

LOXAHATCHEE RIVER WATERSHED RESTORATION PROJECT

Project Delivery Team

SMART Planning Kickoff Meeting

January 21, 2016

Federally designated as a National Wild and Scenic River, the Loxahatchee River and its watershed are homes to 33 federally threatened and endangered species, 20 federally protected migratory bird species, and 30 additional State's species of concern

***Trusted Partners Delivering Value,
Today and Tomorrow***



U.S. ARMY



US Army Corps
of Engineers

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One of the Last Old Growth Cypress
Floodplains in the SE Florida

Last Large Freshwater Wetland
Corridor in Project Area

Vulnerable estuarine habitats



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Introductions & Leadership Remarks

Tim Murphy (USACE) & Matt Morrison (SFWMD)

1. Name
2. Government organization/agency or Public



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Project Overview

Dr Orlando Ramos-Gines



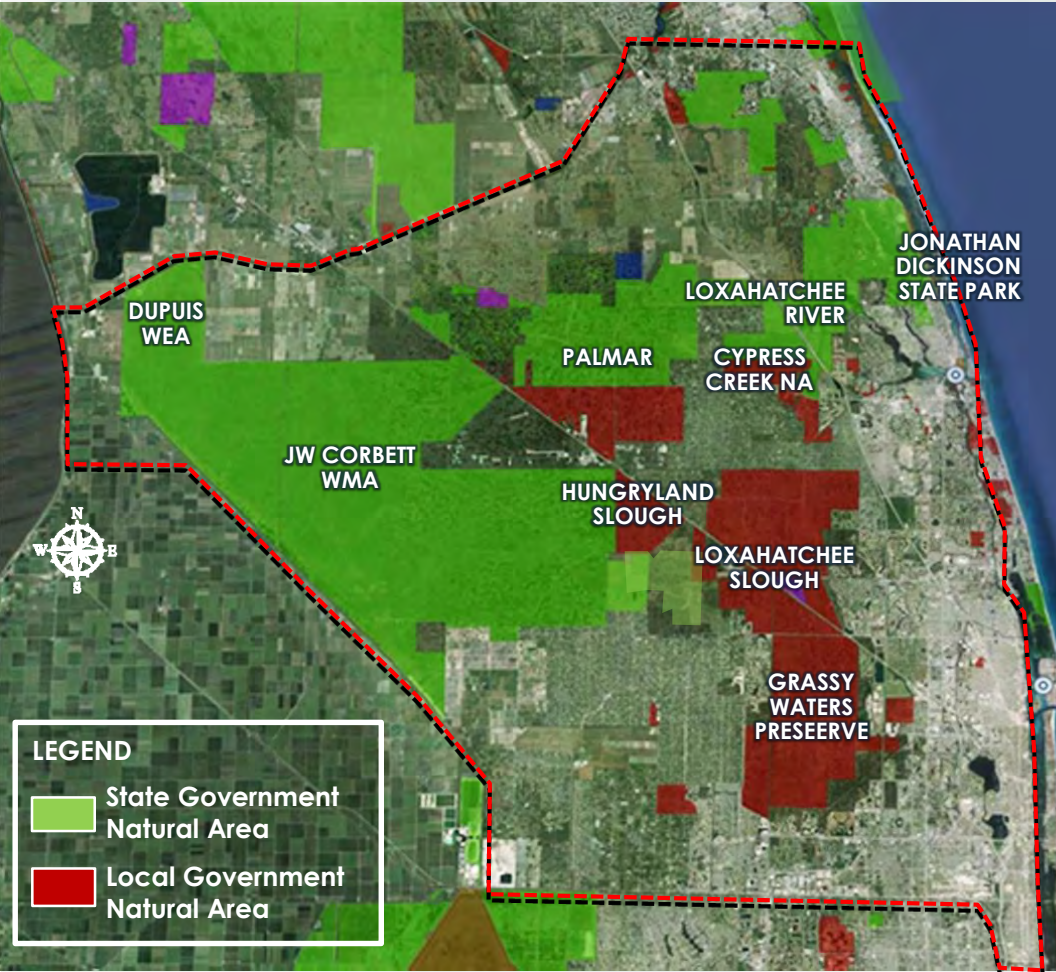
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LRWRP Quick Facts



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- Restoration included in CERP
- Part of original Everglades, but now hydrologically separated by C&SF project



- Loxahatchee River National Wild & Scenic River
- Only Cypress River Swamp left in Southeast Florida
- 13 federally-listed endangered or threatened species
- 41 state-listed species (including federally listed)
- 8 major natural areas to be reconnected & hydrology restored
- ~1,400,000 residents depend on 146 mgd water supply from watershed



Cypress



Loxahatchee River



Everglades Snail Kite



Problems in the Project Area

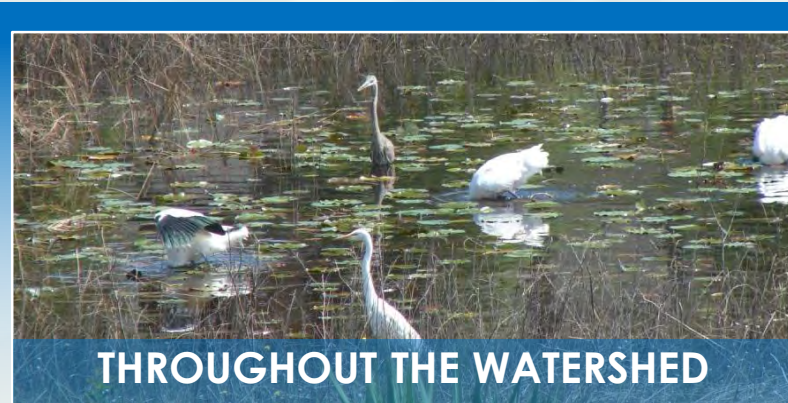


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LOXAHATCHEE RIVER

- Continued loss of adjacent freshwater Cypress Swamps
- Altered timing and distribution of headwater base flows to the Northwest Fork of the river
- Increased salinity in formerly freshwater reaches
- Increased wet season flows to Southwest Fork of the river & Loxahatchee Estuary



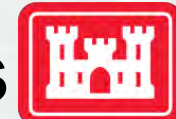
THROUGHOUT THE WATERSHED

- Degraded natural area's structure and function from altered hydrology
- Conversion of natural areas to agricultural, residential, and industrial uses
- Water quality impacts due to hydrology changes and urbanization
- Loss of connectivity due to barriers to flow (canals, levees, and roads) between natural areas, river, and estuary
- Reduced populations and diversity of native flora and fauna

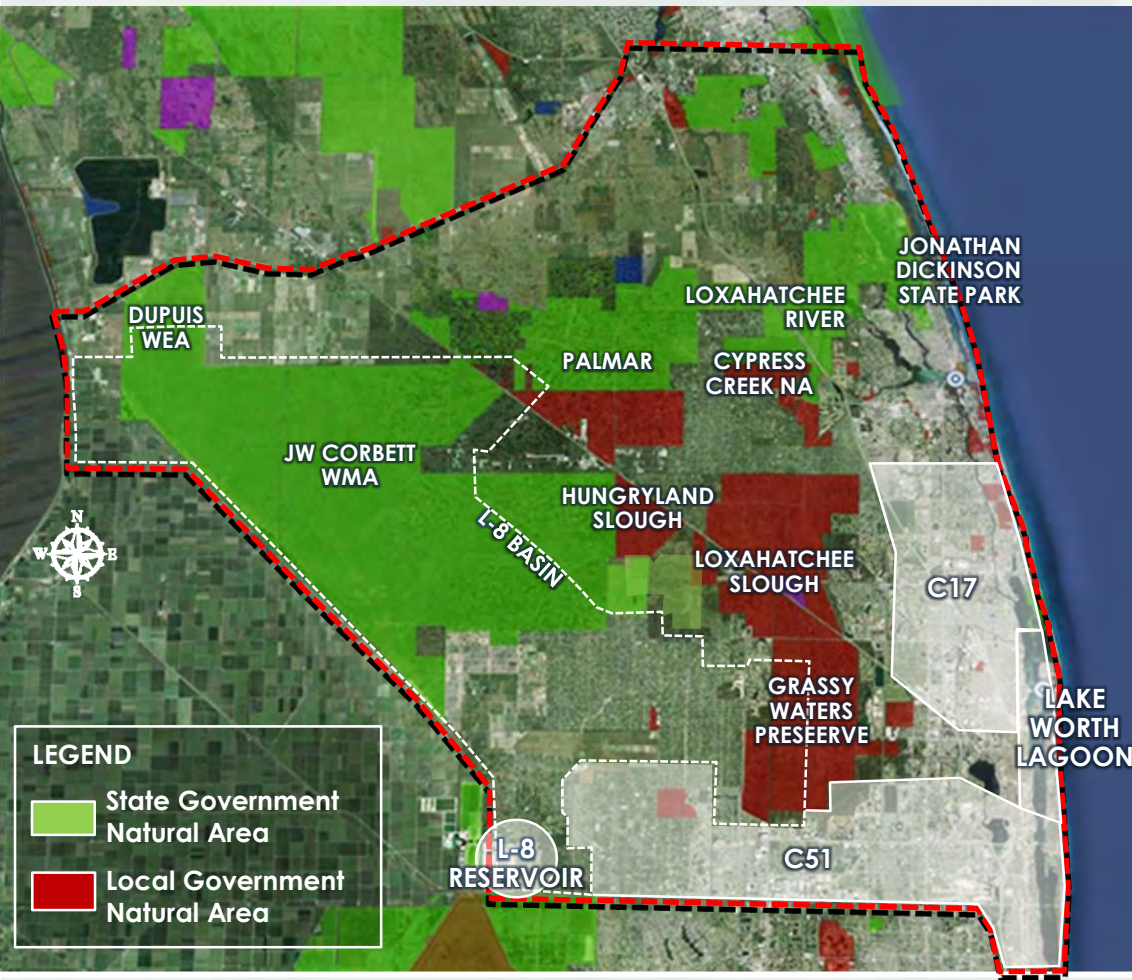


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Screening Project Area Components



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CERP Component 2003 Initial North Palm Beach County Part 1 (NPBC-1)	2011 NPBC-1 Draft AFB	2014 Initiate LRWRP
C-17 Backpumping and Treatment	out	out
C-51 Backpumping and Treatment	out	out
Southern C-51/L-8 Reservoir	in	In / out
Lake Worth Lagoon Restoration (OPE)	in	out
Pal-Mar and J.W. Corbett Wildlife Management Area (WMA) Hydropattern Restoration (OPE)	in	in
L-8 Basin Modifications	in	in
Aquifer Storage and Recovery (delayed)	delayed	in

PDT is reusing information developed in prior planning effort.



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Scope, Objectives, Timeline, and Budget

Drs. Brad Foster and Orlando Ramos-Gines



Study Scope



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Key Approaches

- **Project and Study Area**
- **Focus on Loxahatchee Estuary and its inland watershed**
- **Do not use Lake Okeechobee water directly or modify the Lake Okeechobee regulation schedule**
- **Restoration of natural areas and formerly agricultural lands; minimize displacement**

CERP Components

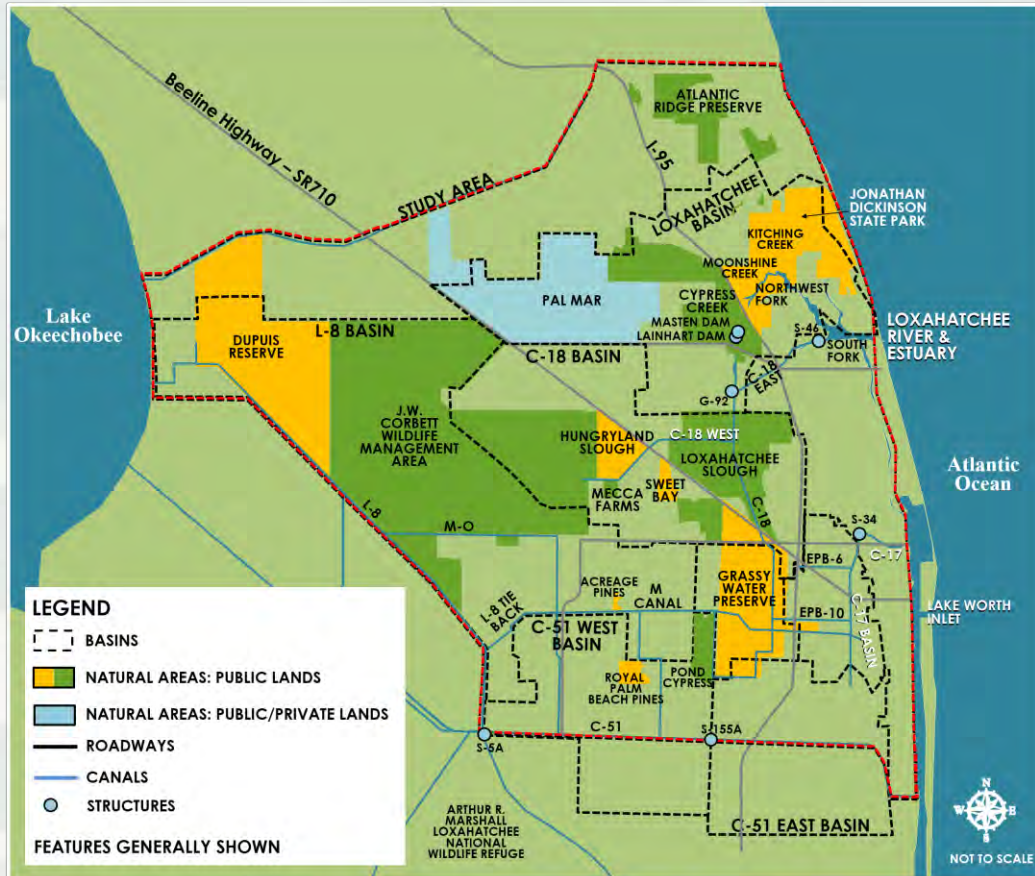
- **Pal-Mar and J.W. Corbett WMA Hydropattern Restoration (OPE)**
- **L-8 Basin Modifications (K, Ph 1)**
- **Aquifer Storage and Recovery (such as from K, LL, or VV)**



Study Area



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Key Natural Areas

- 1: Kitching Creek
- 2: Moonshine Creek
- 3: Cypress Creek
- 4: Lainhart Dam
- 5: Pal Mar
- 6: Hungryland Slough
- 7: J.W. Corbett Wildlife Management Area (WMA)
- 8: Dupuis Management Area
- 9: Loxahatchee Slough
- 10: Grassy Waters Preserve



Project Objectives & Constraints



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Objective 1: Restore wet & dry season flows of water to the Northwest Fork of the Loxahatchee River and the river floodplain

Objective 2: Restore estuarine communities in the Loxahatchee River Estuary

Objective 3: Increase spatial extent & function of remaining natural areas

Objective 4: Restore connections among the Loxahatchee River headwater natural areas to improve hydrology, sheetflow, hydroperiods, natural storage, & vegetation communities

Objective 5: Restore native plant & animal species abundance & diversity

Constraints: State and Federal laws & regulations; WRDA 2000 Assurances of Project Benefits requirements; water quality/nutrients; pre-existing compensatory mitigation sites



Timeline



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A 3-year study

- Kickoff
- Final Array of Alternatives
- Tentatively Selected Plan
- USACE & SFWMD approve TSP; begin public & agency review of Draft PIR/EIS
- Agency Decision
- Civil Works Review Board and review of Final PIR/EIS
- Chief of Engineers' Report
- Jan 2016
- Apr 2016
- Dec 2016
- Aug 2017
- Jan 2018
- Jul 2018
- Nov 2018

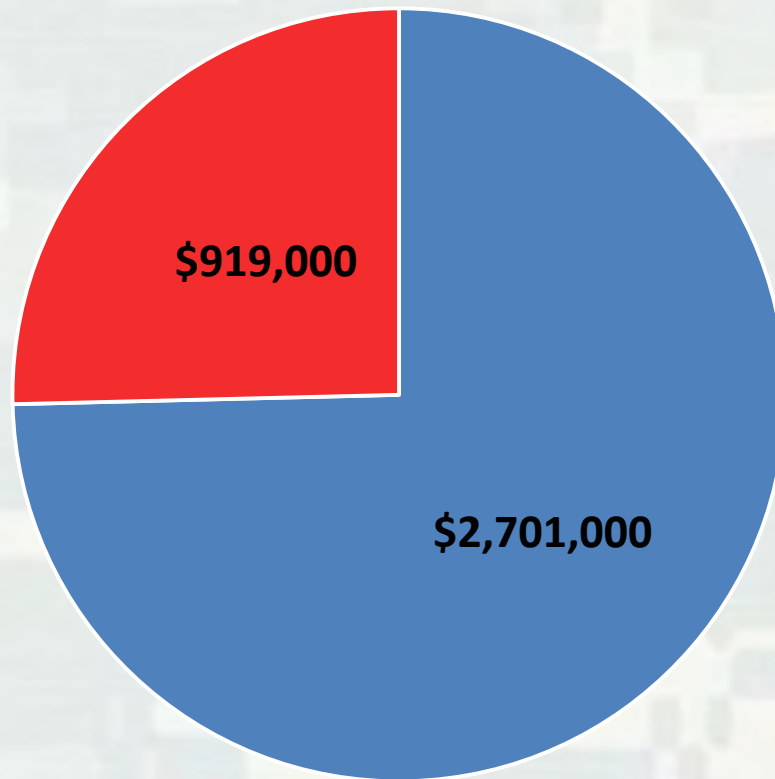


USACE and SFWMD Funding



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3-yrs from 21 Jan 16



■ USACE ■ SFWMD
\$3,620,000



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SMART and CERP Requirements

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MG Walsh Memo (3x3x3)



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- Effective 8 Feb 2012
- Applies to all planning studies
- Introduces aggressive approach to improve feasibility study program management, performance, execution & delivery
- Holds all Civil Works functional elements responsible & accountable

3x3x3 Rule:

- \$3 million
- 3 years
- 3 levels of enhanced vertical teaming
- 100 page main reports (w/ appendices 3" binder)
- Exemptions are few and far between



USACE SMART Planning



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- Follows 6-step planning process
- Risk and uncertainty acknowledged and managed
- Risk informed decisions
- Fully compliant with National Environmental Policy Act
- Involves the public
- Shorter timing to complete report.

It is...

S pecific

M easurable

A ttainable

R isk-Informed

T imely



CERP Requirements



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CERP studies must do more than most USACE feasibility studies

- Savings clauses for water supply and flood protection
- Assurances for water made available for the natural system
- RECOVER coordination and reviews

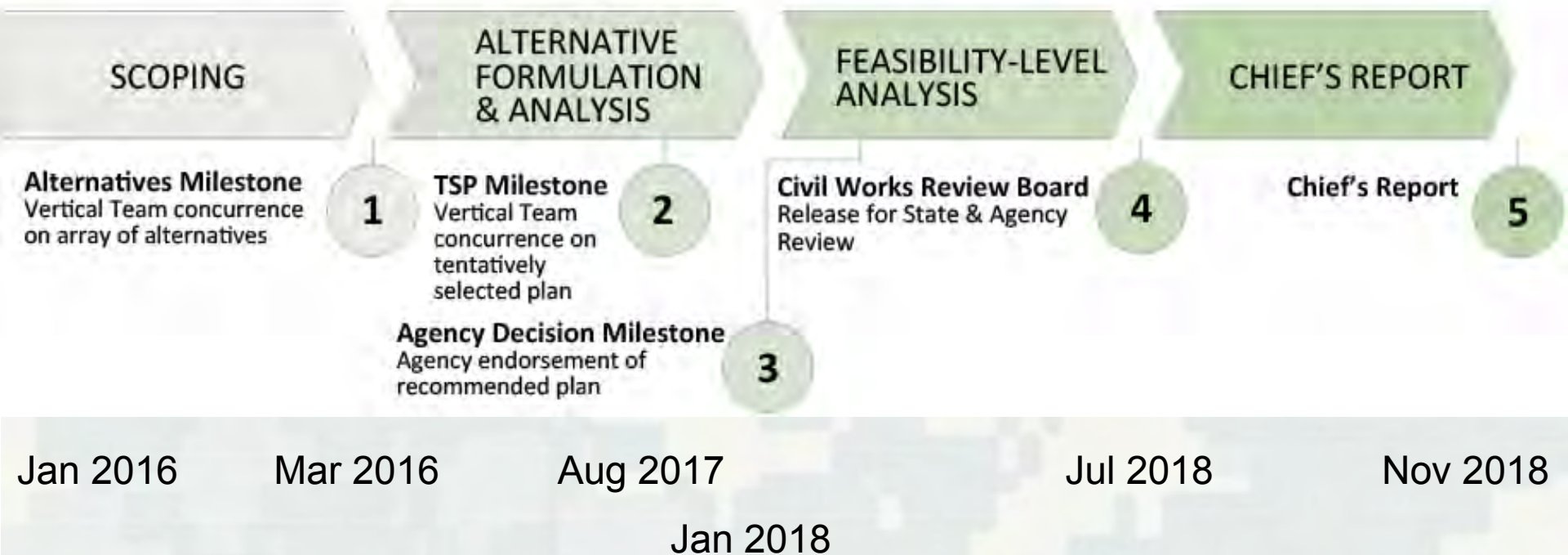


Decision Milestones



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SMART Feasibility Study Process 18-36 Months





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Planning Subteam

Dr Brad Foster



Plan Formulation Subteam



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Participating Agencies

- US Army Corps of Engineers
- US Fish and Wildlife Service
- South Florida Water Management District
- Florida Department of Environmental Protection
- Florida Department of Agriculture and Consumer Services
- Florida Department of Transportation
- Florida Fish and Wildlife Commission
- Martin County
- Palm Beach County
- City of West Palm Beach
- Indian Trail Improvement District



Plan Formulation Subteam Tasks



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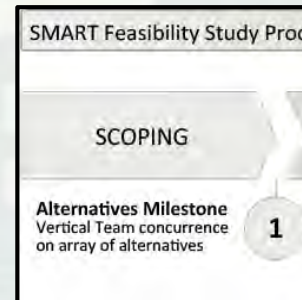
- ✓ Problems, opportunities, objectives, constraints
- Future without project assumptions
- Identify measures to address concerns
- Initial alternatives and screening
- Identify tentatively selected plan

Project Implementation Report - Environmental Impact Statement



D2 Briefly identify the risk. Considering the entry in column L, what can...

L	M	N	O	P	Q	R	S	T	U					
									V	W	X	Y		





Questions and Contacts



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- Plan Formulation Subteam Lead
 - Brad Foster (USACE), 904-232-2110
Bradley.A.Foster@usace.army.mil



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Ecological Subteam

Andy LoSchiavo, Patti Gorman



Ecological Subteam



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Participating Agencies

- USACE
- Environmental Protection Agency
- U.S. Fish and Wildlife Service
- National Marine Fisheries Services
- Natural Resources Conservation Service
- Loxahatchee River District
- City of West Palm Beach
- SFWMD
- Department of Environmental Protection
- Fish and Wildlife Conservation Commission
- Department of Agricultural and Consumer Services
- Palm Beach and Martin Counties
- Johnathan Dickinson State Park

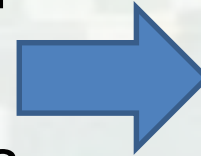


Roles and Responsibilities



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- ✓ Restoration performance measures
- Evaluate environmental effects and benefits
- Coordinate environmental concerns
- Identify measures to address concerns
- Monitoring and adaptive management plans



Environmental
Impact
Statement -
Project
Implementation
Report





Questions and Contacts



BUILDING STRONG

- Subteam Leads
 - Andy LoSchiavo (Corps), 904-232-2077
Andrew.J.Loschiavo@usace.army.mil
 - Patti Gorman (SFWMD), 561-682-2432
pgorman@sfwmd.gov



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Engineering Subteam

Dr June Mirecki, Scott Thourot



Engineering Subteam



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Participating Agencies

- US Army Corps of Engineers
- US Fish and Wildlife Service
- South Florida Water Management District
- Florida Department of Environmental Protection
- Florida Department of Agriculture and Consumer Services
- Florida Fish and Wildlife Commission
- Florida Department of Transportation
- Martin County
- Palm Beach County
- City of West Palm Beach
- Indian Trails Improvement District
- Hobe-St. Lucie Conservancy District



Engineering Subteam Tasks



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- Technical support to Plan Formulation Subteam
- Develops data and interpretations for hydrologic and geotechnical issues that arise during Alternatives Analysis
- Preliminary design and cost estimates
- Writes and reviews the Engineering Appendix of the EIS-PIR





Questions and Contacts



BUILDING STRONG

- Engineering Subteam Leads
 - Scott Thourot, SFWMD
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 - June Mirecki, USACE
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Modeling Subteam

Jessica Vogler, Laura Kuebler



Modeling Subteam



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Participating Agencies

- USACE
- Florida Department of Agriculture and Consumer Services
- Loxahatchee River District
- Indian Trail Improvement District
- SFWMD
- Martin County
- Palm Beach County
- City of West Palm Beach
- Town of Jupiter Utilities



Modeling Tools



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- Model Selection
 - Hydrologic model LECSR-NP applied for alternatives analysis
 - Ecological models use LECSR-NP output for performance measures
 - Optimization models use LECSR-NP output for screening alternatives
 - Groundwater modeling if ASR is included
- Model Validation (for software)
 - LECSR-NP is Approved for Use
 - OPTI is approved for one time use
- Model Review (calibration and application)
 - Previous reports have undergone review
 - Updated reports may require additional review



Key Modeling Issues



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- Existing Condition Assumptions
- Future Without Project Condition Assumptions
- Water Supply Demands
- Sea Level Change Guidance
- Climate Change Guidance



Modeling Products



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- Model assumptions documentation
- Model output for performance measures
- Model reports and presentations



Questions and Contacts



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- Modeling Subteam Leads
 - Laura Kuebler, 561-682-2815
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 - Jessica Vogler, P.E., 904-232-2102
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Real Estate Subteam

Emmanuel Freeman



Real Estate Subteam



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Participating Agencies

- USACE
- SFWMD



Roles and Responsibilities



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- Identify and describe the real estate required for the construction, operation and maintenance of the project.
- Identify and describe the facility/utility relocations that are necessary to implement the project.
- Determine the estimated real estate cost for the project.
- Provide the Real Estate Plan for Inclusion in the PIR for the project.



Questions and Contacts



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- Subteam Leads
 - Emmanuel Freeman, 904-232-1636
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Donald Nelson, 904-232-3874
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Project Meetings, Purposes, Frequencies, & Communications

Dr Orlando Ramos-Gines & Beth Kacvinsky



Meetings / Communications



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- Core Team
- Subteams
- PDT
- Public
- Tribal Coordination
- Panther Team – ad-hoc
- Others

LRWRP COMMUNICATIONS MATRIX								
Type	Objective(s)	Medium(s)	Frequency	Audience(s)	Owner(s)	Read-Ahead(s)	Deliverable(s)	Format(s)
Kickoff Meeting	Formal start of the Project Implementation Report efforts under the SMART (3x3x3) planning process. Discuss key project information, subteams roles and responsibilities, meetings and frequencies, communications, and next steps.	<ul style="list-style-type: none"> • Web-meeting, call-in 	Once	<ul style="list-style-type: none"> • Project Team and Interested Parties (Open to the Public) 	Project Managers	<ul style="list-style-type: none"> • Agenda • Presentations (if available) 	<ul style="list-style-type: none"> • Meeting summary • Final presentations 	<ul style="list-style-type: none"> • Word, Excel, PPT, PDF documents archived in SharePoint and Website
Core Team Meetings	Review schedule, products, deliverables, and expenditures. Discuss products, issues, and recommendations. Strategize next steps.	<ul style="list-style-type: none"> • Web-meeting, call-in • Face-to-face when needed 	Weekly	<ul style="list-style-type: none"> • Core Team 	Project Managers	<ul style="list-style-type: none"> • Agenda with topics for discussion • Updated trackers / logs • P2 schedules 	<ul style="list-style-type: none"> • Annotated agenda with discussions and agreements • Update to trackers / logs 	<ul style="list-style-type: none"> • Word, Excel, PPT, PDF documents archived in SharePoint and Website
Project Delivery Team Meetings	Review status of the project with the team. Develop / complete products and deliverables, work through comments and presentation materials for products and deliverables. Obtain comments from the public.	<ul style="list-style-type: none"> • Face-to-face with conference call and web meeting capabilities. 	At least once every 1-2 months	<ul style="list-style-type: none"> • Project Team and Interested Parties (Open to the Public) 	Project Managers	<ul style="list-style-type: none"> • Agenda • Presentations (if available) • Updated trackers / logs • P2 schedule • Issue paper (if any) • White paper (if any) 	<ul style="list-style-type: none"> • Annotated agenda with discussions and agreements • Final presentations • Update to trackers / logs • Annotated issue paper (if any) • Annotated white paper (if any) 	<ul style="list-style-type: none"> • Word, Excel, PPT, PDF documents archived in SharePoint and Website
Subteam Meetings	Discuss and develop technical solutions for the project. Work of products and deliverables	<ul style="list-style-type: none"> • Web-meeting, call-in • Face-to-face when needed • Individual discussion by telephone as needed 	<ul style="list-style-type: none"> • Weekly web-meeting, call-in • Face-to-face when needed • Call when needed 	<ul style="list-style-type: none"> • Project technical staff 	Technical leads	<ul style="list-style-type: none"> • Agenda • Issue paper (if any) • White paper (if any) • Draft PIR sections (when required) 	<ul style="list-style-type: none"> • Annotated agenda with discussions and agreements • Presentations (if any) • Revisions to products (issue/white/other papers) and deliverables 	<ul style="list-style-type: none"> • Word, Excel, PPT, PDF documents archived in SharePoint and Website

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Action: Discuss within subteams and provide comments by 29 Jan 2016



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Next Steps

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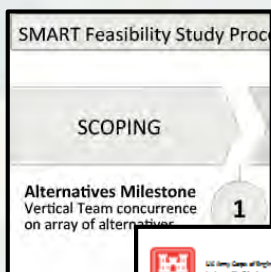
Next Steps

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✓ 3x3x3 Compliance Memo

- Updated Project Management Plan
- Budget and Schedule tables
- Risk Register (RR)
- Report Synopsis

- Existing Conditions and Future Without Assumptions
- Array of Alternatives
- Criteria to evaluate/compare alternatives
- Milestone 1 meeting with USACE HQ – April 2016



U.S. Army Corps of Engineers
Waterways Division

Local Alternative Water Allocation Resolution Project (LAWRP)

Decision Management Plan
The Mainland S. 12 Corridor

Last Updated: 27 October 2011

PLANNING OBJECTIVE
The purpose of the SWP is to identify (for energy), water, flood and resilience to future SWP compliance with the mission, vision and values.

PLANNING TO ADDRESS THE PLANNING OBJECTIVE
Question 1: [Redacted]
Question 2: [Redacted]
[Redacted]

PLANNING GOALS
[Redacted]

DECISION CRITERIA
The SWP will be evaluated using the criteria and metrics:
Question 3: [Redacted]
Question 4: [Redacted]

MEASUREMENT
How will we monitor for measure and used qualitatively and quantitatively?
[Redacted]

D.2 Briefly identify the risk. Considering the entry in column C, what can...

C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	



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Team Member Comments and Q&As

1. Your name
2. Your government agency (federal/state/local/tribal government) or which government agency you are representing (if consultant)
3. Be brief
4. Depending on comment or question, it may have to be followed during a subteam meeting



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Public Comments

1. Your name
2. Your non-government organization (general public, if none)
3. Be brief
4. Your comments are important
 - Comments will be considered, as appropriate



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Meeting Adjourned

Thanks for your attendance and participation!