



Reviving
THE river OF grass

River of Grass Acquisition Update
Water Resources Advisory Commission
May 7, 2009

Everglades Land Acquisition Presentation Overview



- Background
- Proposed amendments to purchase contract & lease agreement
- Legal update
- Financing update
- Restoration project planning
- Next steps
 - Governing Board action
 - Contract, budget, financing milestones
 - Key upcoming dates

Everglades Land Acquisition Background



- **June 2008:** Governor announces historic transaction to acquire 180,000 acres of land from U.S. Sugar Corporation for Everglades restoration
- **December 2008:** After extensive due diligence, Governing Board approves \$1.34B purchase contract and lease agreement
- **April 1, 2009:** Governor announces proposal to revise framework for acquiring land
- **April 9, 2009:** Governing Board directs staff to negotiate amendments to existing purchase & sale contract and lease agreement

Everglades Land Acquisition Goals of Revised Framework



- Preserve intent of original acquisition
- Affordable
- No new taxes
- Sustain agriculture
- Minimize impact to local communities

A white egret is captured in mid-flight, its wings fully extended, against a background of lush green grass. The bird's long neck is curved forward, and its yellow beak is pointed. The overall scene is bright and natural.

Reviving

THE *river* OF *grass*

Purchase Contract & Lease Agreement Overview

Ruth Clements
Director, Land Acquisition

Purchase Contract and Lease Agreement Overview



- Amended terms of existing purchase and sale contract and lease agreement
- Initial purchase of ~73,000 acres
- \$536 million purchase price
- Options to acquire remaining 107,000 acres during first ten years
- Amended agreements subject to review and approval by District and U.S. Sugar Boards

Purchase Contract and Lease Agreement Overview, Cont.



- Closing to occur 90 days after bond validation, with an outside deadline for bond validation of March 31, 2010
- Closing subject to affordability, bond validation and financing
- Buyer has until May 14, 2009 to accept and execute



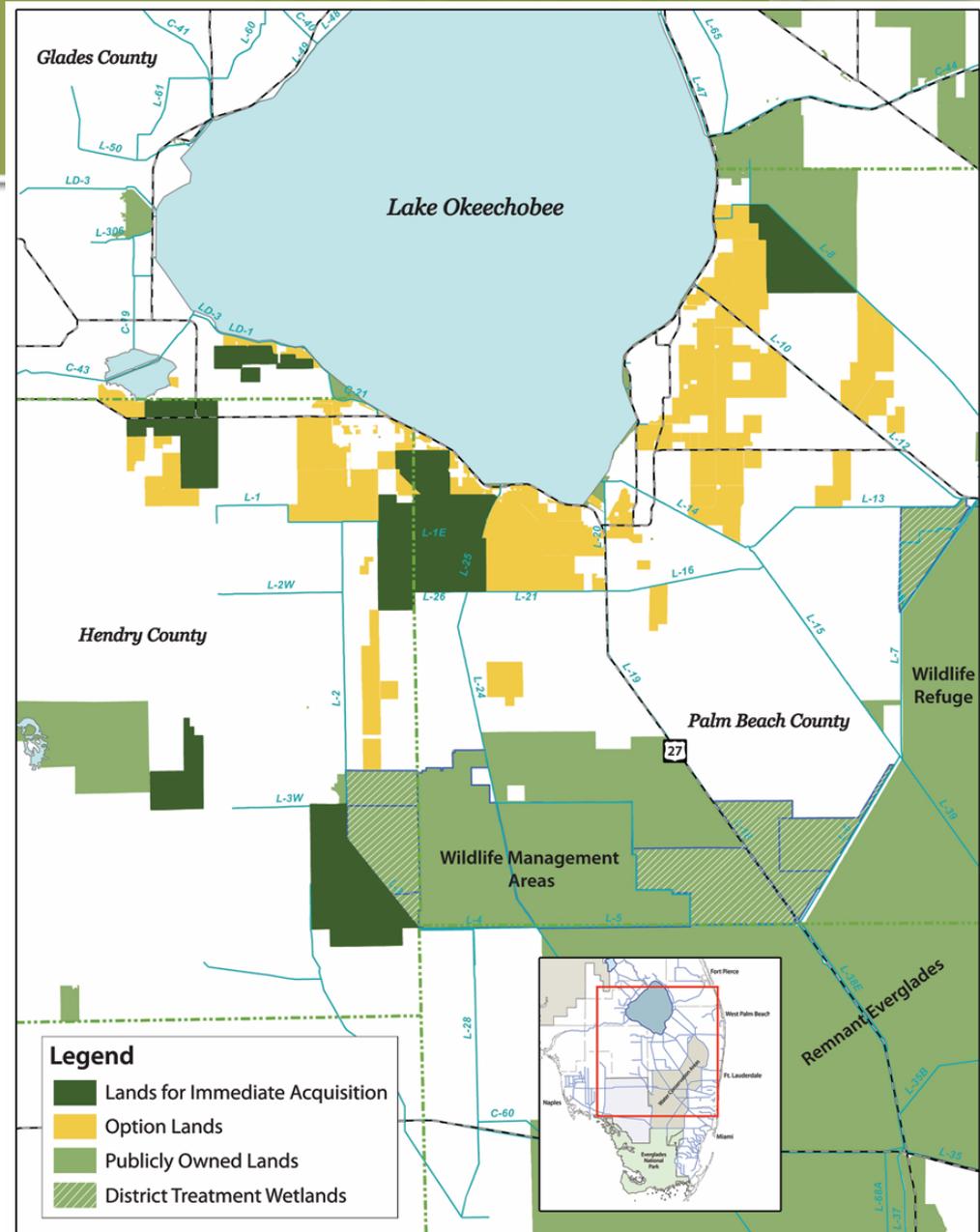
Reviving
THE river OF grass

**Purchase & Sale Agreement:
Proposed Revised Terms**

Acquisition Lands

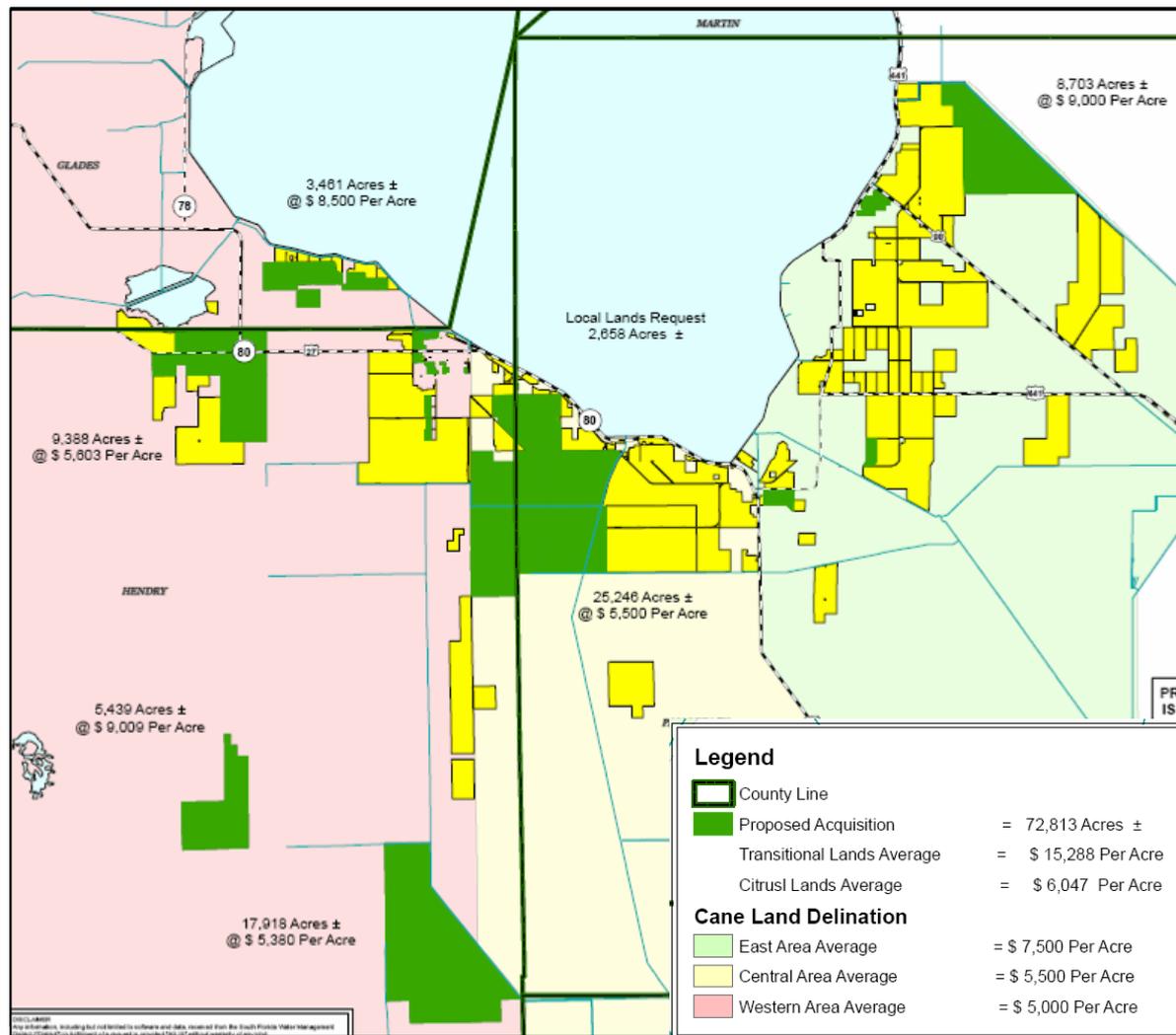
- **73,000 acres*** for initial acquisition:
 - 33,000 acres of citrus
 - 40,000 acres of sugarcane
- **County breakdown:**
 - Palm Beach ~ 27,000 acres
 - Glades ~ 3,500 acres
 - Hendry ~ 42,500 acres

*Approximate acreage only



Everglades Land Acquisition Land Valuation

- **\$536 million purchase price**
 - Slightly below appraised value
 - Based on December bulk discount values
 - Exclusive 3 year option valued at \$50 million



Amended Purchase Contract Purchase Options



- District has options to purchase the remaining 107,000 acres for up to 10 years:
 - Exclusive 3-year option to purchase “option property” at a fixed price of \$7,400 per acre
 - U.S. Sugar could sell the option property to a third party but subject to the District’s option
 - A consecutive 7-year non-exclusive option to purchase “option property” at Fair Market Value
 - U.S. Sugar could sell all or a part of the option property subject to a Right of First Refusal by the District

Amended Purchase Contract

Purchase Options



Exclusive		Non-Exclusive
First 3 years	Term	Subsequent 7 years
107,000	Acres	Any Remaining
\$7,400/acre	Price	Appraised Value
With Option Intact	Ability to Sell	No Restrictions; first right of refusal
If longer than 3 years, 2 year termination notice; no penalty payment	Ability for U.S. Sugar to sub-lease	No Restrictions; consults with District

Everglades Land Acquisition Additional Condition

- Memorandum regarding Right of First Refusal and Option will be recorded against property in appropriate counties



Amended Purchase Contract

Other Provisions

- Environmental Matters
 - 130 percent of the estimated remediation costs of 180,000-acre acquisition pro-rated to 73,000 acres
 - U.S. Sugar to provide the District with \$8.6 million
- “Evergreen” General Escrow Fund
 - To be established by U.S. Sugar for any additional undiscovered environmental impacts and lease obligations
 - Pro-rated to \$4 million

Amended Purchase Contract Conditions Precedent



■ Affordability

- “Buyer is satisfied that no events have occurred since the Effective Date, and no conditions existed as of the Effective Date which were unknown to Buyer, that would cause the amount of debt and debt service necessary to finance this transaction to adversely affect the financial capacity of Buyer to continue to fulfill its statutory, contractual and other legal obligations and mandates based on its historical and projected operations.”

Amended Purchase Contract Conditions Precedent



- Bond Validation
 - Validation occurred and COPs issued at interest rate not to exceed 7.5%, final maturity of 30 years, and upon terms substantially similar to previous COPs issuance
- Representation
 - District expects to be able to pay debt service on \$536 million issuance of COPs (7.5% interest rate; 30 year maturity)

Amended Purchase Contract

Other Provisions



- “Go Shop” Provision
 - U.S. Sugar may entertain other offers for the land up until bond validation
 - Termination Fee of \$16 million
- Rail Relocation Agreement
 - Finalize prior to closing
 - Allows for relocation of rail systems within proposed footprints



Reviving
THE river OF grass

**Lease Agreement:
Proposed Revised Terms**

Amended Lease Agreement Overview



- Lease conditions apply to 73,000 acres
- 7-year lease with provisions to extend up to 20 years
- U.S. Sugar required to:
 - Pay all property taxes and assessments
 - Control the land for exotic and invasive plants
 - Implement enhanced Best Management Practices
- Lease payment in all years on gross sugar cane acreage

Everglades Land Acquisition Proposed Lease Terms



Initial	7 years	\$150/acre
First Renewal	3 additional years	\$150/acre
Second Renewal	10 additional years	Fair Market Value

- If District cannot acquire option property due to U.S. Sugar default, rent changes to Fair Market Value and lease can terminate at end of initial or first renewal term as applicable

Amended Lease Agreement Right to Terminate



- U.S. Sugar may terminate lease as to entire property with one year notice beginning January 2011
 - 2012 – earliest vacation; rolling termination
- U.S. Sugar can terminate as to portion of sugar lease with one year notice beginning June 2014
- District can terminate citrus lease by providing notice by June 30, 2009; U.S. Sugar will begin rolling termination as harvest begins in November
 - All citrus vacated by June 30 of following year

Everglades Land Acquisition Proposed Lease Terms



■ Rent

- \$150/acre on all cane acres (gross acres)
- Fair Market Value begins at year 10 or when option exercised
 - Rent escalates at Producer Price Index and resets at Fair Market Value in years 13 and 16

Everglades Land Acquisition “Take Down” Schedule



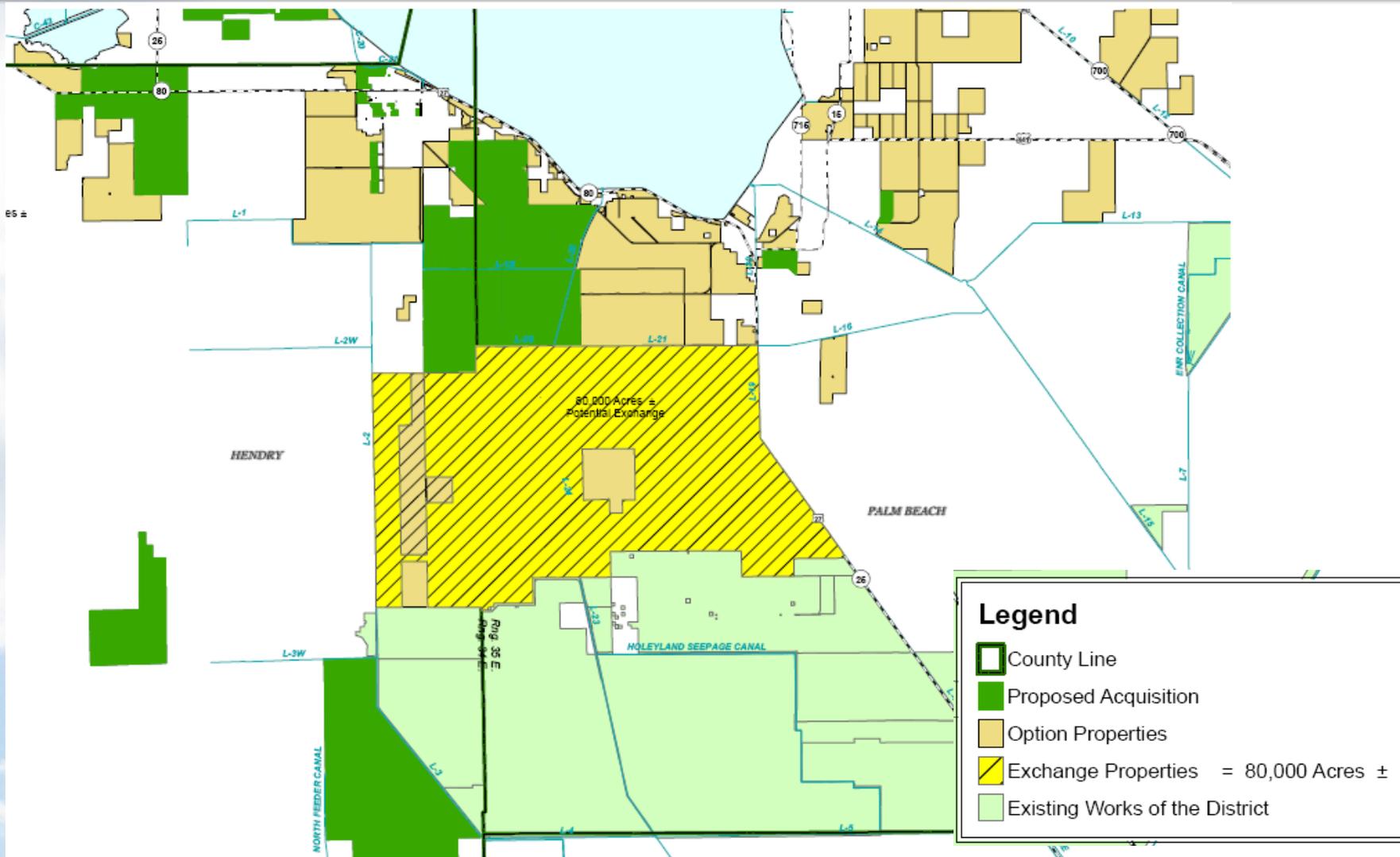
Option Exercised	Option Not Exercised
All Citrus (33,000 acres)	Same
10,000 Cane Acreage (First 10 years)	Same
10,000 Cane Acreage (Second 10 years)	Same
~3,000 Cane Acreage (First 7 years)	Same
All construction lands available	During 20 year lease, 77% of lands available for construction – 17,000 acres remain under lease

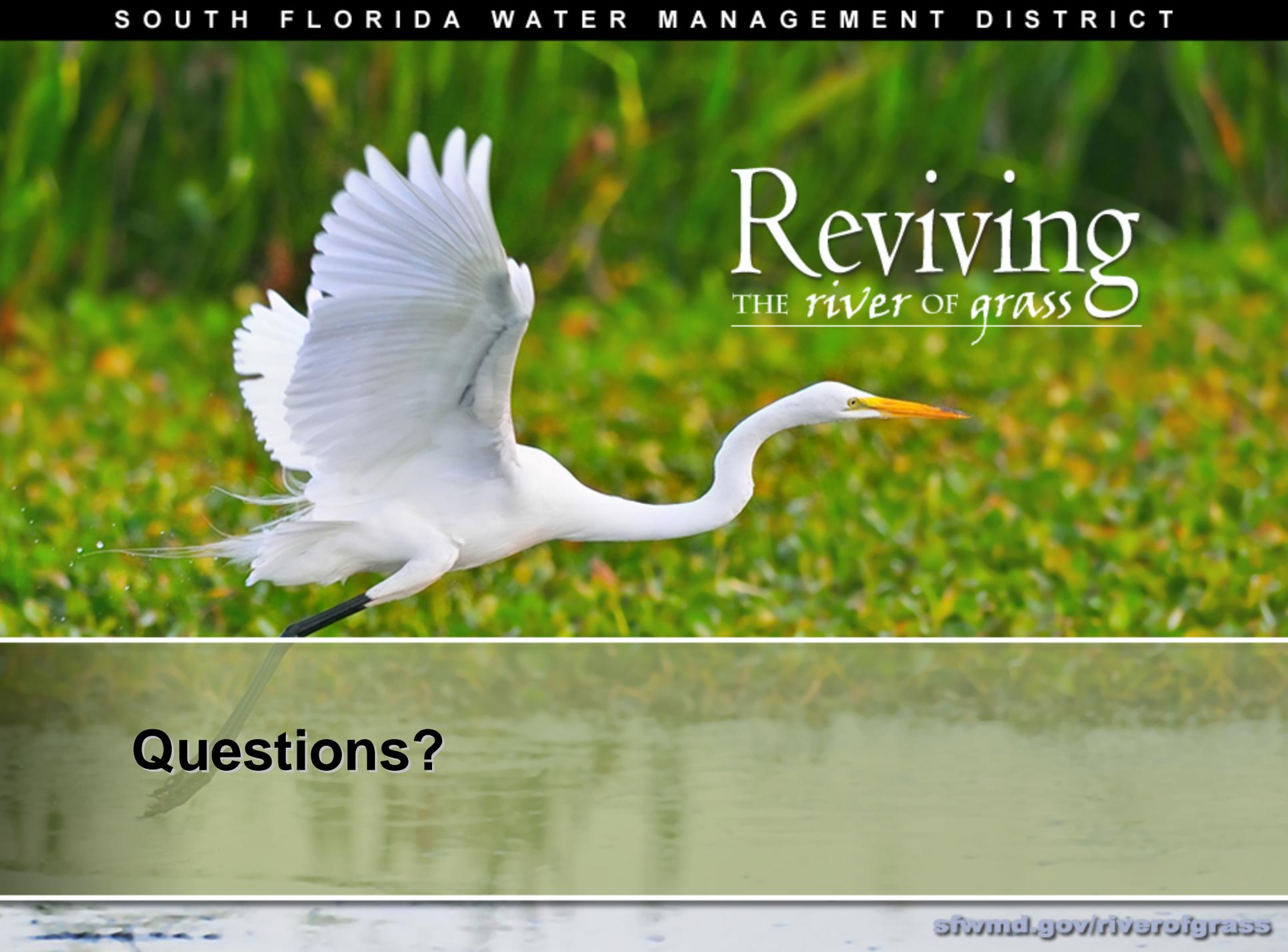
Everglades Land Acquisition Exchanges



Option Exercised	Option Not Exercised
2,000 acres for Central Agricultural Area	Counts as part of 10,000 acres
L-8 lands for water quality protection for S-5A Basin	Counts as part of 10,000 acres
After 10 years, any lands for property within designated area	N/A

Everglades Land Acquisition Potential Exchanges





Reviving
THE river OF grass

Questions?



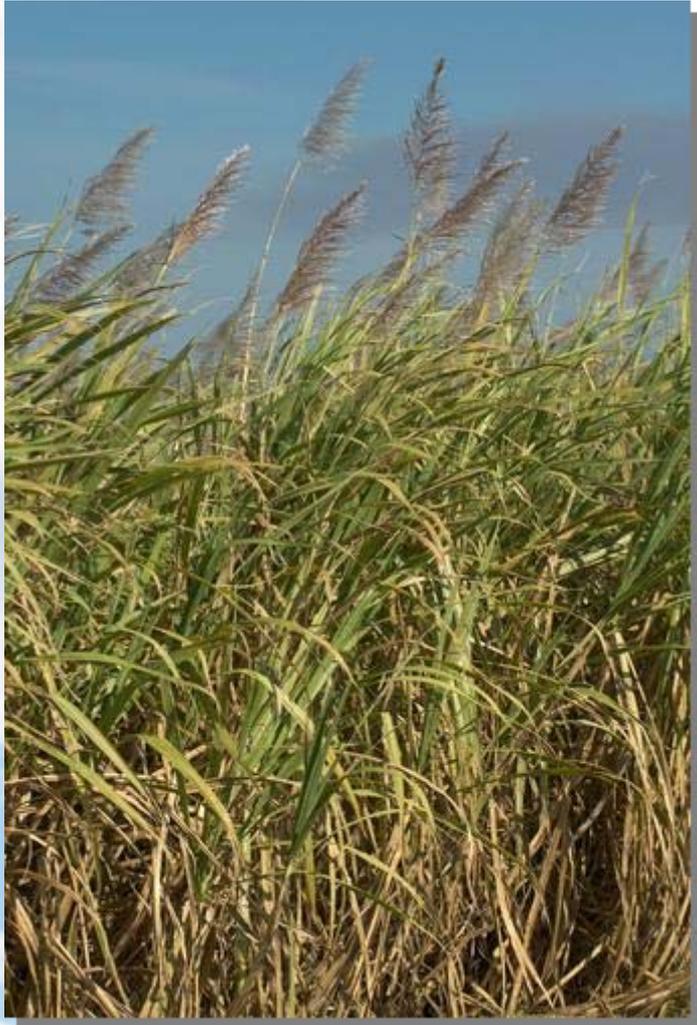
Reviving

THE *river* OF *grass*

Legal Update

Sheryl Wood
General Counsel

Everglades Land Acquisition Bond Validation



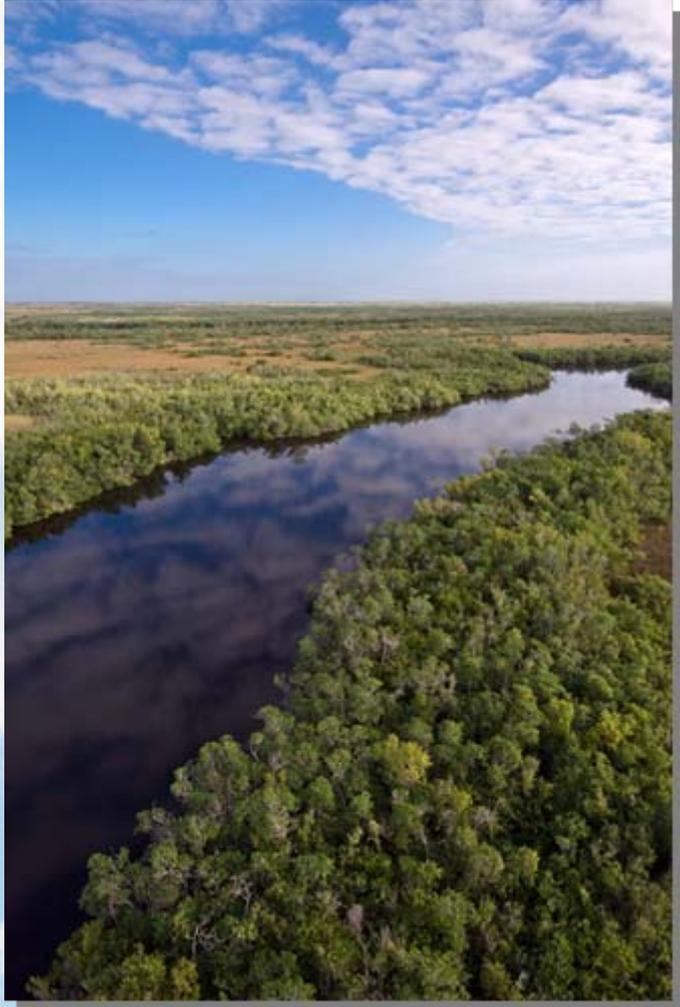
- Bond validation hearings:
 - Commenced February 6
 - Continued March 16-18
 - Status Conference held April 8
- Interveners included:
 - New Hope Sugar and Okeelanta Corporation
 - Miccosukee Tribe of Indians
 - Dexter Lehtinen
 - Concerned Citizens of the Glades
 - Jupiter Island Garden Club, Inc.

Everglades Land Acquisition Bond Validation



- Status conference held on April 8
- Judge granted Motions to hold case in abeyance until after May Governing Board
- Court Calendar Call on May 15 to schedule a hearing for the Court to conduct evidentiary hearing on the elements of revised transaction
- Two-day hearing will be scheduled between May 26 and July 24 based on availability of court time and status of other cases scheduled to be tried during this period

Everglades Land Acquisition Bond Validation



- Judge stated ruling will be based on determination of whether proposal meets tests articulated by the Florida Supreme Court:
 - District's legal authority
 - Legal (public) purpose of the borrowing
 - Compliance with the law (Chapter 75, F.S. Bond Validation Statute)

Everglades Land Acquisition Bond Validation



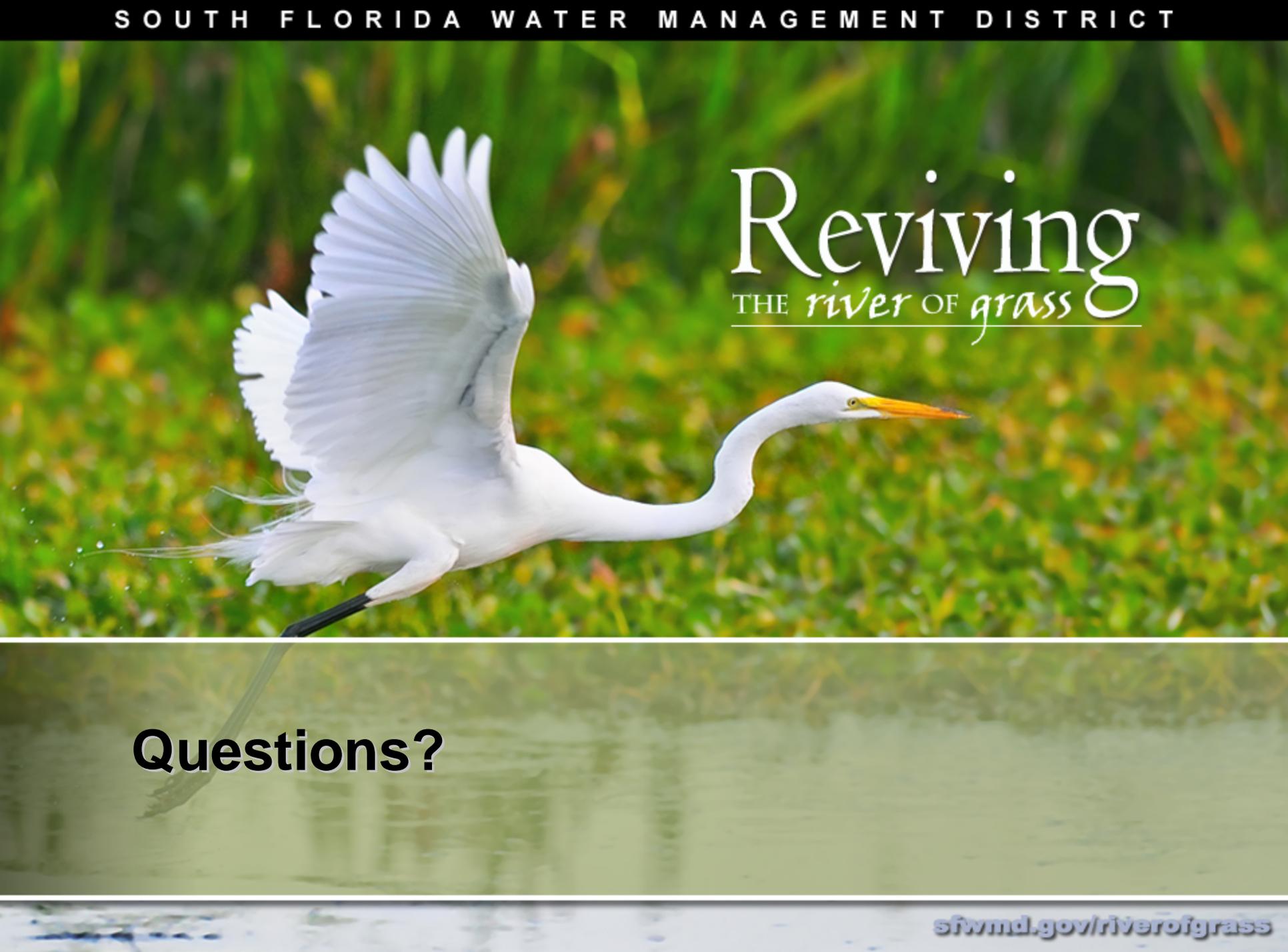
Appeals:

- Each party has 30 days following Final Judgment to file an Appeal
- Appeal is directly to Florida Supreme Court
- Validation is not final until all Appeal periods have run

Everglades Land Acquisition Administrative Proceedings



- New Hope Sugar and Miccosukee Tribe appealed District's decision to deny administrative challenges to purchase contract
- New Hope Sugar's Initial Brief due to Fourth District Court of Appeal by June 12, 2009
- Tribe's Initial Brief due to Third District Court of Appeal by June 10, 2009
- District's Answer Briefs due June 30 & July 2, 2009
- Appellant's Reply Briefs due July 20 & July 22, 2009
- District's Cross-Reply Briefs due August 10 & 11, 2009

A white egret is captured in mid-flight, its wings fully extended, flying over a body of water. The background is a lush green field of grass. The text 'Reviving THE river OF grass' is overlaid on the right side of the image.

Reviving

THE *river* OF *grass*

Questions?



Reviving

THE *river* OF *grass*

Financing

Doug Bergstrom
Budget Director

Financing Overview

- Certificates of Participation
 - Revenue bond that government agencies may issue to finance the undertaking of any capital, land acquisition or other project for purposes permitted by the Florida Constitution and Florida Statutes
- Supported by participation through ownership of a “share” of debt service payments made by a government agency

Financing Process



- Certificates of Participation
 - Validation
 - Rating agencies
 - Market financing plan; includes preliminary offering statement
 - Go to market
 - Bond closing

Financing Recent Developments



- All municipal funds, including those that report their figures monthly, have attracted \$14.47 billion in inflows since the beginning of the year
- The inflows this year represent a turnabout from the drainage of cash from municipal funds at the end of 2008
- In the week of April 27th new-issue market, a total of \$6.28 billion was estimated to be coming to market, led by a \$2 billion offering from Florida's Citizens Property Insurance Corp
- One week earlier, a total of \$12.67 billion came to market, highlighted by heavy issuance of Build America Bonds from some of the market's largest issuers, including \$5.23 billion of BABs from California

Financing

Recent Developments

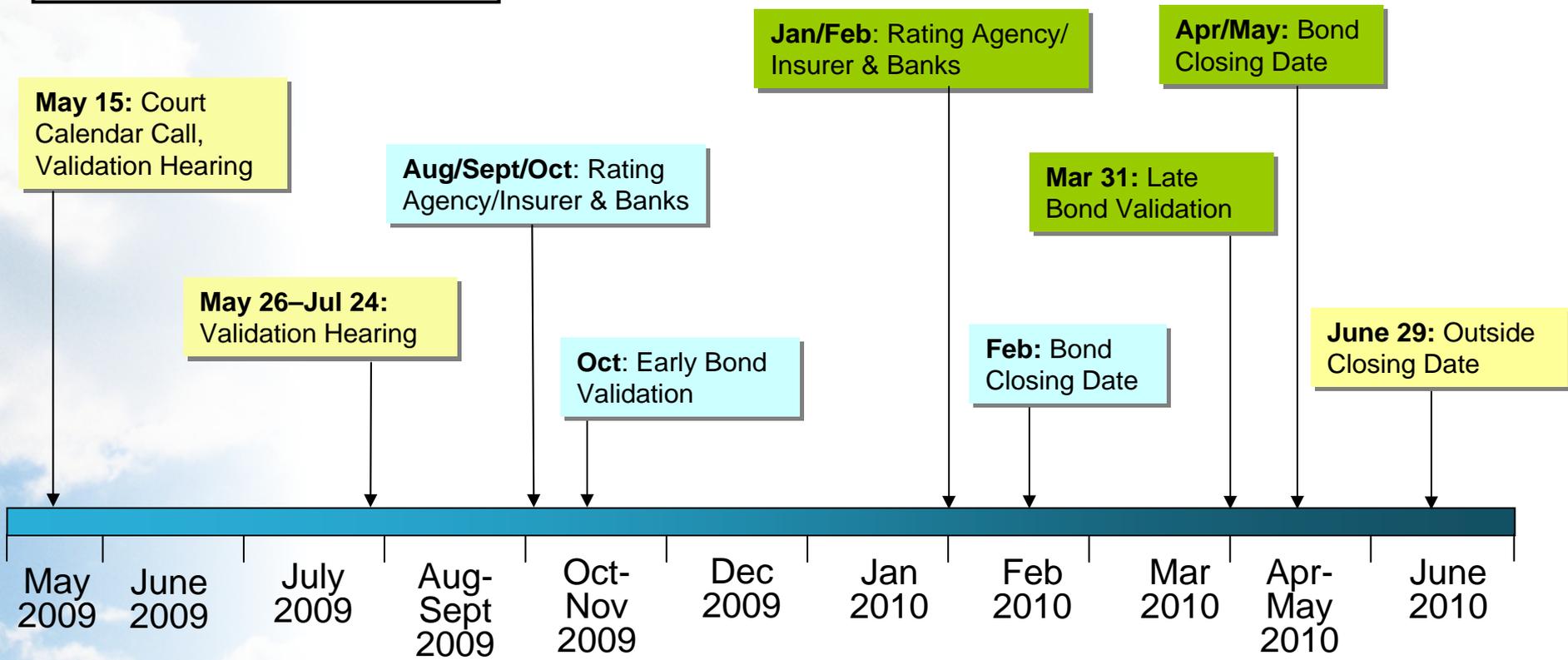


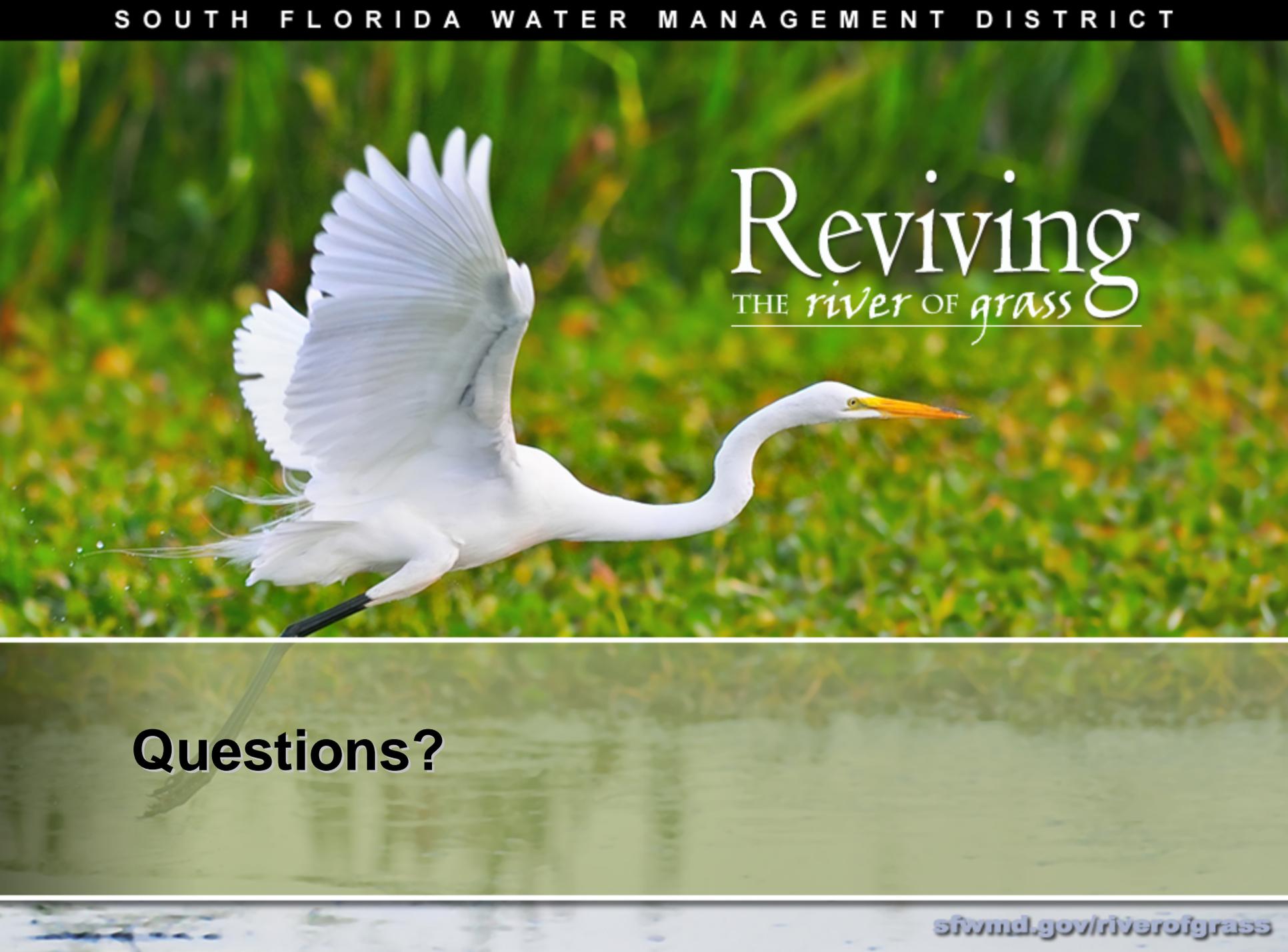
- Moody's has put Florida on credit watch
- Moody's investors service, one of three major rating agencies, became first rating agency to place state's ratings on watch for possible down grade
- Overall economic distress instead of individual issuer-specific problems were to blame for most of the rating revisions
- The first three months of 2009 also was first time all sectors – including state and local governments, housing, health care, and higher education – received a negative outlook by the agency

Next Steps Financing Timeline



Early Validation
 Late Validation





Reviving
THE river OF grass

Questions?



Reviving

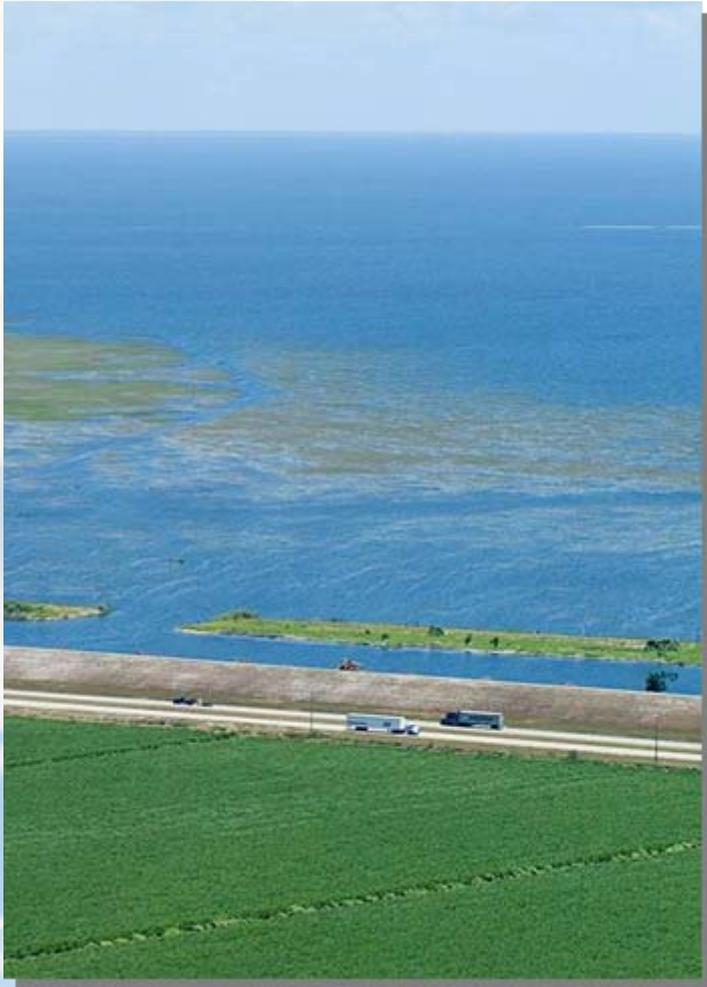
THE *river* OF *grass*

Phase I Planning – Conceptual Configurations Development

Tommy B. Strowd, P.E.

Asst. Deputy Executive Director, Everglades Restoration

Phase I Planning Presentation Summary



- Review stakeholder input process
- Review stakeholder conceptual configurations
- Next steps
- Stakeholder involvement –
Richard. A. Pettigrew

Phase I Planning Scope



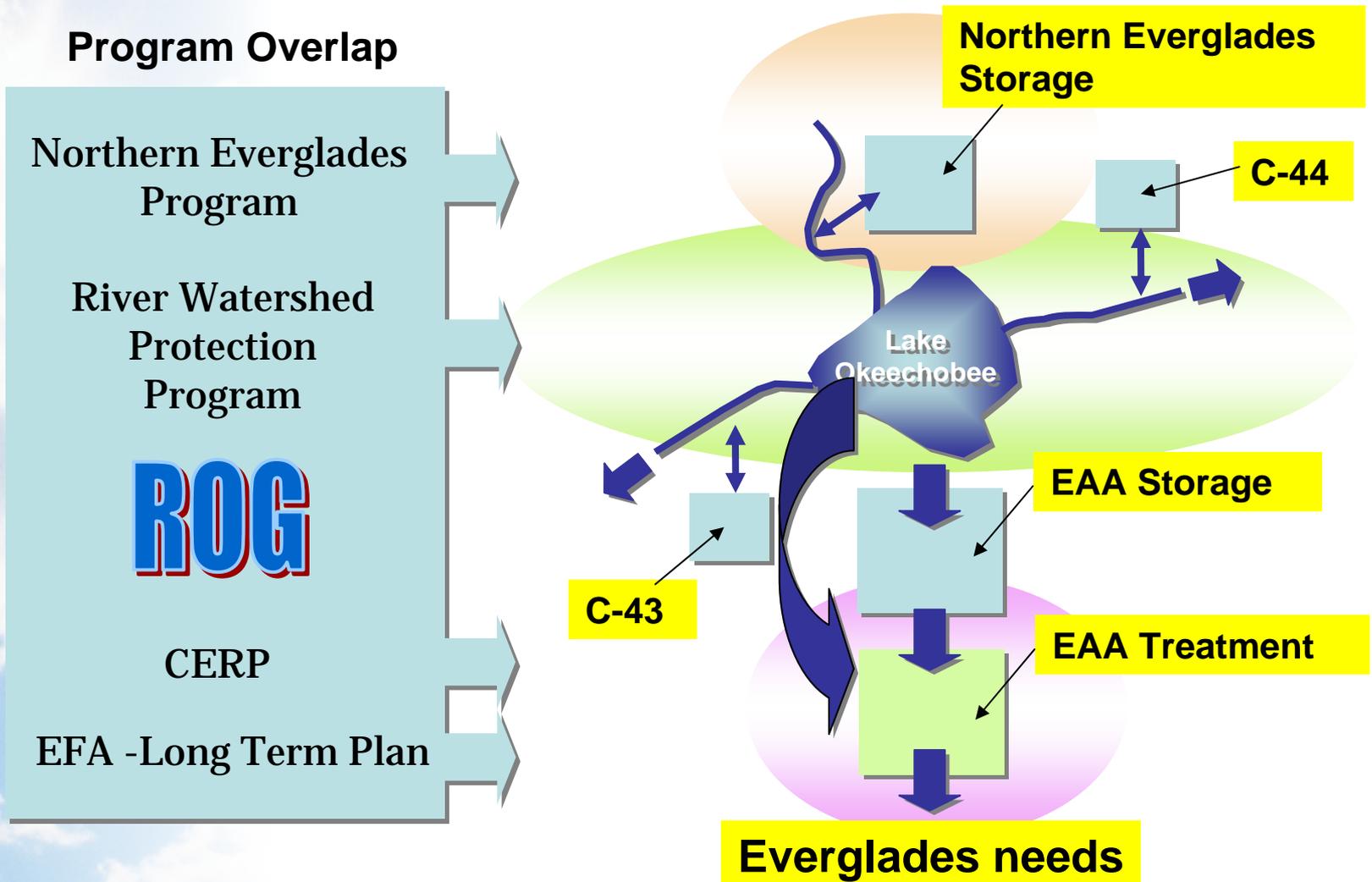
- “Determine the range and general location of acreage needed north of the Everglades Protection Area for storing, treating, and delivering the water flows needed to restore the Everglades, while enhancing ecological values in Lake Okeechobee and the northern estuaries.”

Phase I Planning

Conceptual Configurations Development

- Provide stakeholders with an opportunity to develop Conceptual Configurations
 - Utilize information discussed during previous workshops that may be relevant
 - Maps/Land
 - Water Quality
 - Modeling
 - Economic Impacts
 - Costs
 - Generate discussion regarding what aspects of the configuration are most important to the team/authors
 - e.g., feature type, location, or operations

Phase I Planning System-Wide Approach



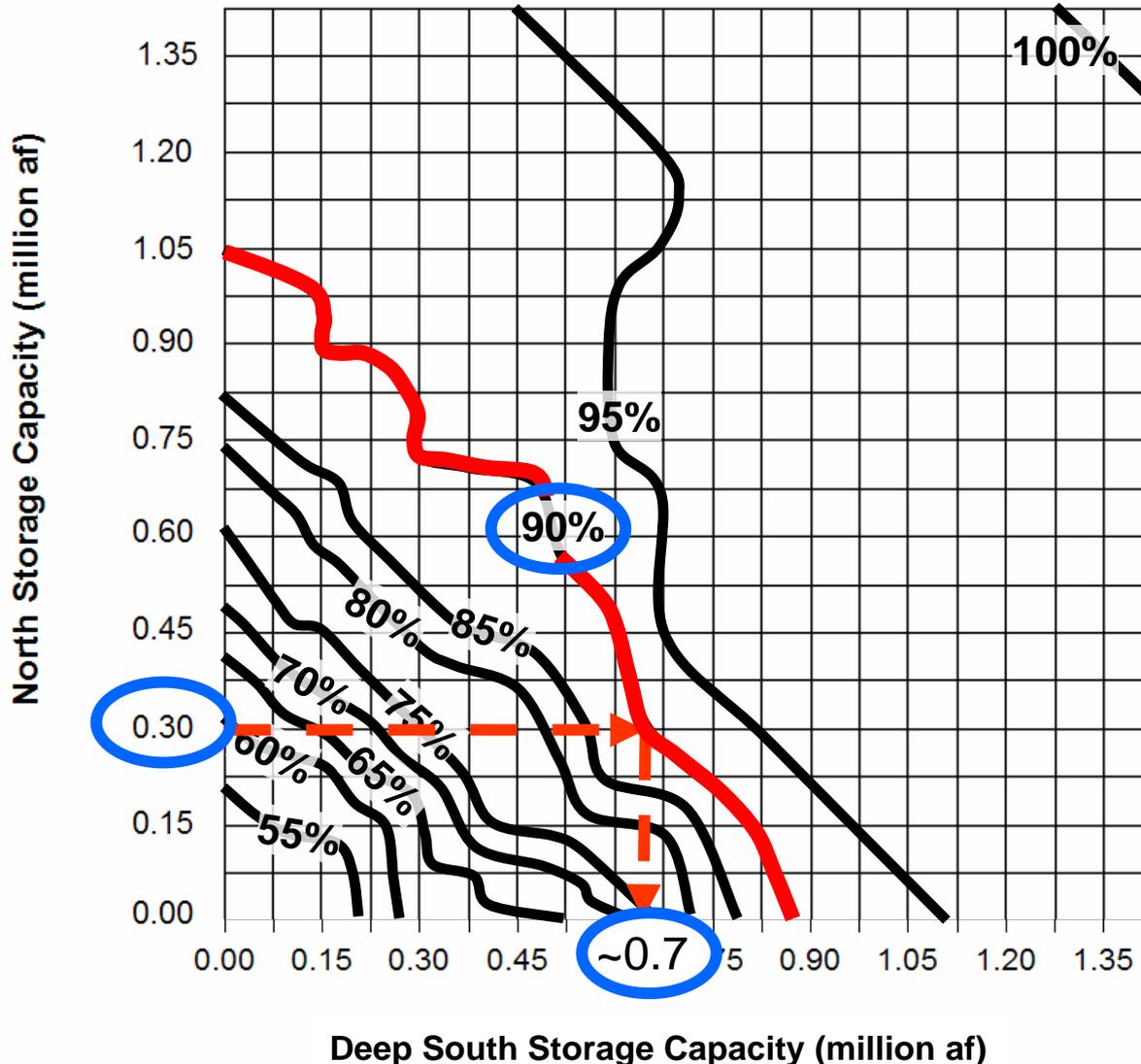
Phase I Planning Performance Summary Maps



For the ROG Phase-1 Configuration Planning exercise (March 31 – April 1), 5 key performance measure summary maps were developed to provide general guidance for sizing of storage features north & south of Lake Okeechobee:

1. Percent Reduction in Lake-Triggered High Discharges to the Northern Estuaries
2. Lake O Stage Envelope - Standard Score Above
3. Everglades Demand Target Delivered – Standard Score
4. Dry Season Everglades Demand Target Delivered – Standard Score
5. Annual Average Flow to the Everglades – for use in sizing south treatment area

% Reduction in Lake-Triggered High Discharges to the Northern Estuaries



Performance Maps provide guidance for selecting storage size combinations to achieve desired levels of performance.

Results from RESOPS Model simulations of specific configurations will consider more detailed specifications and performance may vary from the general guidance provided here.

Note:
Each of the 400 points used to create this map represents an optimized operation of the corresponding storage configurations. Approx. 350 RESOPS model simulations were performed for each storage configuration.

Phase I Planning

South Treatment Area Sizing

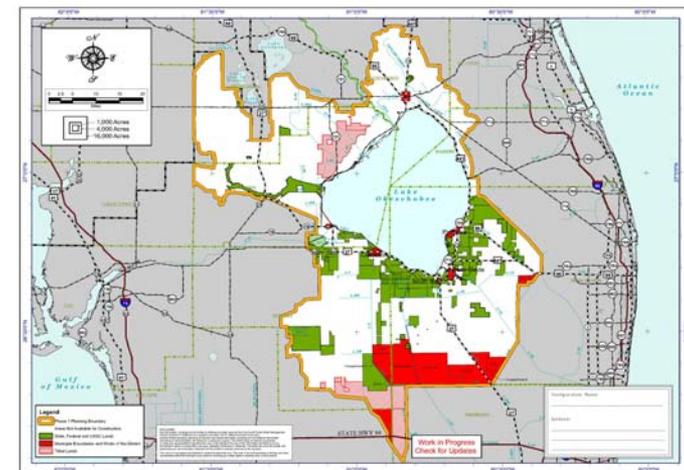
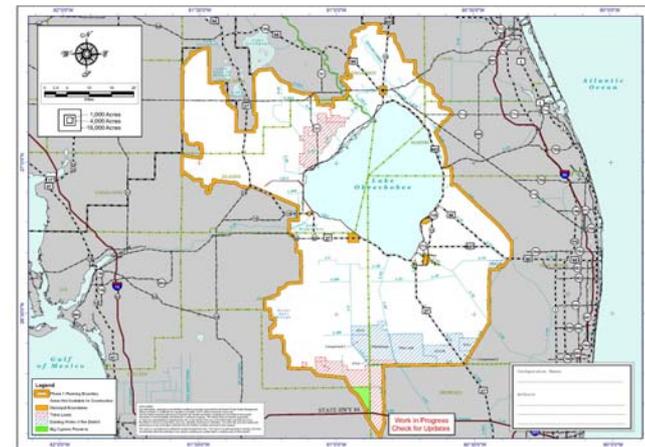
**Preliminary Estimates of Additional Treatment Area.
Assumes the Reservoir Provides TP Treatment.**

Additional Flow to Everglades (AF/yr)	Preliminary Estimate of Additional Treatment Area (acres)				
	Assumed Lake TP (ppb)				
	40	80	100	150	200
50,000	2,100	3,800	4,600	6,500	8,100
100,000	3,000	5,300	6,400	8,900	11,000
150,000	3,800	6,800	8,200	11,300	13,900
200,000	4,600	8,300	10,000	13,600	16,800
250,000	5,300	9,800	11,700	16,000	19,700
300,000	6,100	11,300	13,500	18,400	22,500
350,000	6,800	12,700	15,300	20,800	25,300
400,000	7,500	14,200	17,100	23,200	28,200
450,000	8,200	15,700	18,800	25,500	31,000
500,000	8,800	17,200	20,600	27,900	33,800

Phase I Planning

Conceptual Configurations Development

- **Draw final sketch**
 - Once team developed the proposed configuration, drew a final sketch of the configuration on the table-top base map (2'x3')
- **Complete the documentation**
 - Information necessary to evaluate the configurations
 - Focus on communicating the aspects of the configuration that were most significant/important to the team/authors



Phase I Planning

Conceptual Configurations Development & Evaluation

- 9 proposed team configurations
- Each configuration will be evaluated for its costs, benefits, and impacts
- Each configuration assigned an engineer who developed design assumptions for configuration based on interaction/feedback from stakeholder team
- Design assumptions were used to assist with modeling and costing of each configuration
- For each evaluation category, an internal team was formed to evaluate all configurations for that category
 - (e.g. real estate cost team; benefits team)
- In most cases, evaluated the details of each individual component of a proposed configuration as well as the overall configuration

Evaluation Process Categories



- Physical Features
- Footprint
 - Land Ownership
 - Land Use
- Performance / Benefits
 - Hydrology (RESOPs)
 - Water Quality
 - Other
- Cost Impacts
 - Remediation
 - Real Estate
 - Construction
 - Operation & Maintenance
- Potential Project Impacts to Sugar Production Economics

Phase I Planning

Preliminary Evaluation Results



- Staff development of evaluation data continues...
- Will be discussing today:
 - Conceptual configurations design results
 - Preliminary Performance/Benefits
 - Hydrology (RESOPS)
- To be discussed at future meetings:
 - Water Quality
 - Cost Estimates
 - Economic Impacts
 - Other

Phase I Planning

Performance Measures



- General Measures (used to develop performance maps)
 - Reduction in Lake-Triggered High Discharges to the Northern Estuaries- % Reduction
 - Lake Okeechobee Stage Envelope- Standard Score Above
 - Everglades Demand Target Delivered- Standard Score
 - Dry Season Everglades Demand Target Delivered- Standard Score
 - Increase in Mean Annual Flows to the Everglades (k-af/yr)

Performance Measures

Additional Performance Measures Considered

- Lake Okeechobee
 - Stage Statistics (% of time <10ft, <11ft, >15ft, >17ft, inside envelope)
 - Stage Envelope
 - Water Budget and Annual Flows
 - Stage Duration Curves and Stage Hydrographs
- Caloosahatchee and St. Lucie Estuaries
 - Distribution of Mean Monthly Flows
 - Frequency of High Discharge Events
 - LO Regulatory Discharges in Excess of Estuary Demand

Performance Measures

Additional Performance Measures Considered

- **Water Supply**
 - LOSA Supply and Demand not delivered
 - LOSA Supply and Demand not delivered for average of 7 largest drought years
- **Everglades**
 - Average Annual Flows
 - Average Dry Year Flows
 - Seasonality of Flows
 - Inter-Annual Variability of Flows
- **Water Quality**
 - Assumed Lake O Discharge Water Quality
 - Treatment Area Sizing Check

Phase I Planning

Symbols in Configurations



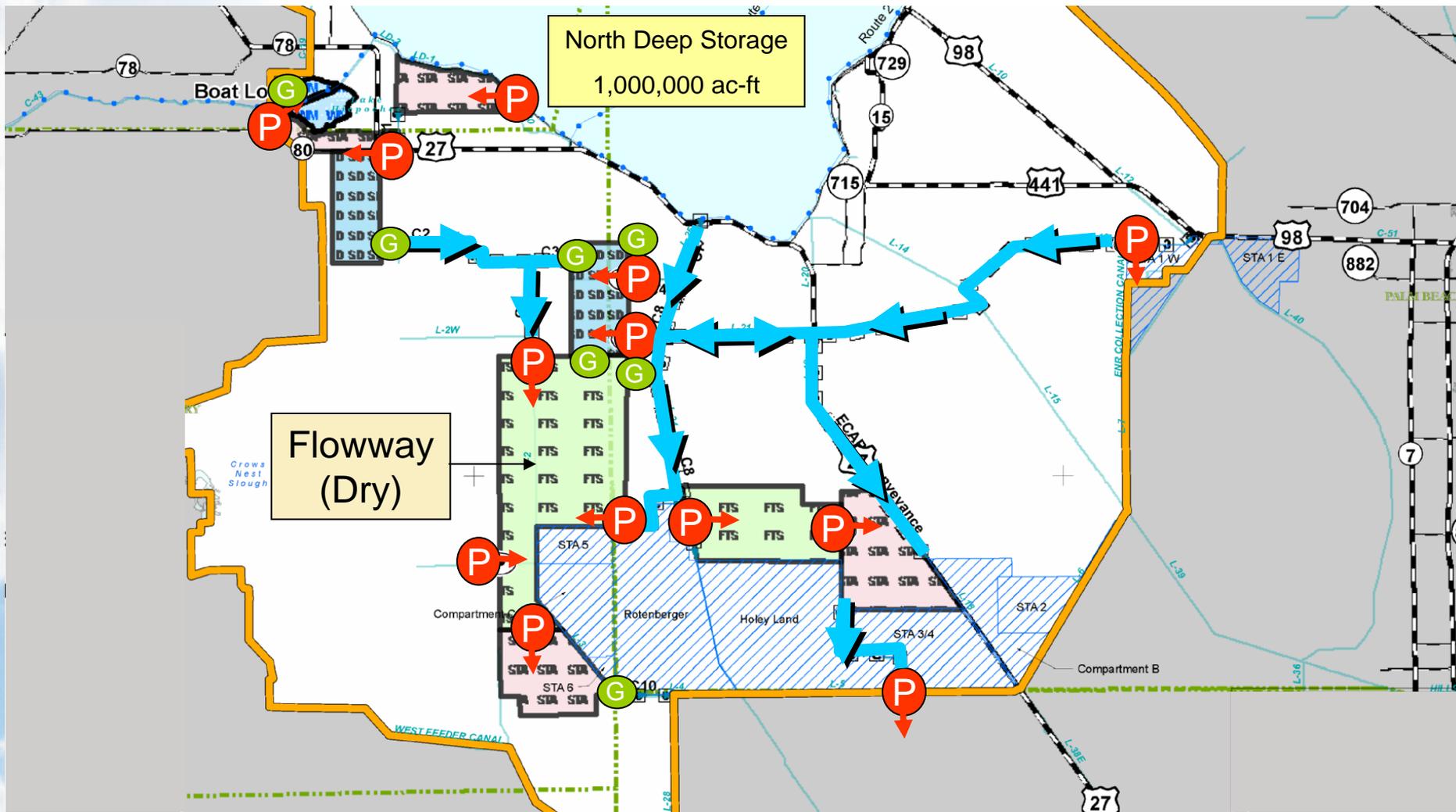
SD	Storage – Deep – Above Ground (Reservoir, Major Impoundment)
SS	Storage – Shallow (Minor Impoundment)
FTS	Flow-ways – Managed for Conveyance, Treatment & Storage (dark green – wet year round; light green – allowed dry)
LT	Lake Technology Ecoreservoir Lake
LT _E	Lake Technology Ecoslough
DS	Storage – Dispersed
STA	Stormwater Treatment Area
WM	Wetlands – Managed Aquatic Plant Systems

Estuary Driven Everglades Restoration

Mark Perry, Ted Guy, Rae Ann Wessel, Pete Quasias, George Jones, Paul Millar, Rob Loftin

- Utilize the performance charts to achieve large reductions in Lake-triggered high discharges to the northern estuaries while maximizing storage north of Lake Okeechobee and maximizing storage and conveyance features south of Lake Okeechobee to meet the Caloosahatchee minimum flow level and dry season Everglades demand targets.

Conceptual Configuration Estuary Driven Everglades Restoration



Conceptual Configuration

Estuary Driven Everglades Restoration

■ North Features

- Five 200,000 ac-ft compartments; 15' depth, 75,000 acres

■ South Features

- 591,024 ac-ft storage; 87,712 acres; 4 compartments
- 44,381 acres treatment; 15 compartments

Conceptual Configuration

Estuary Driven Everglades Restoration

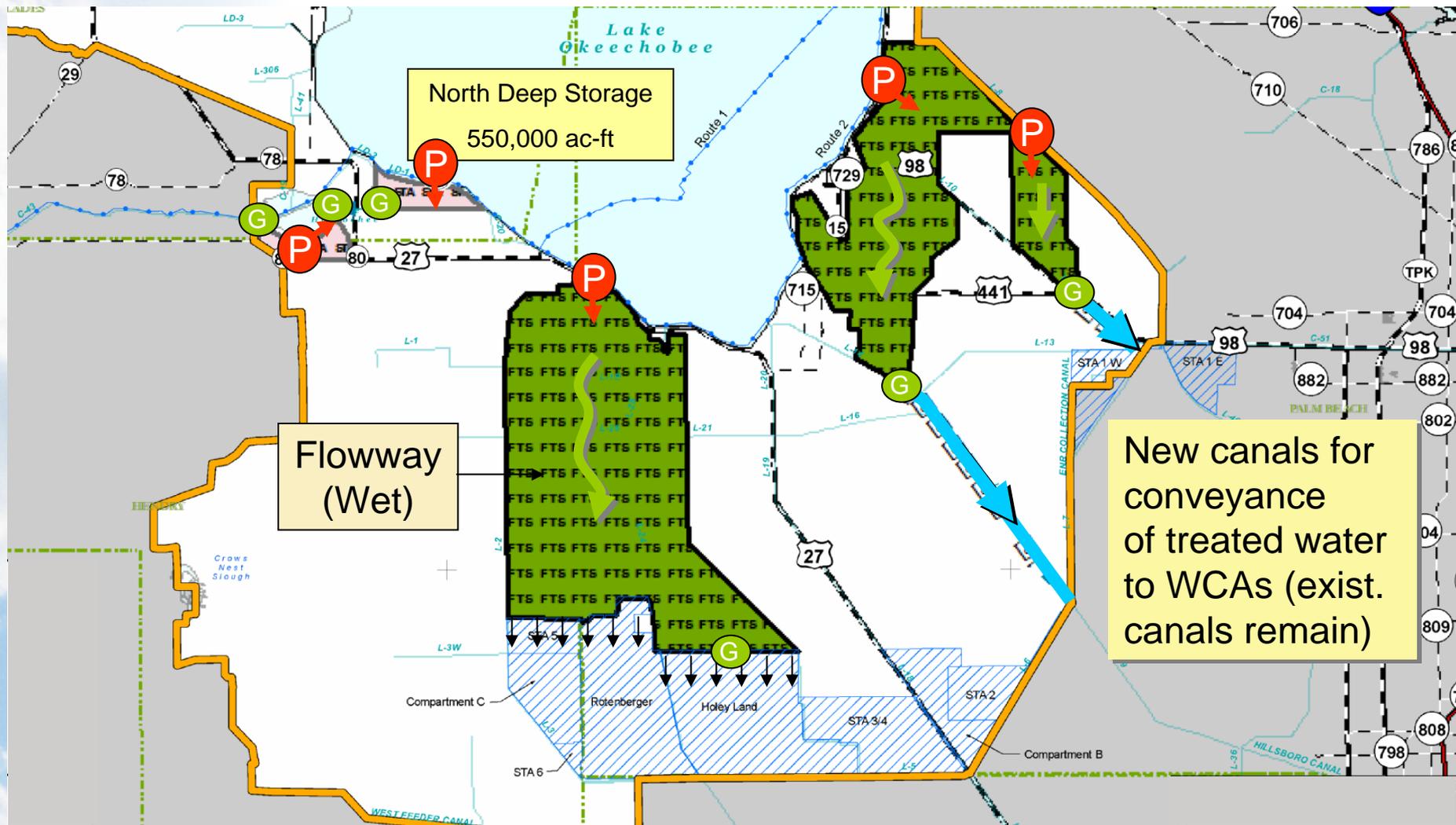
	Base (Current Conditions)	Target	Results
Estuaries-High Discharges (% reduction)	NA (84 months)	95%	96% (3 months)
Lake O-Stage Envelope (Std Score Above)	79%	87%	83%
Everglades- Demand Target (Std Score)	29%	93%	98%
Everglades- Dry Season Demand Target (Std Score)	42%	95%	98%
Increased Annual Average Flow to Everglades (kaf/yr)	NA (1,380 kaf)	380	548

Everglades River of Grass Northern Expansion

Drew Martin, Bret Harquitz

- Utilize natural, vegetated flow-ways to store and treat water prior to discharging into the Everglades. Mimic historic sheet flow as much as possible.
- Provide storage north of Lake Okeechobee to reduce harmful discharges to the estuaries and help maintain environmentally healthy lake levels.
- Provide STA's at Lake Hicpochee and Disston Island in order to improve water quality in the Caloosahatchee River.

Conceptual Configuration Everglades River of Grass Northern Expansion



Conceptual Configuration

Everglades River of Grass Northern Expansion

- North Features
 - 550,000 ac-ft; 10' depth preferred, 15' maximum depth; 41,250 acres
 - South Features
 - 551,205 ac-ft; three flow-ways (expected to provide treatment); 0.5-3' depth; 204,150 acres; no compartments
 - West Features
 - Two STAs (Disston Island and Hicpochee); 7,650 acres
- *The authors prefer to utilize 10' maximum depth for the proposed reservoirs, if the additional land necessitated by that depth could be acquired. Recognizing potential limitations to land acquisition, they are willing to utilize the 15' depth if necessary

Conceptual Configuration

Everglades River of Grass Northern Expansion

	Base (Current Conditions)	Target	Results
Estuaries-High Discharges (% reduction)	NA (84 months)	NS	77% (19 months)
Lake O-Stage Envelope (Std Score Above)	79%	NS	80%
Everglades- Demand Target (Std Score)	29%	NS	83%
Everglades- Dry Season Demand Target (Std Score)	42%	NS	80%
Increased Annual Average Flow to Everglades (kaf/yr)	NA (1,380 kaf)	NS	221

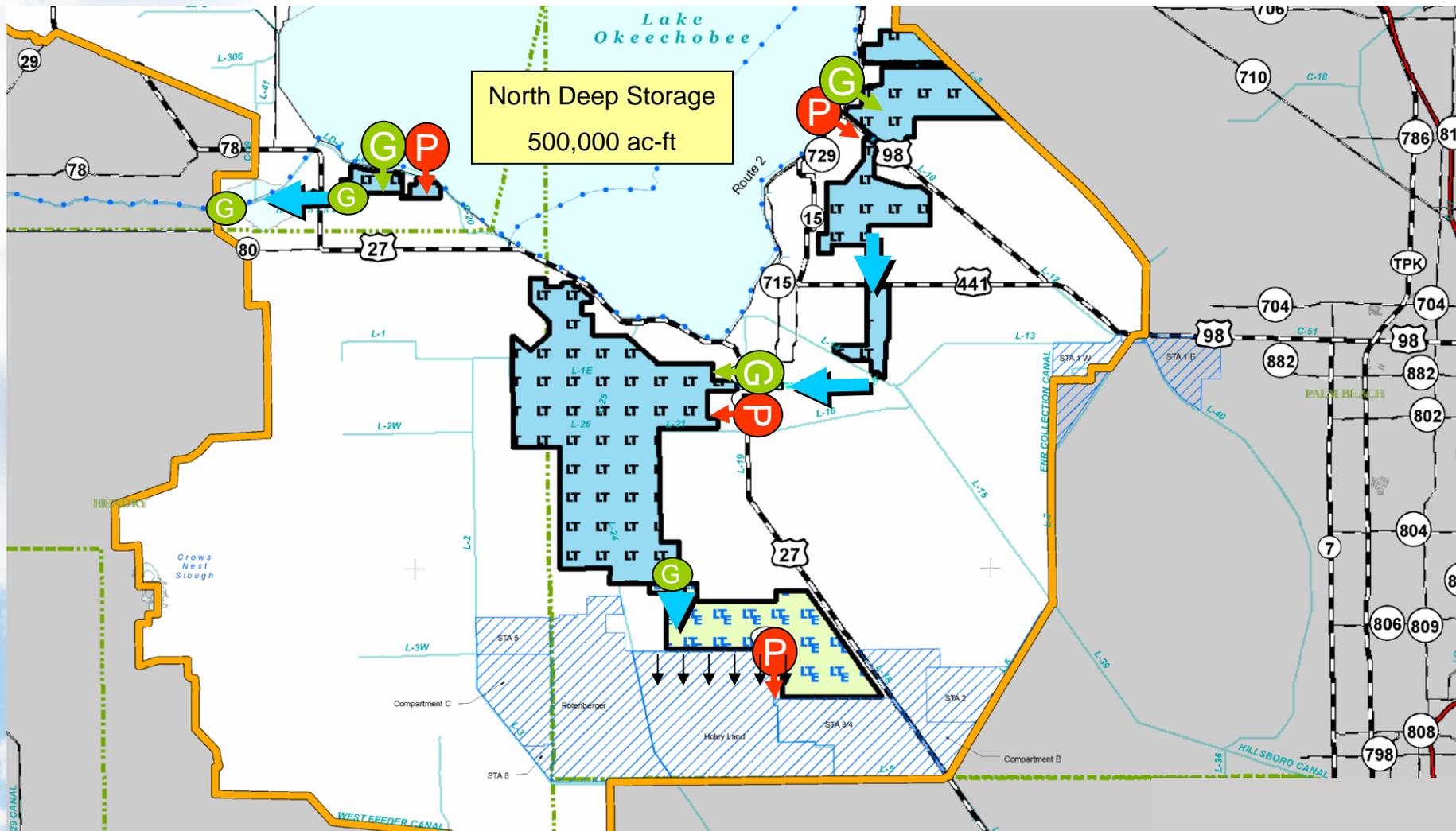
Chain of Lakes

Forest Michael

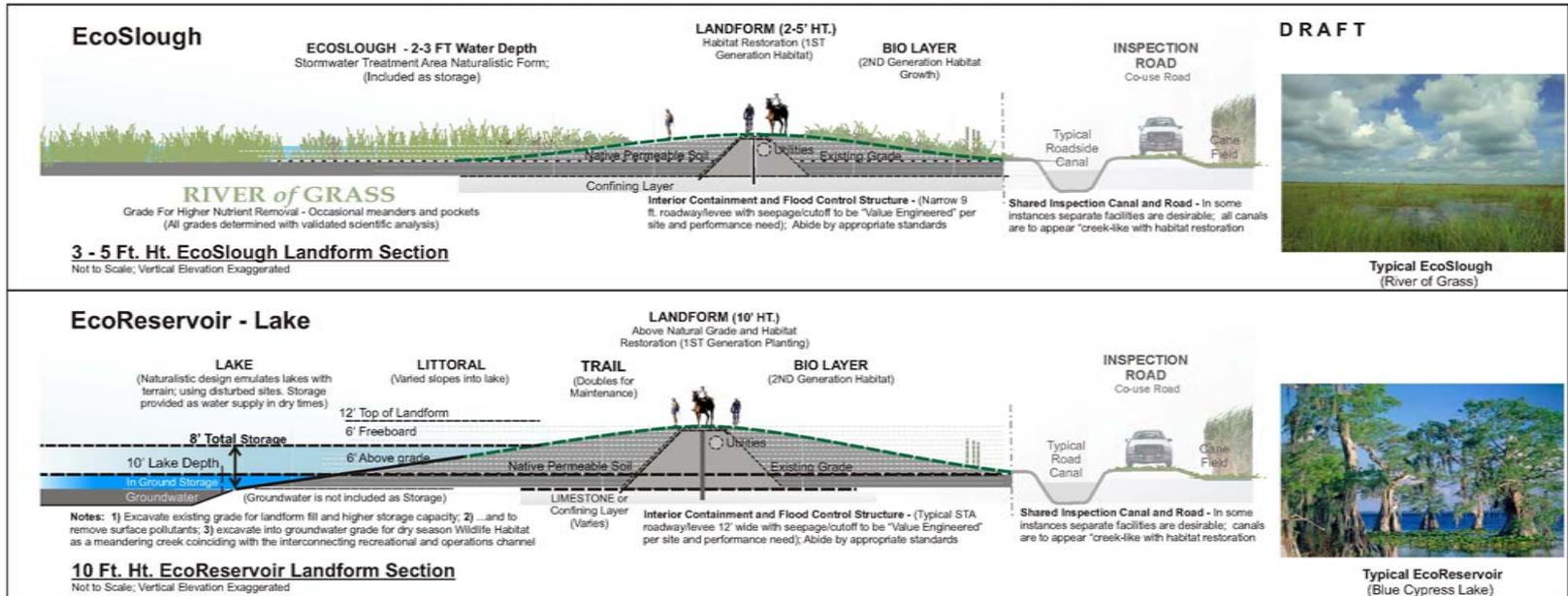


- Utilize above-ground water storage and treatment features intended to mimic a natural setting to a greater degree than CERP Standard Reservoirs and STA's. 12:1 vegetated variable side slopes are utilized to provide more natural aesthetics.
- Features are intended to be open for recreational uses such as hiking, angling, birding and hunting. An increase in storage of water for Everglades deliveries and decrease in harmful discharges to estuaries is expected, although no specific targets for these parameters are dictated by this configuration.
- Provide storage north of Lake Okeechobee to reduce harmful discharges to estuaries and help maintain environmentally healthy lake levels.
- Provide storage at Disston Island to further reduce harmful discharges to the Caloosahatchee River.

Conceptual Configuration Chain of Lakes

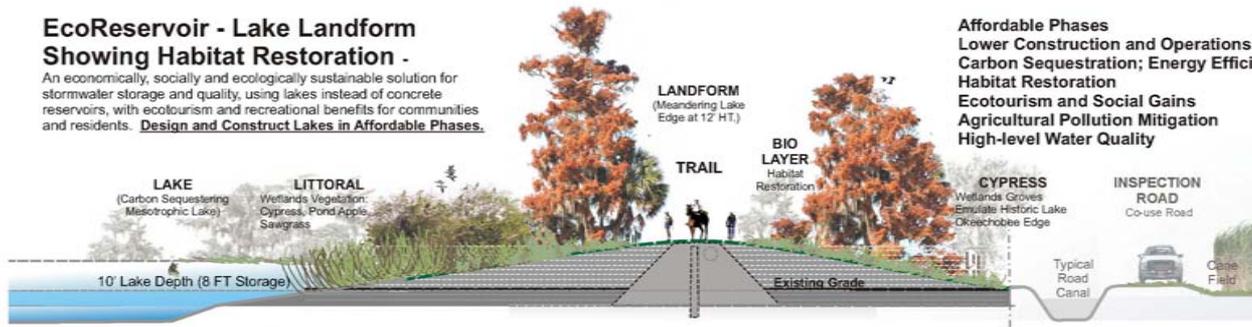


Chain of Lakes Landform Sections



EcoReservoir - Lake Landform Showing Habitat Restoration -

An economically, socially and ecologically sustainable solution for stormwater storage and quality, using lakes instead of concrete reservoirs, with ecotourism and recreational benefits for communities and residents. **Design and Construct Lakes in Affordable Phases.**



- Affordable Phases
- Lower Construction and Operations Costs
- Carbon Sequestration; Energy Efficiency
- Habitat Restoration
- Ecotourism and Social Gains
- Agricultural Pollution Mitigation
- High-level Water Quality

River of Grass Planning Chain of Lakes Alternative

Prepared April 2009 for the South Florida Water Management District, Public Participation Process

Landform and Storage Sections Conceptual for Analysis

Contact: Forest Michael, Planning and Landscape Architecture michaelplanning@gmail.com

Design uses the EcoReservoir (Lakes) Program Copyright, All Rights Reserved, 2007

EcoReservoir Lake Storage - provides 8' of water storage in configurations that include large and small areas where local infrastructure segments the landscape. Provides greater than 50% of the storage of larger 15' depth concrete reservoirs and substantially less cost and more tourism benefits including flood protection. The design allows the containment of the top 2 feet of polluted agricultural soil within the landform and associated areas.

Conceptual Configuration

Chain of Lakes



■ North Features

- 500,000 ac-ft; series of interconnected above-ground lakes with 12:1 vegetated side slopes; 6' maximum depth; 92,000 acres

■ South Features

- 483,100 ac-ft; series of interconnected above ground lakes with 12:1 vegetated side slopes; 6' maximum depth; 113,600 acres; 48,520 ac-ft of additional storage in an “Ecoslough”, which consists of a shallow, vegetated area that stores and treats water; 26,685 acres

■ West Features

- 18,000 ac-ft; above-ground lake with 12:1 vegetated side slopes, 6' maximum depth; 4,400 acres

Conceptual Configuration Chain of Lakes



	Base (Current Conditions)	Target	Results
Estuaries-High Discharges (% reduction)	NA (84 months)	NS	94% (6 months)
Lake O-Stage Envelope (Std Score Above)	79%	NS	80%
Everglades- Demand Target (Std Score)	29%	NS	93%
Everglades- Dry Season Demand Target (Std Score)	42%	NS	91%
Increased Annual Average Flow to Everglades (kaf/yr)	NA (1,380 kaf)	NS	490

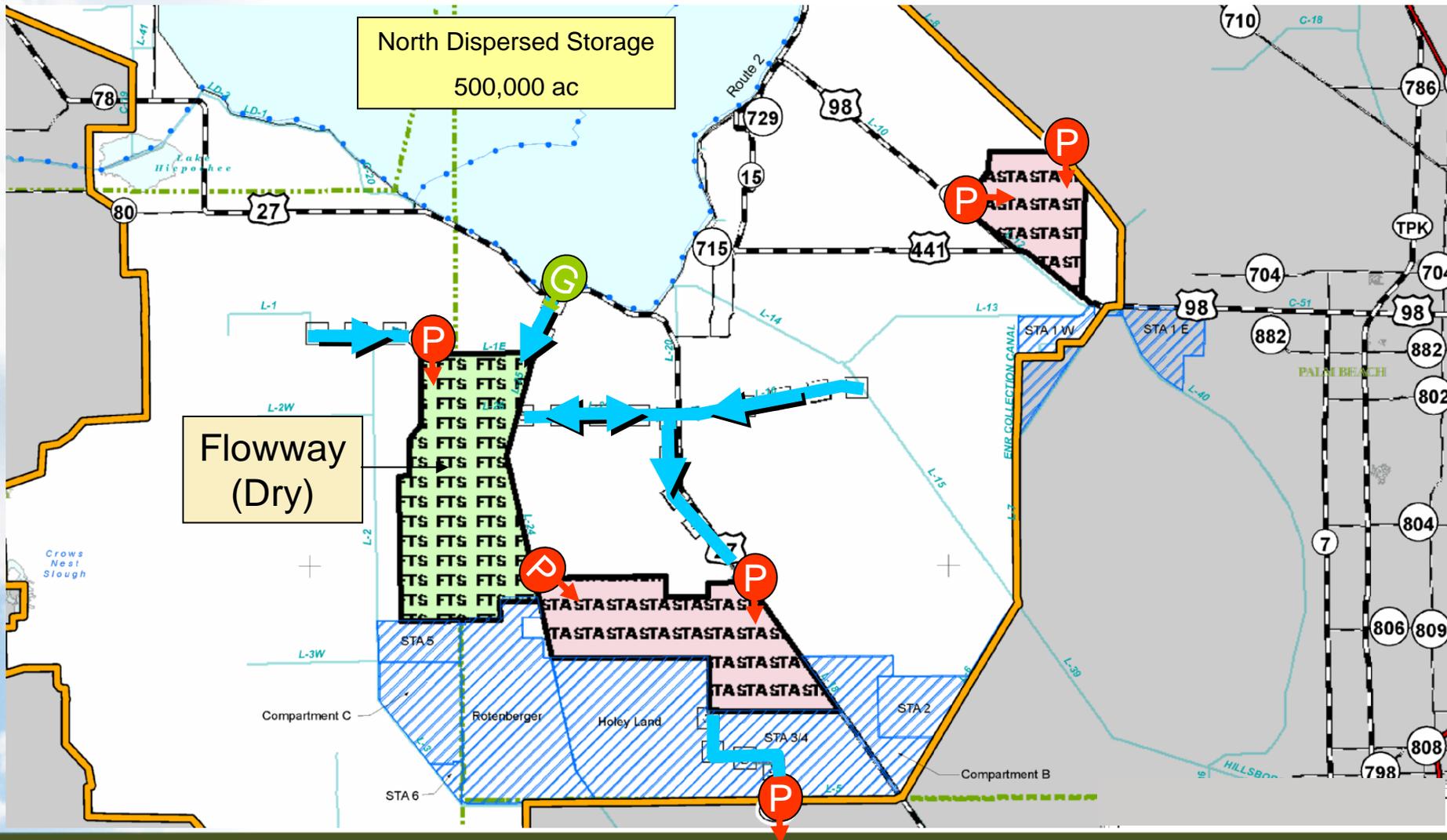
Florida Crystals

Sam Poole, Galen Miller



- Provide system enhancements to benefit the Everglades while minimizing community impact.
- Enhancements will reduce harmful discharges to the estuaries and route additional water to the Everglades at a more affordable cost that will allow funding for completion of other CERP and Northern Everglades projects.

Conceptual Configuration Florida Crystals



Conceptual Configuration Florida Crystals



- North Features
 - 500,000 acres distributed storage; 0-2' operating depth
- South Features
 - 180,000 ac-ft flow-way; 4' maximum depth; 45,000 acres
 - 32,000 acres STA (Talisman) 0.5-4' depth
- East Features
 - 14,000 acres effective treatment area (L-8) 0.5-4' depth

Conceptual Configuration

Florida Crystals



	Base (Current Conditions)	Target	Results
Estuaries-High Discharges (% reduction)	NA (84 months)	90%*	76% (20 months)
Lake O-Stage Envelope (Std Score Above)	79%	77%*	82%
Everglades- Demand Target (Std Score)	29%	NS	74%
Everglades- Dry Season Demand Target (Std Score)	42%	NS	73%
Increased Annual Average Flow to Everglades (kaf/yr)	NA (1,380 kaf)	NS	349

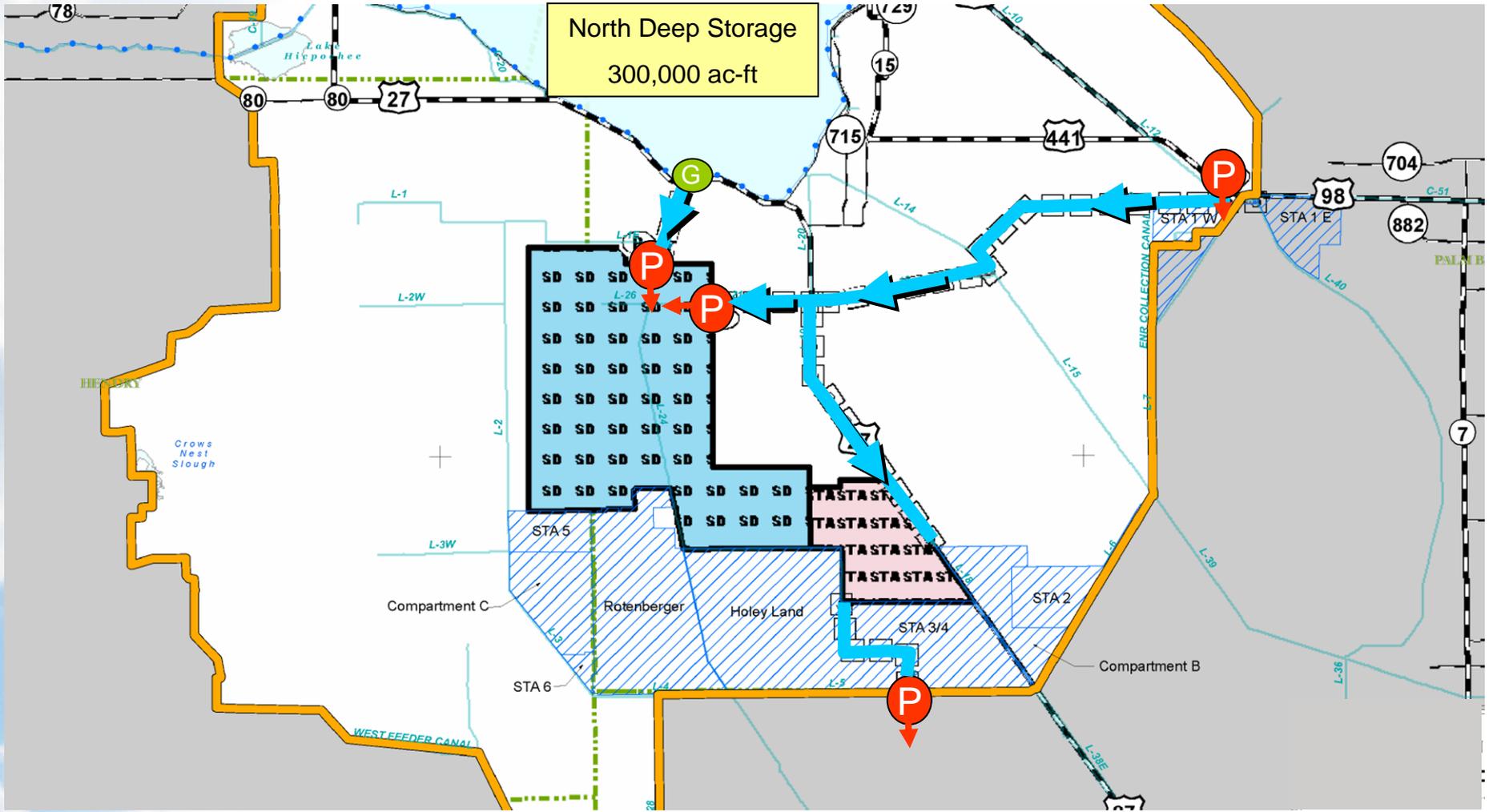
*implied performance from RESOPS simulation provided by stakeholder

Restoration Plus Employment

Joan Davis, Bevin Beaudet

- Provide storage and treatment components that will meet performance targets of 90%-95% for Lake Okeechobee discharges and Everglades water delivery while avoiding interference with the proposed inland port facilities.

Conceptual Configuration Restoration Plus Employment



Conceptual Configuration Restoration Plus Employment



- North Features
 - 300,00 ac-ft deep storage; 15' depth; 22,500 acres
- South Features
 - 900,000 ac-ft deep storage; 12' depth, 83,000 acres
 - 18,000 acres STA (Talisman) 0.5-4' depth

Conceptual Configuration Restoration Plus Employment



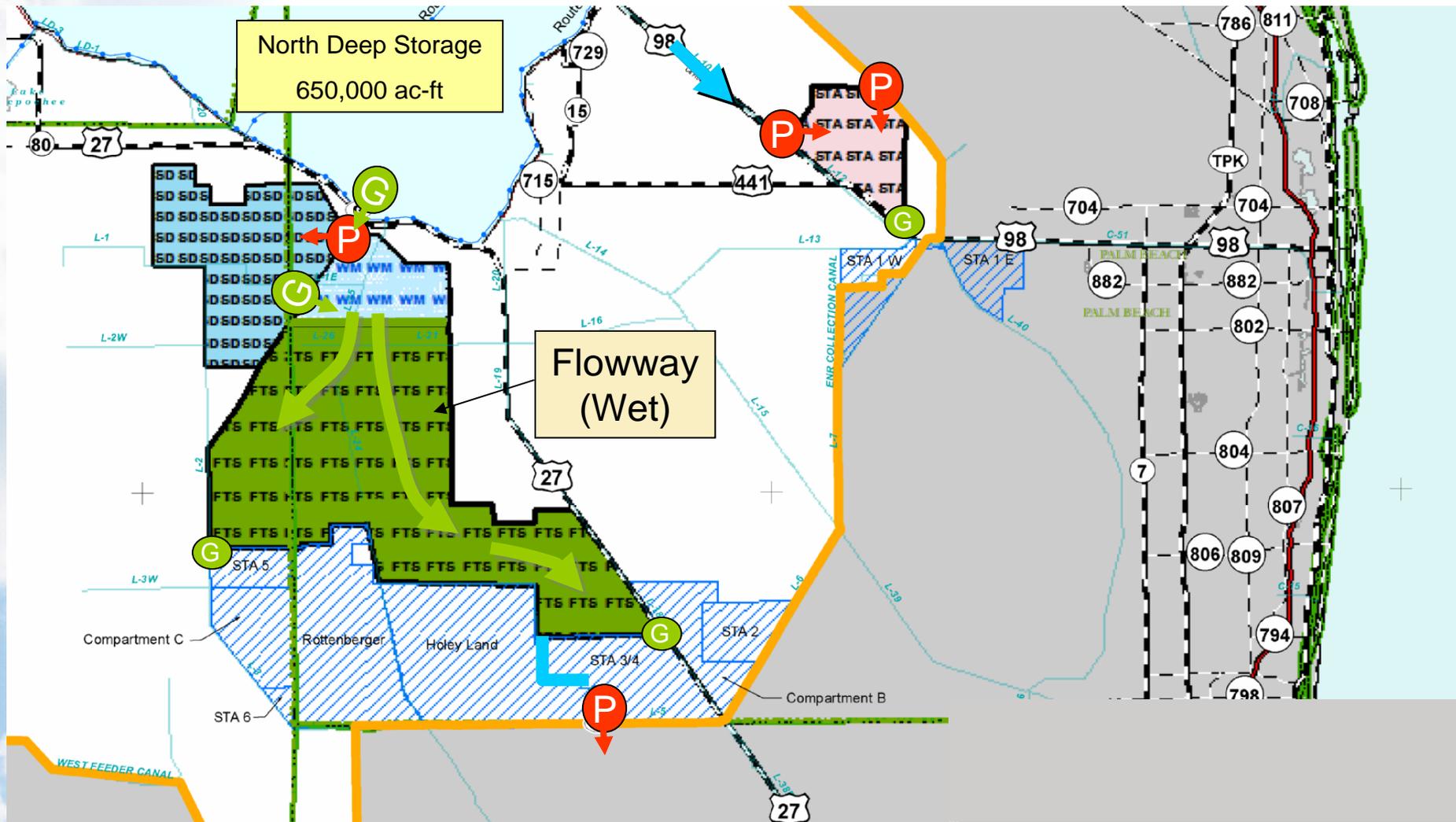
	Base (Current Conditions)	Target	Results
Estuaries-High Discharges (% reduction)	NA (84 months)	95%	95% (4 months)
Lake O-Stage Envelope (Std Score Above)	79%	84%	83%
Everglades- Demand Target (Std Score)	29%	93%	96%
Everglades- Dry Season Demand Target (Std Score)	42%	91%	96%
Increased Annual Average Flow to Everglades (kaf/yr)	NA (1,380 kaf)	370	550

Marshall Plan Element 6

John Marshall, Martha Musgrove, Joel VanArman, Tom Poulsom,
Deborah Nichols

- Establish a flow-way connecting Lake Okeechobee and Water Conservation Area 3A maximizing gravity flow and utilizing existing structures and newly acquired land.
- Includes significant storage north and south of the Lake to decrease estuary damaging discharges and to meet 90% dry season water demand for the Everglades.
- Includes a small flow-way and additional treatment capacity in the S5A Basin for treatment of water to be delivered to the Refuge.

Conceptual Configuration Marshall Plan Element 6



Conceptual Configuration

Marshall Plan Element 6



■ North Features

- 650,000 ac-ft storage; 15' max depth; 48,750 acres

■ South Features

- 589,000 ac-ft storage; 18' max depth; 36,400 acres
- Continuous flow-way (includes filled Miami Canal); 108,385 acres
- Forested Wetland; 14,500 acres

■ East Features

- STA; 14,600 acres
- Flow-way; 1,385 acres

Conceptual Configuration

Marshall Plan Element 6



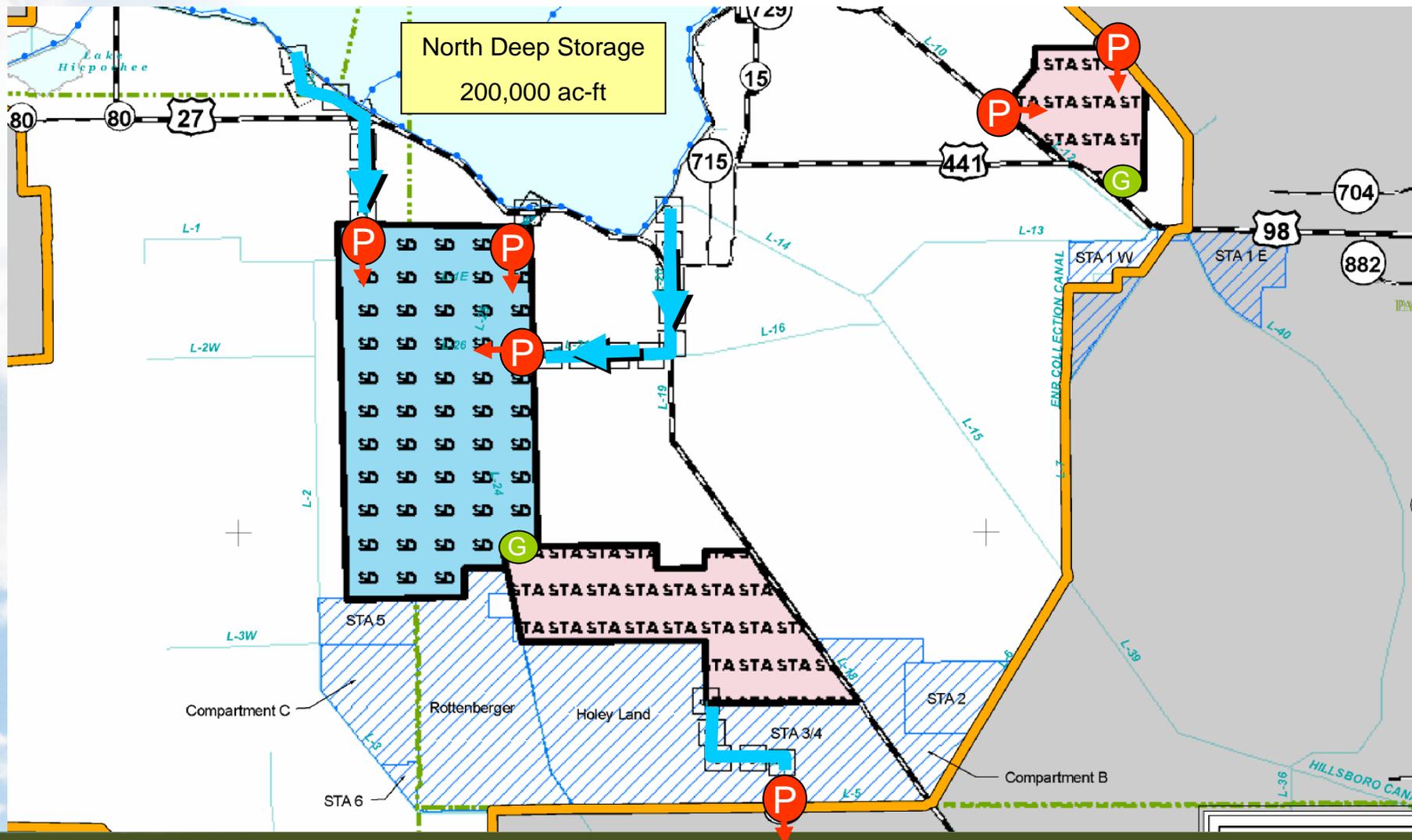
	Base (Current Conditions)	Target	Results
Estuaries-High Discharges (% reduction)	NA (84 months)	95%	95% (4 months)
Lake O-Stage Envelope (Std Score Above)	79%	NS	79%
Everglades- Demand Target (Std Score)	29%	NS	91%
Everglades- Dry Season Demand Target (Std Score)	42%	90%	89%
Increased Annual Average Flow to Everglades (kaf/yr)	NA (1,380 kaf)	NS	395

Performance

Karl Wickstrom, Jennifer Nelson, Lisa Interlandi, Joanne Davis, Maggy Hurchalla, Cynthia Plockelman, Mark Oncavage, Paul Gray, Tom VanLent

- Meet the performance targets including Lake Okeechobee high stage target, reductions of damaging flows to estuaries, and providing dry season deliveries to the Everglades.
- The implementation of dispersed storage north of Lake Okeechobee is included.

Conceptual Configuration Performance



Conceptual Configuration Performance



- North Features
 - 200,000 ac-ft; 15' depth; 15,000 acres
 - Dispersed Storage
- South Features
 - 1,200,000 ac-ft; 18' depth; 76,900 acres; STA; 36,500 acres; Talisman Compartment A
- East Features
 - STA; 15,600 acres; L-8 Basin

Conceptual Configuration Performance



	Base (Current Conditions)	Target	Results
Estuaries-High Discharges (% reduction)	NA (84 months)	95%	95% (4 months)
Lake O-Stage Envelope (Std Score Above)	79%	85%	84%
Everglades- Demand Target (Std Score)	29%	NS	95%
Everglades- Dry Season Demand Target (Std Score)	42%	>90%	95%
Increased Annual Average Flow to Everglades (kaf/yr)	NA (1,380 kaf)	NS	533

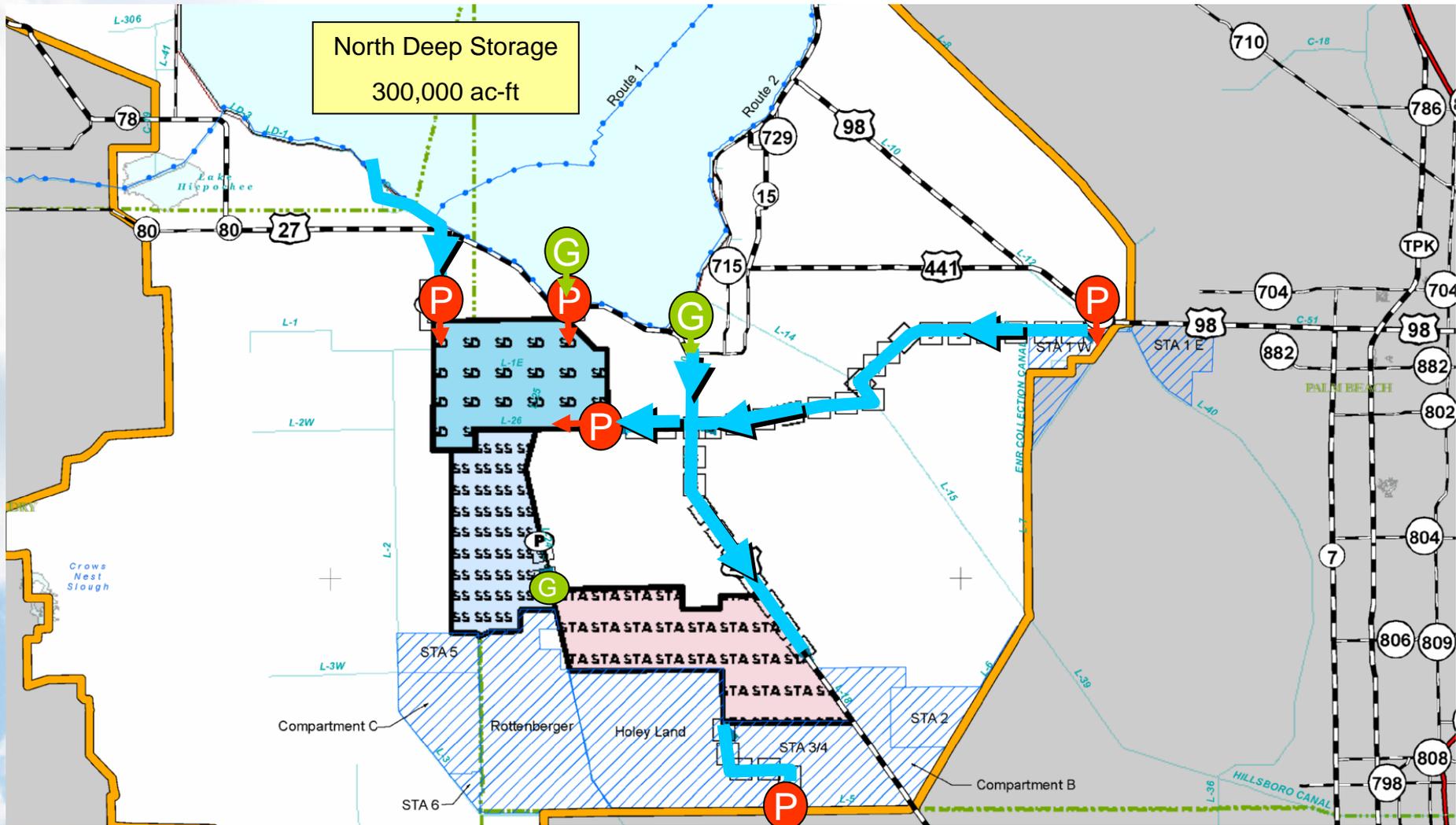
Performance – Cost

Kevin Henderson



- Focused primarily on meeting set performance standards derived from the performance maps that were provided. Utilizing performance maps centered on roughly 300,000 ac-ft of storage north of Lake Okeechobee and roughly 550,000 ac-ft south of Lake Okeechobee.
- The storage south of the Lake is to be divided between both deep and shallow storage.
- The configuration also provides water quality treatment by locating a Stormwater Treatment Area on Compartment A of Talisman property.

Conceptual Configuration Performance - Cost



Conceptual Configuration Performance – Cost



- North Features
 - 300,000 ac-ft, 15 feet deep
- South Features
 - 460,000 ac-ft, 17 feet deep
 - 90,000 ac-ft, 4 feet deep
 - 36,500 acres of STA; Talisman- Compartment A

Conceptual Configuration Performance – Cost



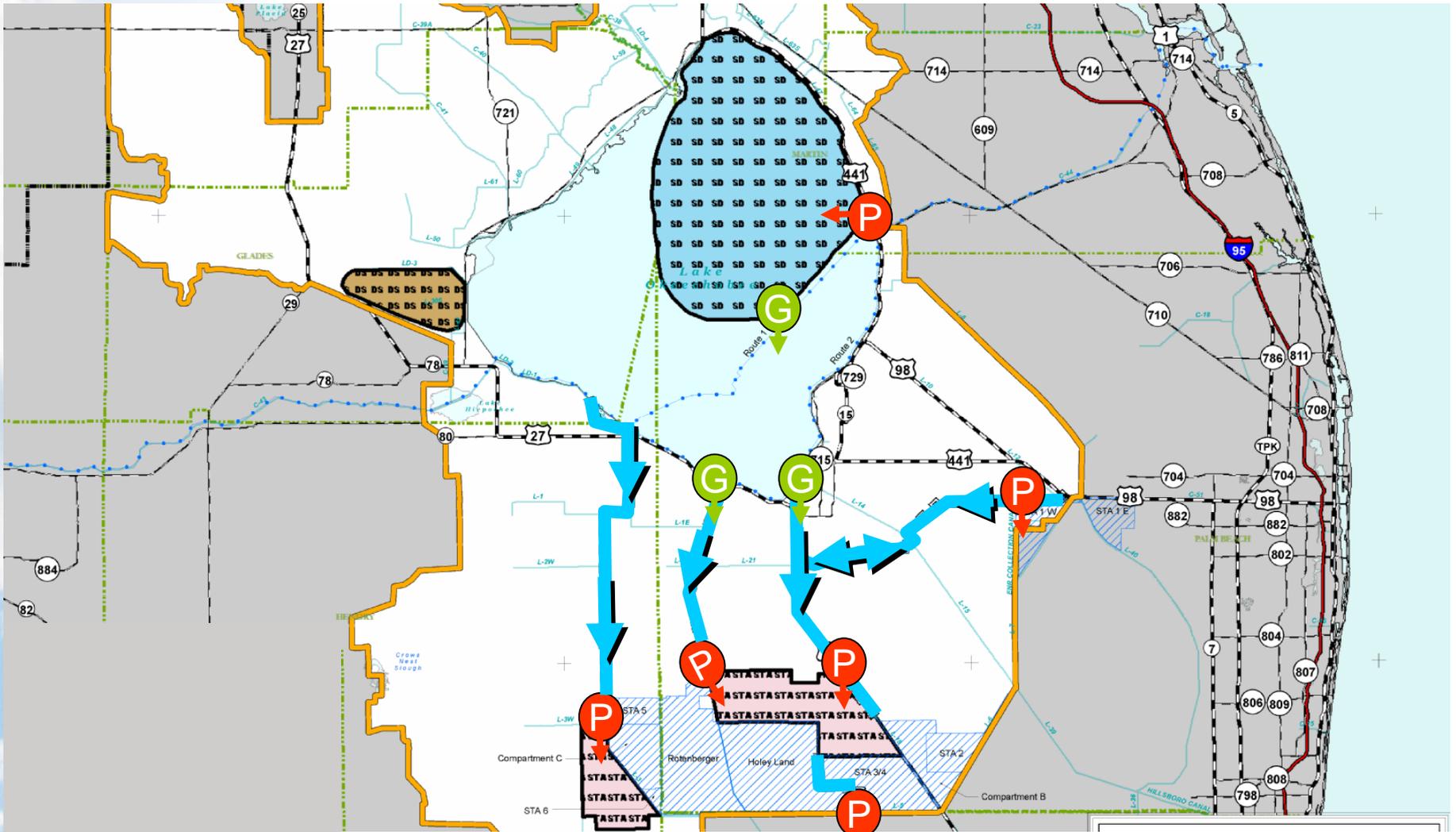
	Base (Current Conditions)	Target	Results
Estuaries-High Discharges (% reduction)	NA (84 months)	90%	94% (5 months)
Lake O-Stage Envelope (Std Score Above)	79%	NS	81%
Everglades- Demand Target (Std Score)	29%	90%	92%
Everglades- Dry Season Demand Target (Std Score)	42%	85-90%	91%
Increased Annual Average Flow to Everglades (kaf/yr)	NA (1,380 kaf)	NS	537

Reservoir Within Lake Okeechobee

Kevin McCarthy, Tom MacVicar, Rebecca Elliott, Linda McCarthy,
Scott McCaleb

- Construct a reservoir in the northeastern portion of Lake Okeechobee which will provide 1.2 million ac-ft of storage. The flows from Kissimmee River will not go into the reservoir but rather into the main portion of the Lake.
- Improve conveyance south of Lake Okeechobee to allow the movement of water from the Lake to a stormwater treatment area that will be constructed on Talisman-Compartment A.
- Construct an STA on USSC lands immediately west of STA 5/6 which will receive water from the S-4 Basin. Construct conveyance from the S-4 Basin to the new STA.
- Implement the Nicodemus Slough management measure with potential to store 30,000 ac-ft on 18,000 acres.

Conceptual Configuration Reservoir Within Lake Okeechobee



Conceptual Configuration Reservoir Within Lake Okeechobee



■ North Features

- 1,200,000 ac-ft; 8 feet deep; 158,000 acres within Lake Okeechobee
- Dispersed Storage- Nicodemus Slough; 18,000 acres

■ South Features

- 53,500 acres; Talisman- Compartment A and west of STA-5/6

Conceptual Configuration

Reservoir Within Lake Okeechobee

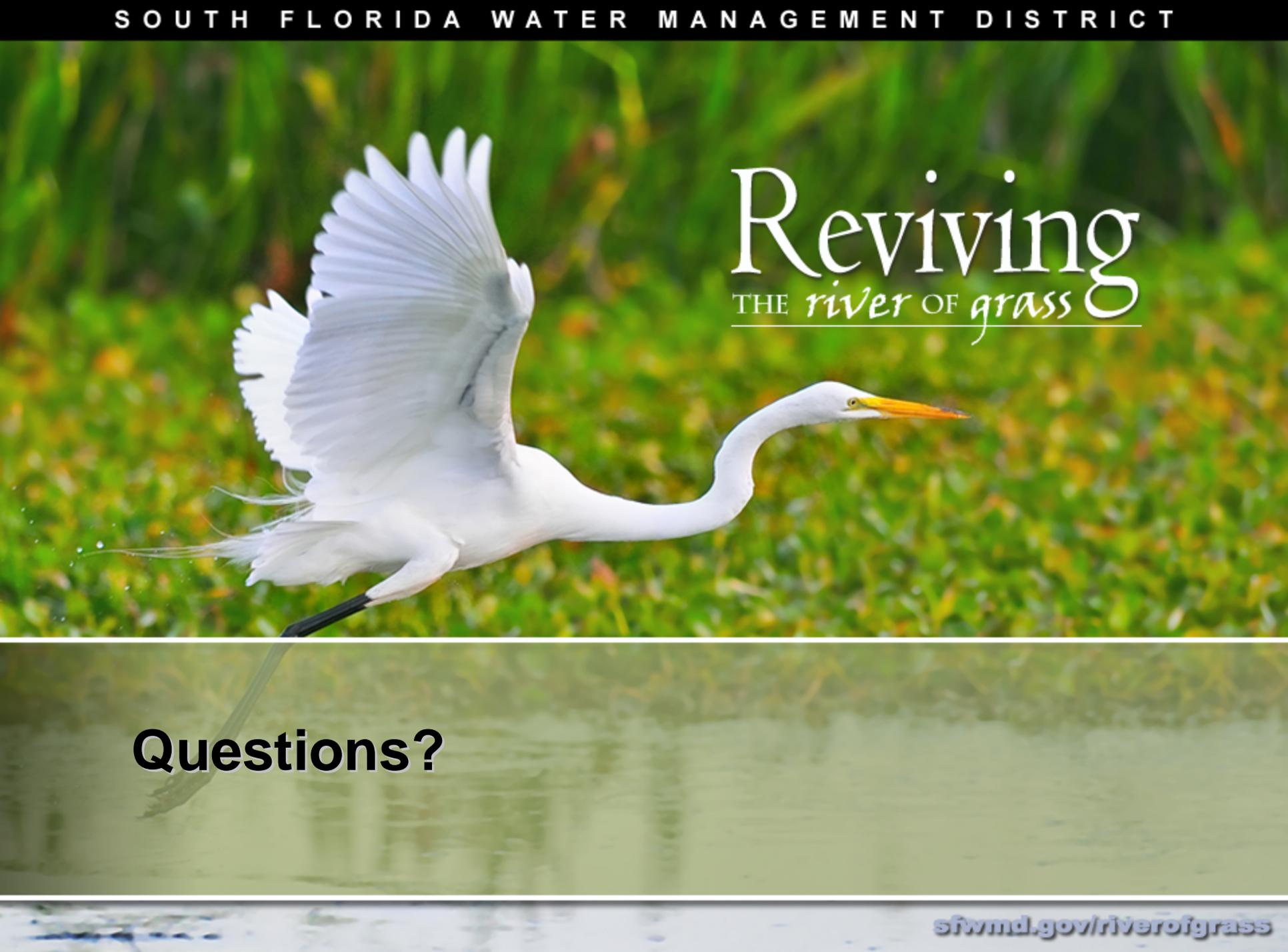
	Base (Current Conditions)	Target	Results
Estuaries-High Discharges (% reduction)	NA (84 months)	>95%	93% (6 months)
Lake O-Stage Envelope (Std Score Above)	79%	100%	87%
Everglades- Demand Target (Std Score)	29%	>90%	84%
Everglades- Dry Season Demand Target (Std Score)	42%	>90%	86%
Increased Annual Average Flow to Everglades (kaf/yr)	NA (1,380 kaf)	400	616

Conceptual Configuration

Next Steps



- Complete evaluation of conceptual configurations
 - Water quality
 - Planning level cost estimates
 - Economic impacts
- Evaluation of concept elements
- Formulation of suggested alternatives
- Periodic summaries to WRAC and Governing Board



Reviving

THE *river* OF *grass*

Questions?



Reviving
THE river OF grass

Stakeholder Involvement

Richard A. Pettigrew, Facilitator, Phase I Planning WRAC
Issues Workshops

Phase I Planning

Stakeholder Involvement

- Stakeholder Presentations on Approaches to Achieve Goals and Objectives
 - Forest Michael and Karl Wickstrom
 - Florida Crystals
 - US Army Corps of Engineers (USACE)
 - Everglades Foundation
 - Arthur R. Marshall Foundation
 - Department of Interior/Everglades National Park (DOI/ENP)
 - South Florida Water Management District (SFWMD)
 - Audubon

Phase I Planning

Local Government Involvement



- Local Government Presentations
 - Pahokee
 - Belle Glade
 - South Bay
 - Glades County/Moore Haven
 - Hendry County/Clewiston
 - Port of Palm Beach
 - Lee County

Phase I Planning

Stakeholder Involvement



- Utilizing the WRAC Issues Workshop format
 - 8 Workshops since January
 - encouraging stakeholder participation and input into the process
 - encouraging participants to stay involved throughout the process and to attend as many meetings as possible
- Conducting meetings in different locations/venues in order to reach out to all stakeholders

Phase I Planning

Stakeholder Involvement



- Ensuring all necessary information is available to the stakeholders
- Group conceptual configurations exercise:
 - Good attendance - important not only to the stakeholders but also SFWMD team to ensure they are getting all pertinent ideas and information
 - Participants are taking this seriously, listening to each other and working together
- Country-wide participation via webcast viewing

Phase I Planning

www.sfwmd.gov/riverofgrass



- Home
- About SFWMD
- Governing Board
- Regional Service Centers
- News, Events & Meetings
- What We Do
- Water Conservation
- Water Restrictions
- Procurement & Contracts
- Career Opportunities
- Recreation
- Education & Publications
- Technical Data & Docs
- Emergency Management
- Weather
- Water Conditions
- FAQs
- Contact Us
- Site Info
- ☞ Northern Everglades
- ☞ Kissimmee
- ☞ Lake Okeechobee
- ☞ Everglades
- ☞ Coastal Areas

☞ [back to Reviving the River of Grass home page](#)

Restoration Project Planning

On December 16, 2008, the South Florida Water Management District Governing Board voted to accept a contract with the United States Sugar Corporation to acquire more than 180,000 acres of agricultural land for Everglades restoration. This historic transaction provides water managers with the unprecedented opportunity to store and treat water on a scale never before envisioned for the benefit of America's Everglades, Lake Okeechobee and the St. Lucie and Caloosahatchee rivers and estuaries.

With full public involvement, the first phase of *River of Grass* restoration project planning is under way. Through a series of [Water Resources Advisory Commission](#) Issues Workshops, the Phase 1 planning process will determine viable configurations for constructing a managed system of water storage and treatment to support ecosystem restoration efforts.

Inform
decision
planning

RELAT

- ☞ [Publ](#)
- ☞ [New](#)
- ☞ [Rese](#)

RELATED MATERIALS

- ☞ [Public Workshops: Dates, Agendas, Presentations, Minutes](#)
- ☞ [News, Fact Sheets, Public Information](#)
- ☞ [Reservoir Sizing and Operations Screening \(RESOPS\) Model](#)



[Privacy Policy](#) | [Disclaimer](#) | [User Survey](#) | [Logout](#) | [Redline](#)

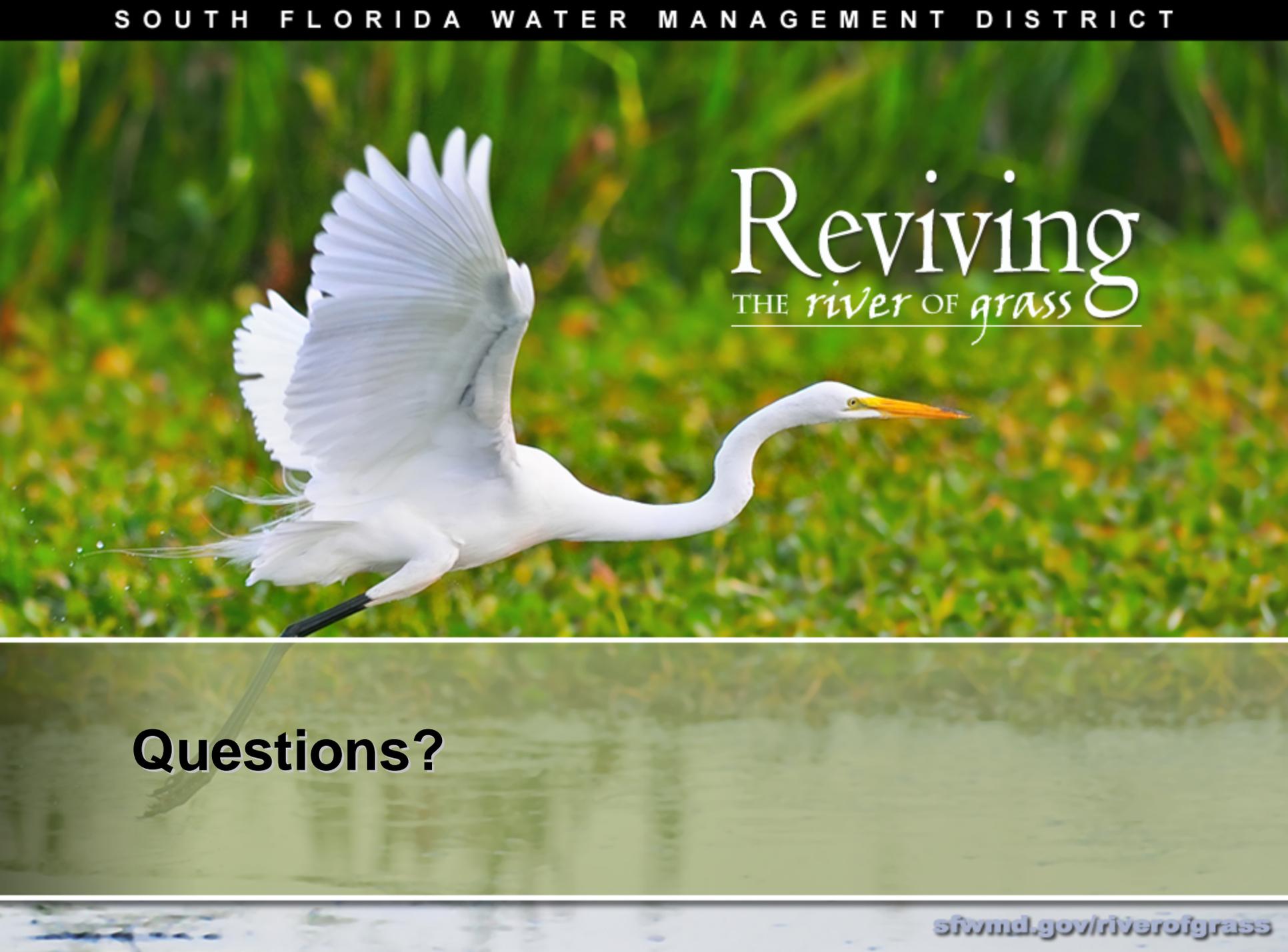
Phase I Planning
Next Meeting



Next WRAC Issues Workshop

May 19, 2009

**John Boy Auditorium
1200 South WC Owens Ave.
Clewiston, FL
10:00 a.m. – 4:00 p.m.**

A white egret is captured in mid-flight, its wings fully extended, flying over a body of water. The background is a lush green field of grass. The text 'Reviving THE river OF grass' is overlaid on the right side of the image.

Reviving

THE *river* OF *grass*

Questions?



Reviving
THE river OF grass

Next Steps
Carol Ann Wehle
Executive Director

Everglades Land Acquisition

Next Steps

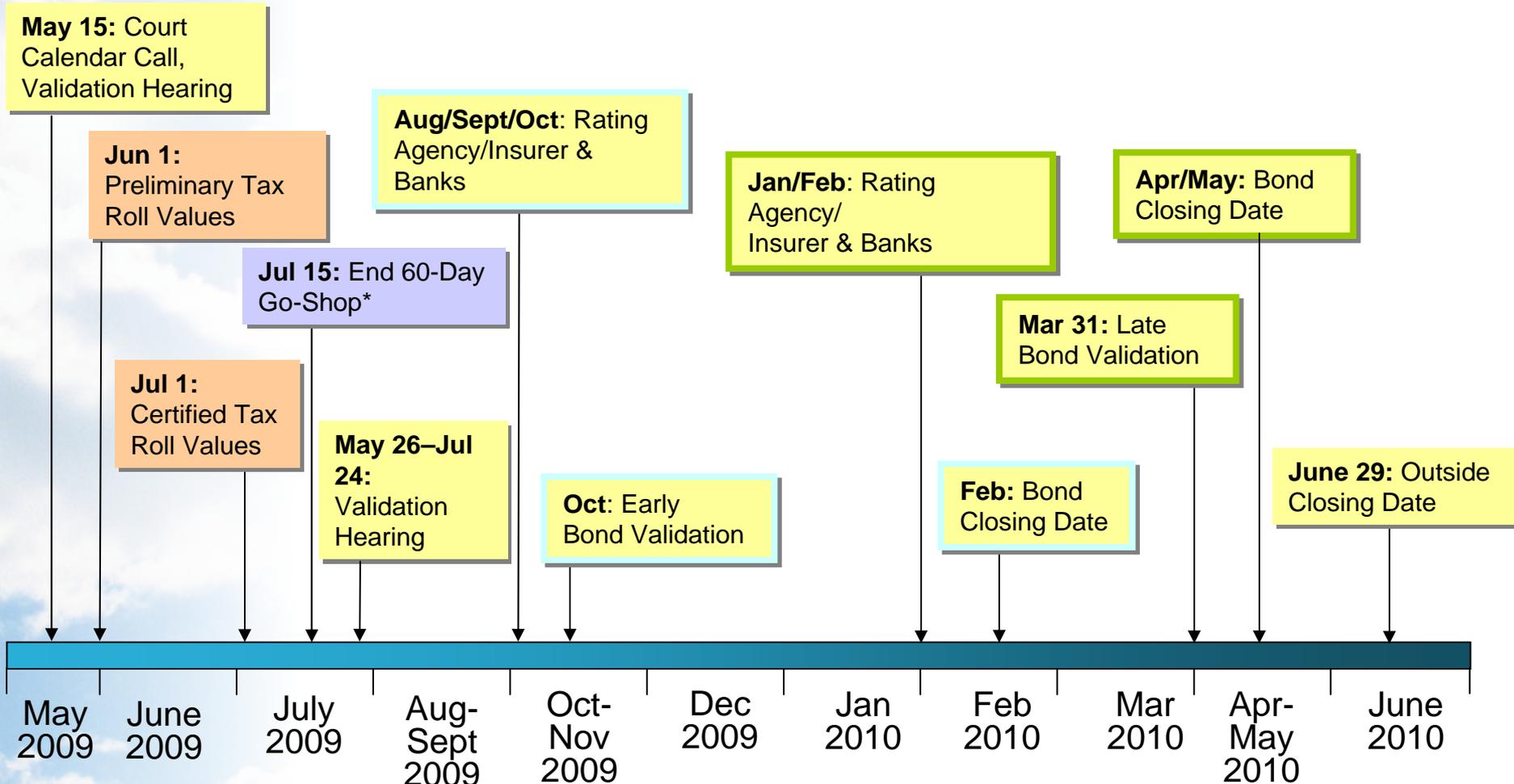
- **May 11 - Special Governing Board Workshop**
 - Present revised contract and lease to Governing Board for consideration and action
 - Continue strategic planning process
 - Determine Governing Board strategic priorities
 - Review available revenue streams and expense projections
 - Identify budget challenges and realities
 - Deliberate future policy decisions and funding allocations
 - Board discussion and direction

Everglades Land Acquisition Next Steps



- **May 13 & 14 – Governing Board Workshop & Regular Meeting**
 - Continued discussion and Governing Board action
- **May 19 & June 2 - Water Resources Advisory Commission (WRAC) Issues Workshop**
 - Continued restoration project planning
- **June 4 – WRAC Regular Meeting**
 - Acquisition, restoration project planning and strategic planning update

Next Steps Contract, Budget & Financing Timeline



*U.S. Sugar may accept a superior proposal up until validation occurs.

Everglades Land Acquisition

www.sfwmd.gov/riverofgrass



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

sfwmd.gov Search | Site Map | Help | Who to Contact | Español

- Home
- About SFWMD
- Governing Board
- Regional Service Centers
- News, Events & Meetings
- What We Do
- Water Conservation
- Water Restrictions
- Procurement & Contracts
- Career Opportunities
- Recreation
- Education & Publications
- Technical Data & Docs
- Emergency Management
- Weather
- Water Conditions
- FAQs
- Contact Us
- Site Info
- Northern Everglades
 - Kissimmee
 - Lake Okeechobee
 - Everglades
 - Reviving the River of Grass
 - Everglades Forever
 - After Hurricane Wilma
 - Coastal Areas

GOVERNOR CRIST UNVEILS HISTORIC PLAN TO REVIVE THE RIVER OF GRASS

South Florida Water Management District to negotiate acquisition of agricultural land to reestablish an historic connection between Lake Okeechobee and the Everglades

On June 24, 2008, Governor Charlie Crist announced that the South Florida Water Management District will begin negotiating an agreement to acquire as much as 187,000 acres of agricultural land owned by the United States Sugar Corporation. The vast tracts of land in the Everglades Agricultural Area would then be used to reestablish a part of the historic connection between Lake Okeechobee and America's Everglades through a managed system of storage and treatment and, at the same time, safeguard the State's and Federal's drinking water supplies.

Acquiring the e... to store and cl... and to better r... appraisals and in certificates o...

- Benefits from t...
- Increases coastal r...
 - Improver...
 - Preventin...
 - Eliminatio...
 - Sustaina...

RELATED MATERIALS

- » Acquisition Documents: Contracts and Due Diligence
- » Governing Board Presentations and Discussions
- » Restoration Project Planning
- » Resolutions, Letters, Proposals and Legal Proceedings
- » News Releases, Fact Sheets, eNewsletters and Photos
- » Guest Opinions, Editorials and News Articles
- » Public Records Requests

RELATED MA

- » News Relea
- » Presentatio
- » Guest Opin
- » Resolutions, Letters and Proposals
- » Public Records Requests
- » Acquisition Documents: Contracts and Due Diligence