PBC – Project Updates by Paul Linton

Joint WRTF – May 9, 2025

C-51 Reservoir Phase 2

- Cell 12 and Cell 13 of C-51 Reservoir Phase 2 will be substantially complete by August of this year (2025) but they will remain lowered to facilitate the construction of the inflow structure and pump station
- Construction of the inflow structure, pump station, and conveyance improvement is expected to start this year and complete by the end of 2028.
- Once operational these two cells will provide about 4.5 billion gallons (14,000 acre-feet) of usable storage.

PBC CERP Components

Summary of CERP Components that store water that would otherwise go to tide to compensate for additional Lake Okeechobee water sent to the Everglades.

For Lake Okeechobee and EAA

- 200 five MGD ASR Well providing about one million acre-feet feet of storage during wet year (about one foot) and
- 1/3 (120,000 acre-feet) of EAA Reservoir

The seven structural CERP component identified for eastern Palm Beach County (PBC) included:

- 82,680 acre-feet (28 BG) of Reservoir Storage (0.18 feet on Lake Okeechobee)
- 89 five mgd ASR wells providing a 138,000 acre-feet of storage during a 100 day wet season

one foot on Lake Okeechobee equates to about 152 BG and 467,200 acre-feet

PBC CERP Components

Seven Components Intended to Reduce Eastern PBC Dependency of Lake Okeechobee

- M6 - Site 1 Impoundment and ASR - 14,760 acre-feet with thirty 5 mgd ASR Wells
- X6 - C17 Backpumping - 550 acre STA to supply water to City of West Palm Beach (CWPB)
- Y6 - C51 Backpumping - 600 acre STA to supply water to CWPB
- LL6 - C-51 ASR – 34 five mgd ASR Wells with associated surficial aquifer wells
- VV6 - PBC Agriculture Reservoir – 19,920 acre-feet reservoir with fifteen 5 mgd ASR wells
- GGG6 and K6 – L-8 Reservoir and L-8 Project – 48,000 acre-feet (LRWRP provides 9,500 acre-feet) and ten 5 mgd ASR Wells

PBC CERP Components

Components No Longer Feasible

X6 - C17 Backpumping - 550 acre STA to supply water to City of West Palm Beach (CWPB)

Land no longer available for STA

Y6 - C51 Backpumping - 600 acre STA to supply water to CWPB

Land no longer available for STA

PBC CERP Components

Impacted Components

Lake Okeechobee ASR

Change - ASR Capacity reduced from 200 to 80 Five MGD ASR Wells due to limits on injection pressure.

Impact – Reduced storage capacity during a 100 day wet season from about 310,000 acre-feet (~0.66 feet) to 124,000 acre-feet (~0.27 feet). For a full year the ASR storage capacity reduced from 1,131,000 acre-feet (~2.4 feet) to 452,600 acre-feet (~1.0 feet)

One foot on Lake Okeechobee equates to about 467,200 acre-feet (152 BG)

PBC CERP Components

Impacted Components

Site 1 Impoundment and ASR - 14,760 acre-feet with 30 five mgd ASR Wells

Change - Available for reservoir reduced from 2,460 acres to 1,700 acres due to development of land and storage during hurricane season limited by impacts of emergency overflows requirements.

Impact – Area for storage reduced by 30 percent. Need to have sufficient free board to hold rainfall events exceeding the 100 year 3 day storm by about a foot to prevent emergency overflows while the surrounding residential area recovers.

Status – USACE reconstructed the embankments shared with WCA-1 to meet USACE high hazard dam standards (13,280 acre-feet with a depth of 8 feet). No storage available.

PBC CERP Components

Likely Impacted Components

VV6 - PBC Agriculture Reservoir – 19,920 acre-feet reservoir (1,660 acres 12 feet deep) with fifteen 5 mgd ASR wells

Challenges – Need to have sufficient free board to hold rainfall events exceeding the 100 year 3 day storm by about a foot to prevent emergency overflows while the surrounding residential area recovers from 100 year 3 day rainfall.

PBC CERP Components

Upper East Coast Components

For Perspective

B – C-44 Reservoir – In CERP 40,000 acre-feet (10,000 acre four feet deep). Final design of about 50,600 acre-feet in a 3,400 acre reservoir (maximum depth ~ 15 feet).

UU – C-23, C-24, and C-25 Reservoirs providing 349,400 acre-feet of storage capacity

Currently the Indian River Lagoon-South (IRL-S) Restoration Project includes approximately 130,000 acre-feet of new water storage provided by project's reservoirs and STAs, and an additional 30,000 acre-feet provided by the natural areas.

C-23/C-24 North - estimated completion date of 2031

C-23/C-24 South - estimated completion date of 2030

C-25 Reservoir and STA - estimated completion date of 2028

THANK YOU!

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PBC CERP Components

EAA Reservoir

G – EAA Reservoir

360,000 acre-feet of which 120,000 acre feet was dedicated to EAA Water Supply.