OVERVIEW OF THE CENTRAL & SOUTHERN FLORIDA (C&SF) PROJECT

WATER MANAGEMENT OPERATIONS OVERVIEW

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AGENDA

✓ Central and Southern Florida (C&SF) Project Purposes
✓ C&SF Roles and Responsibilities
✓ Hydrologic Basins
✓ Combined Operational Plan (COP) Water Control Plan
  • ERTP Increment 2 Operational Strategy
  • COP
✓ Goal Metric: WCA-3A to ENP Water Deliveries
✓ South Dade Conveyance System
✓ Questions
C&SF PROJECT PURPOSES

- Flood control
- Navigation
- Water supply for
  - Agriculture
  - Municipalities
  - Industry
- Everglades National Park
- Regional groundwater control
- Salinity control
- Enhancement of fish and wildlife
- Recreation
IV - RESPONSIBILITIES

4-01. General. All of the project works constructed as a result of the Rivers and Harbors Act of 1930 were operated and maintained by the Corps of Engineers. Some channels, such as the St. Lucie Canal, were constructed by the State of Florida, and operation and maintenance was taken over by the Corps of Engineers as a result of the 1930 Act. When the Flood Control Act of 1948 approved the creation of the Central and Southern Florida Project for Flood Control and Other Purposes, those features of the old Caloosahatchee River and Lake Okeechobee Drainage Areas (C&SFDA) Project were retained by the Federal Government for operation and maintenance. The flood control features of the CR&LODA project were improved in some cases and incorporated into the C&SF Project. The existing channels and locks were included in the Okeechobee Waterway Project. Locks and channel improvements done as a result of the new project were included in the C&SF Project.

4-02. Corps of Engineers. Both the 1948 Act and the 1968 Act included language which spelled out those features of the project which would be operated and maintained by the Corps of Engineers for the Federal Government. The project features to be operated and maintained by the Corps of Engineers are "the levees, channels, locks, and control works of the St. Lucie Canal, Lake Okeechobee, Caloosahatchee River, and the main spillways of the water conservation areas." In addition, "...60 percent of the additional pumping costs due to the proposed modification [1968 Authorization],...[is] to be reimbursed by the Federal Government except for the additional pumping costs at Pumping Station 9 and for the pumping stations along the northeast and northwest shores of Lake Okeechobee which will be all local..." The project features operated and maintained by the Corps of Engineers are shown in Table 4-1.

4-03. Local Sponsor. The C&SF Project has two sponsors. The St. Johns River Water Management District (SJRWMD) is responsible for local cooperation requirements for the Upper St. Johns River Basin. All other project features are the responsibility of the South Florida Water Management District (SFWMD). The local sponsor is responsible for operation and maintenance of all project facilities not operated and maintained by the Corps of Engineers in accordance with regulations approved by the Secretary of the Army.
HYDROLOGIC BASINS

- WCA 1, WCA 2A, and WCA 2B
- WCA-3A and WCA-3B
- L-29 Canal
- Las Palmas Community (8.5 SMA)
- South Dade Conveyance System (SDCS)
- Everglades National Park (ENP)
COP WATER CONTROL PLAN

Existing Condition / Increment 2

Combined Operational Plan (COP)

COP WCP Overall Objective is to move more water from Water Conservation Area 3A to Everglades National Park via Northeast Shark River Slough.

- with an assumption that upstream inflows to the WCAs are the same (existing water budget).

Projected Benefit: Increase annual inflow to ENP by ~160,000 acre feet per year on average (+28%), which is approximately 0.3-foot reduction in water levels in WCA-3A.
CSSS “A” RPA Closure Period Requirements
- S-344, S-343A&B close from Oct 1 thru Jul 14
- S-12A&B close from Oct 1 thru Jul 14 with high water exit strategy based on WCA 3A stage

During nesting window of CSSS eastern sub-populations from 15 Feb through 14 Jul, S-332D pumping restrictions are:
- 500 cfs (15 Jul to 30 Nov)
- 325 cfs (01 Dec to 31 Jan)
- 250 cfs (01 Feb to 14 Jul)

WCA-3A Regulation Schedule (2014)

*NOTES*
- WCA-3A Volume is the average of Sites 33, 34, and 46.
- Increment I Action Line is not part of the 2012 WCA-3A Interim Regulation Schedule.
- For ease of reference, Increment I Action Line is shown with the 2014 WCA-3A Interim Regulation Schedule.
- Increment I Action Line to be referenced as indicated in the 2012 WCA-3A Interim Regulation Schedule.
- Elevation of 8.5 ft NGVD

1984 Rainfall-based Management Plan

- Raise L-29 up to 8.5 ft, NGVD
- Maintain authorized flood mitigation in the Las Palmas Community (8.5 SMA)
- Maintain Authorized Flood Protection along L-31N and C-111 Canals
- Provide flows to Taylor Slough and maintenance of hydraulic ridge
- Minimize discharge through S-197
COP WATER CONTROL PLAN

Implement the Tamiami Trail Flow Formula

WCA-3A Regulation Schedule (2020)

CSSS “A” RPA Closure Period Requirements
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Provide flows to Taylor Slough and maintenance of hydraulic ridge

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Raise L-29 up to 8.5 ft, NGVD

Maintain authorized flood mitigation in the Las Palmas Community (8.5 SMA)

Minimize discharge through S-197
## GOAL METRIC:
### WCA-3A WATER DELIVERIES TO NORTHEAST SHARK RIVER SLOUGH

<table>
<thead>
<tr>
<th>Year</th>
<th>WCA-3 NEXRAD Rainfall Estimate (inches)</th>
<th>Annual Flow Volume to NESRS (ac-ft)</th>
<th>% of 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>46.5</td>
<td>68,000</td>
<td>20%</td>
</tr>
<tr>
<td>2013</td>
<td>50.6</td>
<td>79,000</td>
<td>23%</td>
</tr>
<tr>
<td>2014</td>
<td>42.9</td>
<td>193,000</td>
<td>56%</td>
</tr>
<tr>
<td>2015</td>
<td>44.9</td>
<td>127,000</td>
<td>37%</td>
</tr>
<tr>
<td>2016</td>
<td>56.6</td>
<td>269,000</td>
<td>78%</td>
</tr>
<tr>
<td>2017</td>
<td>67.7</td>
<td>129,000</td>
<td>38%</td>
</tr>
<tr>
<td>2018</td>
<td>40.9</td>
<td>343,000</td>
<td>100%</td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
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<tr>
<td>2020</td>
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</tbody>
</table>

**Average WCA-3 Rainfall (1989-2018) = 52 inches**

- **Increment 1** (Oct 2015)
- **Increment 1.1 and 1.2** (Feb 2017)
- **Increment 2** (Mar 2018)
- **COP** (Aug 2020)

Improve water deliveries into ENP
- Timing
- Location
- Volume

![WCA 3 Rain Area](image)

[ENP]

**LEGEND**
- IOP
- ERTP
- Increment 1
- 2016 Emergency Deviation
- Increment 1.1/1.2
- 2017 Temporary Deviations
- Increment 2
- COP
SOUTH DADE CONVEYANCE SYSTEM (SDCS)
SOUTH DADE CONVEYANCE SYSTEM (SDCS) – PROFILE VIEW

Up to 8.5

5.5 to 5.8

S-336

S-356

5.5 to 6.0

5.3 to 5.7

S-338

G-211

4.3 to 5.0

S-331

S-332

S-332B

S-332C

S-332D

4.1 to 4.7

3.8 to 4.8

4.5 to 5.0

Up to 8.5

4.1 to 4.7

S-194

S-196

5.5 to 6.0

3.8 to 4.8

4.5 to 5.0

S-176

S-199

3.0 to 4.0

2.3 to 2.65

S-177

S-18C

5.3 to 5.7

3.6 to 4.2

2.3 to 2.65

S-197

ELEVATION (FEET, NGVD)

1.0 to 8.5

2.0 to 6.0

3.0 to 4.0

4.0 to 2.0

5.0 to 0.0

PROFILE VIEW (NTS)

S-173

L-29

L-31N

C-111

BARNES SOUND

TIDE
THANK YOU!

QUESTIONS?