

# South Florida Ecosystem Restoration

## Integrated Delivery Schedule

Presented to SFERTF Working  
Group/Science Coordination Group

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US Army Corps of Engineers  
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# Overview of Briefing

- Purpose of IDS
- Background and Process to Update IDS
- Stakeholder Input
- Current version of IDS
- Next Steps



# Purpose

- To develop a realistic schedule and sequencing plan for achieving restoration benefits as soon as possible consistent with state and federal authorizations and funding



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# Background and Process

- Background

- ▶ The IDS is required as part of the CERP Programmatic Regulations
- ▶ Regular updates to the IDS are required
- ▶ The process is done in consultation with the South Florida Ecosystem Restoration Task Force

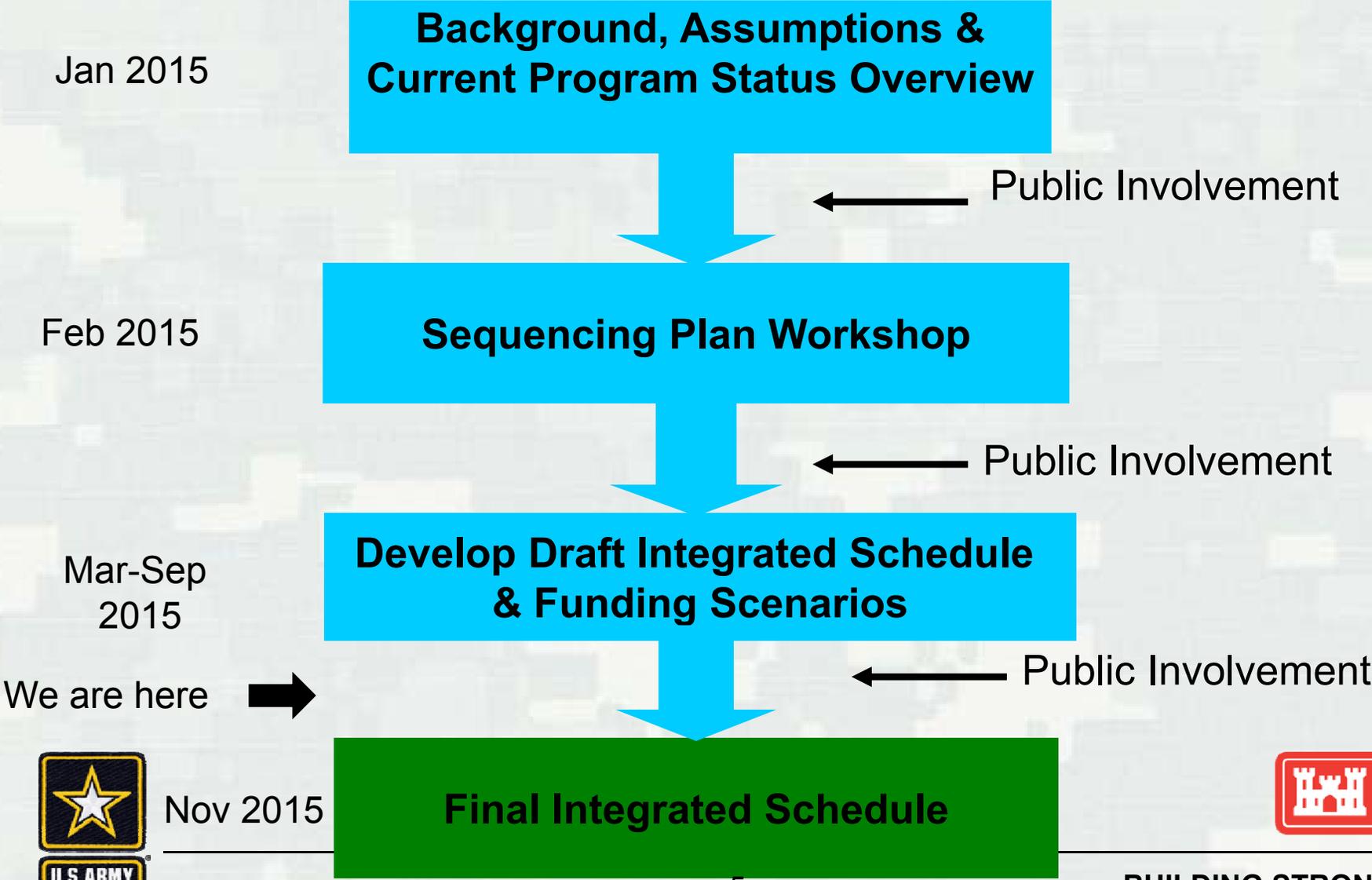
- Process

- ▶ Workshops sponsored by South Florida Ecosystem Restoration Task Force Working Group
- ▶ Engage stakeholders in developing the IDS



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# Integrated Schedule Process



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# Draft IDS Worksheet (Starting Point)

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

# 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.



**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, 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 environment; • 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 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 sewage 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 : @ South, North, New Water
2. Storage : @ HH benefits per reach (Interim LOS change)
3. @ Lake Okechobee Watershed
4. @ De Rudeck only : EAA Storage
5. Seepage Mgmt : @ ENP Seepage management
6. @ 3A/3B Seepage management, CII

To maximize ecological benefits : @ Complete CIIISW + complete BBCW Ph. I @ Affix CEPP, complete remaining Decomp @ PIRs for CIIISC Eastern + BBCW Phase 2

Addressed from D Rudeck : In finite L-28 interceptor project to address water quality





# Theme 5 (Current Draft IDS)

Project	Yellow Book Code	FISCAL YEAR																				
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Projected Federal Construction Cost (SFER)		41	138	142	191	203	141	213	191	193	221	213	186	200	144	151	100	0	0	0	0	0
Projected Non-Federal Construction Cost (SFER)		78	139	161	162	111	119	56	123	142	141	210	210	192	192	123	123	0	0	0	0	0
Projected Total Construction Cost (SFER)		119	277	303	352	314	260	269	316	338	362	423	396	392	336	275	223	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 Contract 8 & 9		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-111 South Dade PACR		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Picayune Strand Restoration	OPE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Merritt Pump Station		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Fake Union Pump Station		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Manatee Mitigation and Flood Protection Features		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Miller Pump Station		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Remaining Features - Road removal & canal backfill		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Site 1 Impoundment	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Phase 1		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Indian River Lagoon-South		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-44 Intake Canal	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-44 Reservoir	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-44 STA & Pump Station	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-23/24 Reservoir North	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-23/24 Reservoir South	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-23/24 STA	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-25 Reservoir	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-25 STA	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Natural Lands	B	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Decomp Physical Model	Q	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Caloosahatchee River (C-43) West Basin Storage		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Pump Station & Cell 1	D	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cell 2	D	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Broward County Water Preserve Areas		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-11 Impoundment	Q	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
WCA 3A&3B Seepage Management	O	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-9 Impoundment	R	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Biscayne Bay Coastal Wetlands Phase 1	FFF, OPE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
L-31 East Flowway		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cutler Wetlands		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-111 Spreader Canal Western Project	WW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Central Everglades Planning Project (Authorization WRDA 2016)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PPA South: LRR & PPA Execution	AA, FF, H, QQ	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Remove Old Tamiami Trail (CNTX)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
L-67A Structure 1 & Gap in L-67C Levee (CNT 3)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Increase S-356 (CNT 4)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
L-29 Gated Spillway (CNT 4b)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Increase S-333 (CNT 4a)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
L-67A Structures 2 & 3 (CNT 5)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Removal L-67C & L-67 Ext, Constr L-67D Levee (CNT 6)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Removal L-29 Levee & Backfill L-67 Ext (CNT 7)		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PPA North	QQ, II, G	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
PPA New Water	V	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Loxahatchee River Watershed Restoration Project	X, Y, K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Lake Okeechobee Watershed, ASR	A, GG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Big Cypress/L-28 Interceptor (Western Everglades)	CCC	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
EAA Storage & ASR/Decomp Ph2	G, GG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
C-111 Spreader Canal Eastern & BBCW Ph2	WW, FFF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

xxx● SMART Planning Compliance Approval  
 ○○○○● Planning  
 ●●●●● Design, PPA Execution, Real Estate Acquisition  
 ● Construction  
 ○○○○● Operational Testing and Monitoring Period  
 Non-CERP and Foundation Projects  
 CERP Generation 1 Projects - Authorized, Project Partnership Executed (PPA)  
 CERP Generation 2 Projects - Authorized, requires PPA  
 Planning Phase - Requires Authorization  
 Planning Phase - Proposed  
 Blue = Non-Federal  
 Black = Federal  
 \* Funded through other program authorities or by other entities

# Theme 5 (Current Draft IDS):

- **Maximizes holistic benefits to regional system as early as possible**
  - ▶ Ensures continued stream of construction which provides for steady increase in regional ecosystem benefits
  - ▶ Provides benefits to Caloosahatchee & St Lucie estuaries from storage while infrastructure necessary to open up system for additional flow south is being implemented (CEPP south)
- **Ensures additional projects will be ready to continue progress on restoration**
  - ▶ Includes most of the planning efforts for projects identified by stakeholders as priorities
  - ▶ Prioritizes planning studies for LOW and the Western Everglades
- **Consistency with project dependencies and constraints**
  - ▶ Commitment to complete construction on projects where construction has been initiated
  - ▶ Consistent with project dependencies for moving water south
    - Modifications to downstream infrastructure, Restoration Strategies, etc.



# Feedback Received on Theme 5

- General Reactions to Theme 5:
  - ▶ Shows good synergy of projects
  - ▶ Shows steady increase of benefits to the system
  - ▶ Engage the public to generate support for continued implementation of restoration projects
- Projects:
  - ▶ Consider looking at storage regionally/holistically
  - ▶ LOW and Western Everglades planning sequence well received
  - ▶ Look at moving components of BBCW forward, specifically Cutler Wetlands piece and planning for Phase II
  - ▶ Consider the ability to move up projects that are deemed critical
- Funding:
  - ▶ Maintain stable funding source for project implementation
  - ▶ If additional funding becomes available, move projects forward



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# Next Steps

- Schedule
  - ▶ Task Force Meeting - November 19, 2015
  - ▶ Use IDS to guide our planning, design, and construction sequencing and budgeting



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# Questions/Discussion

