

South Florida Ecosystem Restoration

Presented by:

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Biscayne Bay Regional Restoration
Coordination Team Meeting



US Army Corps of Engineers
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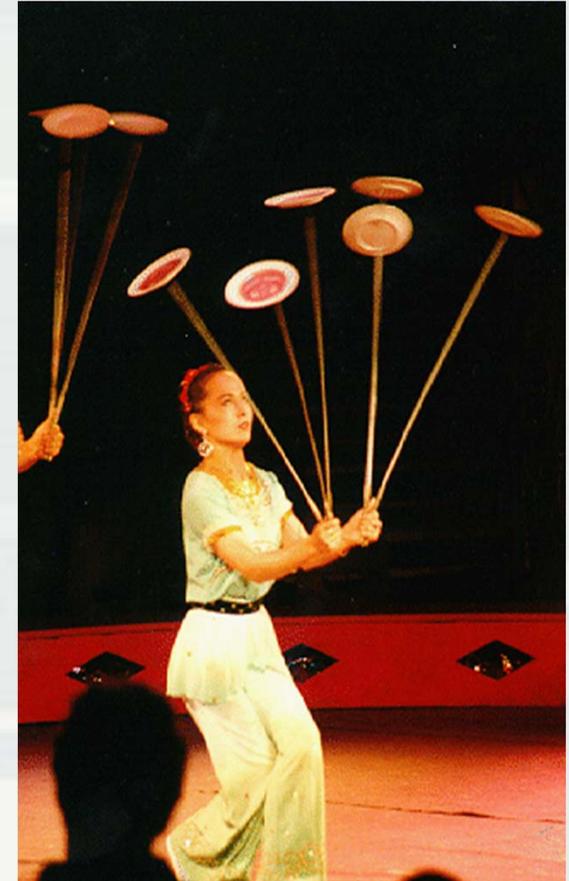
Outline

- ▶ Purpose and need for Integrated Delivery Schedule (IDS)
- ▶ How it was developed and updated to date
- ▶ Strategy for updating IDS
- ▶ Guiding Principles
- ▶ Public Workshop Efforts
- ▶ Next Steps

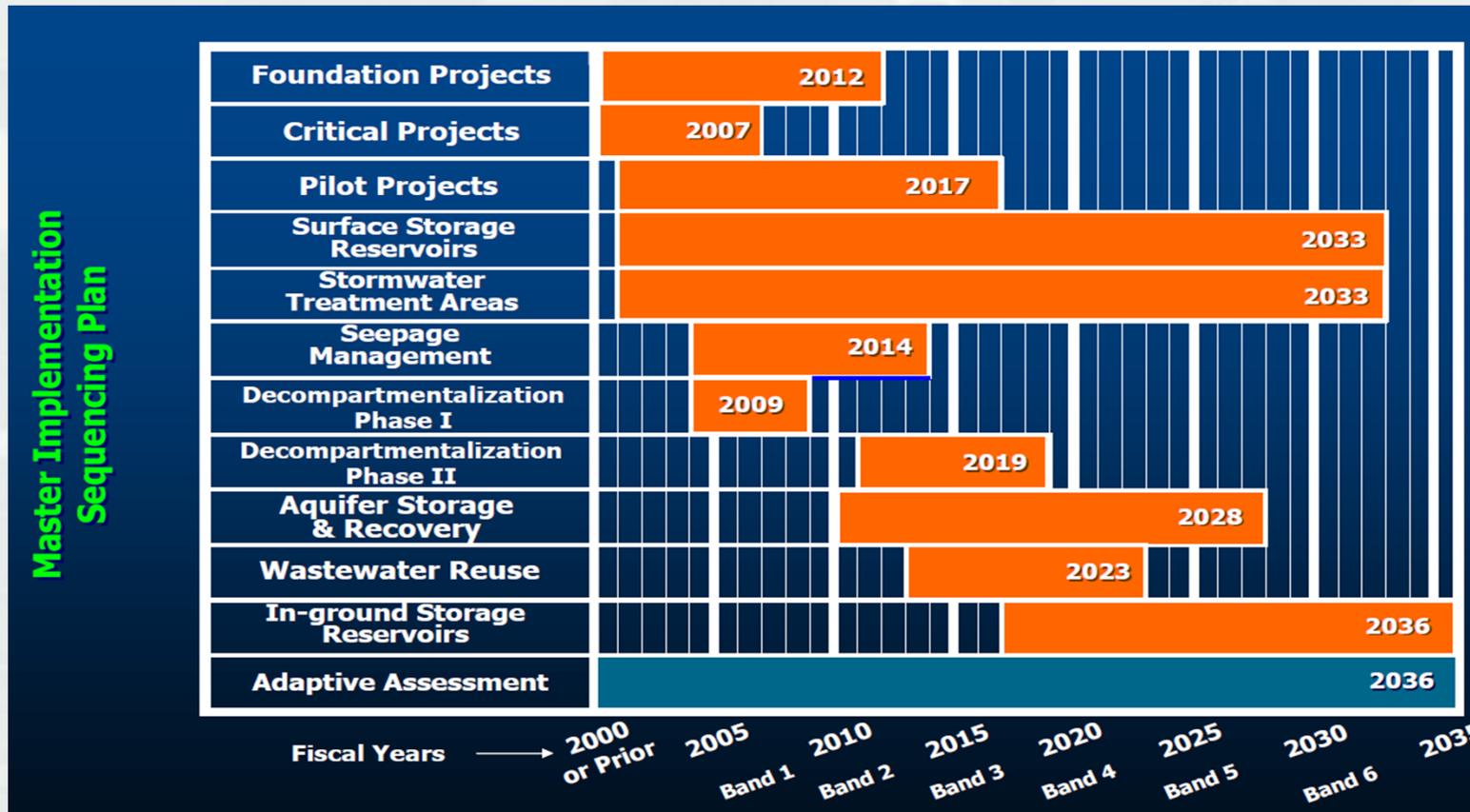


Purpose and History

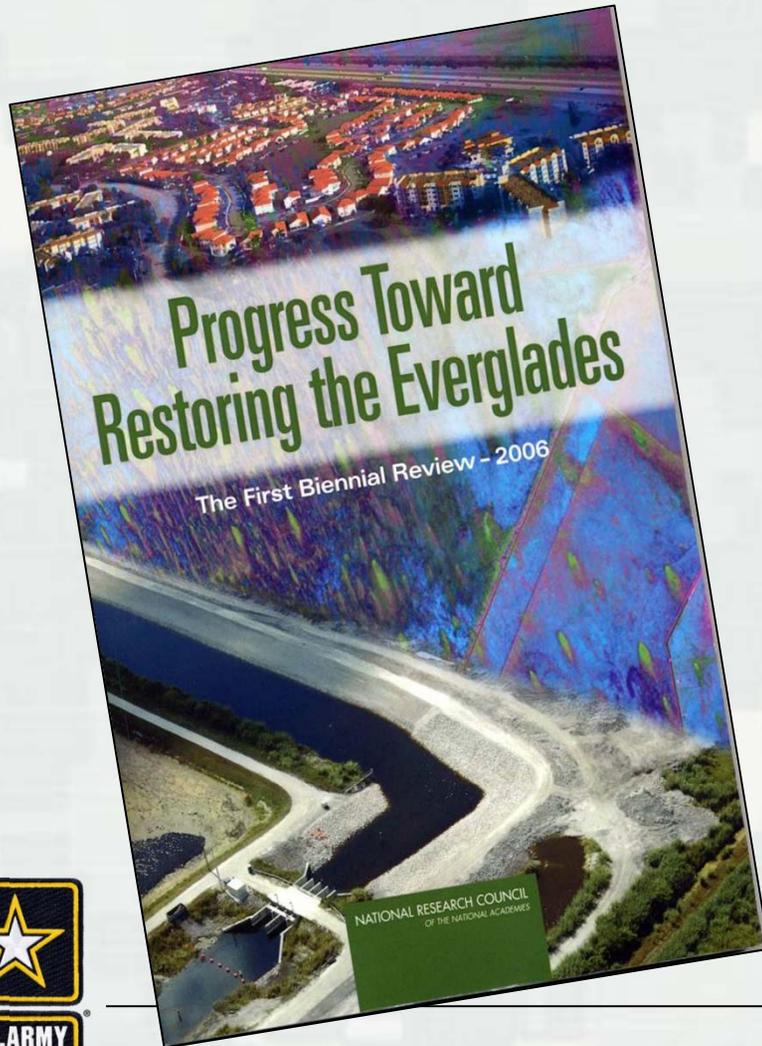
- **Yellow Book (1999)**
 - ▶ Contained implementation plan with GANTT chart showing sequencing of CERP projects
 - ▶ Based on annual funding level of \$200M Federal and \$200M non-Federal
 - ▶ 35+ Year implementation period
 - ▶ Coordinated with stakeholders prior to inclusion in Yellow Book
- **Master Implementation Sequencing Plan (MISP)**
 - ▶ Required by Programmatic Regulations
 - ▶ To maximize the achievement of the goals and purposes of the plan at earliest possible time and in the most cost-effective way
 - ▶ Completed in 2005, projects sequenced within 5-year bands



Initial Master Implementation Plan (2005)



2006 National Academy of Science Report to Congress



- Recommended Incremental Adaptive Restoration (IAR) approach to accelerate restoration of the natural system
 - ▶ Make investments that are significant enough to produce benefits while resolving scientific uncertainties
- IAR not simply reshuffling of priorities in project implementation schedule
- IAR approach supports adaptive management



2007 Government Accountability Office Report



- Core group of projects behind schedule
- No overarching sequencing criteria used for decision-making
- Sequencing plan in 2005 not consistent with established criteria
 - ▶ Sequencing driven by dependencies and available funds



Our Response - An Integrated Schedule

- Focus on delivering meaningful restoration benefits as early as possible
- Phase large projects as necessary to provide early benefits
- Program sequencing includes foundation projects as well as CERP projects



Development of Integrated Delivery Schedule (1+ Year Effort)

- Multiple iterations of vision statements
- Resulted in development of Guiding Principles
- Multiple scenarios developed based on different themes
 - ▶ Sheetflow by 2020
 - ▶ Lake Okeechobee and Northern Estuaries
 - ▶ Optimizing Storage and Flexibility
 - ▶ “Finish What’s on our Plate”
 - ▶ Hybrid Approach – combined “Finish What’s on Our Plate” with common desire to pull projects such as Decomp forward



▪ Considered multiple cash-flow scenarios for each theme



Guiding Principles for the Integrated Delivery Schedule (IDS)

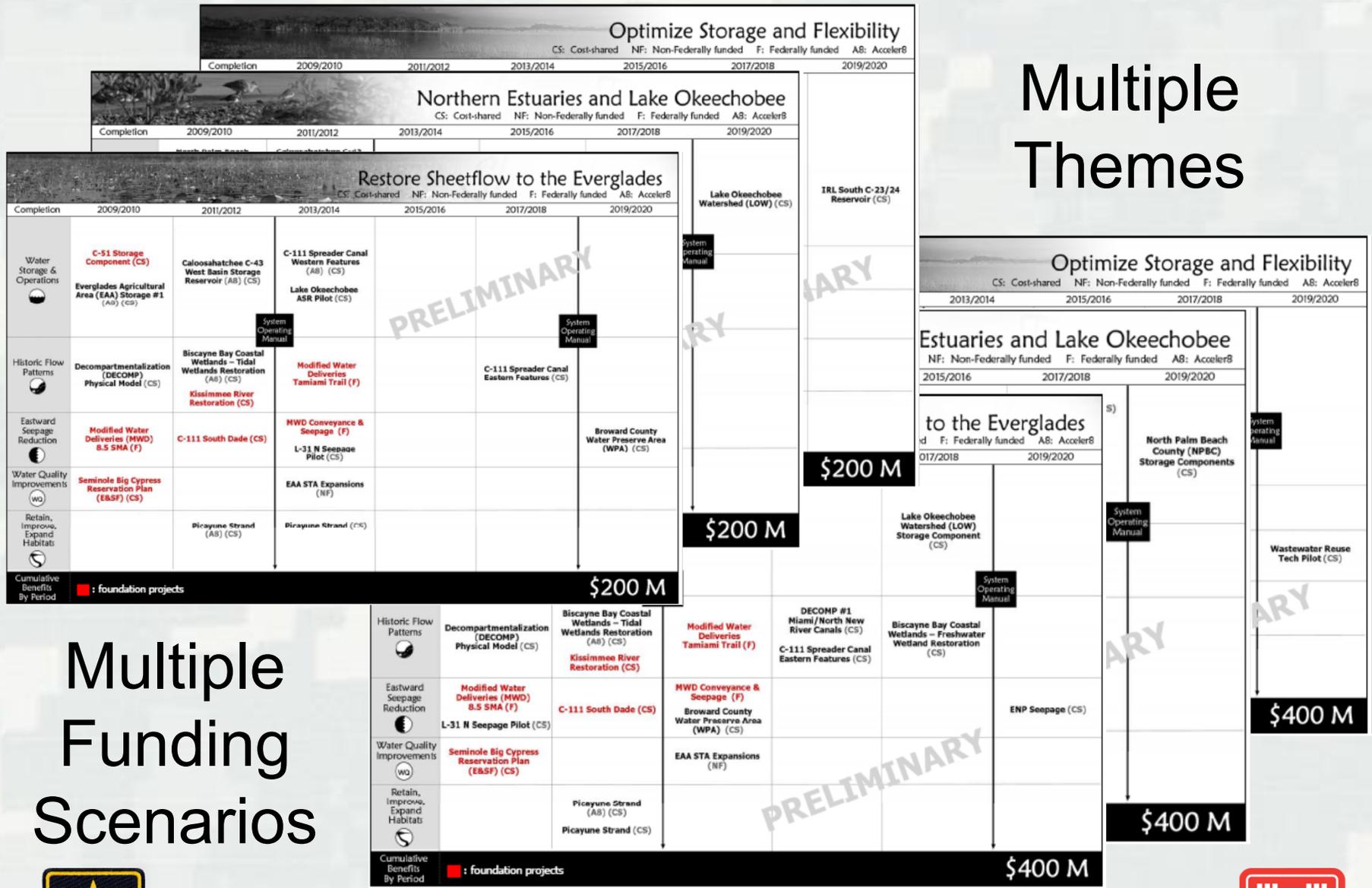
1. No CERP projects are being taken off the table; this re-evaluation is merely to update the project sequencing and develop a more realistic implementation schedule for the initial set of CERP projects to be constructed.
2. The Integrated Delivery Schedule acknowledges the Federal and State agencies commitment to complete the implementation of key ongoing projects. The term "commitment" refers to projects currently authorized, under construction or both. It includes the "Foundation Projects" (i.e. Modified Water Deliveries to ENP, Kissimmee River Restoration, C-111 South Dade, C-51/STA 1East, etc.) and other projects for which the Federal and State agencies have committed to accelerate implementation.
3. The IDS should include all projects related to the restoration of the Everglades. These projects include both State and Federal initiatives such as Herbert Hoover Dike Rehabilitation, the Northern Everglades Plan, and the Long-Term Plan for Achieving Water Quality Goals in the Everglades Protection Area.
4. The IDS Federal funding scenarios will only include those projects under the South Florida Everglades Ecosystem Restoration Program (SFEER). The SFEER projects include: MWD, Kissimmee, C&SF (includes C-111 SD, C-51, and CERP), and E&SF.
5. Projects should be implemented in a sequence that achieves restoration objectives at earliest practicable time, consistent with funding constraints.
6. As appropriate, projects should be broken into multiple Project Implementation Reports to facilitate the Incremental Adaptive Restoration (IAR) approach recommended by the National Academy of Science. Each separable element will conform to NEPA guidance, as well as other Federal and State laws.
7. The Integrated Delivery Schedule will provide the basis for the MISP update for CERP, as currently required by the Programmatic Regulations. The updated MISP, in turn, will be a major component of the wider-ranging IDS.
8. Project and component interdependencies will drive the sequencing order for constructing projects. (e.g., pilot projects must be completed prior to a full scale project.)
9. As appropriate, the Interim Goals and Targets should be used to measure restoration progress
10. Key points in implementation will be defined by new system operating manuals.

Guiding Principles

- Initial guiding principles developed by staff
- Guiding principles refined through the coordination, consultation and public engagement process during the development of the IDS



Multiple Themes



Multiple Funding Scenarios



“Finish What’s on our Plate” Scenario

Project or Project Component	Current Lead For Construction	Restoration Objectives				
		Re-Establish Sheet Flow to Central Everglades	Optimize Water Storage	Improve Water Quality	Restore Northern Ecosystems & Lake Okeechobee	Restore/Enhance Wetlands & Natural Areas
Current Federal and State Commitments - Foundation Projects (Notes 1, 2 & 3)						
Critical Restoration Projects (SBC ONLY)	Corps	X	X	X	X	X
C-111 South Dade	Corps	X	X	XX		XX
CS1/STA-1 East	Corps	X	X	XX		X
Kissimmee River Restoration	Corps		XX	XX	XX	XX
Modified Water Deliveries to ENP	Corps	XX	X			XX
Current Federal and State Commitments - Accelerated Implementation of Projects that are Included in CERP						
October 2003 Commitments (Note 4):						
Biscayne Bay Coastal Wetlands - Phase 1	SPWMD	X		X		XX
Broward County Water Preserve Areas	Corps	X	XX	XX		XX
C-111 Spreader Canal - Phase 1	SPWMD	XX	X	X		XX
C-43 West Reservoir	SPWMD		XX	X	XX	
EAA Storage Reservoir A-1	SPWMD	X	XX	XX	XX	
IRL-South: C-44 Reservoir and STAs	SPWMD		XX	XX	XX	
Picayune Strand Restoration	Corps		X	X		XX
Site 1 Impoundment	Corps		X	X		X
Other Commitments (Note 5):						
IRL-South: C-23/O-24 North STA	Corps		XX	XX	XX	
IRL-South: C-23/24 North Reservoir	Corps		XX	XX	XX	XX
IRL-South: C-23/24 South Reservoir	Corps		XX	XX	XX	XX
IRL-South: C-23/24 South STA	Corps		XX	XX	XX	XX
North Palm Beach County - Part 1 (Select Features)	SPWMD		XX	XX	X	X
Winsberg Farm Restoration	Corps			X		
Current Federal and State Commitments - CERP Pilot Projects (Note 4)						
Hillsboro ASR	SPWMD		X			
Lake Okeechobee ASR	Corps		X		X	
L-31 N Seepage Management	Corps	X	XX			
Current Federal and State Commitments - CERP Feasibility Studies (These will be reflected as non-construction efforts only on the IDS splash charts.)						
ASR Regional Study			X			
Florida Bay/Florida Keys Feasibility Study						X
Southwest Florida Feasibility Study			X		X	X
Comprehensive Water Quality Feasibility Study				X		
Other Authorized CERP Projects/Project Components						
IRL South-Naples			XX	XX	XX	XX
IRL South-North Fork Complex			XX	XX	XX	XX
IRL South-Palmar Complex			XX	XX	XX	XX
IRL South-Cypress Complex			XX	XX	XX	XX
IRL South-C-25 STA & Reservoir			XX	XX	XX	XX
IRL South-Muck Remediation			XX	XX	XX	XX



Integrated Delivery Schedule (Federal Funding Scenario)

Projects	2009-2010	2011-2012	2013-2014	2015-2016	2017-2018	2019-2020	2021-2022
Foundation Projects	Manatee Pass Gates						
	Seminole Big Cypress						
	C-111 South Dade						
	C51/STA-1 East						
	Kissimmee River Restoration						
	Modified Water Deliveries to ENP						
Expedited CERP Projects	Picayune Strand Restoration						
	Site 1 Impoundment						
	IRL-South C-23/24 North Reservoir						
	IRL-South C-23/24 South Reservoir						
	IRL-South C-23/24 STA						
	Winsberg Farm Restoration						
	Broward County Water Preserve Areas						
	Biscayne Bay Coastal Wetlands						
	C-111 Spreader Canal Phase 1						
	C-43 West Reservoir						
	IRL South-C-44 Reservoir and STA						
EAA Reservoir Phase 1							
Other Authorized CERP Projects	IRL South-Allapatah						
	IRL South-North Fork Complex						
	IRL South-Palmar Complex						
	IRL South-Cypress Complex						
	IRL South-C-25 STA & Reservoir						
IRL South-Muck Remediation							

Notes: Construction Only – A Subset of the IDS
Does not include Herbert Hoover Dike

\$200 M

Tiered Approach

Projects	2011-2012	2013-2014	2015-2016	2017-2018	2019-2020	2021-2022
Expedited CERP Projects	IRL South-C-44 Reservoir and STA					
	EAA Reservoir Phase 1					
Other Authorized CERP Projects	IRL South-Allapatah					
	IRL South-North Fork Complex					
	IRL South-Palmar Complex					
	IRL South-Cypress Complex					
	IRL South-C-25 STA & Reservoir					
Other CERP Projects	IRL South-Muck Remediation					
	ENP Seepage Management					
	Decomartmentalization Phase 1					
	Decomartmentalization Phase 2					
Other CERP Projects	Lake Okeechobee Watershed					

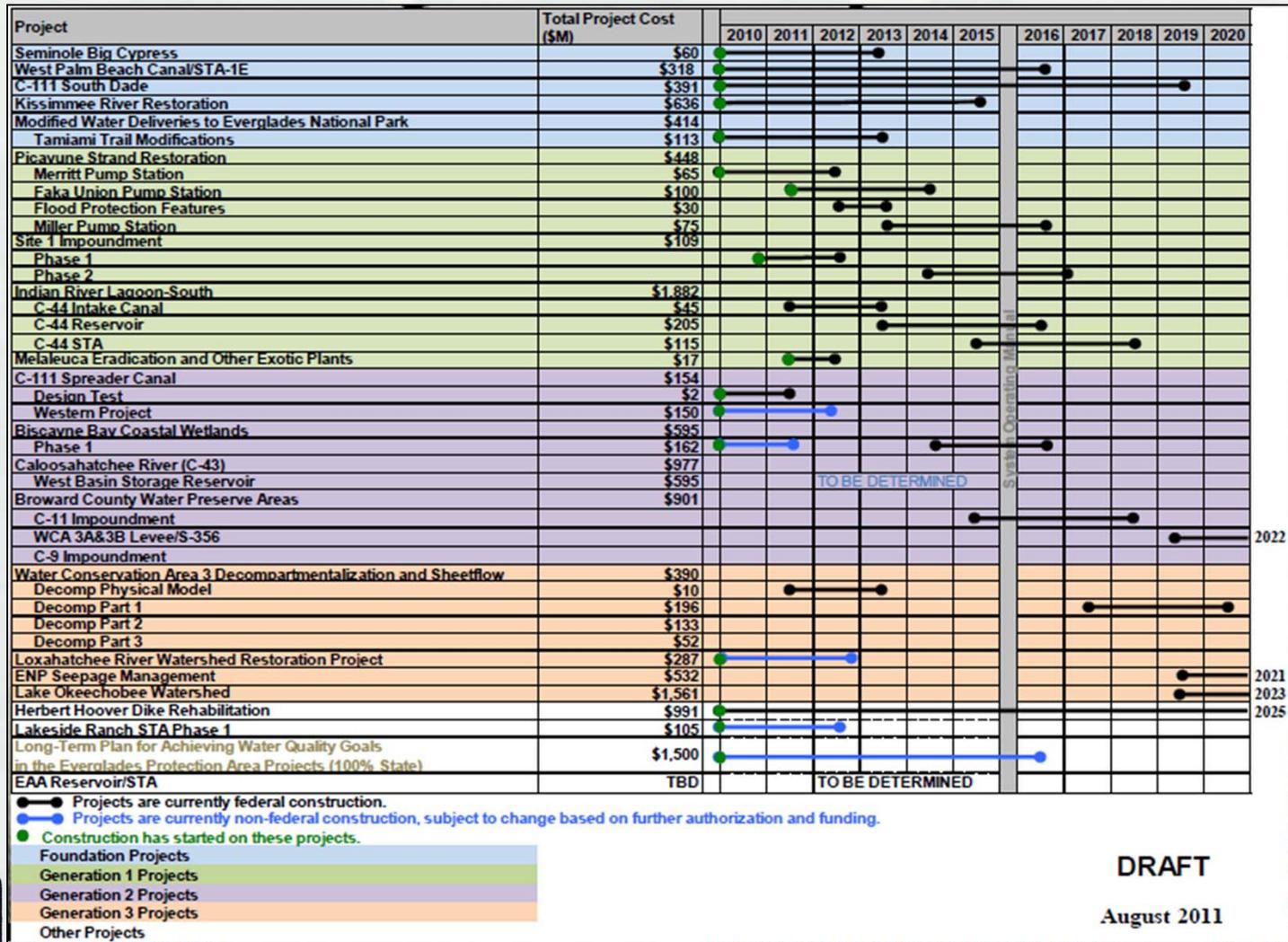
Notes: Construction Only – A Subset of the IDS
Does not include Herbert Hoover Dike

\$300 M

Hybrid Approach



2011 Integrated Delivery Schedule



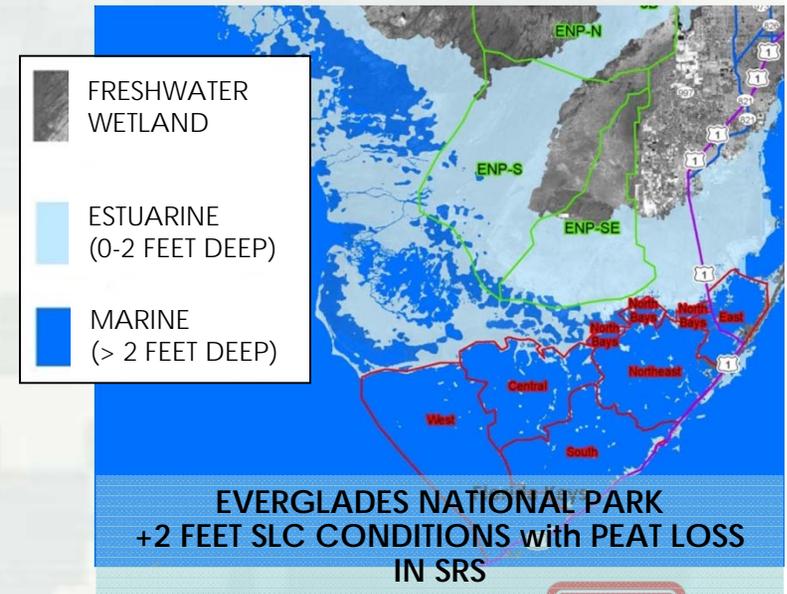
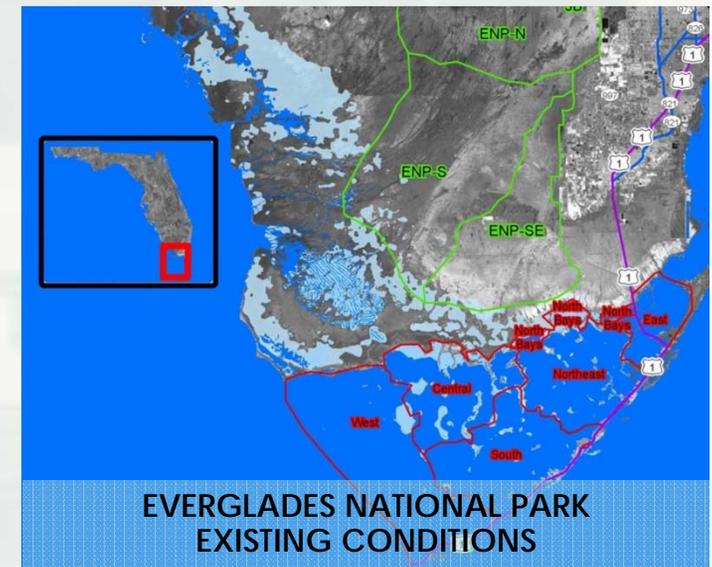
Additional Information to Consider in this Update to IDS since 2011

- Status of Restoration Program
 - ▶ Restoration Strategies identified and construction underway
 - ▶ Construction of CERP Generation 1 projects underway
- WRRDA 2014 Authorization of Generation 2 projects
 - ▶ Broward County Water Preserve Areas
 - ▶ Biscayne Bay Coastal Wetlands
 - ▶ C-43 West Basin Storage Reservoir
 - ▶ C-111 Spreader Canal Western Project
- National Academy of Science 2014 Report to Congress
 - ▶ Committee on Independent Scientific Review of Everglades Restoration Progress (CISRERP)
- Central Everglades Planning Project (CEPP) planning phase complete



CISRERP 2014 REPORT FINDINGS ON CLIMATE CHANGE AND SEA LEVEL RISE

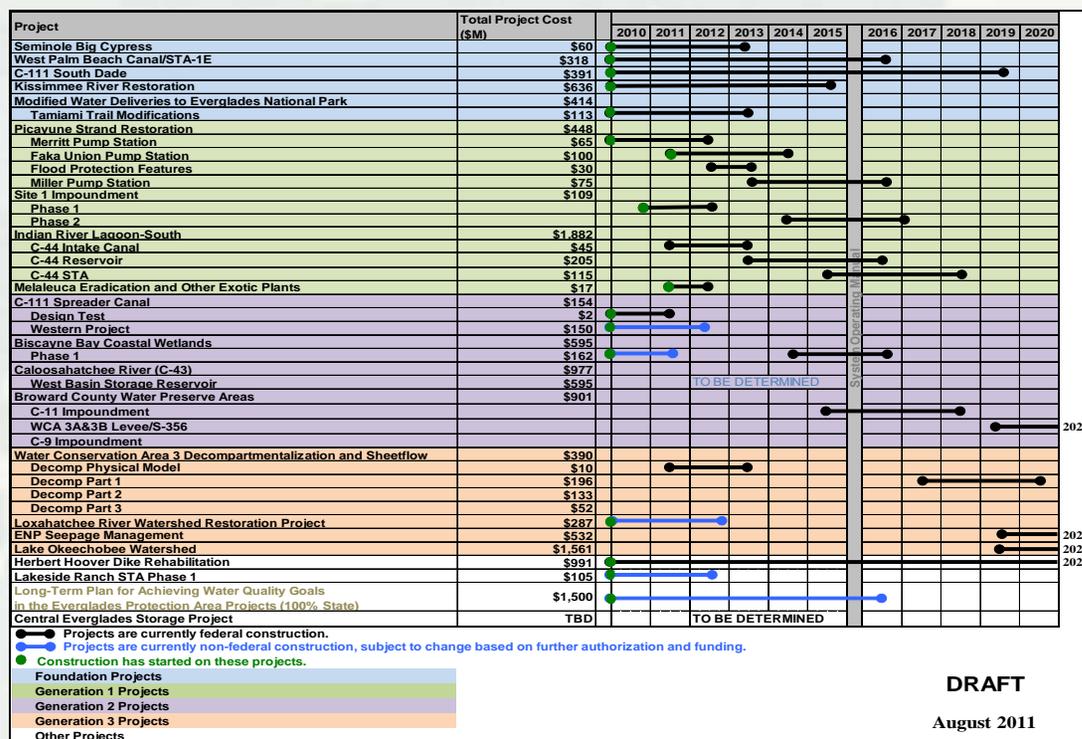
- Potential significant changes in precipitation and temperatures coupled with increasing sea level have important implications for the CERP (under some future scenarios there is “...insufficient freshwater to sustain the natural and built systems.”)
- Climate change is not adequately considered in the CERP planning process and should be integrated into future ongoing analysis and monitoring
- CERP planners should consider implications of sea-level rise and potential hydrologic change in systemwide planning and project prioritization
- High priority research needs related to climate change and Everglades restoration



2014 CISRERP Report - Scheduling

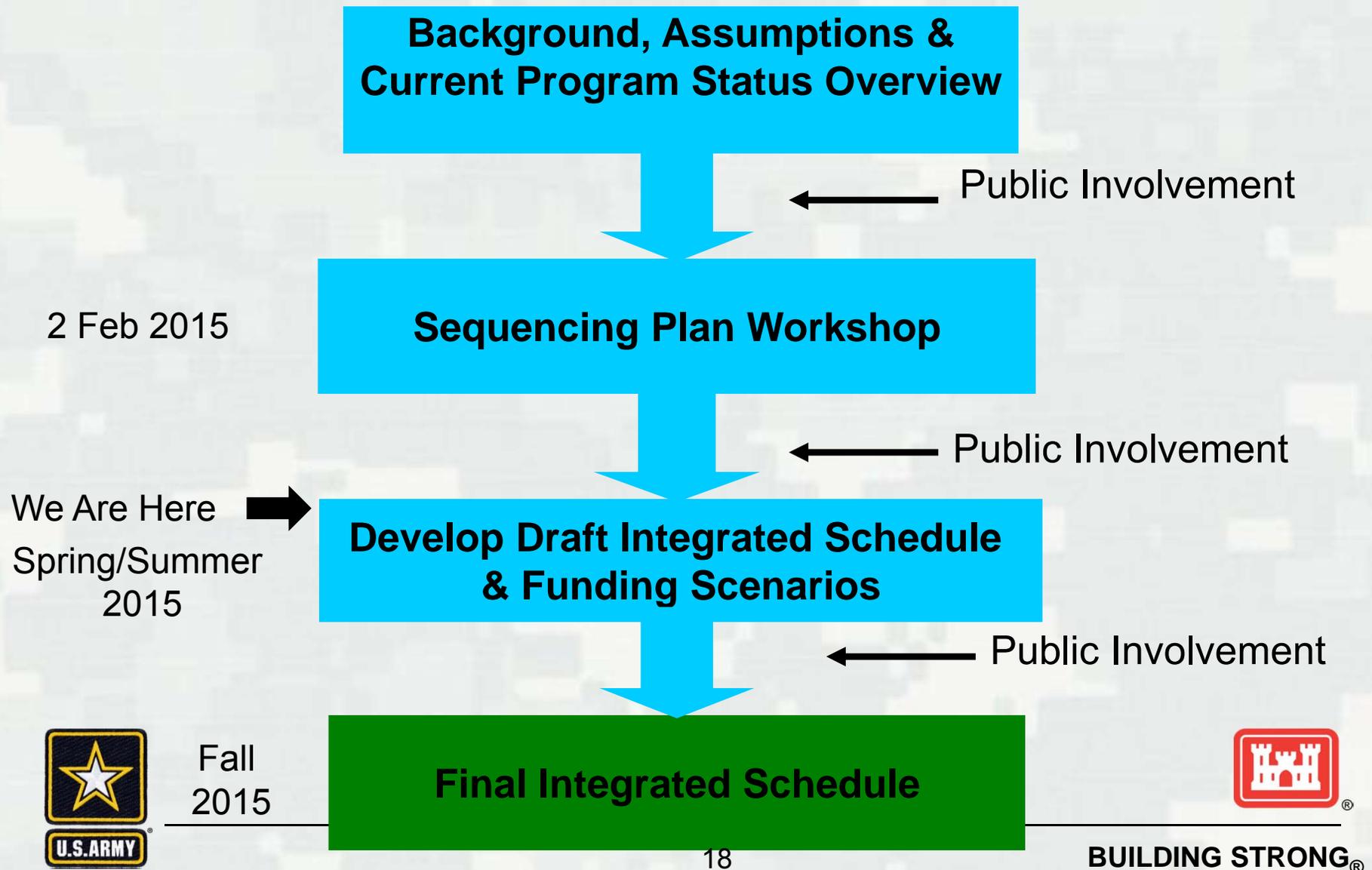
Integrated Delivery Schedule should be revisited with urgency to advance projects with greatest potential to avert ongoing degradation and promise the largest restoration benefits

- ▶ Difficult decisions, all projects cannot be advanced equally
- ▶ Climate change and sea level rise should be considered in project prioritization



DRAFT
August 2011

Integrated Schedule Process



CERP Vision Statement

“The overarching objective of the Plan is the restoration, preservation, and protection of the South Florida ecosystem while providing for other water-related needs of the region, including water supply and flood protection” (WRDA 2000).



CERP GOALS AND OBJECTIVES (Table 5-1 of Yellow Book)

GOAL: Enhance Ecological Values

- Increase the total spatial extent of natural areas
- Improve habitat and functional quality
- Improve native plant and animal species abundance and diversity

GOAL: Enhance Economic Values and Social Well Being

- Increase availability of fresh water (agriculture/municipal/industrial)
- Reduce flood damages (agricultural/urban)
- Provide recreational and navigation opportunities
- Protect cultural and archeological resources and values



IDS Guiding Principles

- The Integrated Delivery Schedule acknowledges the Federal and State agencies commitment to complete the implementation of key ongoing projects, which include projects authorized and under construction. It includes the “Foundation Projects” (i.e. those projects authorized before CERP to include Kissimmee River Restoration, C&SF: C-111 South Dade and C&SF: C-51/STA-1 East).
- All projects related to the restoration of the Everglades on which CERP is dependent will be considered in the development of the IDS but will not be included in the funding scenarios as these projects are funded through other program authorities or by other entities. These include both State and Federal initiatives such as Herbert Hoover Dike Rehabilitation, Modified Water Deliveries to ENP, Tamiami Trail Next Steps Bridging and the Restoration Strategies projects.



IDS Guiding Principles (cont'd)

- The IDS funding scenarios will only include projects funded through the Corps under the South Florida Ecosystem Restoration Program (SFER) which include: Kissimmee River Restoration, C&SF (includes C-111 South Dade, C-51/STA-1E and CERP).
- No CERP projects will be excluded as part of updating the IDS; this re-evaluation is merely to update the project sequencing and develop a realistic implementation schedule for the CERP projects.
- Projects should be implemented in a sequence that achieves the CERP restoration objectives at the earliest practicable time, consistent with funding constraints.



IDS Guiding Principles (cont'd)

- Project and/or project component interdependencies will drive the sequencing order for constructing projects.
- As appropriate, the Interim Goals and Targets should be used to measure restoration progress.
- The IDS incorporates the Master Implementation Sequencing Plan for CERP as required by the Programmatic Regulations.
- The IDS should consider the implications of climate change and sea-level rise and potential hydrologic changes to the system wide planning and project prioritization.
- Science should be an integral component of sequencing decisions.



Public Workshop Efforts



Draft IDS Worksheet

Project	Yellow Book Code	Fiscal Year															
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Federal Construction Cost			105	102	70	59	4	1	20	10	6	0	0	0	0	0	0
Non-Federal Construction Cost			66	90	45	2	2	1	1	1	1	0	0	0	0	0	0
Total Construction Cost			171	192	115	61	6	2	21	11	7	0	0	0	0	0	0
Modified Water Deliveries to Everglades National Park*																	
Herbert Hoover Dike*																	
Seminole Big Cypress*	OPE																
Restoration Strategies*																	
Tamiami Trail Next Steps Phase 1*																	
Kissimmee River Restoration																	
West Palm Beach Canal/STA-1E																	
C-111 South Dade																	
Picayune Strand Restoration	OPE																
Merritt Pump Station																	
Faka Union Pump Station																	
Manatee Mitigation and Flood Protection Features																	
Miller Pump Station																	
Remaining Features - Road removal and canal backfill																	
Site 1 Impoundment - Phase 1	M_P1																
Indian River Lagoon-South																	
C-44 Intake Canal	B																
C-44 Reservoir	B																
C-44 STA & Pump Station	B																
Decomp Physical Model	QQ_P1																
Caloosahatchee River (C-43) West Basin Storage Reservoir - Phase 1	D_P1																
Broward County Water Preserve Areas: C-11 Impoundment	Q																
Loxahatchee River Watershed Restoration Project	X, Y, K, GGG, OPE																

-● Operational Testing and Monitoring Period
- Design
- . - . ● Planning
- Construction

Blue = Non-Federal

Black = Federal

* Funded through other program authorities or by other entities.

Non-CERP and Foundation Project

CERP - Authorized, appropriated, PPA executed

CERP - Authorized, requires PPA

CERP Planning Phase - Requires authorization

CERP Project List Example

Project Name	Yellow Book Code	Purpose	Areas of Benefit							
			Lower East Coast	Lake O	Loxahatchee	WCAs	ENP/FI Bay	SLE	CE	Biscayne Bay
Big Cypress/L-28 Interceptor	CCC	Alleviates over drainage in Northeast Big Cypress, Kissimmee Billy and Mullet Slough area and ensure that inflows meet applicable water quality standards.				x				
Biscayne Bay Coastal Wetlands - Phase 2	FFF_P2	Redistributes freshwater flow and minimizes point source discharges by re-establishing connectivity between coastal and adjacent wetlands.								x
Biscayne Bay Coastal Wetlands Phase 1: Culter Wetlands	FFF_P1	Redistributes freshwater flow and minimizes point source discharges by re-establishing connectivity between coastal and adjacent wetlands.								x
Biscayne Bay Coastal Wetlands Phase 1: L-31 East Flowway	FFF_P1	Redistributes freshwater flow and minimizes point source discharges by re-establishing connectivity between coastal and adjacent wetlands.								x
Broward County Secondary Canal System	CC	Recharges wellfields in central and southern coastal Broward County, stabilizes the salt water interface and reduces storm water discharges to tide.	x							
C-111 Spreader Canal Eastern Project	WW	Reduces wet season flows in C-111, improve deliveries to Model Lands and Southern Glades and decreases potential flood risk in the lower south Miami-Dade area.					x			
C-111 Spreader Canal Western Project	WW	Reduces wet season flows in C-111, improve deliveries to Model Lands and Southern Glades and decrease potential flood risk in the lower south Miami-Dade area.					x			
C-4 Control Structure (Eastern)	T	Reduces regional system deliveries, increases recharge nearby in several coastal wellfields and control water levels in the C-4 Canal at higher elevation to reduce seepage losses from the Pennsuco Wetlands and areas to the west of the structure.				x	x			
C-43 West Basin Storage and ASR - Phase 2	D_P2	Captures basin runoff and releases from Lake Okeechobee, added water supply benefits, attenuates peak flow and provides environmental water supply deliveries to the Caloosahatchee estuary.		x						x
C-9 Stormwater Treatment Area/Impoundment	R	Provides treatment of runoff stored in North Lake Belt Storage Area, groundwater recharge within the basin and seepage control of WCA3 and buffer areas to the west.	x							
Caloosahatchee Backpumping with Stormwater Treatment	DDD	Captures excess C-43 Basin runoff to augment the regional system.								x
Central Everglades Planning Project - PPA New Water	G_P1, H_P1, V	Redirects damaging estuary discharges from Lake Okeechobee south to improve the flow, timing and distribution (QQTd) of water through and conditions within the Everglades.				x	x	x	x	
Central Everglades Planning Project - PPA North	H_P1, QQ_P1, II	Redirects damaging estuary discharges from Lake Okeechobee south to improve the flow, timing and distribution (QQTd) of water through and conditions within the Everglades.				x	x	x	x	



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Sequencing Plan Exercise



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Public Sequencing Plan Examples

Integrated Delivery Schedule Sequencing Plan Summary Sheet

Sequencing Plan Name: Establish a Unique and Descriptive Name of the Proposed Sequencing Plan.
Maximizing Ecological Benefits & Economic Return

Author of the Sequencing Plan: Identify the name of the Author(s) that developed the Sequencing Plan during the exercise and identify spokesperson if applicable.

Anticipated Benefits: Identify geographic, ecological, hydrological, and/or economic benefits of your sequencing plan.

This plan focuses on projects + the region to deliver widespread benefits from the Northern Estuaries Everglades and Biscayne National Park

Priorities for Concurrent Progress

Sequencing Plan: Identify projects in your recommended order of sequencing. (i.e. what projects show go below the black line on the Draft IDS Worksheet)

1. *Planning & Design*
 - EAA Reservoir Phase 1 & 2
 - BBCW Phase 1 & 2 (including 1A)
 - CIII Spreader remainder of West (198)
 - Remainder of IRL South
- 2.
- 3.
- 4.
5. *Construction*
 - Broward WPA
 - C43 (portion not funded)
 - CEPP (once authorized)
- 6.

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Integrated Delivery Schedule Sequencing Plan Summary Sheet

Sequencing Plan Name:
"Not Just Our Pet Pig": Northern Estuaries Protection and Everglades Benefits Sequencing Plan

Author of the Sequencing Plan: Identify the name of the Author(s) that developed the Sequencing Plan during the exercise and identify spokesperson if applicable.

Anticipated Benefits: Identify geographic, ecological, hydrological, and/or economic benefits of your sequencing plan.

Geographic: reaching an overarching goal for Everglades restoration: sustainable wading bird population, provide water supply for agriculture, and ability to send water to the ENP.

The following is an excerpt from the IRL-S PIR which supports geographic benefits of our sequencing plan. Although through write up we have relied heavily on our familiarity with the IRL-S, should be noted that this type of information is available for all listed in our sequencing plan.

"Further, scientists have identified the large spatial extent of one of the defining physical characteristics of the pre-drainage the south Florida wetlands, in combination with the complex multiple populations of plants and animals to thrive and persist the pre-drainage area in south Florida made it possible for the support genetically viable numbers and sub-populations of species ranges and/or narrow habitat requirements; • provide the aquatic large numbers of higher vertebrate animals in a naturally nutrient rich habitat; • sustain habitat diversity despite natural disturbances. The ability to recover from disturbances decreases as the available habitat diversity, the amount of seasonal refugia, and the number of species also decrease (USACE, 1999). In south Florida roughly 50 percent of the pre-drainage

Integrated Delivery Schedule Sequencing Plan Summary Sheet

Sequencing Plan Name: Establish a Unique and Descriptive Name of the Proposed Sequencing Plan.
Central Flow

Author of the Sequencing Plan: Identify the name of the Author(s) that developed the Sequencing Plan during the exercise and identify spokesperson if applicable.

Anticipated Benefits: Identify geographic, ecological, hydrological, and/or economic benefits of your sequencing plan.

- *Focus on implementing CEPP as quickly as possible with additional storage to relieve N. Estuaries + benefit Central Zone + Southern Estuaries + gain flexibility to adapt to climate change*
- *Control seepage E of WATS ENP + WATS to enable higher stages in the Everglades*
- *Continue progress on BBCW, CIII Spreader, Decomp*

Sequencing Plan: Identify projects in your recommended order of sequencing. (i.e. what projects show go below the black line on the Draft IDS Worksheet)

1. *CEPP: (a) South, (b) North, (c) New Water*
 2. *Storage: (a) HH benefits per reach (Interim LOS change)*
 3. *(b) Lake Okechobee Watershed*
 4. *(c) De-Restrict only: EAA Storage*
 5. *Seepage Mgmt: (a) ENP Seepage management*
 6. *(b) 3A/3B Seepage management, CII*
- To maximize ecol benefits:*
- (a) *complete CII SCW*
 - (b) *complete BBCW Ph. I*
 - (c) *After CEPP, complete remaining Decomp*
 - (d) *PIRS for CII ISC Eastern + BBCW Phase 2*
- Addendum from D. Rudnick: Inhibit L-28 interconnector project to address water quality issues (only)*

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Sub-set of CERP Projects Included by Workshop Participants

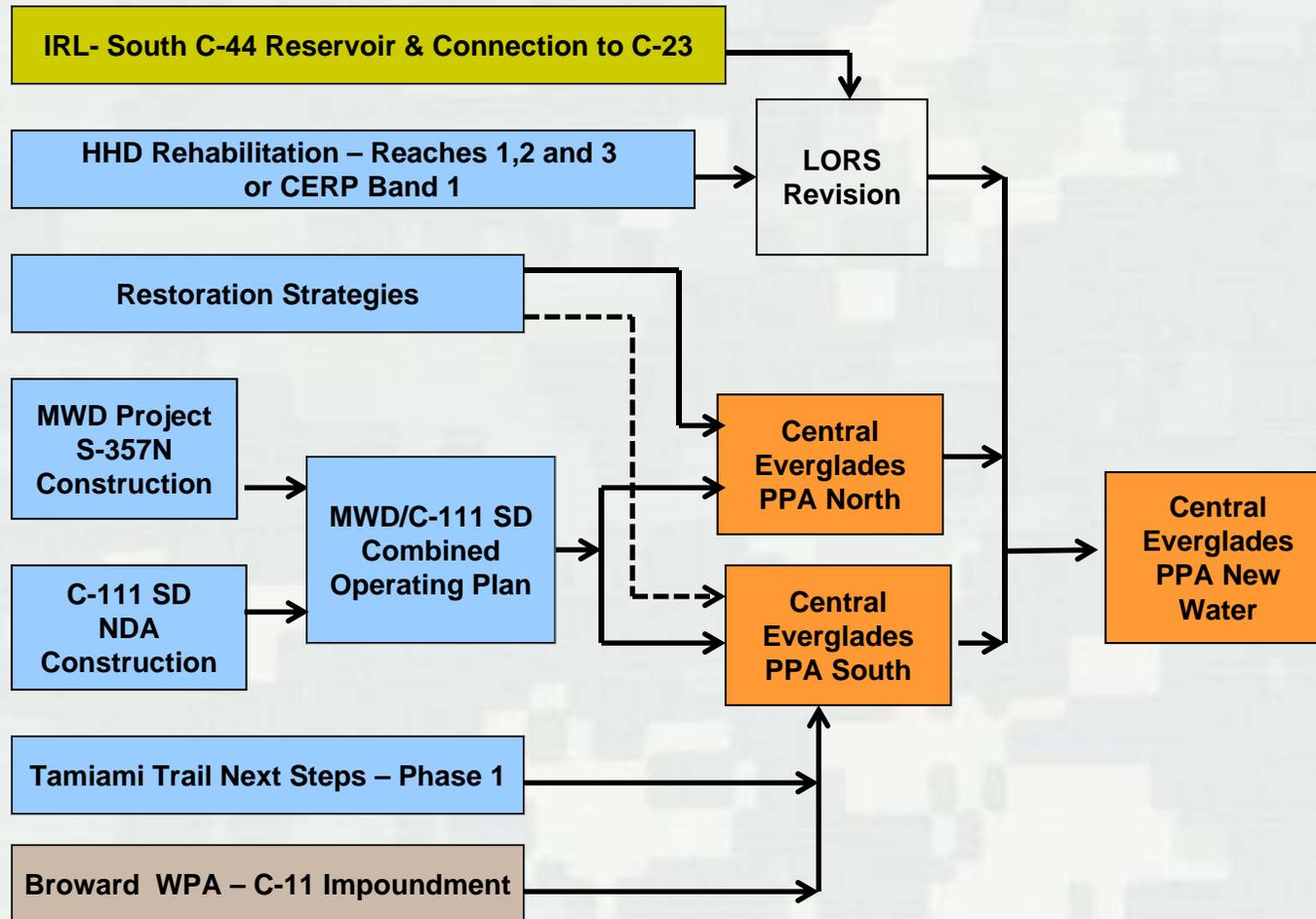
- BCWPA
- BBCW P1&P2
- C111SC P1&P2
- C-43
- CEPP
- Decomp
- EAA P1&P2
- ENP Seepage Management
- IRL-S C23/24, C25
- IRL-S Natural Lands
- L-28 Interceptor
- Lake Belt Storage
- LO ASR
- Lox River
- LOW
- Strazzulla (OPE)
- Operational Changes
 - Lake Istokpoga Regulation Schedule
 - HL & RTB
 - Revise LORS



Considerations for Scenario Development

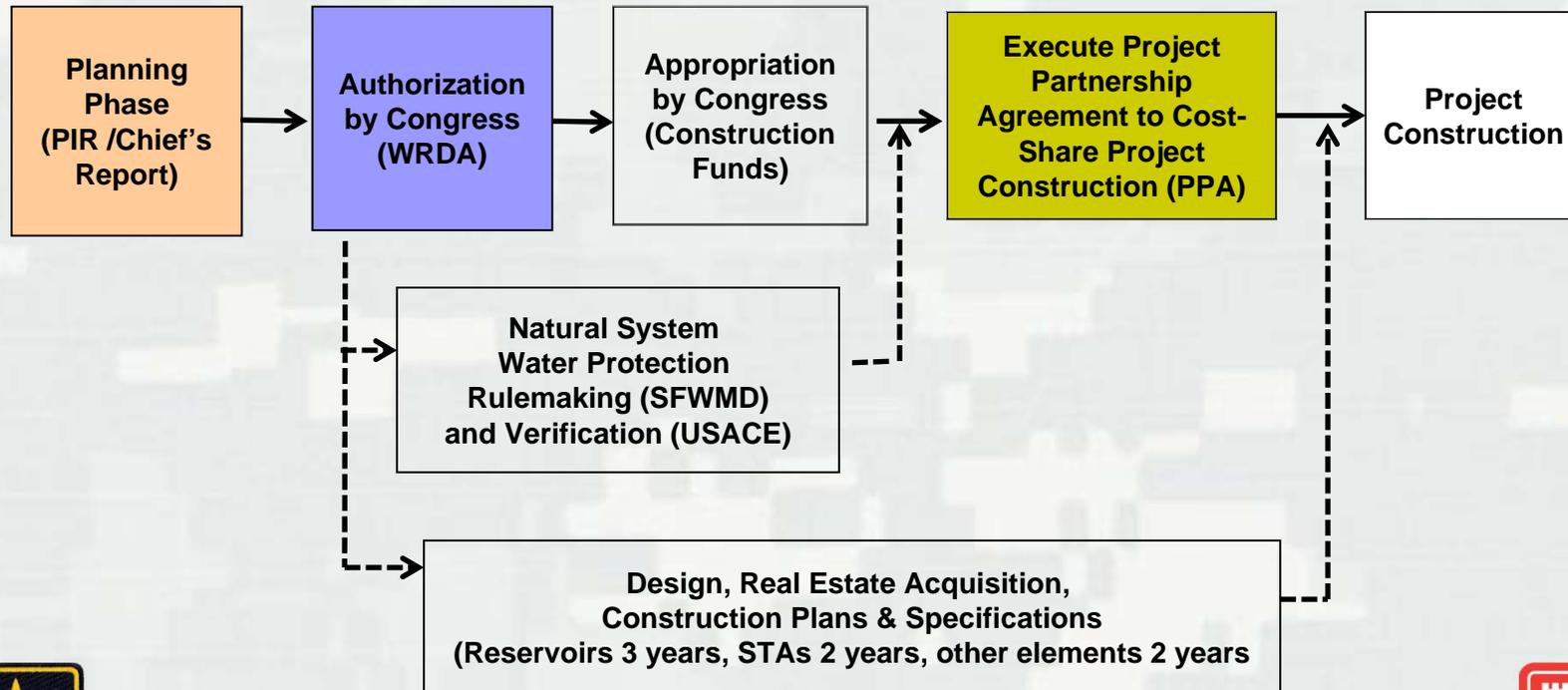


Project Dependencies



Federal Process Assumptions

3 Years PIR/Chief's Report \$3M	Assume WRDA Bill every 2 years	3 Years from Authorization for Appropriation, Real Estate Acquisition & Execution of PPA	Reservoirs 4 Years STAs 3 Years Other 2 Years
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Complete Existing Projects & Plan Ahead

Max Ecological Benefits & Economic Returns	Run 1 - FWF	Focus on The Heart	Store/Treat/Move Water South & Manage Estuaries
BCWPA-C11	BCWPA-C11	BCWPA_C11	C-43
C-43	C-43	C-111SC_P1	BCWPA_C11
CEPP-South	BBCW_P1	C-43	BBCW_P1
CEPP- North	CEPP South	BBCW_P1	BBCW_P2
CEPP New Water	CEPP North	CEPP South	C-111 SC_P1
EAA P1&P2	CEPP New Water	CEPP North	C-111 SC_P2
BBCW_P1	EAA_P1&P2	CEPP New Water	CEPP South
BBCW_P2	BCWPA-C9/3A/B	C-111SC_P2	CEPP North
C-111SC_P1		EAA_P1&P2	CEPP New Water
C-111SC_P2		IRL-S C23/24	Storage, Treat N, S & Lake O
IRL-S C23/24		IRL-S C25	BCWPA-C9/3A/B
IRL-S C25		BBCW_P2	
BCWPA-C9/3A/B		BCWPA-C9/3A/B	

Construction: BCWPA_C11, C-43, BBCW_P1, CEPP South, CEPP North, CEPP New Water, C-111SC_P1 , BBCW_P1, IRL-S C23/24, ILR-S C25, BCWPA_C-9/3A/3B

Planning: C-111SC_P2, EAA P1&P2/ASR, BBCW_P2, LOW/ASR



Greater Everglades & Storage

Protect & Enhance Existing Natural Systems	NOW!	Central Flow
CEPP South	CEPP South	CEPP South
BCWPA_C11	C-111SC_P1	CEPP North
More STAs	BBCW_P1	CEPP New Water
EAA_P1&P2	LOW	Rev. LORS
C-43	CEPP New Water	LOW
Decomp	CEPP North	EAA_P1&P2
Strazulla	C-43	ENP Seepage Mngmnt
Rev LORS		BCWPA_Seep Mngmnt
BCWPA-C9/3A/B		C-111SC_P1
C111SC_P2		Decomp
CEPP North		C-111SC_P2
CEPP New Water		BBCW_P2
BBCW_P1		
LOW		
Lox River		

Construction: BCWPA-C11, C-111SC_P1, CEPP South, CEPP North, CEPP New Water, C-43, BBCW_P1

Planning: LOW/ASR, EAA_P1&P2/ASR, Decomp, Rev LORS, Lox River, C-111SC_P2, BBCW_P2



Focus on Storage

Keeping Promises	Early Benefits & Critical Infrastructure	Keepin Promises - Principle & Projects	Greater Everglades Northern Estuaries Project
EAA_P1&P2 L-28 Interceptor Rev. LORS HL & RTB Lox River Lake Istokpoga	EAA_P1&P2 CEPP New Water CEPP North BCWPA_C11 C-43 BBCW_P1 C111SC_P1	EAA_P1&P2 L-28 Interceptor Rev. LORS Lake Istokpoga	EAA P1&P2 LOW HL & RTB Lake O ASR
	LOW Lox River Rev LORS		CEPP North CEPP South CEPP New Water Rev LORS

Construction: BCWPA-C11, C-43, CEPP South, CEPP North, CEPP New Water

Planning: EAA_P1&P2, L-28 Interceptor, LOW/ASR, HL&RTB, Rev LORS



Spatial Extent, Estuaries, Restore Flow South

New Source for BBCW Phase 2	Keeping Promises - Principles & Projects 2	Low Hanging Fruit, Estuarine Friendly & More Water South	Not Just Our Pet Pig - Northern Estuaries Protection & Everglades Regional Benefits	Estuary Health (Increasing Storage North of Lake O)
Lake Belt Storage	EAA_P1&P2	BBCW_P1	C-43	IRL-S Natural Land
BBCW_P1	IRL-S Natural Land	BBCW_P2	IRL-S C23/24	IRL_S C23/C24
BBCW_P2	C-43	Rev LORS	IRL-S Natural Land	IRL_S C25
C-111SC_P2	CEPP South	C-111SC_P1	Lake O ASR	C-43
C-111SC_P1	CEPP North	CEPP New Water	CEPP North	Lake O ASR
	CEPP New Water	EAA_P1	CEPP South	EAA_P1&P2
	L-28 Interceptor	EAA_P2	EAA_P1&P2	CEPP South
	Lox River	IRL-S Natural Land	LOW	CEPP North
	Rev LORS	Reservoir Miami	Lox River	CEPP New Water
	HL&RTB	IRL-S C23/C24	BBCW_P2	LOW
	IRL-S C-23/24	IRL-S C25	BBCW_P1	

Construction: IRL Natural Lands, BBCW_P1, C-43, IRL-S C23/24, C-111SC_P1, CEPP South, CEPP North, CEPP New Water

Planning: BBCW_P2, EAA_P1&P2/ASR, C-111SC_P2, LOW/ASR, Lake Belt Storage, Lox River



Next Steps

- With clarification provided at this workshop, staff will build sequencing plans based on process, design and construction durations
- Develop funding scenarios through application of assumptions, dependencies and constraints



Thank You

