

THE RESTORATION FRAMEWORK

Operating Manuals

6 September 2023

Mike Hensch, P.E.
Lead Engineer, Operational Products Unit
Water Management Section
USACE Jacksonville District



U.S. ARMY



US Army Corps
of Engineers

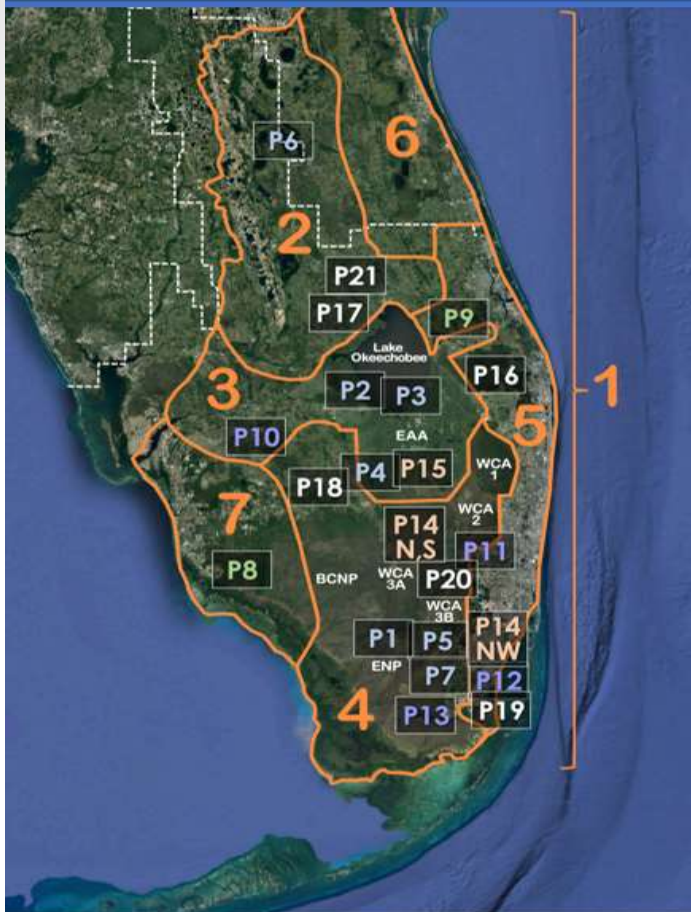


U.S. ARMY

IDS 2023: GETTING THE WATER RIGHT



SOM VOLUMES BY REGION



THE RESTORATION FRAMEWORK

OPERATIONS IN SYNC WITH PROJECT DELIVERY

Restoration activities, including operational components recommended in the CERP, occur within the context of the larger, actively operated C&SF system. The C&SF Project includes 1,000+ miles of canals and levees and several hundred water control structures and pump stations providing the C&SF Congressionally authorized purposes; flood control, water supply, navigation, regional groundwater control, prevention of saltwater intrusion, recreation, and preservation of fish and wildlife.

COMPONENTS AND PROJECTS

The CERP identified 68 components that can contribute significantly to "getting the water right" and restoring the health of the ecosystem. Through a rigorous planning process, the components described in the CERP "Yellow Book" are combined into 50+ implementable projects that become part of the Integrated Delivery Schedule (IDS).

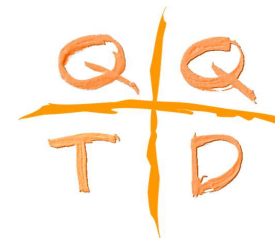
System Operating Manuals: The Critical Last Step In Getting the Water Right and Achieving Maximum System-wide Benefits

Operating Manuals are the set of documents that describe how to operate components of the C&SF Project and CERP projects to ensure the goals and purposes of the projects are achieved. Operating Manuals for the CERP consist of a System Operating Manual (SOM) and Project Operating Manuals (POMs).

Draft Project Operating Manuals (DPOMs) are initially developed during the planning phase of project delivery.

- The SOM consists of 7 Volumes, organized according to geographical regions, that collectively provide a system-wide framework for the operation of components of the C&SF Project and CERP projects to ensure that projects function in a coordinated, systematic way.

- Updates to Operating Manuals: The Programmatic Regulations require that POMs be updated, as appropriate, for project construction and operational testing and monitoring phases, as well as when relevant CERP and non-CERP components come online. In turn, SOM Volumes are updated to include new or updated POMs.



NOTE: Project Locators correspond to IDS Front Placemat

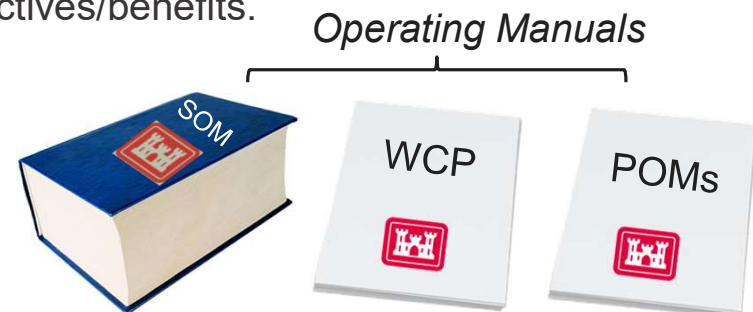
OPERATIONAL PLANNING DEFINITIONS

U.S. ARMY



As required by the 2003 Programmatic Regulations, Operating Manuals for CERP consist of a System Operating Manual (SOM) and Project Operating Manuals (POMs).

- (1) **System Operating Manual (SOM)** means the Operating Manual that provides an integrated system-wide framework for operating all of the implemented projects of the CERP Plan and the Central and Southern Florida (C&SF) Project. It includes all water control management activities as they relate to the hydraulic and hydrologic aspects of the project, such as descriptions of physical components, operating procedures, historical facts, and other pertinent data.
- (2) **Project Operating Manual (POM)** means the manual that describes the detailed operating criteria for a CERP project or group of projects of the CERP Plan. The POM is a supplement/appendix to the SOM.
- (3) **Water Control Plan (WCP):** Chapter 7 of the SOM. The plan of regulation for a water resources project in the interest of flood control, navigation, and other authorized purposes; a WCP includes coordinated regulation schedules, operational strategy, storm operations, deviation process, and other pertinent information to operate the system to achieve project objectives/benefits.

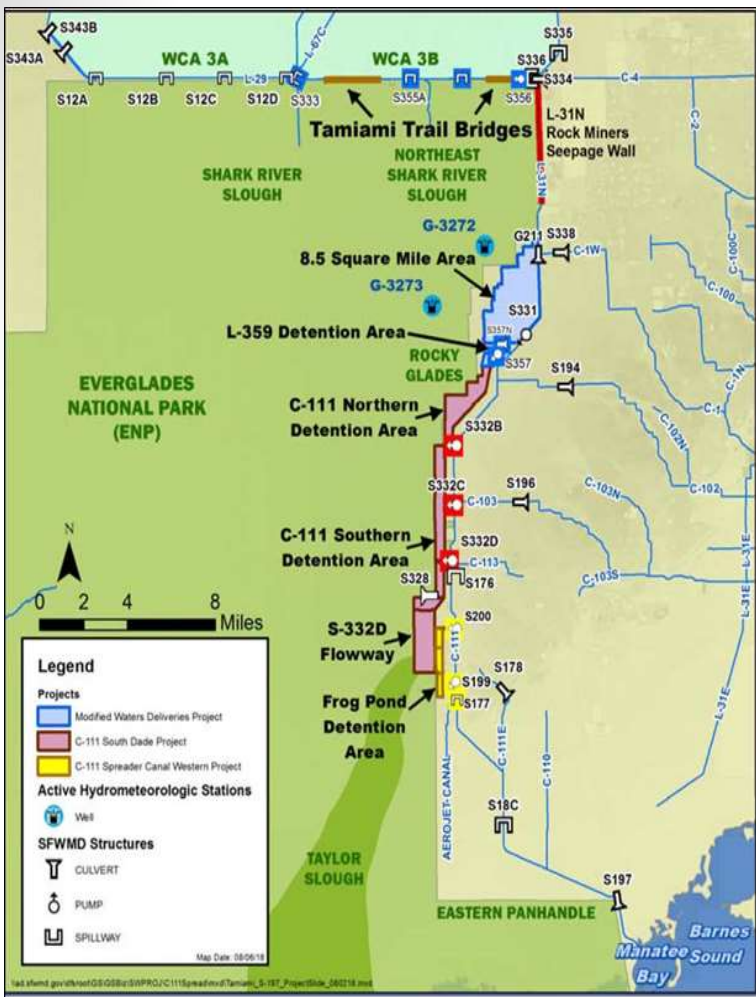




SOM EXAMPLE: 2020 COP WATER CONTROL PLAN



U.S. ARMY



Appendix J System Operating Manual

SOM Volume 4:
WCAs-ENP-
SDCS

APPENDIX J
SYSTEM OPERATING MANUAL

1. Introduction
2. Regional Description
3. Regional History
4. Watershed Characteristics
5. Data Collection and Communication Networks
6. Hydrologic Forecasts
- 7. Water Control Plan**
8. Effect of Water Control Plan
9. Water Management

COP Draft EIS J - i 2020

Appendix A Water Control Plan

2020 COP WCP uses CERP POM format

APPENDIX A
CHAPTER 7, WATER CONTROL PLAN, OF THE SYSTEM OPERATING MANUAL, VOLUME 4

- 7.1. Project Purposes, Goals, Objectives, and Benefits
- 7.2. Project Relationships
- 7.3. Major Constraints
- 7.4. Operational Strategy to Meet Project Objectives
- 7.5. Pre-Storm/Storm Operations
- 7.6. Consistency with the Identification of Water and Reservations or Allocations for the Natural System
- 7.7. Consistency with Savings Clause and State Assurances Provisions
- 7.8. Drought Contingency Plans
- 7.9. Flood Emergency Action Plans
- 7.10. Deviation from Normal Regulation
- 7.11 Rate of Release Change
- 7.12. Seepage Control
- 7.13. Aquifer Storage and Recovery System Plan
- 7.14. Consistency with Adaptive Management Program and Periodic CERP Updates
- 7.15. Annexes

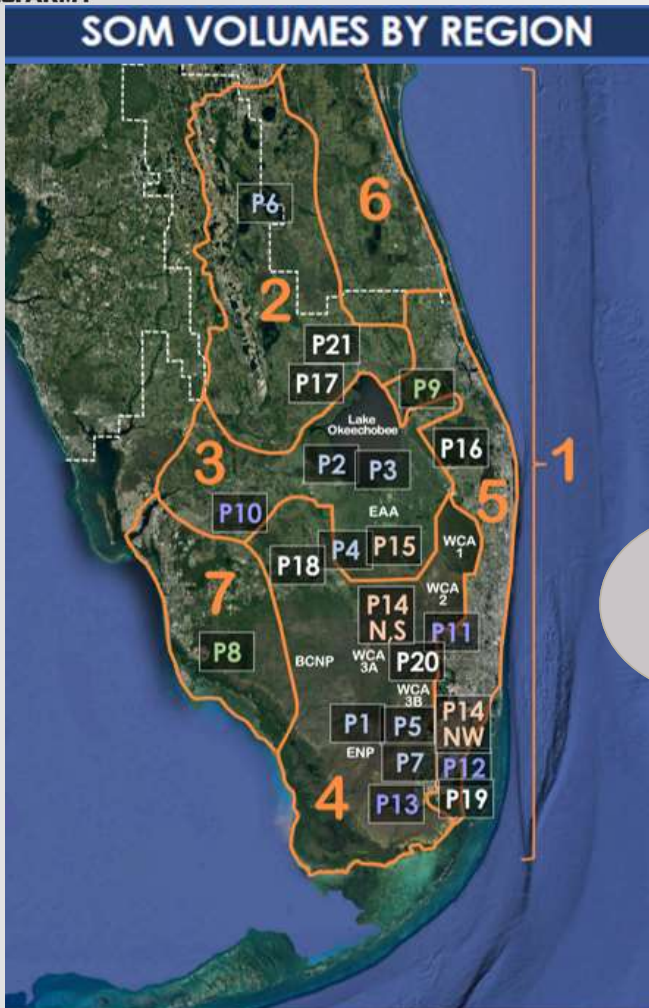
COP Draft EIS i 2020

<https://www.saj.usace.army.mil/Missions/Environmental/Ecosystem-Restoration/G-3273-and-S-356-Pump-Station-Field-Test/>



U.S. ARMY

IDS 2023: GETTING THE WATER RIGHT

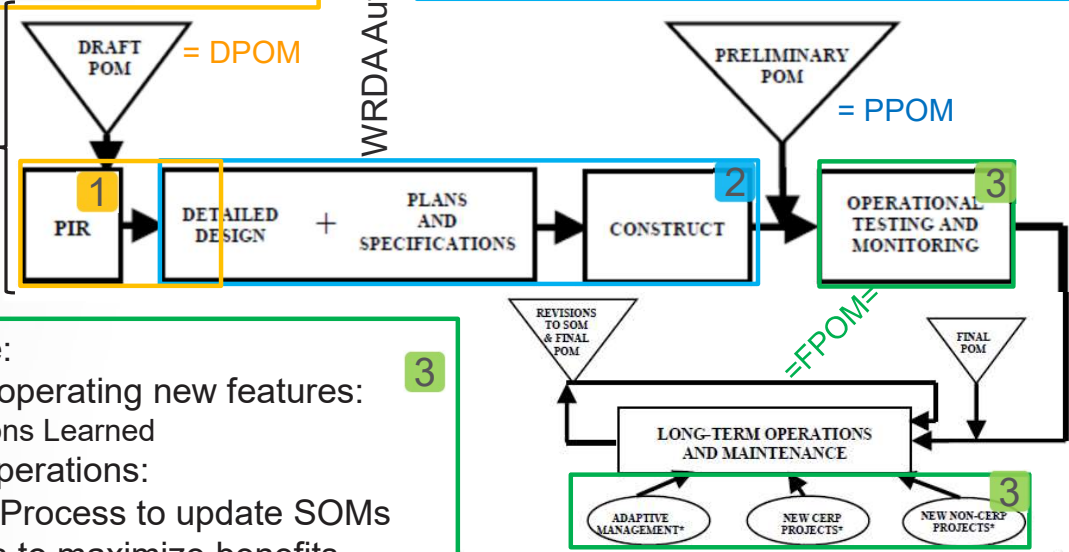


- PIR/Planning Phase: 1**
- Scoping
 - Base Conditions
 - Alternatives/Modeling
 - Risk-Informed Decisions
 - Savings Clause Analyses
 - Conceptual Design
 - Limited Data Collection
 - Operations linked to benefits for full build-out

- Design Phase: 2**
- New Information, not limited to:
 - “Parallel” Projects and WCPs
 - Post-Authorization Changes
 - Design Level Data Collection
 - Value Engineering
 - Refined Analysis/Modeling
 - Savings Clause Re-Checks
 - Regulatory requirements / permits
 - Plans & Specifications
 - Phased Construction schedules

WRDA Authorization & Appropriations

CERP POM development = iterative process over life of project



- OTMP Phase: 3**
- First time operating new features:
 - Lessons Learned
 - Long Term Operations:
 - Continual Process to update SOMs and POMs to maximize benefits

* These factors may also generate modifications to the POM during Long-Term Operations and Maintenance.



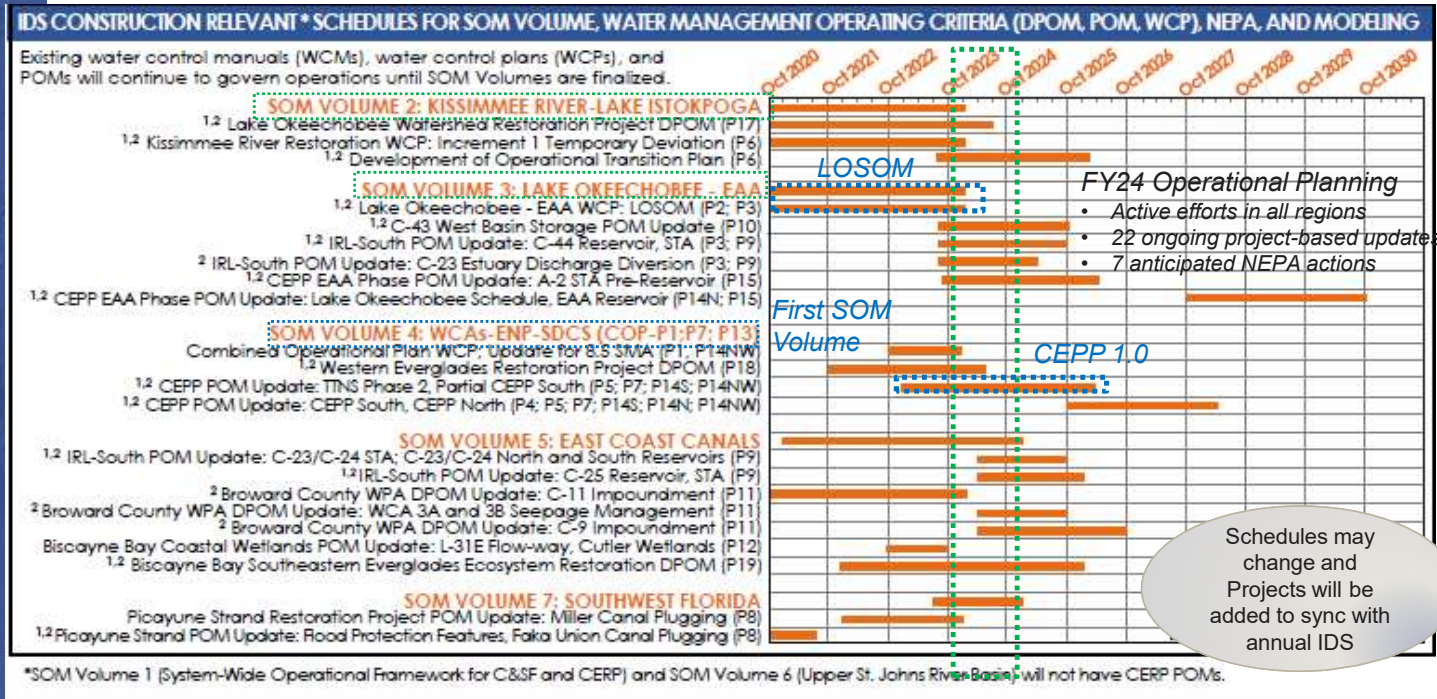
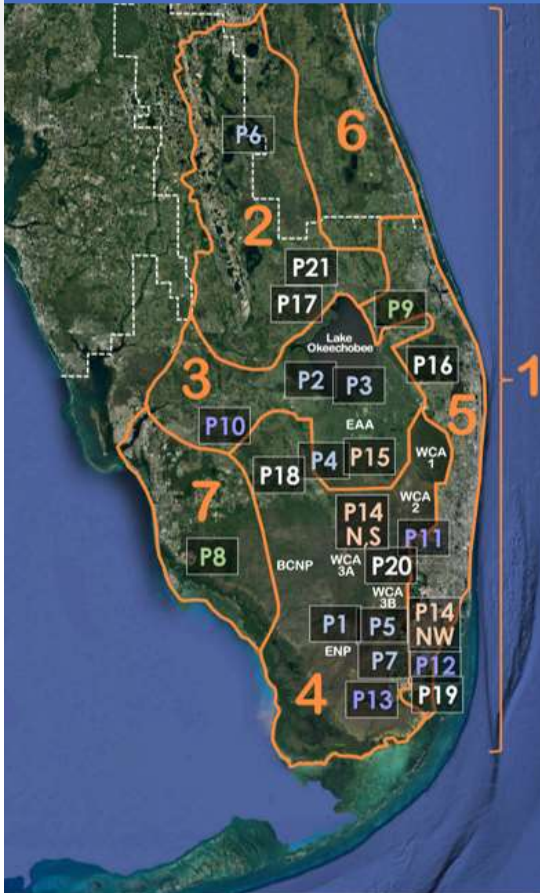
IDS 2023: GETTING THE WATER RIGHT



U.S. ARMY

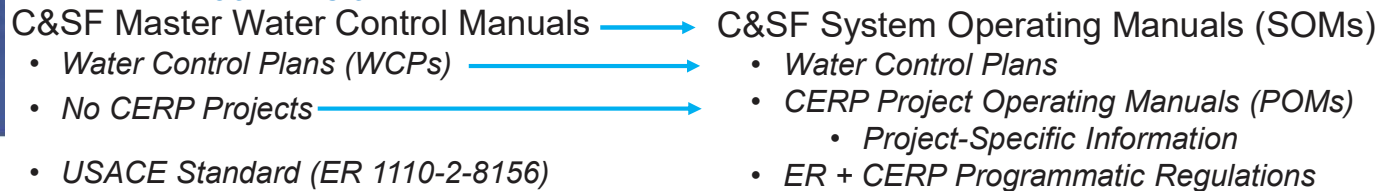
SYSTEM OPERATING MANUALS: THE CRITICAL LAST STEP IN GETTING THE WATER RIGHT AND ACHIEVING MAXIMUM SYSTEM-WIDE BENEFITS

SOM VOLUMES BY REGION



Schedules may change and Projects will be added to sync with annual IDS

CONVERSION



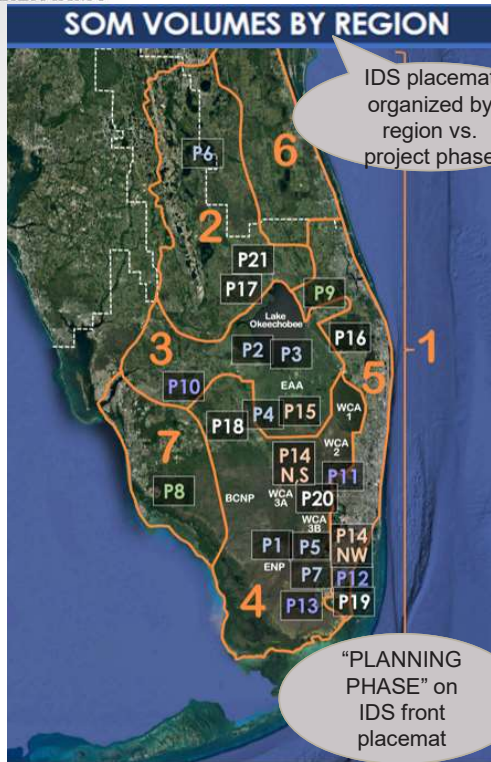


IDS 2023: FY 2024 OPERATIONAL PLANNING UPDATES



U.S. ARMY

SYSTEM OPERATING MANUALS: THE CRITICAL LAST STEP IN GETTING THE WATER RIGHT AND ACHIEVING MAXIMUM SYSTEM-WIDE BENEFITS



Early reminder of public input opportunity

FOOTNOTES:
¹ Updated NEPA with Public Engagement Anticipated
² Updated Hydrologic Modeling Anticipated

FY24 Operational Planning Efforts:

(1) System Operating Manual (SOMs)

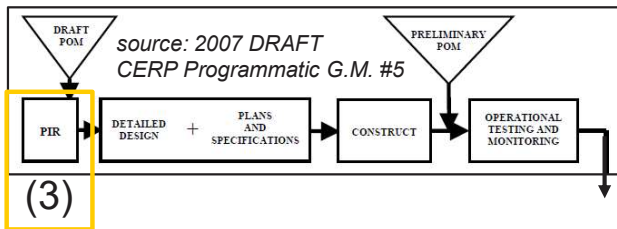
- Vol. 3: Lake Okeechobee and EAA – late 2023
- Vol. 2 (SOM conversion): Kissimmee River/Lake Istokpoga – late 2023
- Vol. 5 (SOM conversion): East Coast Canals – ongoing, early 2025
- Vol. 7 (New SOM volume): Southwest Florida – ongoing, early 2025

(2) Water Control Plan (WCP) updates for immediate implementation (non-CERP):

- Lake Okeechobee System Operating Manual – late 2023 ^{1,2}
- Kiss. River Restoration (KRR), Increment 1 temp. deviation – late 2023 ^{1,2}
- KRR Operational Transition Plan – starting, final by end 2025 ^{1,2}
- Combined Operational Plan, 8.5 SMA administrative update – late 2023

(3) CERP Draft Project Operating Manual (DPOMs) for projects in Planning:

- Lake O. Watershed Restoration – early 2024 ^{1,2}
- Western Everglades Restoration Project (WERP) – early 2024 ^{1,2}
- Biscayne Bay Southeastern Everglades Restoration (BBSEER) – 2025 ^{1,2}

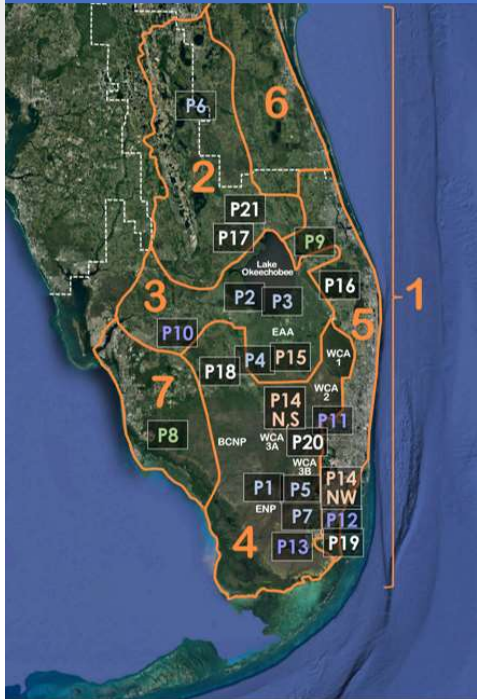




IDS 2023: FY 2024 OPERATIONAL PLANNING UPDATES

U.S. ARMY

SOM VOLUMES BY REGION



SYSTEM OPERATING MANUALS: THE CRITICAL LAST STEP IN GETTING THE WATER RIGHT AND ACHIEVING MAXIMUM SYSTEM-WIDE BENEFITS

FY2024 Operational Planning Efforts:

(4) CERP Project Operating Manual (POM) **post operational testing/monitoring**:

- IRL-S C-44 Reservoir and STA– to start 2023 (for late 2025) ^{1,2}

(5) CERP Project Operating Manual (POM) **construction completion and/or initial operation permits**:

- IRL-S C-23 to C-44 Estuary Discharge Diversion – mid 2025 ²
- C-23/24 STA and North and South Reservoirs – late 2025
- C-43 West Basin Storage Reservoir – to start 2023 (for late 2025) ^{1,2}
- CEPP EAA Phase A-2 STA Pre Reservoir – to start 2023 (for early 2026) ^{1,2}
- Picayune Strand Restoration, Miller Canal Plugging – late 2023
- CEPP Increment 1.0 – started early 2023, final by early 2026 ^{1,2}

(6) CERP Draft Project Operating Manual (DPOM) updates for **project designs** and **construction permits**:

- IRL-S C-25 Reservoir and STA – to start 2023 (for late 2025) ^{1,2}
- Broward County WPA, C-11 Impoundment – early 2024 ²
- Broward County WPA, WCA-3A/3B seepage management area – late 2025 ²
- Broward County WPA, C-9 Impoundment – late 2026 ²

FOOTNOTES:
¹ Updated NEPA with Public Engagement Anticipated
² Updated Hydrologic Modeling Anticipated

“OTMP” on IDS front placemat

“Construction” on IDS front placemat

“Design” on IDS front placemat

