

SOUTH FLORIDA ECOSYSTEM RESTORATION (SFER) PROGRAM

2022 INTEGRATED DELIVERY SCHEDULE: OPERATIONAL PLANNING

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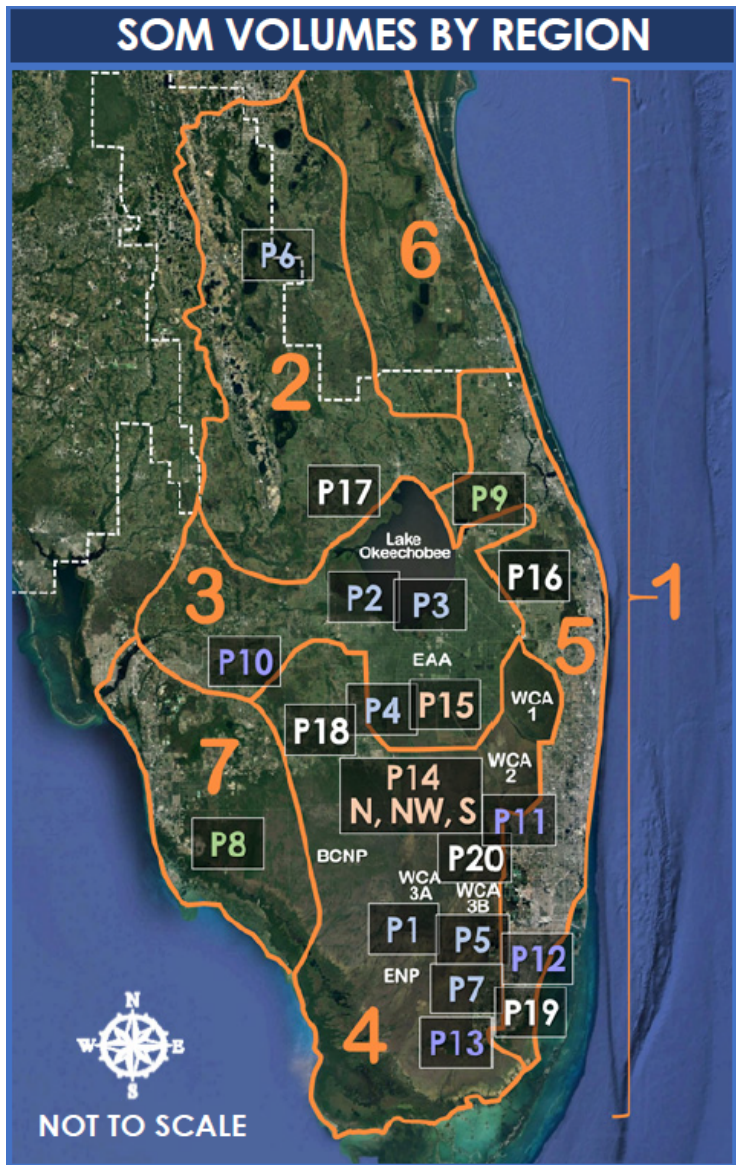


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of Engineers®





IDS 2022: GETTING THE WATER RIGHT



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 of 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

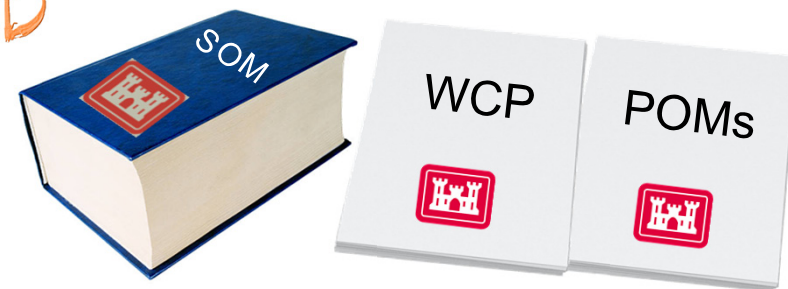
Operating Manuals are the set of documents that describe how to operate components of the C&SF Project and CERP projects to ensure the goals and purposes of the projects are achieved. Operating Manuals for the CERP consist of a System Operating Manual (SOM) and Project Operating Manuals (POMs). Draft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



System Operating Manual



NOTE: Project Locators correspond to IDS Front Placemat



IDS 2022: OPERATIONAL PLANNING DEFINITIONS



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 operating criteria for a project or group of projects of the CERP Plan. The POM is considered a supplement to the System Operating Manual and presents more detailed information on the operation of a specific project or group of projects.
- (3) **Water Control Plan (WCP):** 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 for project/system regulation and such additional provisions as may be required to collect, analyze, and disseminate basic data, prepare detailed operating instructions, assure project safety, and carry out regulation of projects in an appropriate manner.

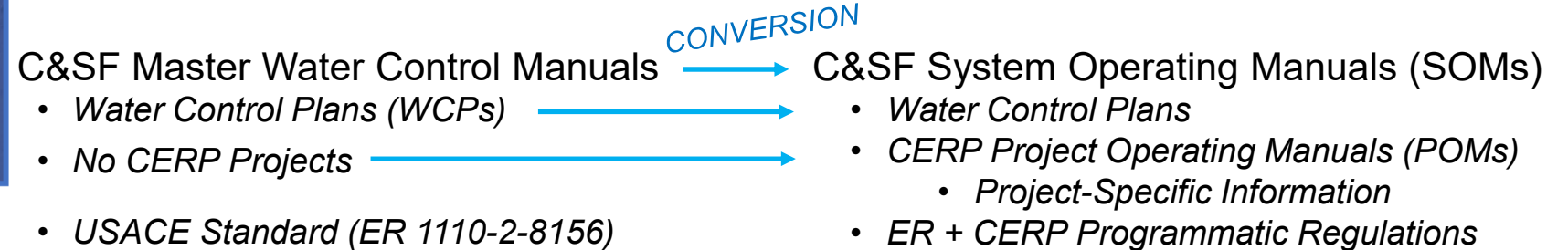
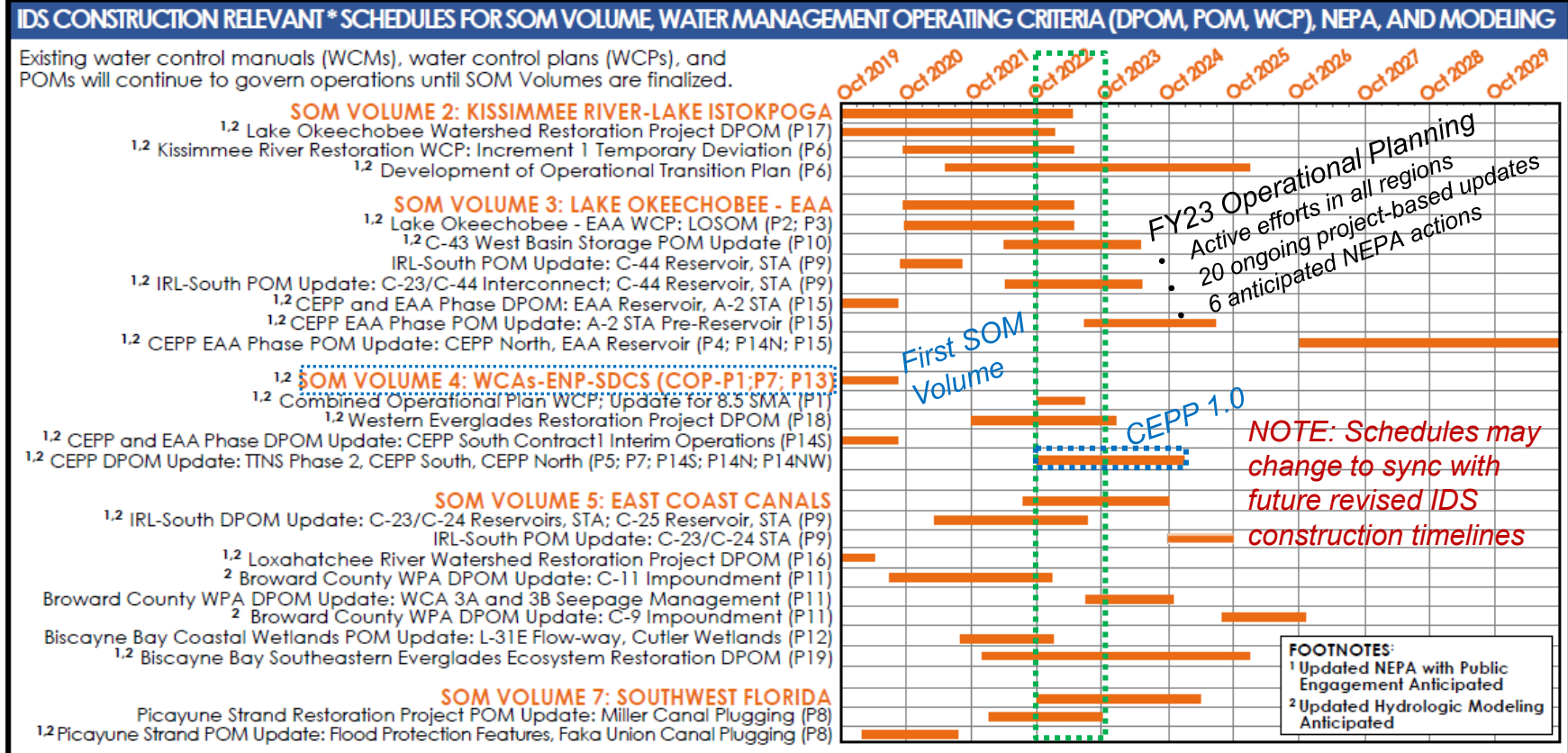
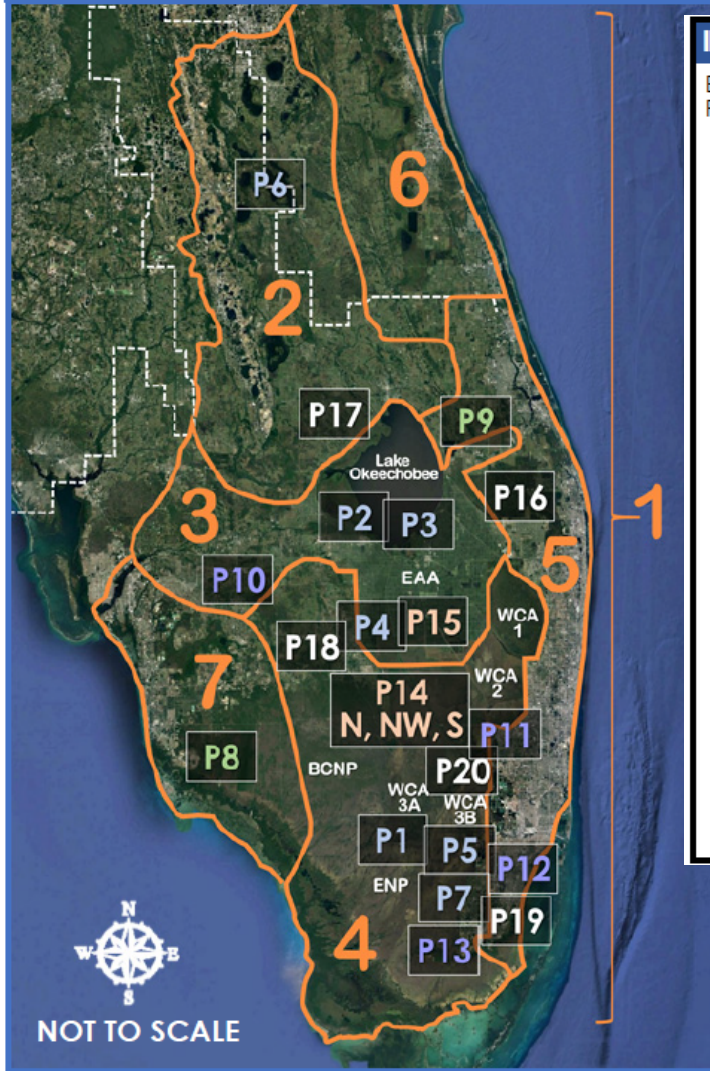


IDS 2022: GETTING THE WATER RIGHT



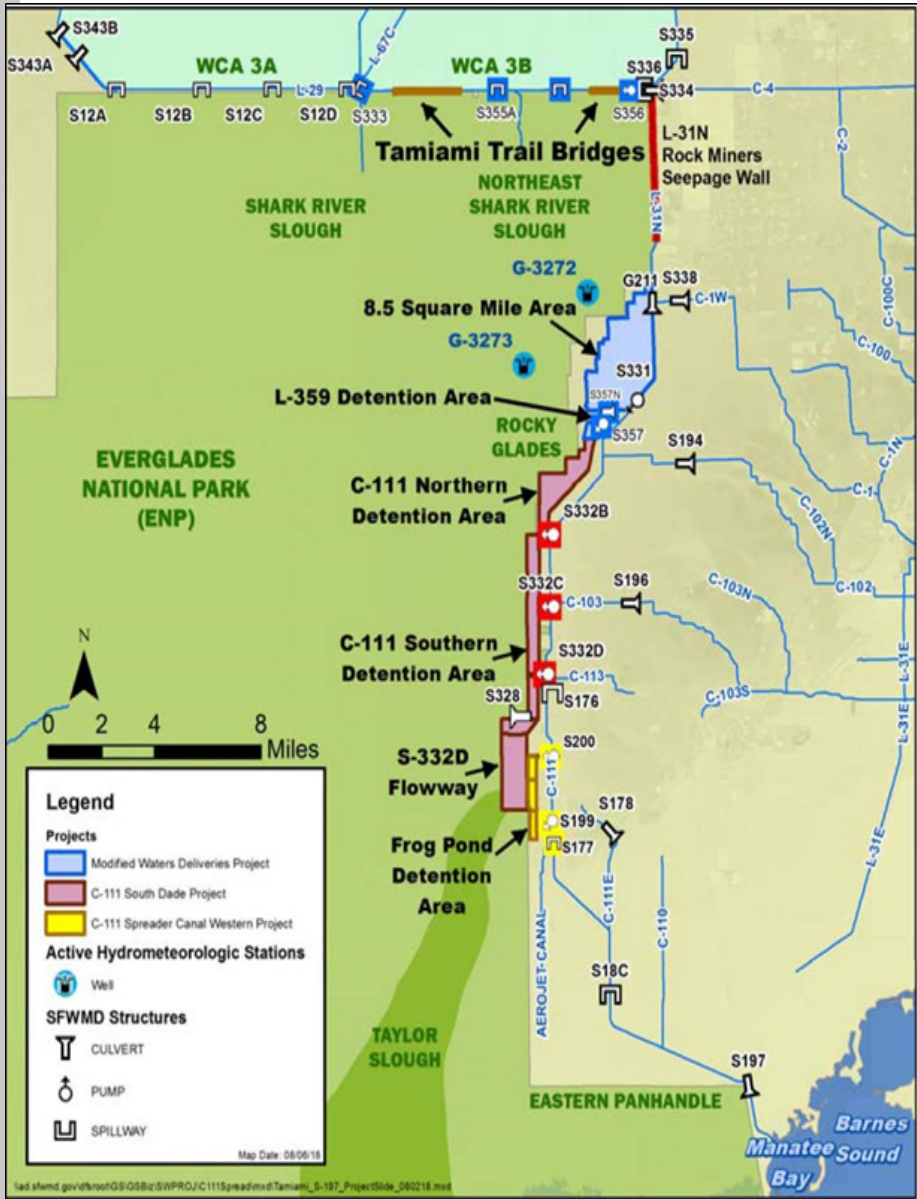
SYSTEM OPERATING MANUALS: THE CRITICAL LAST STEP IN GETTING THE WATER RIGHT AND ACHIEVING MAXIMUM SYSTEM-WIDE BENEFITS

SOM VOLUMES BY REGION





SOM EXAMPLE: 2020 COMBINED OPERATIONAL PLAN



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

APPENDIX A

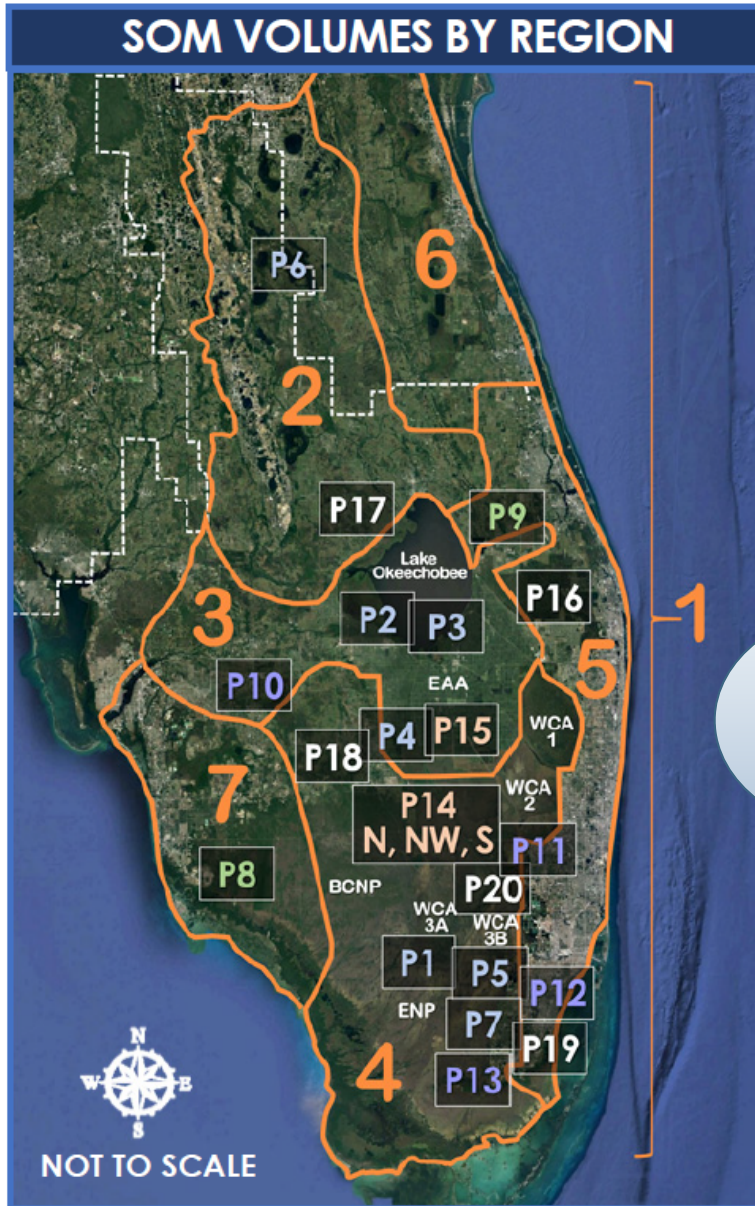
CHAPTER 7, WATER CONTROL PLAN, OF THE SYSTEM OPERATING MANUAL, VOLUME 4

- 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

2020 COP WCP uses CERP POM template



IDS 2022: GETTING THE WATER RIGHT



PIR/Planning Phase: 1

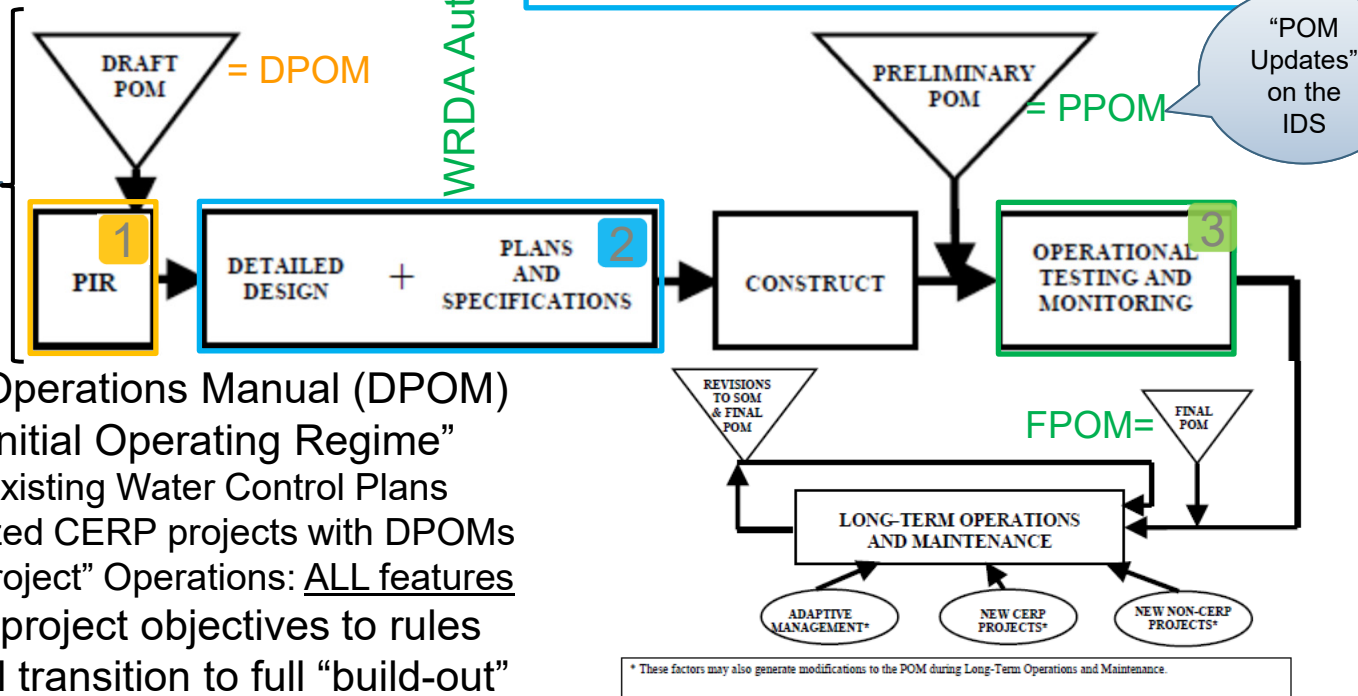
- Scoping
- Base Conditions
- Limited Data Collection
- Alternatives/Modeling
- Risk-Informed Decisions
- Savings Clause Analyses
- Conceptual Design
- Initial Implementation Plan

Design Phase:

- New Information, not limited to:
 - Parallel Projects and WCPs
 - Post-Authorization Changes
 - Consultation; Agency/Public Input
 - Regulatory requirements / permits
 - Appropriations
- Data Collection (survey, Geotechnical)
- Refined Analyses/Modeling
 - Savings Clause Re-Checks
- Plans & Specifications
- Revisit Implementation Plan
 - Phased Construction schedules

WRDA Authorization & Appropriations

CERP POM development is an iterative process over life of project



Draft Project Operations Manual (DPOM)

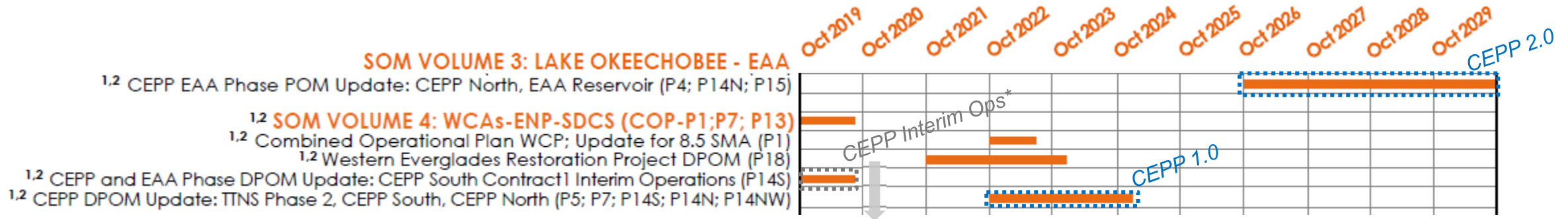
- Forecast "Initial Operating Regime"
 - C&SF Existing Water Control Plans
 - Authorized CERP projects with DPOMs
 - "With-Project" Operations: ALL features
- Translates project objectives to rules
- Conceptual transition to full "build-out"

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



SYSTEM OPERATION MANUALS – THE CEPP EXAMPLE

- CEPP INTERIM OPERATIONS (COMPLETED 2020)
- CEPP PHASE 1 (FY 2023 – EARLY FY 2025)
- CEPP PHASE 2 (ANTICIPATE ~FY 2027 – FY 2030)*



*CEPP Interim Operations Plan for initial S-631, S-632, S-633 operations was completed in 2020 (ahead of construction award)

- Stand-alone ops not in CEPP DPOM
- New information gained from DPM and COP
- Updates per CEPP EAA Phase authorization

* Additional operational phases may be considered in CEPP 1.0 scoping



IDS 2022: GETTING THE WATER RIGHT, CEPP PHASED IMPLEMENTATION OF OPERATIONS



2030+: CEPP-S/N, CEPP-NW, CEPP-EAA

2014 CEPP PIR/EIS Draft Project Operating Manual (Annex C)

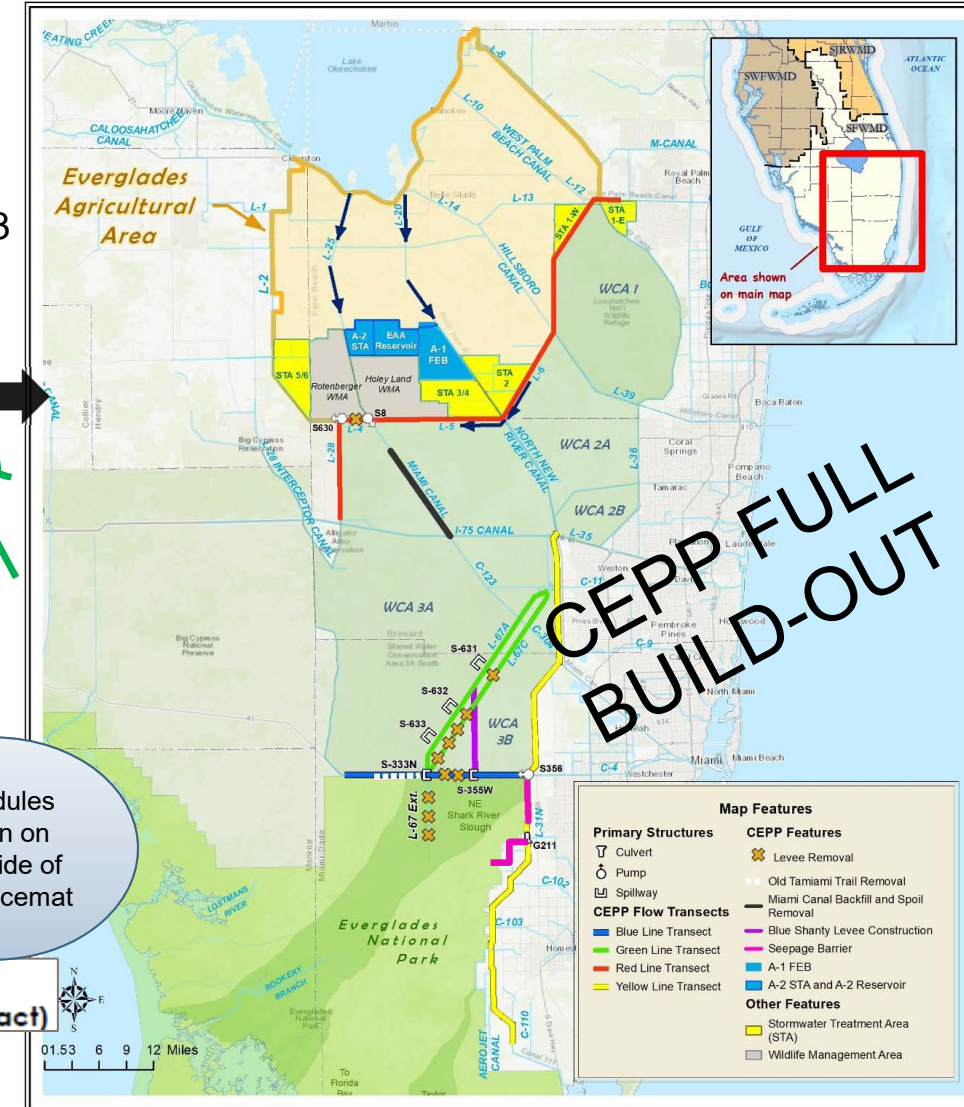
- Forecast "Initial Operating Regime"
- "With-Project" Operations: ALL features
- Updated for EAA Phase in 2020

+

WRDA Authorization / Project Updates

- WRDA 2016: CEPP-South, CEPP-North, CEPP-New Water (L-31N) Phases
- WRDA 2018 & 2020: CEPP-EAA Phase
- WRDA Section 1308(b) Report: 2020
- CEPP USACE Validation Reports: 2019-2023

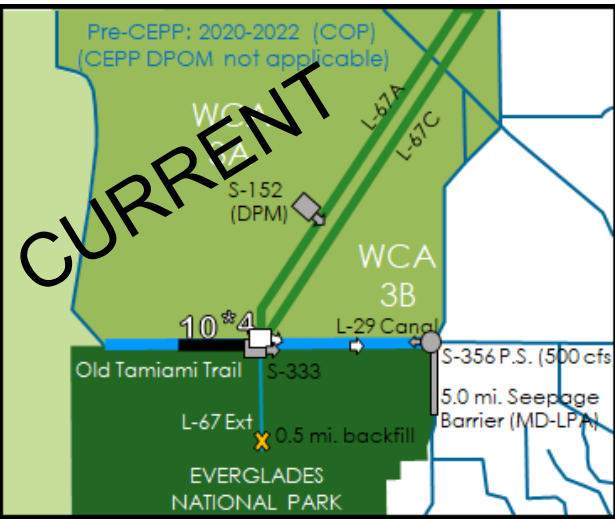
Oct 2019 Oct 2020 Oct 2021 Oct 2022 Oct 2023 Oct 2024 Oct 2025 Oct 2026 Oct 2027 Oct 2028 Oct 2029



DESIGN & CONSTRUCTION + INTERIM OPERATIONS & FURTHER ECOSYSTEM BENEFITS

Schedules shown on front side of IDS placemat

●●●●● Design, PPA Execution, Real Estate Acquisition
 —●— Construction (Initiated by award of construction contract)



2020 COP WCP



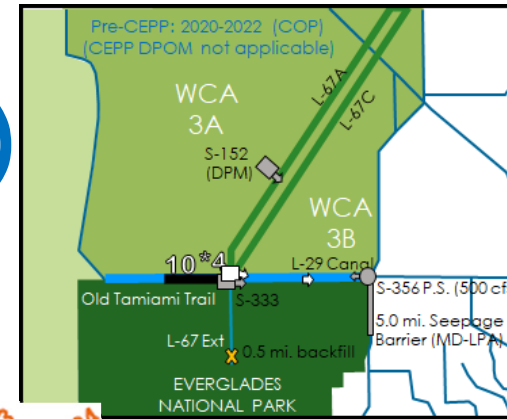
CEPP OPERATIONAL PHASE 1: CEPP 1.0 (SCOPING STARTS JAN 2023)

To redistribute WCA 3A inflows to enhance flows to ENP & Florida Bay

- WCAs, ENP, SDCS regional operational plan to supersede COP with incremental changes to include CERP and non-CERP implementation

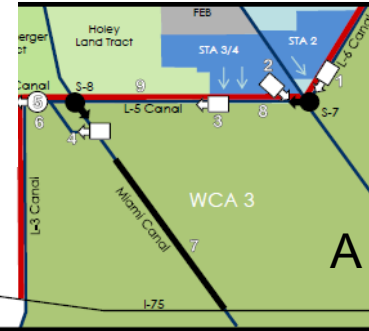
Tamiami Trail Next Steps (TTNS) Phase 2 ³	2024 W	2025
	—	•

- ^{1,2} SOM VOLUME 4: WCAs-ENP-SDCS (COP-P1;P7; P13)
- ^{1,2} Combined Operational Plan WCP; Update for 8.5 SMA (P1)
- ^{1,2} Western Everglades Restoration Project DPOM (P18)
- ^{1,2} CEPP and EAA Phase DPOM Update: CEPP South Contract1 Interim Operations (P14S)
- ^{1,2} CEPP DPOM Update: TTNS Phase 2, CEPP South, CEPP North (P5; P7; P14S; P14N; P14NW)



22
2020-2023
Pre-CEPP

North Phase



Ready to go when TTNS allows raising L-29 Canal

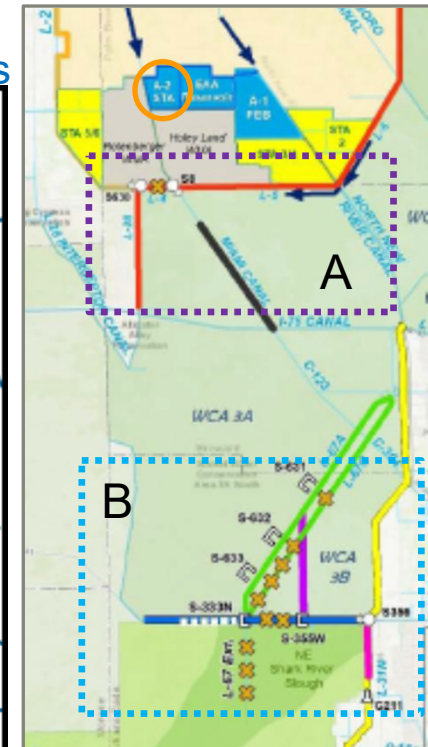
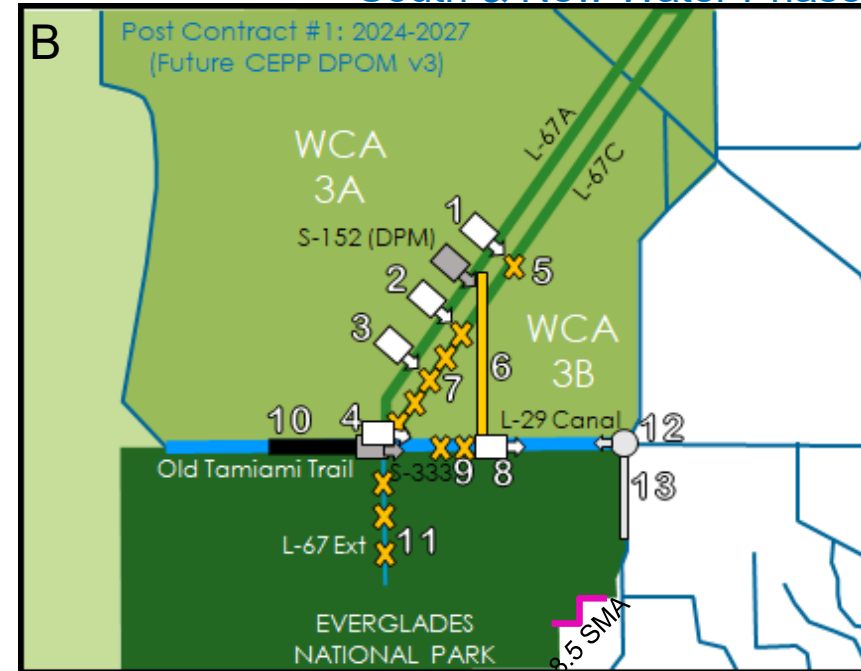
2025-2029 IDS construction: CEPP-S / N, CEPP-NW

- CEPP-South Phase phased construction (IDS: P14S)
 - CEPP-North early construction and operations (P14N)
 - CEPP New Water seepage curtain wall (P14NW) ¹
- + Parallel Project considerations (scoping/phasing options):
- NPS Tamiami Trail Next Steps Phase 2 (P5) ¹
 - S-12 structure operations and seasonal closures ¹
 - SFWMD 8.5 SMA Limited Curtain Wall (2022) ¹
 - USACE Lake O. System Operating Manual (2023; P3) ²
 - Information gained from (and during) COP Implementation
 - CEPP A-2 Stormwater Treatment Area grow-in (P15)

¹ Effects COP WCP constraint(s)

² Effects COP EIS assumption(s)

South & New Water Phases





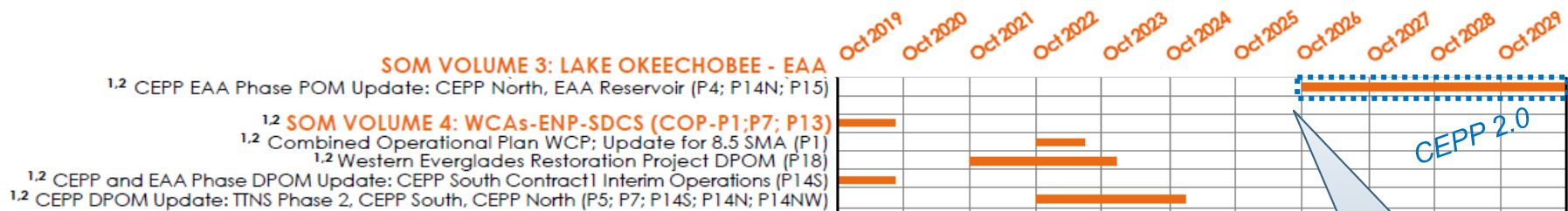
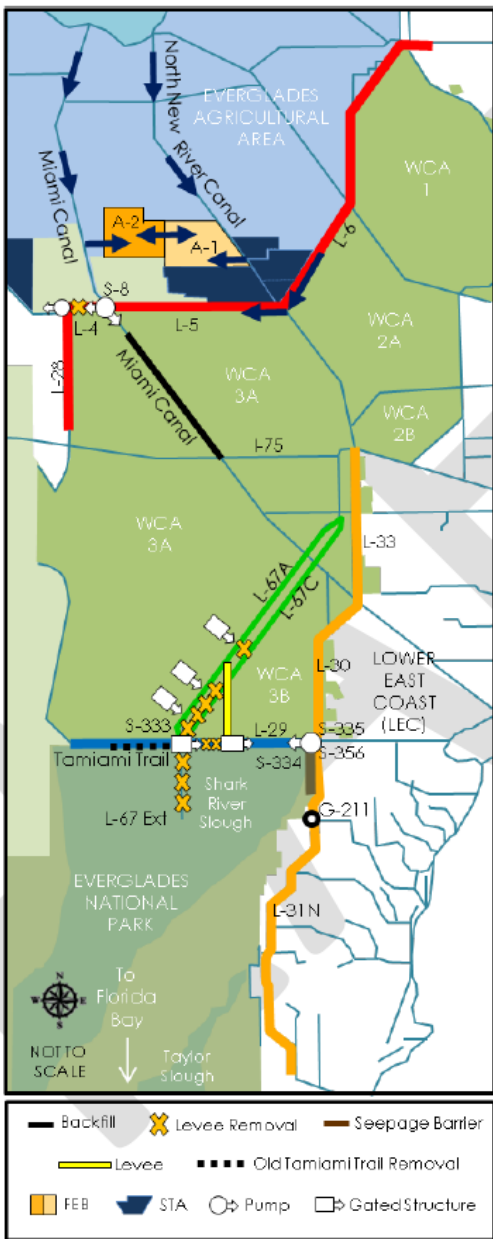
CEPP OPERATIONAL PHASE 2: WITH EAA RESERVOIR 2030



2030*: All CEPP Phases complete, with EAA Reservoir + CERP Lake O. Schedule

Aims to increase quantity, quality, timing and distribution of water to the Central Everglades with full implementation of all CEPP components

- WCAs, ENP, SDCS regional operational plan will supersede CEPP Phase 1 (or later phase)
 - Requires updates to multiple C&SF System Operating Manual Volumes (V3, V4, V5?)
 - *2030 EAA completion per 2022 SFER IDS



Parallel Project considerations (conceptual starting point only):
(CEPP Phase 1 scoping outcomes + other CERP progress)

- CEPP Adaptive Management and Monitoring Plan
- CERP Broward County Water Preserve Area C-11 Reservoir (IDS P11)
- CEPP-North completed hydropattern restoration and Miami Canal backfill (P14N)
- CEPP Everglades Agricultural Area (EAA) Reservoir (P15)
- CERP Lake O. Regulation Schedule Study (post-LOSOM)
- Second Periodic CERP Update
- Western Everglades PIR (pending authorization; P18)

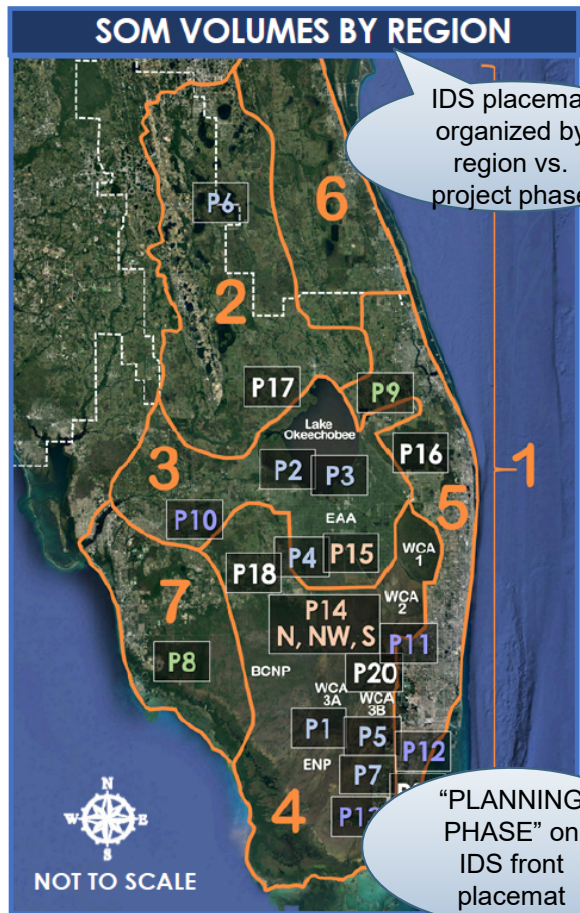
Less schedule certainty (for now), but complex and high stakeholder coordination



IDS 2022: FY 2023 OPERATIONAL PLANNING UPDATES



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



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

2022 Operational Planning Efforts:

(1) System Operating Manual (SOMs) Volumes

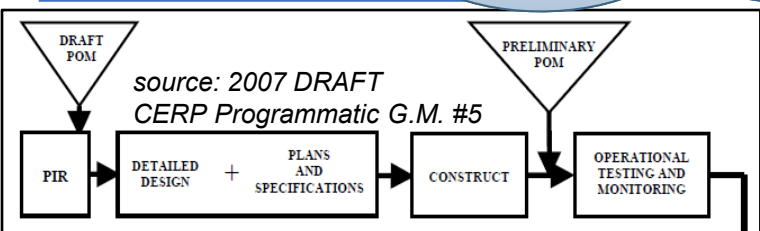
- Vol. 2 (SOM conversion): Kissimmee River/Lake Istokpoga – mid 2023
- Vol. 3: Lake Okeechobee and EAA – target mid 2023
- Vol. 5 (SOM conversion): East Coast Canals – ongoing, late 2024
- Vol. 7 (New SOM volume): Southwest Florida – ongoing, early 2025

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

- Lake Okeechobee System Operating Manual – mid 2023 ^{1,2}
- Kiss. River Restoration (KRR) WCP, Increment 1 temp. deviation – 2023 ^{1,2}
- KRR Operational Transition Plan – ongoing, final by 2025 ^{1,2}
- Combined Operational Plan, 8.5 SMA update – early 2023 ^{1,2}
- CEPP Operational Phase 1.0 – starting early 2023, final by early 2025 ^{1,2}

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

- * Lake O. Watershed Restoration – target 2023 ^{1,2}
- * Western Everglades Restoration Project (WERP) – 12/2021 restart ^{1,2}
- Biscayne Bay Southeastern Everglades Restoration (BBSEER) – 2025 ^{1,2}



(3)

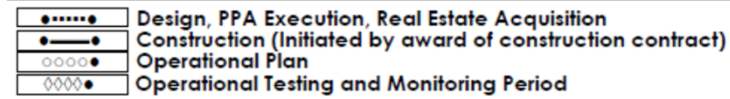
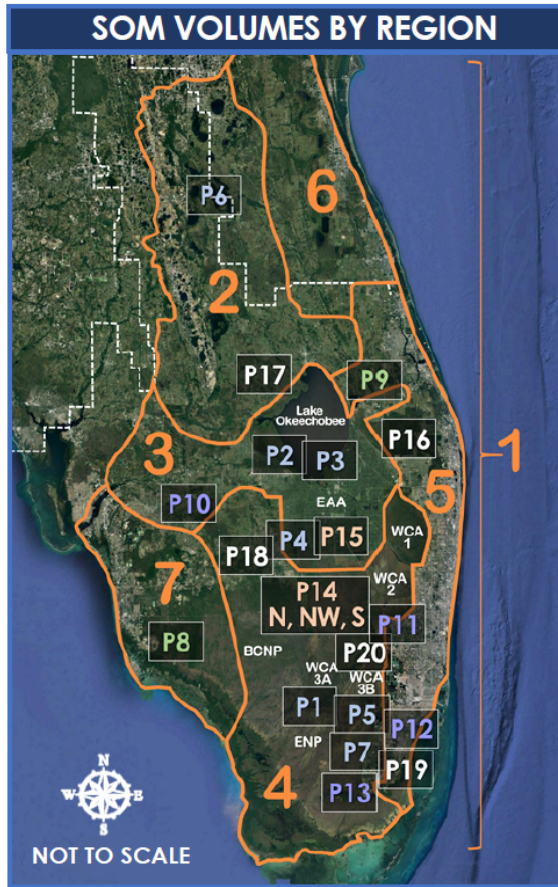
* 2022 IDS schedule updates anticipated with PIR delays



IDS 2022: FY 2023 OPERATIONAL PLANNING UPDATES



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



Highlight of public input opportunity

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

FY2023 Operational Planning Efforts:

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

- IRL-S C-44 Reservoir – to start 2023 (for 2024) ^{1,2}

“OTMP” on IDS front placemat

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

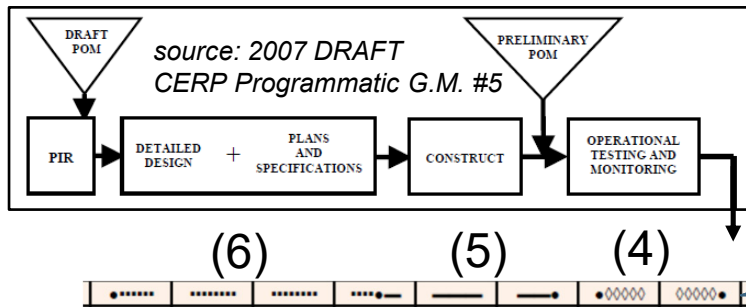
- CEPP EAA Phase A-2 STA – complete 2025 ²
- C-43 West Basin Storage Reservoir – to start 2023 (for 2024) ^{1,2}
- BBCW Phase 1, L-31E Flowway and Cutler Wetlands – late 2022
- Picayune Strand Restoration, Miller Canal Plugging – late 2023

“Construction” on IDS front placemat

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

- IRL-S C-23/C-24 North/South Reservoirs – late 2023 ^{1,2}
- * Broward County WPA, C-11 Impoundment – late 2022 ²
- Broward County WPA, WCA-3A/3B seepage management area – late 2024

“Design” on IDS front placemat



Example: CEPP S-355W

* 2022 IDS schedule updates anticipated with PED or construction delays