

South Florida Ecosystem Restoration

Presented by:

Kim Taplin

Strategic Program Manager

Jacksonville District

U.S. Army Corps of Engineers

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US Army Corps of Engineers
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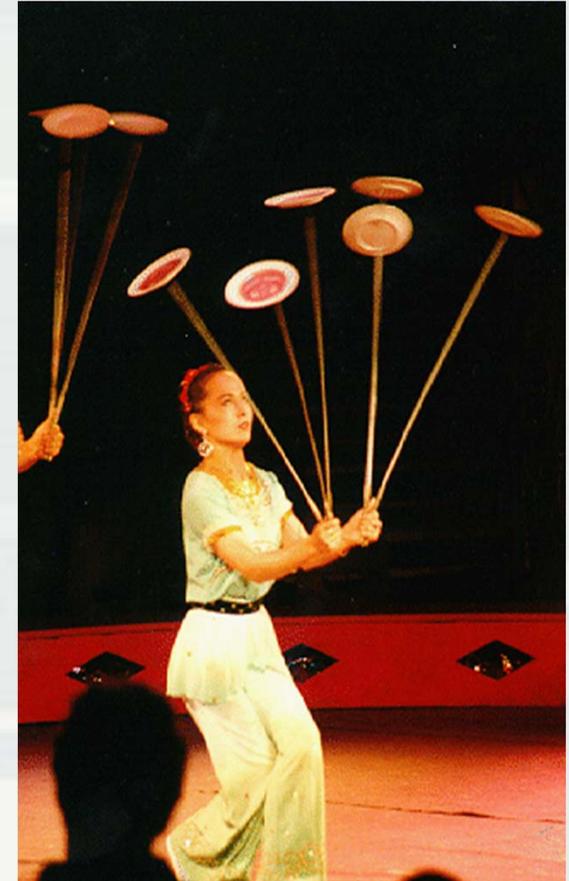
Purpose of Today's Meeting

- Begin process for updating the Integrated Delivery Schedule (IDS) for the South Florida Ecosystem Restoration (SFER) program
 - ▶ Purpose and need for IDS
 - ▶ How it was developed and updated to date
 - ▶ Present strategy for updating IDS
 - ▶ Present Guiding Principles for updating IDS
 - ▶ Restoration Program Status
 - ▶ Cost Share Balance & Assumptions
 - ▶ Preparation for next workshop

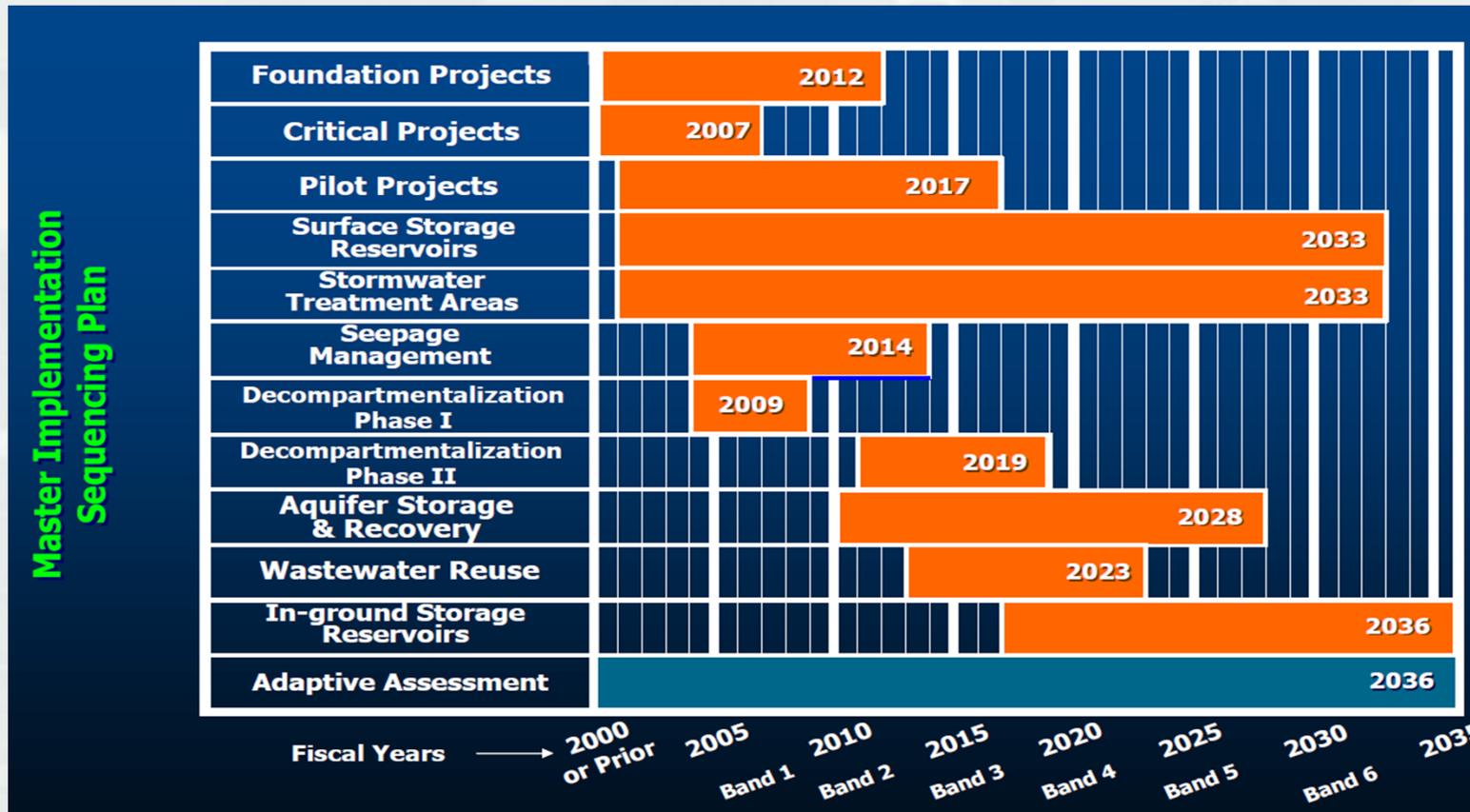


Purpose and History

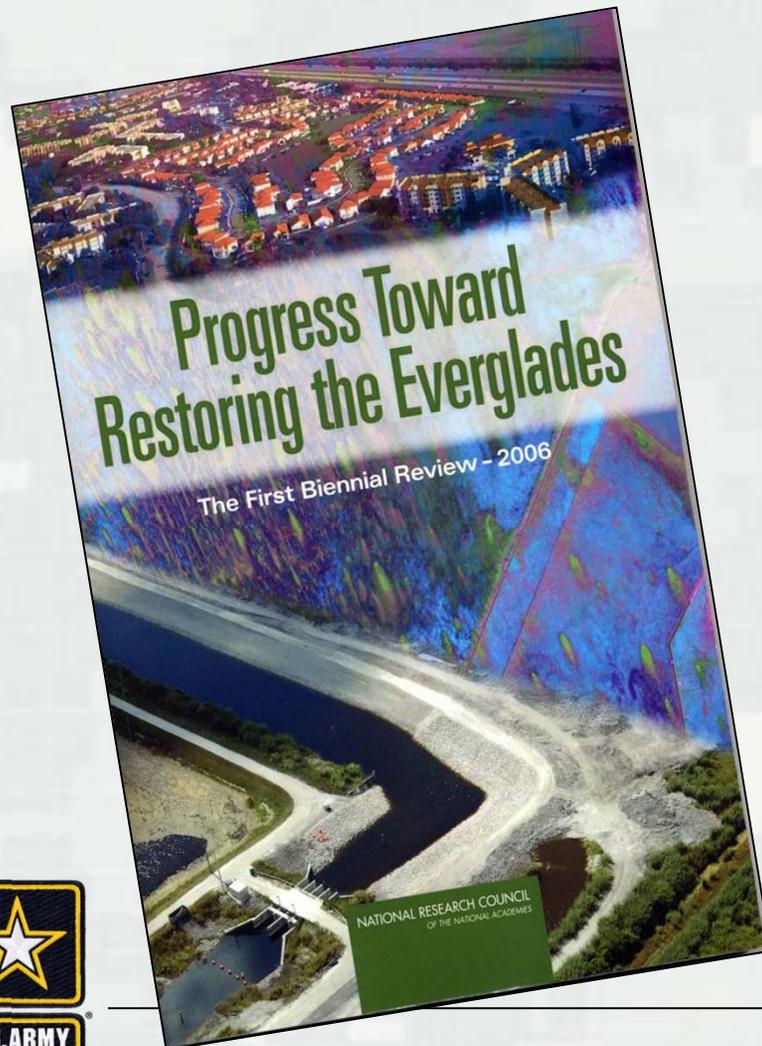
- **Yellow Book (1999)**
 - ▶ Contained implementation plan with GANTT chart showing sequencing of CERP projects
 - ▶ Based on annual funding level of \$200M Federal and \$200M non-Federal
 - ▶ 35+ Year implementation period
 - ▶ Coordinated with stakeholders prior to inclusion in Yellow Book
- **Master 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)

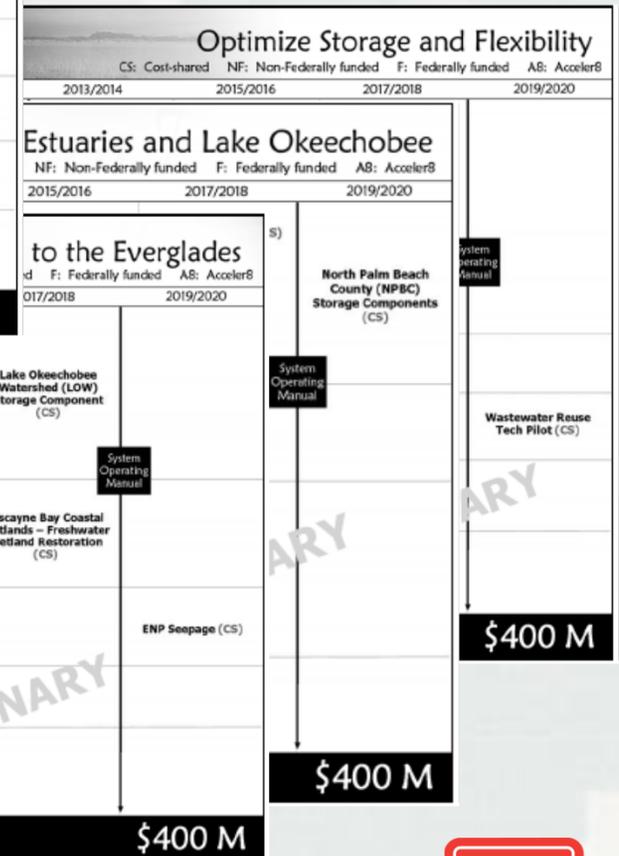
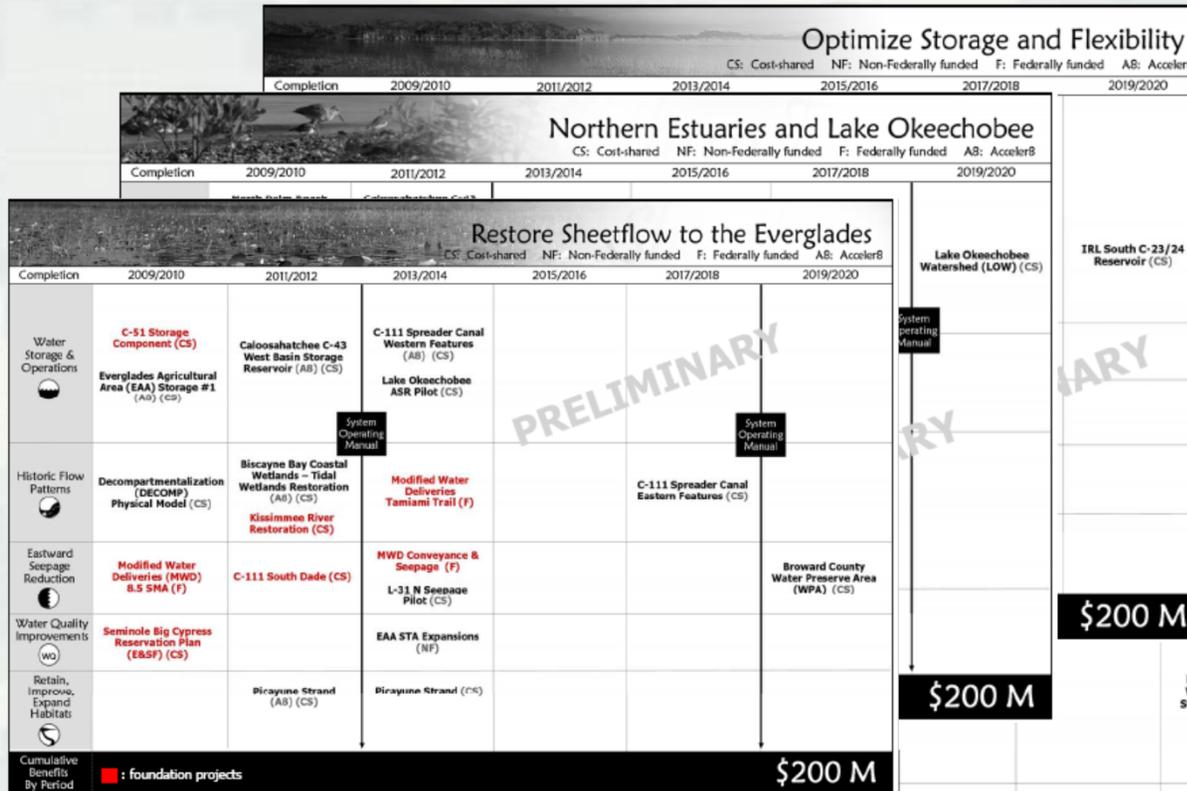
1. No CERP projects are being taken off the table; this re-evaluation is merely to update the project sequencing and develop a more realistic implementation schedule for the initial set of CERP projects to be constructed.
2. The Integrated Delivery Schedule acknowledges the Federal and State agencies 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 Estuaries & 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						
IRL South-Muck Remediation						
Other CERP Projects						
ENP Seepage Management						
Decomartmentalization Phase 1						
Decomartmentalization Phase 2						
Lake Okeechobee Watershed						

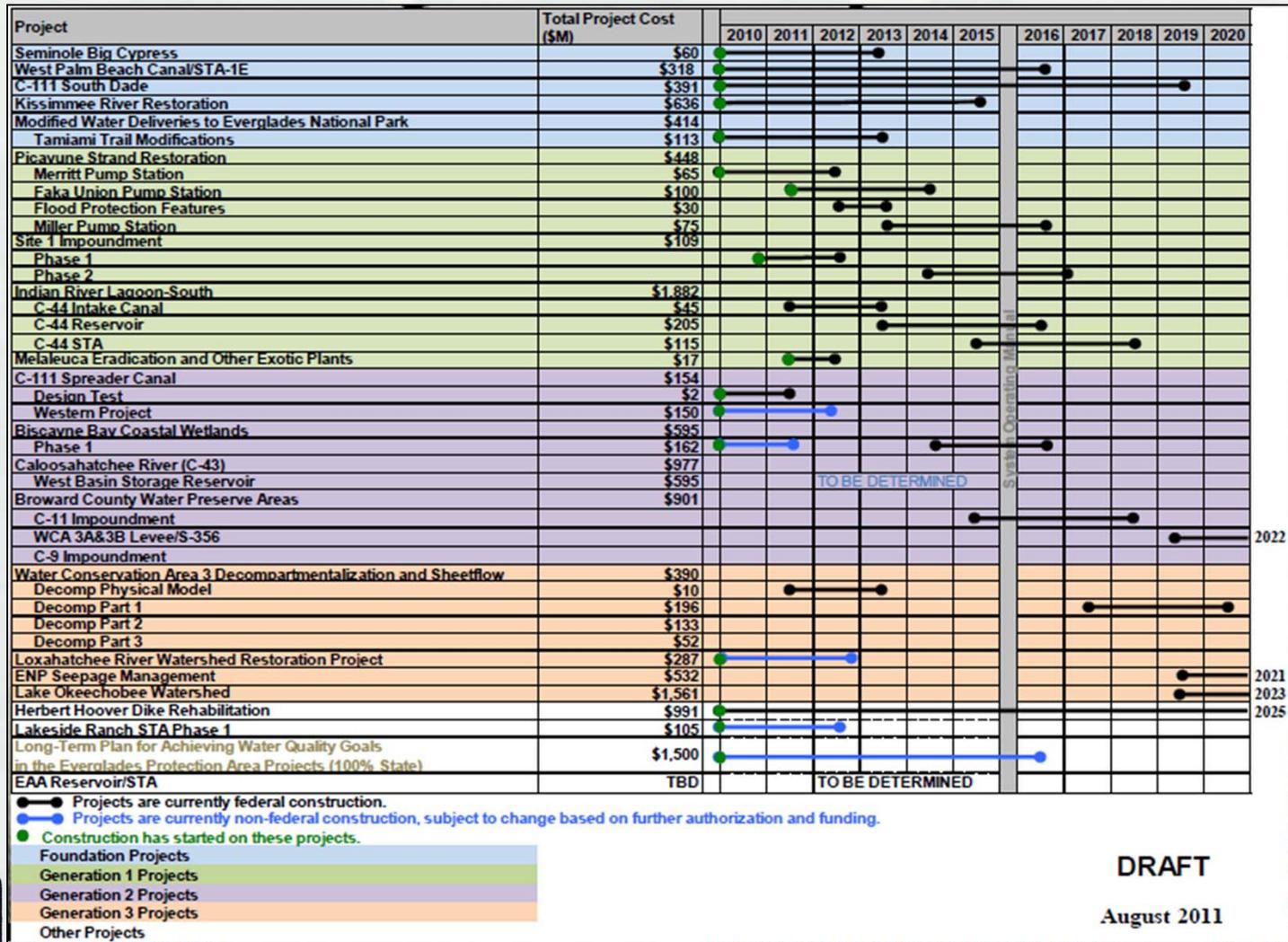
Notes: Construction Only – A Subset of the IDS
Does not include Herbert Hoover Dike

\$300 M

Hybrid Approach



2011 Integrated Delivery Schedule



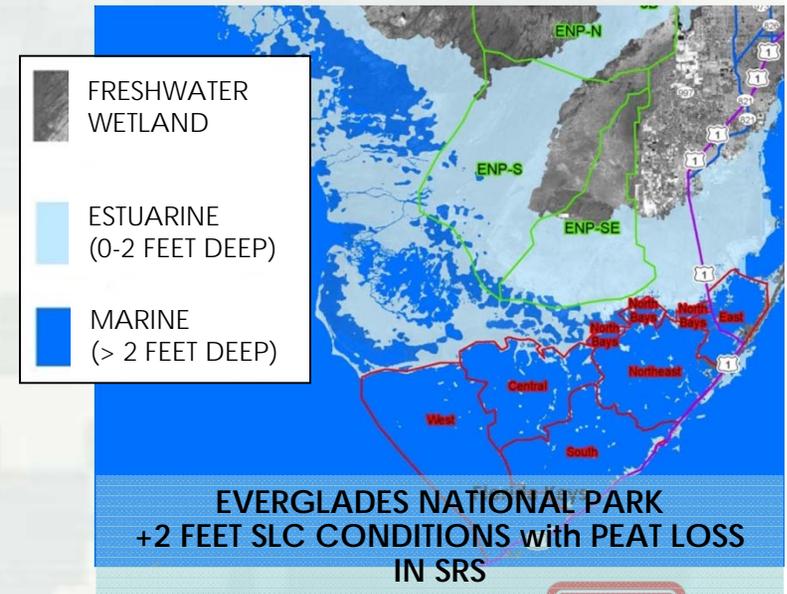
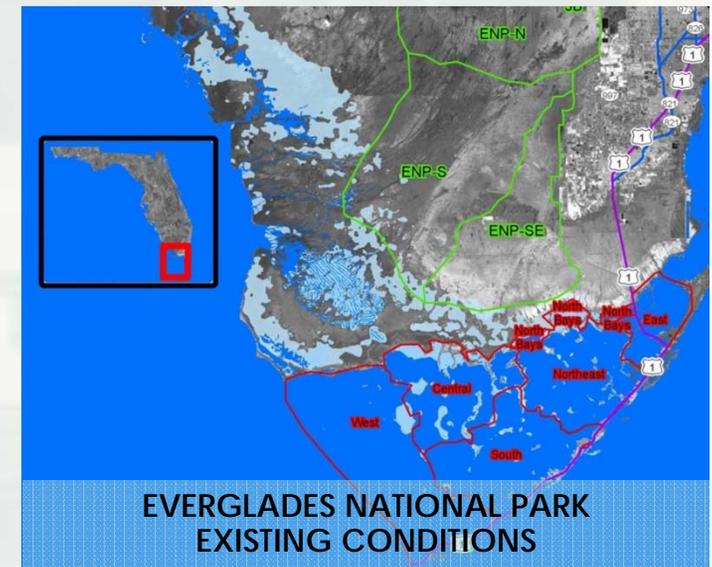
Additional Information to Consider in this Update to IDS since 2011

- 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

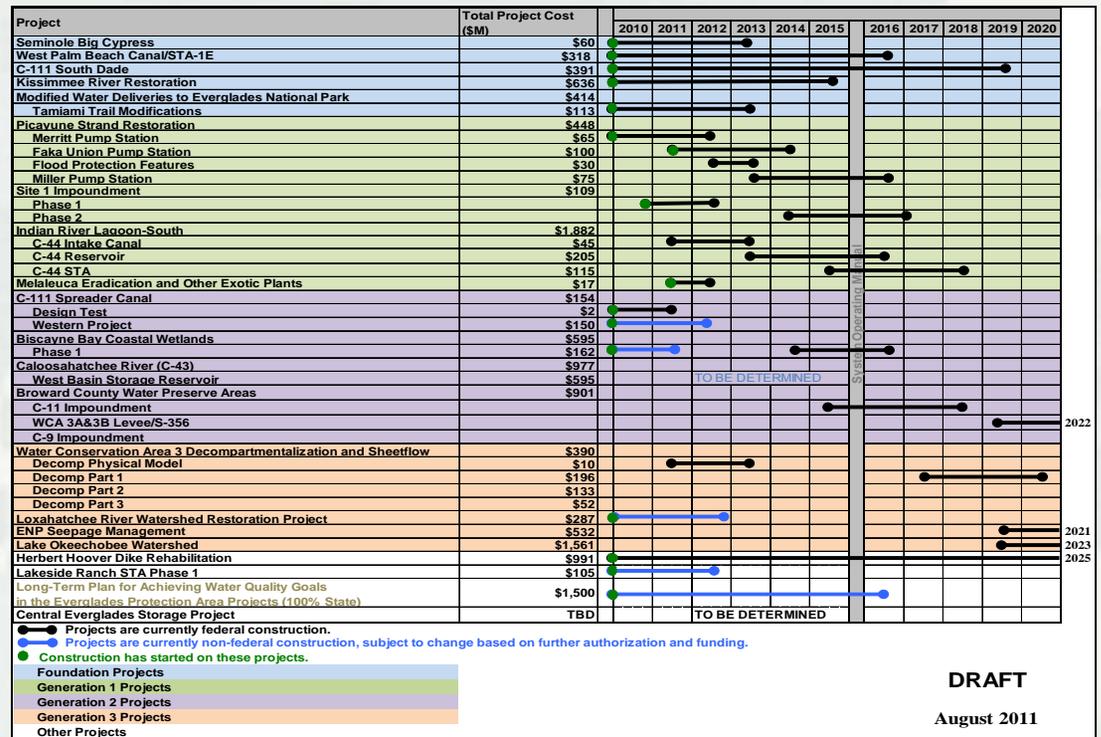
- Potential significant changes in precipitation and temperatures coupled with increasing sea level have important implications for the CERP (under some future scenarios there is “...insufficient freshwater to sustain the natural and built systems.”)
- Climate change is not adequately considered in the 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

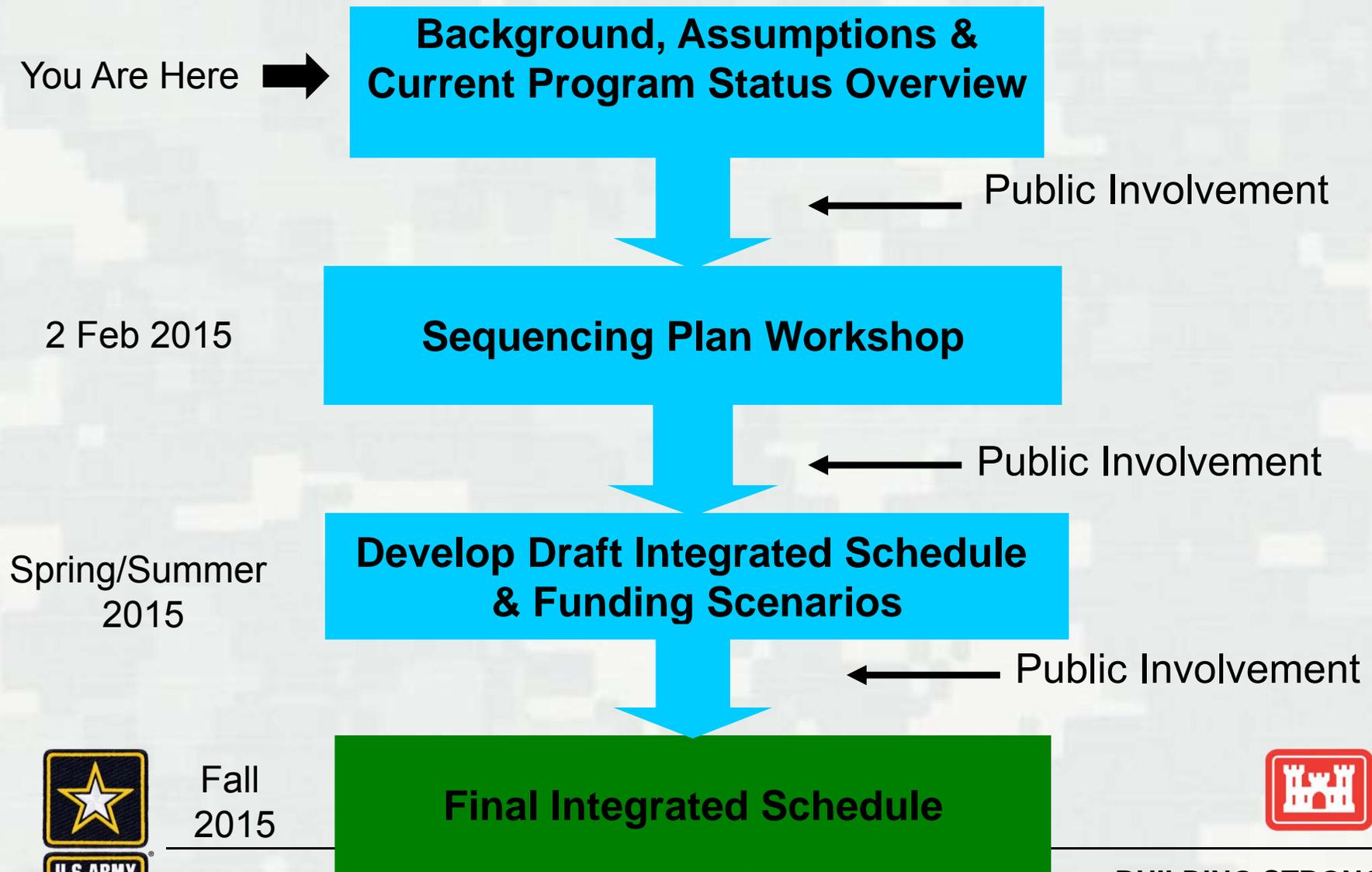


Strategy for Updating IDS

- Capitalize on past efforts used to develop and update IDS
- Update guiding principles
- Review Restoration Program Status
- Review the role of cost-share and planning, engineering & design costs
- Focus this effort on sequencing of projects
- Prepare funding scenarios for recommended sequencing plan



Integrated Schedule Process



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Discussion on Strategy for Updating the IDS



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).



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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.
- 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).



IDS Guiding Principles

- 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.
- 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.



Discussion on Guiding Principles for Updating the IDS

