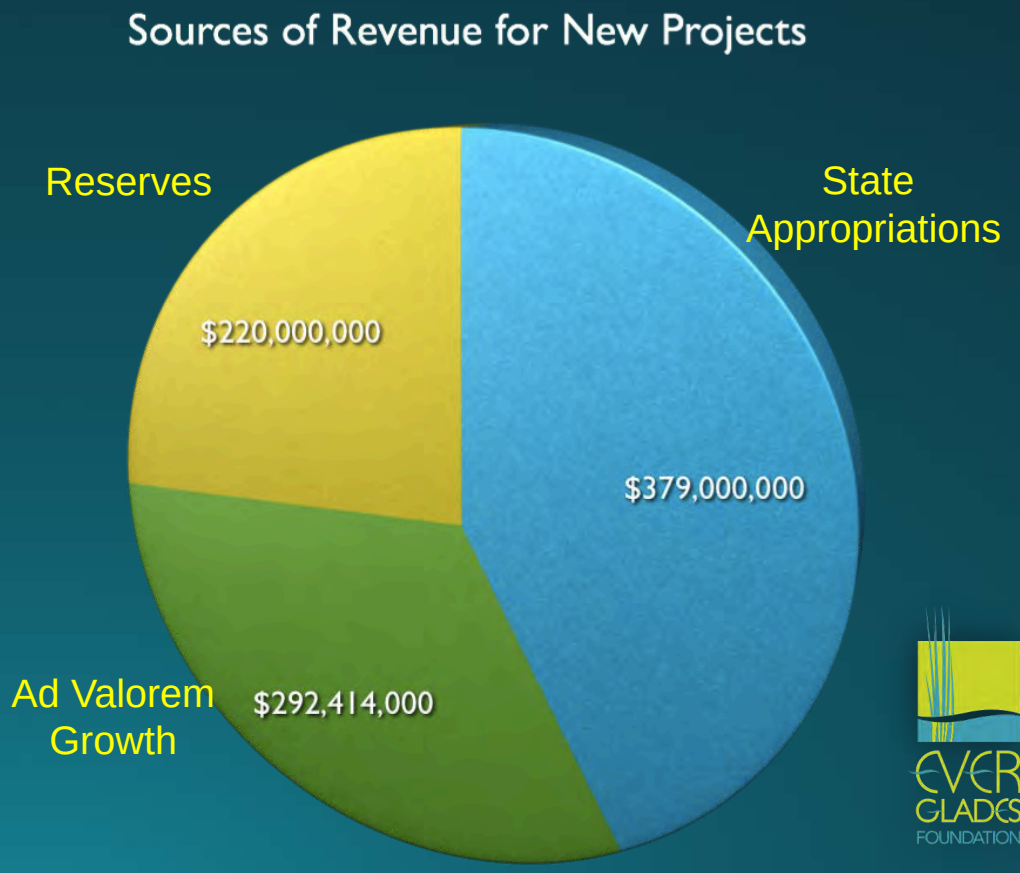
Project Cost and Revenue





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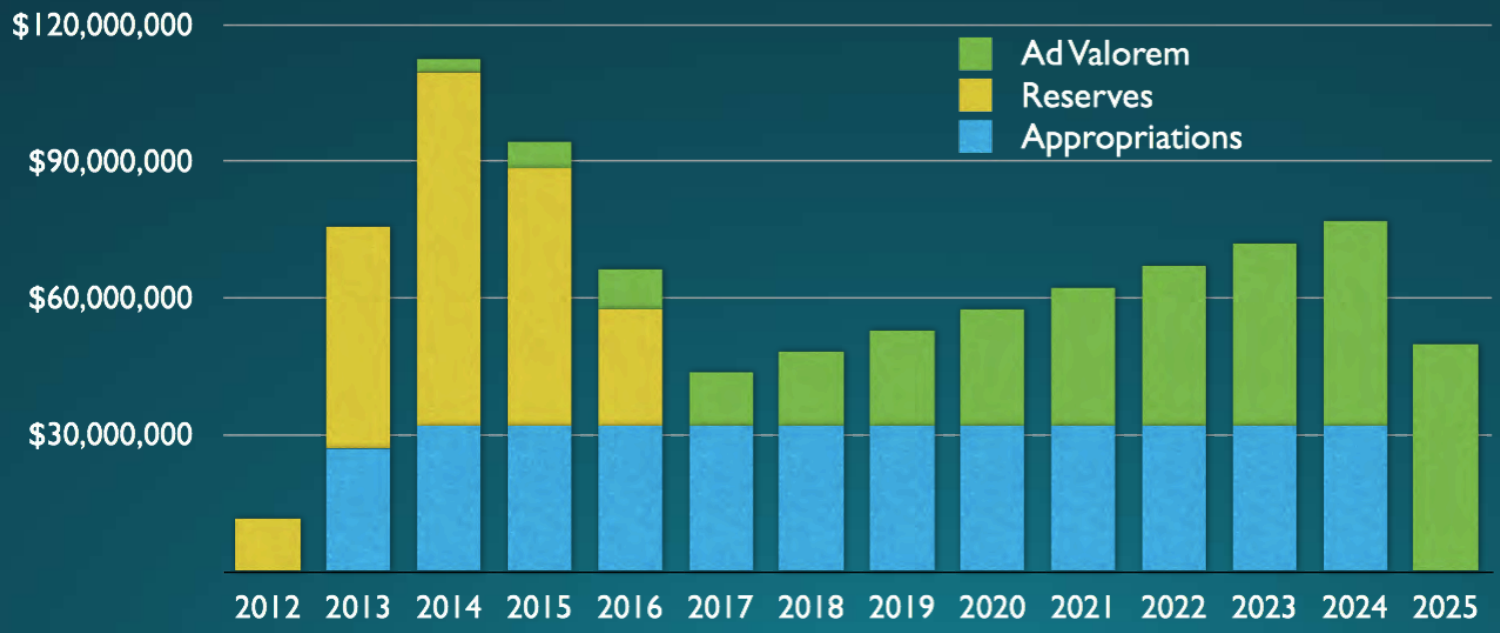
Cash Flow for Projects



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Comprehensive Everglades Restoration Plan (CERP)

- Passed by Congress and signed into law in 2000
- 50/50 partnership in Everglades restoration between Florida and federal government
- Florida has acquired needed land for various future projects.
- Next set of CERP projects are identified

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Federal Issues/Funding

- **Water Resources Development Act (WRDA)**
  - -Need legislation to authorize next suite of CERP projects
  - -C-43, Indian River Lagoon, Broward Preserve, Central Everglades Planning Process (CEPP)

- **Funding**
  - -CERP 50/50 partnership
  - -Once authorized, need funding
  - -Congressional earmark ban
  - -Funding critical for next set of projects

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Key Points on Everglades Restoration

- A central objective of Everglades restoration is to expand the water supply for South Florida. On average, we dump more than 3 billion gallons of water out to sea every day.
- The quality of the water is co-equal element to water quantity for restoration.
- Significant progress has been made on key projects; work will continue over several decades.

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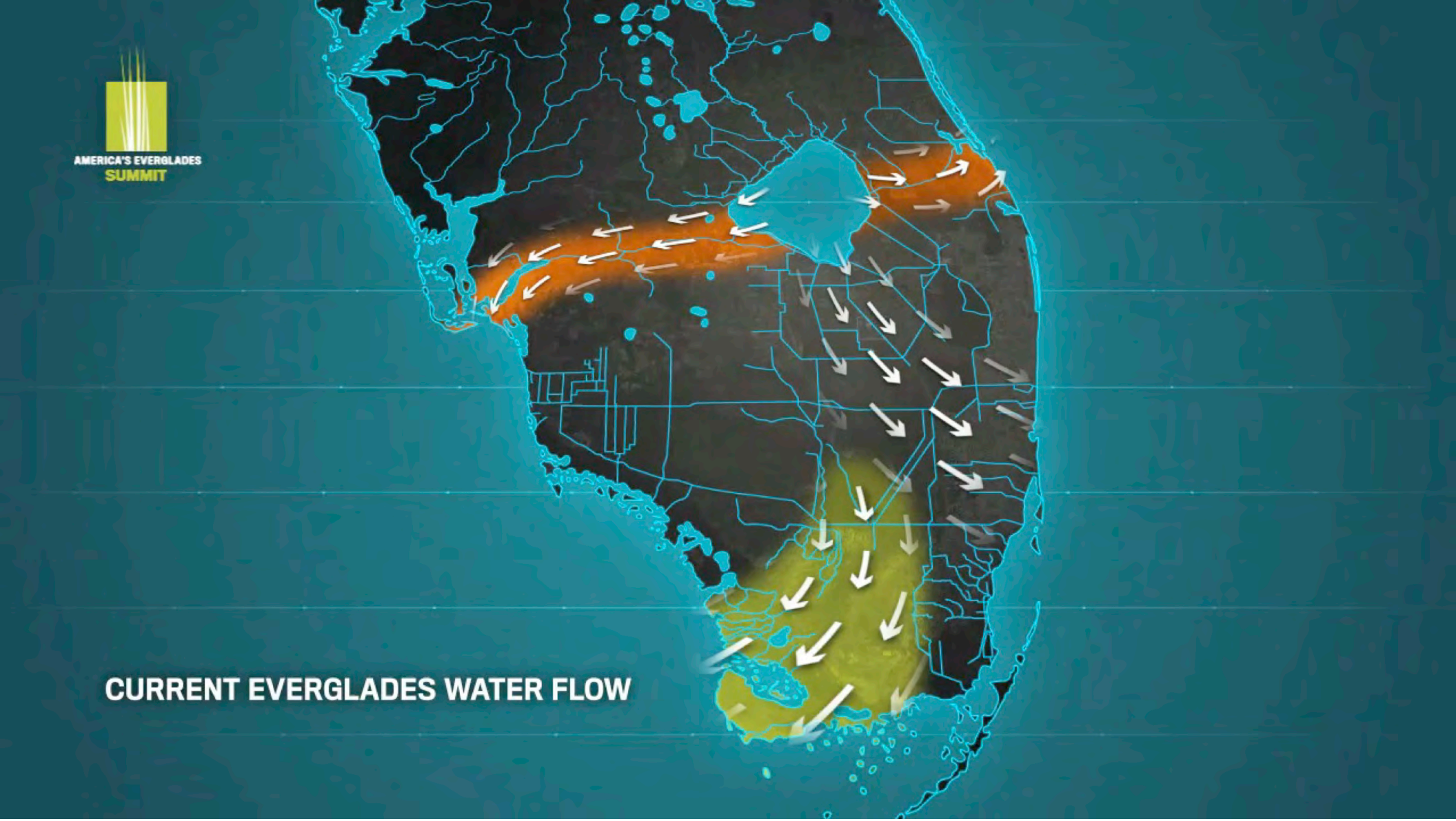
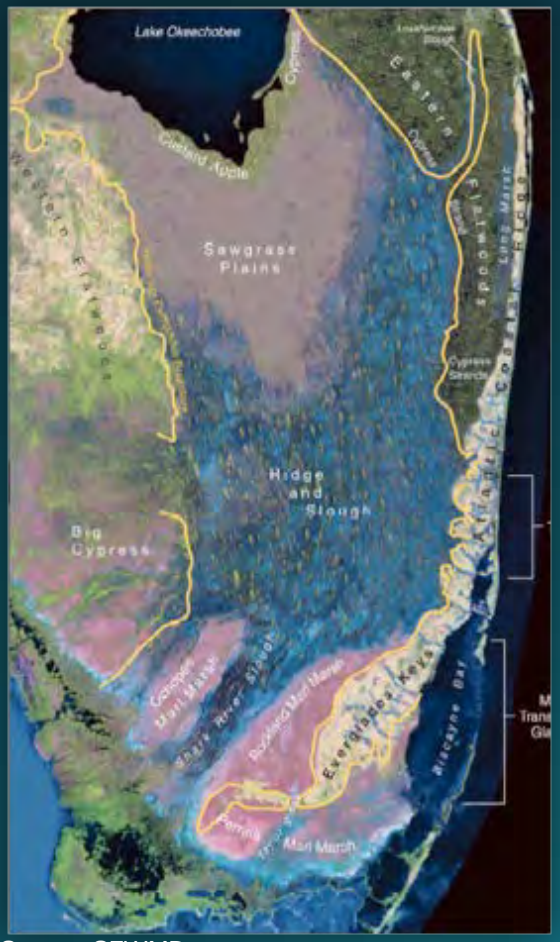
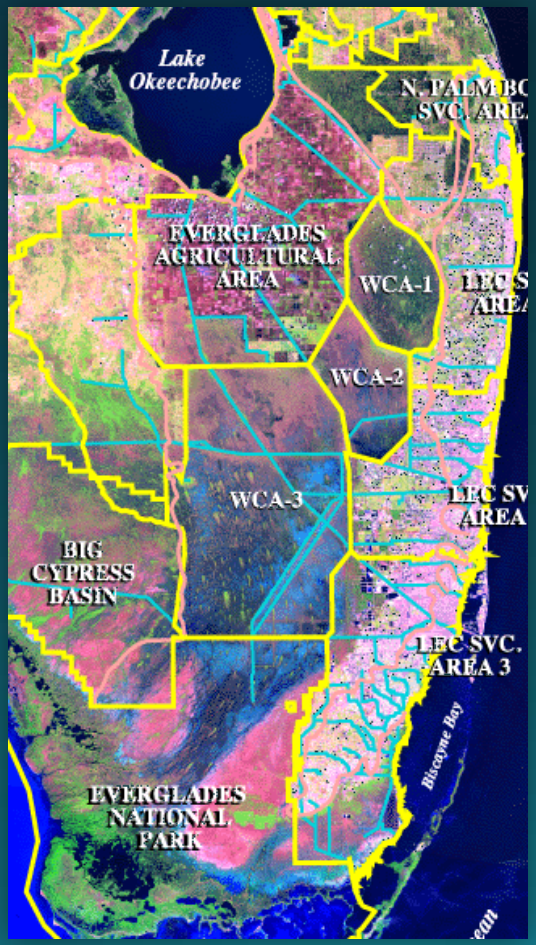
AMERICA'S EVERGLADES
SUMMIT
PRE-DRAINAGE EVERGLADES WATER FLOW


AMERICA'S EVERGLADES
SUMMIT
CURRENT EVERGLADES WATER FLOW

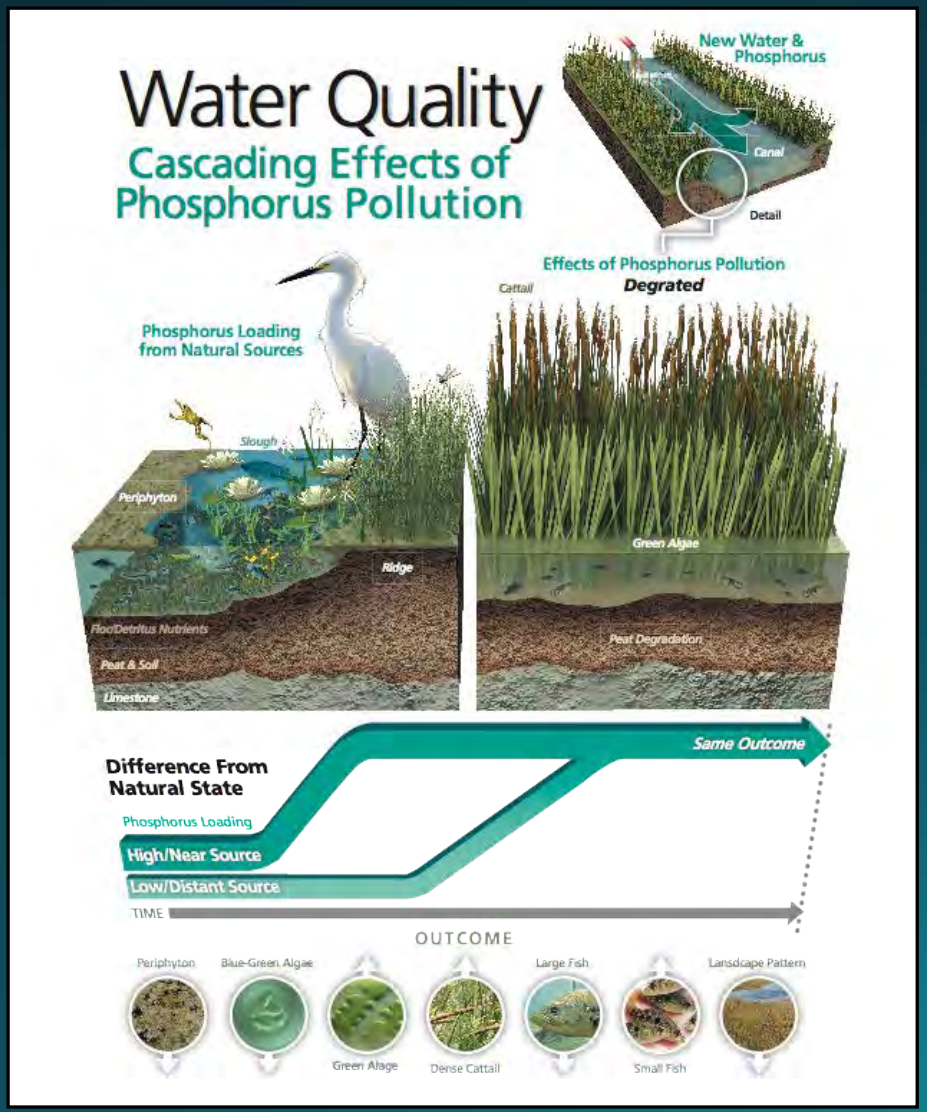
Effects





- The C&SF Project supports 6.25 million people
  - flood control
  - water supply
- Resulted in ecological collapse.
- Need to restore quality and quantity of water

Source: SFWMD



Effects of Pollution

- Excess nutrient pollution (phosphorus) degrades Everglades wetlands.
- In 1995, 18% of Everglades degraded by nutrient pollution. In 2005, it was 25%.
- Nutrient pollution also affects other natural systems, like estuaries and lakes.

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Solutions

Best Management Practices (BMPs)

BMPs are lowest cost method for nutrient pollution control.

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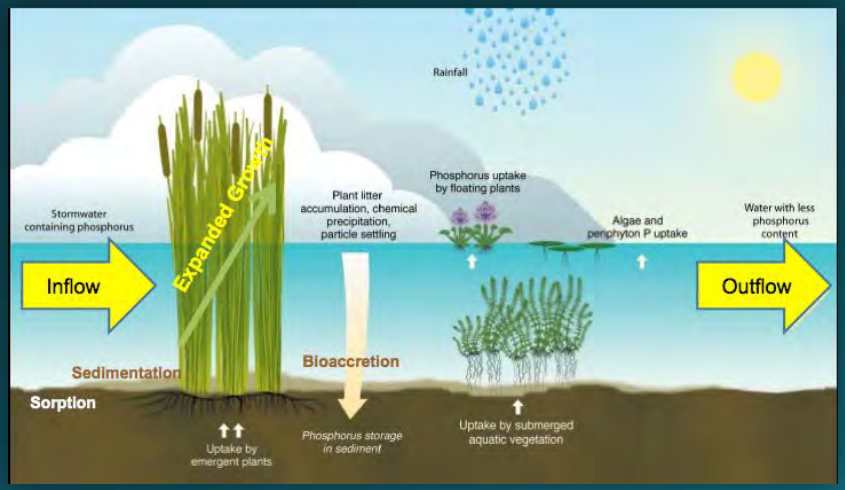
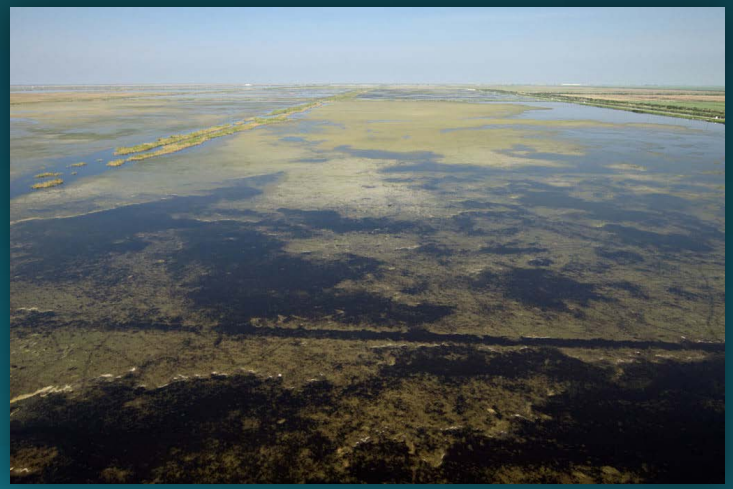
Solutions

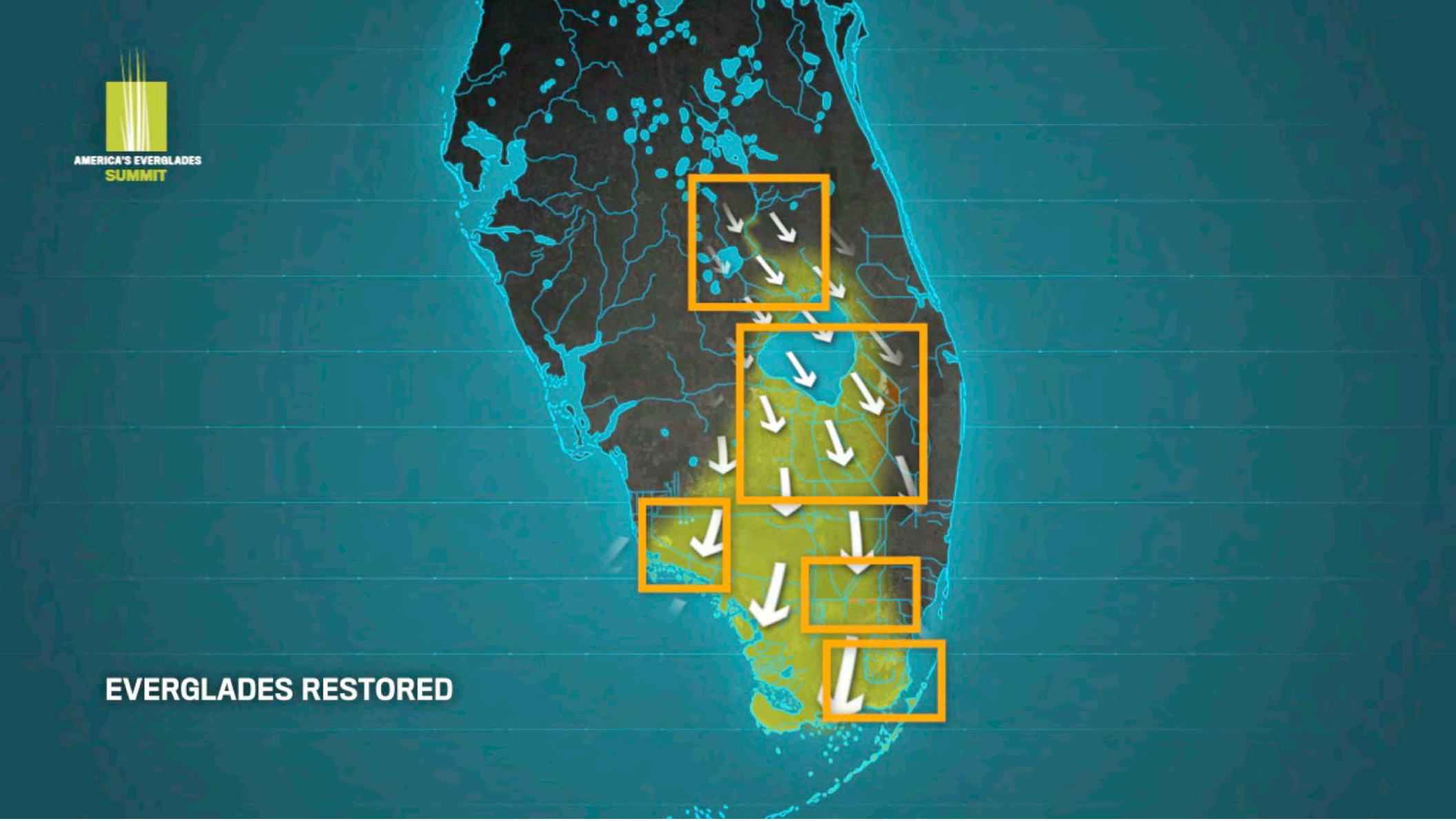
Stormwater Treatment Areas (STAs)





Gov. Scott's proposal for STA expansion will likely solve EAA nutrient pollution problems.

EVERGLADES FOUNDATION


AMERICA'S EVERGLADES
SUMMIT
EVERGLADES RESTORED


EVER
GLADES
FOUNDATION

3

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

24 Jan 2013
Meeting Date

Topic Everglades Discussion

Bill Number _____ *(if applicable)*

Name Thomas Van Lent

Amendment Barcode _____ *(if applicable)*

Job Title Senior Scientist

Address 18001 Old Cutler Rd, Suite 625
Street
Palmetto Bay FL 33157
City *State* *Zip*

Phone 305-251-0001

E-mail tvanlent@everglades foundation.org

Speaking: ☐ For ☐ Against ☑ Information

Representing The Everglades Foundation

Appearing at request of Chair: ☐ Yes ☐ No

Lobbyist registered with Legislature: ☐ Yes ☑ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/20/11)

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

1-24-13
Meeting Date

Topic Everglades Restoration

Bill Number _____ *(if applicable)*

Name Eric Eikenberg

Amendment Barcode _____ *(if applicable)*

Job Title CEO of Everglades Foundation

Address 18001 Old Cutler Rd, Ste 625
Street
Palmetto Bay FL 33157
City *State* *Zip*

Phone 305-251-0001

E-mail eric@evergladesfoundation.org

Speaking: ☐ For ☐ Against ☒ Information

Representing Everglades Foundation

Appearing at request of Chair: ☐ Yes ☐ No

Lobbyist registered with Legislature: ☒ Yes ☐ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

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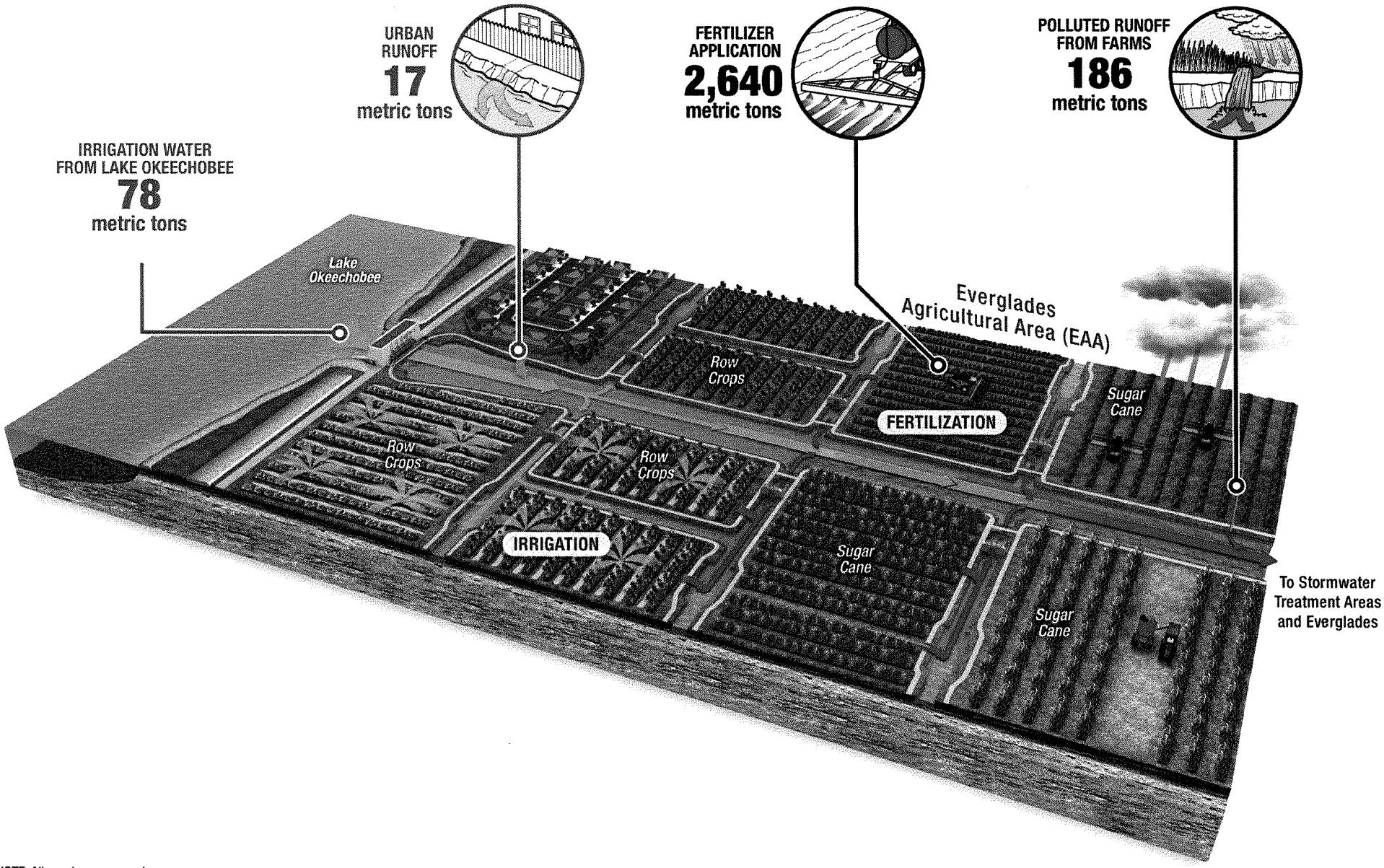
S-001 (10/20/11)

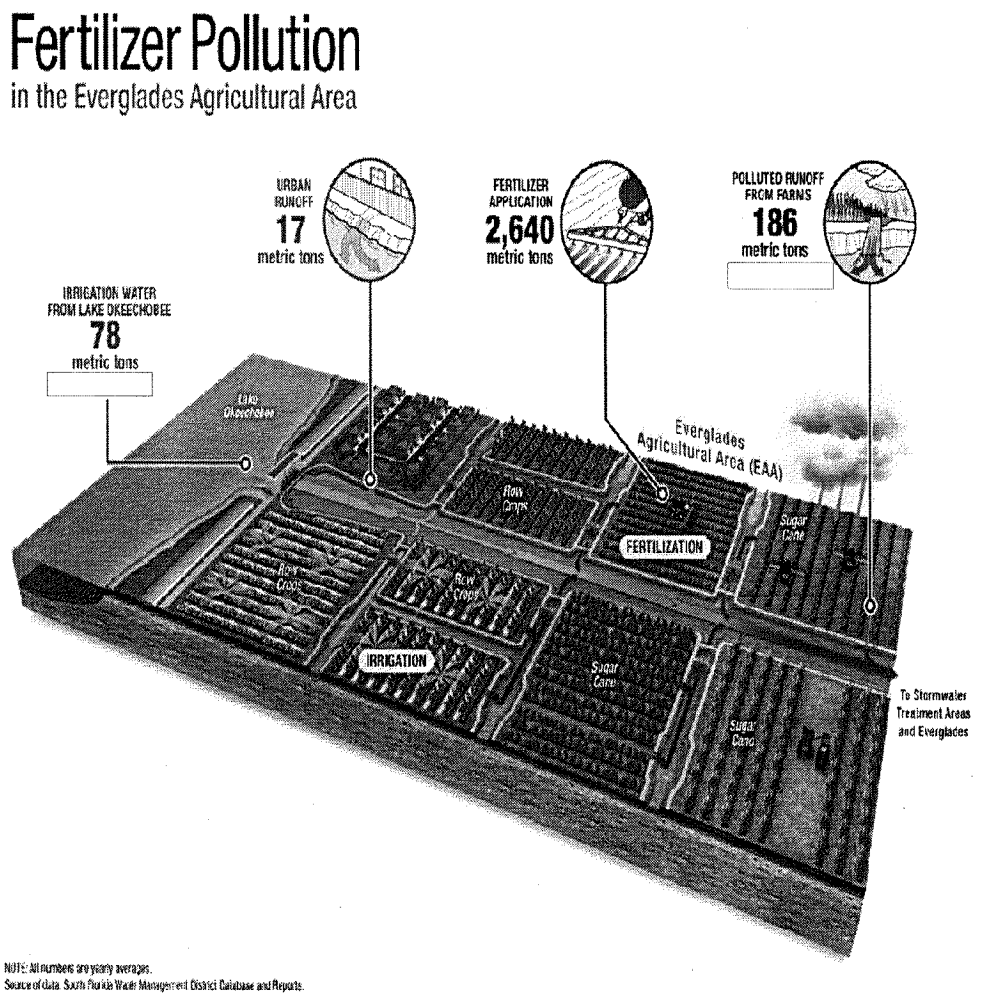
Fertilizer Pollution

in the Everglades Agricultural Area



NOTE: All numbers are yearly averages.
Source of data: South Florida Water Management District Database and Reports.

Where Does Pollution Come From?



- About 75% of pollution to Everglades comes from agriculture.
- Primary source is added fertilizer that runs off following rain events.
- Agriculture in Everglades Agricultural Area is largest source of pollution to the Everglades.

EVERGLADES FOUNDATION

CourtSmart Tag Report

Room: EL 110 **Case:** **Type:**
Caption: Environmental Preservation and Conservation Committee **Judge:**

Started: 1/24/2013 10:32:41 AM
Ends: 1/24/2013 11:39:24 AM Length: 01:06:44

10:32:44 AM Chairman Dean calls the meeting to order
10:32:56 AM CAA calls roll
10:33:11 AM Chairman Dean leads the pledge
10:33:38 AM Chairman Dean remarks
10:33:57 AM Tab 1 - Update on Numeric Nutrient Criteria
10:34:11 AM Chairman Dean recognizes Drew Bartlett
10:34:22 AM Drew Bartlett, Director, Division of Environmental Assessment & Restoration at FDEP presentation
10:43:06 AM Senator Soto with question
10:43:23 AM Response from Drew Bartlett
10:45:09 AM Senator Altman with question
10:45:27 AM Response from Drew Bartlett
10:45:52 AM Follow up from Senator Altman
10:46:08 AM Response from Drew Bartlett
10:46:37 AM Chairman Dean recognizes Doug Mann
10:46:53 AM Doug Mann, representing AIF speaks
10:49:25 AM Tab 2 - Update on the Status of Everglades Restoration
10:50:02 AM Chairman Dean recgonizes Ernie Barnett, Director of Everglades Policy
10:50:36 AM Chairman Dean recognizes Melissa Meeker, ED SFWMD
10:51:12 AM Ernie Barnett presentation
11:03:28 AM Senator Soto with question
11:03:38 AM Response from Ernie Barnett
11:04:26 AM Continued presentation by Ernie Barnett
11:08:37 AM Senator Bullard with question
11:09:12 AM Response from Ernie Barnett
11:09:57 AM Continued presentation by Ernie Barnett
11:11:44 AM Questions from Senator Altman
11:11:57 AM Response from Ernie Barnett
11:12:50 AM Question from Senator Simpson
11:13:07 AM Response from Ernie Barnett
11:14:06 AM Follow up from Senator Simpson
11:14:23 AM Response from Ernie Barnett
11:16:02 AM Tab 3 - Presentation on federal funding of the Everglades Restoration by the Everglades Foundation
11:16:29 AM Chairman Dean introduces Eric Eikenberg, CEO and Thomas Van Lent, Senior Scientist
11:17:01 AM Erik Eikenberg presents
11:18:23 AM Eric Eikenberg introduces Thomas Vanlent
11:18:40 AM Thomas Vanlent presents
11:20:28 AM Eric Eikenberg continues presentation
11:25:58 AM Thomas Vanlent with comments
11:34:31 AM Senator Soto with question
11:34:44 AM Response from Thomas Vanlent
11:35:55 AM Follow up from Senator Soto
11:36:03 AM Response from Thomas Vanlent
11:36:26 AM Follow up from Senator Soto
11:36:34 AM Response from Eric Eikenberg
11:37:29 AM Senator Simpson with question
11:37:38 AM Response from Eric Eikenberg
11:38:11 AM Chairman Dean with comments
11:38:45 AM Response from Eric Eikenberg
11:39:15 AM Senator Bullard moves to rise