SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Will CSOP Help Reduce Florida Bay Hypersalinity

Combined Structural and Operation Plan (CSOP) for the Modified Water Deliveries to Everglades Nation Park (MWD ENP) and the C-111 Canal Projects

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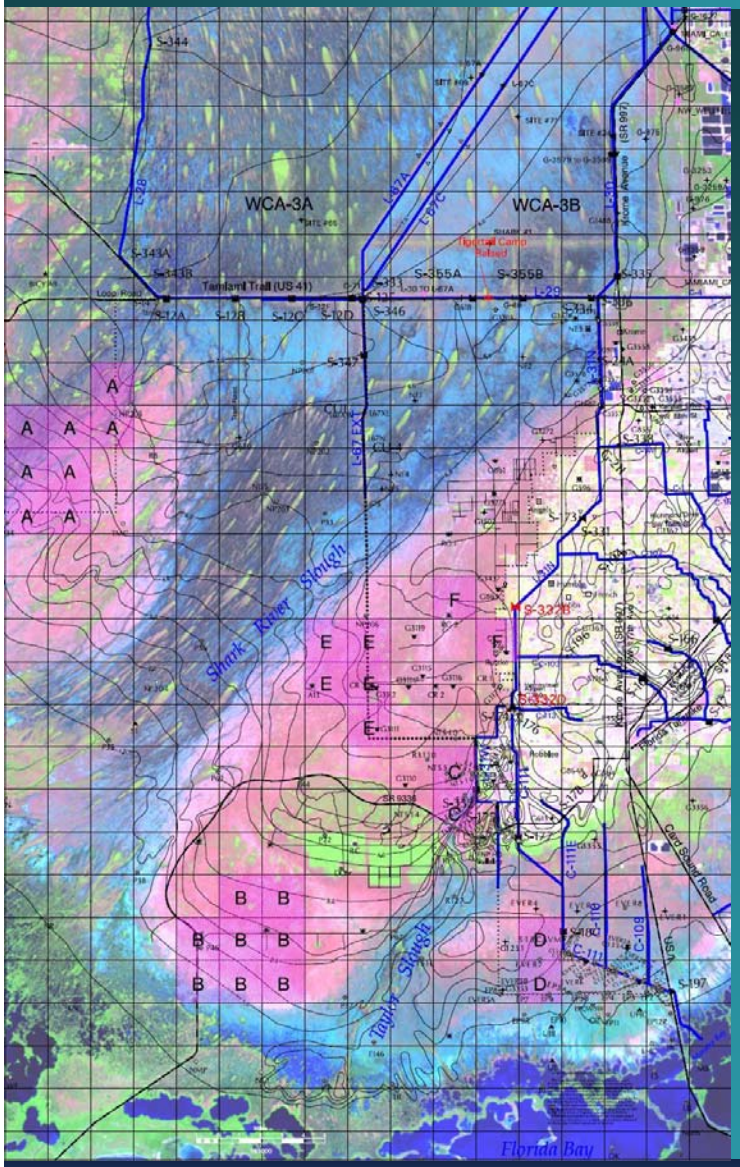
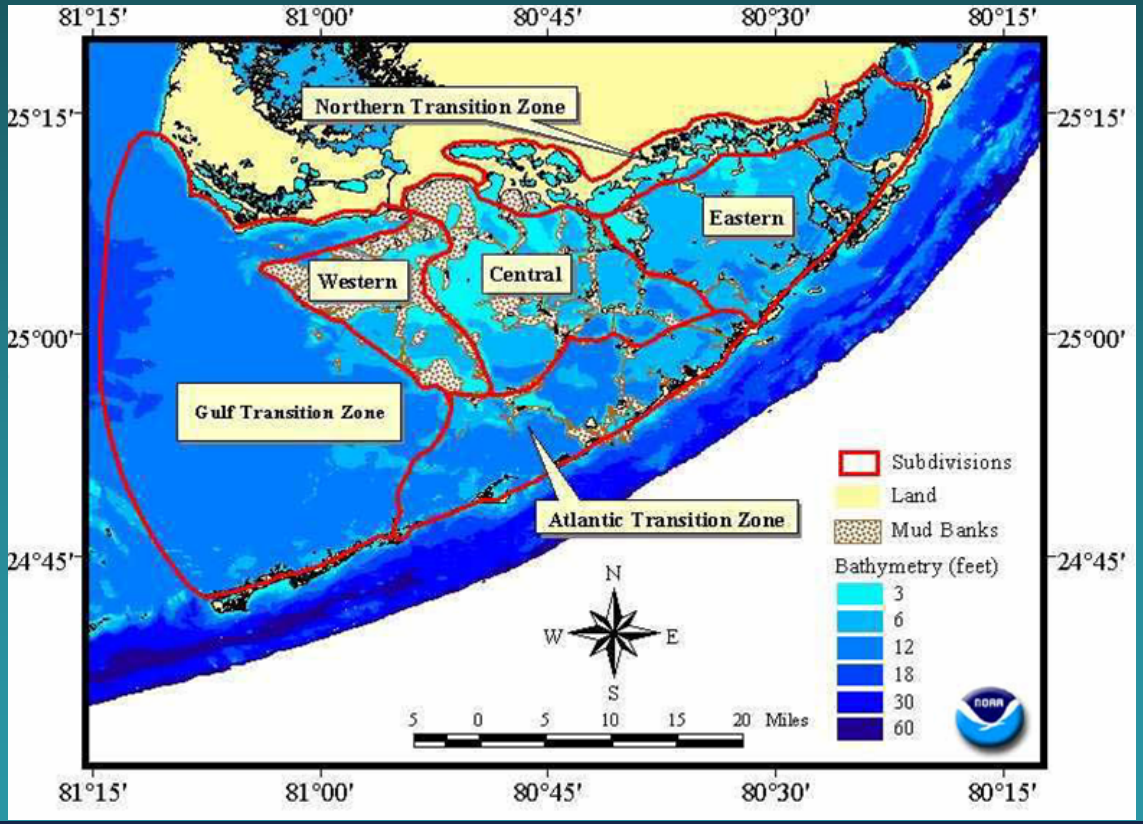
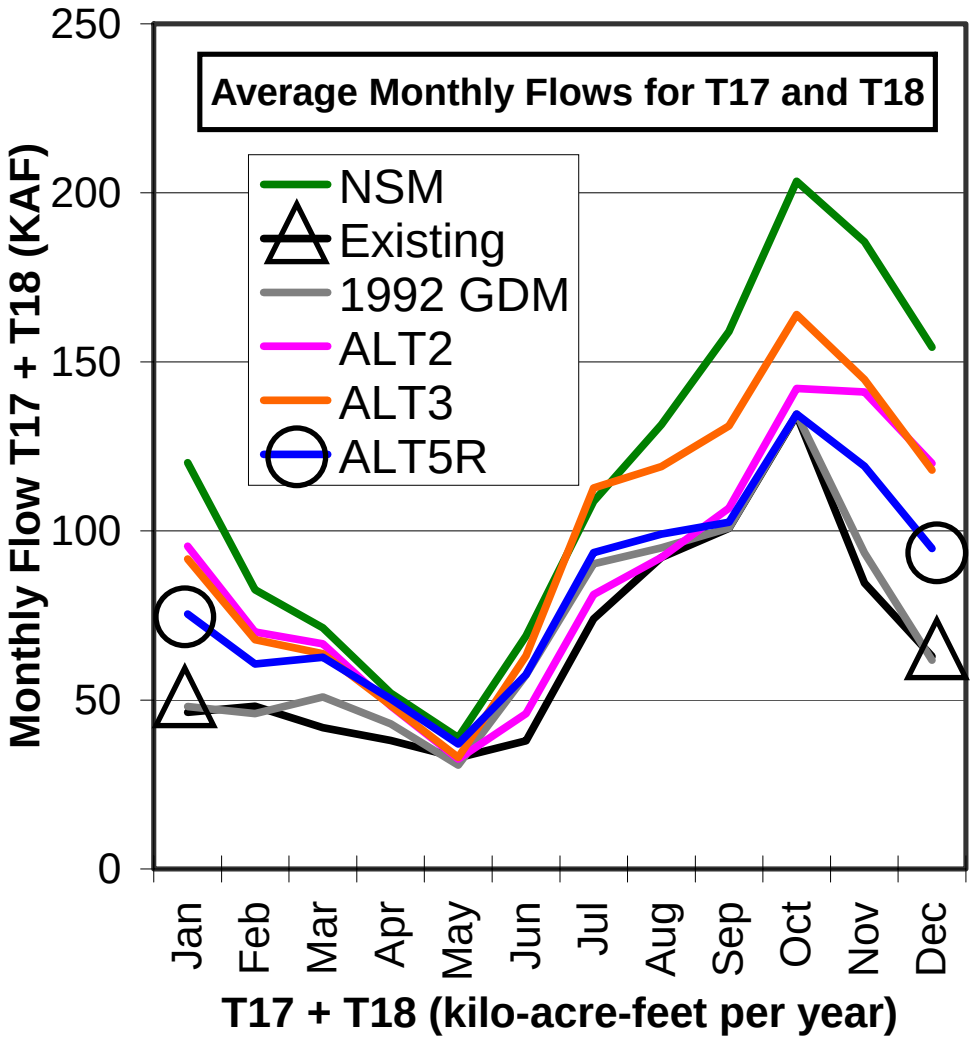
Alternative 5R Benefits

- Flows to Shark Slough (SS) increased 24% above current levels
- CSOP Average Annual Flows Exceed CERP but expected to be slightly below CERP levels during dry years.
- Flow delivered based on a New Rainfall Formula which improves timing of flow to Shark Slough



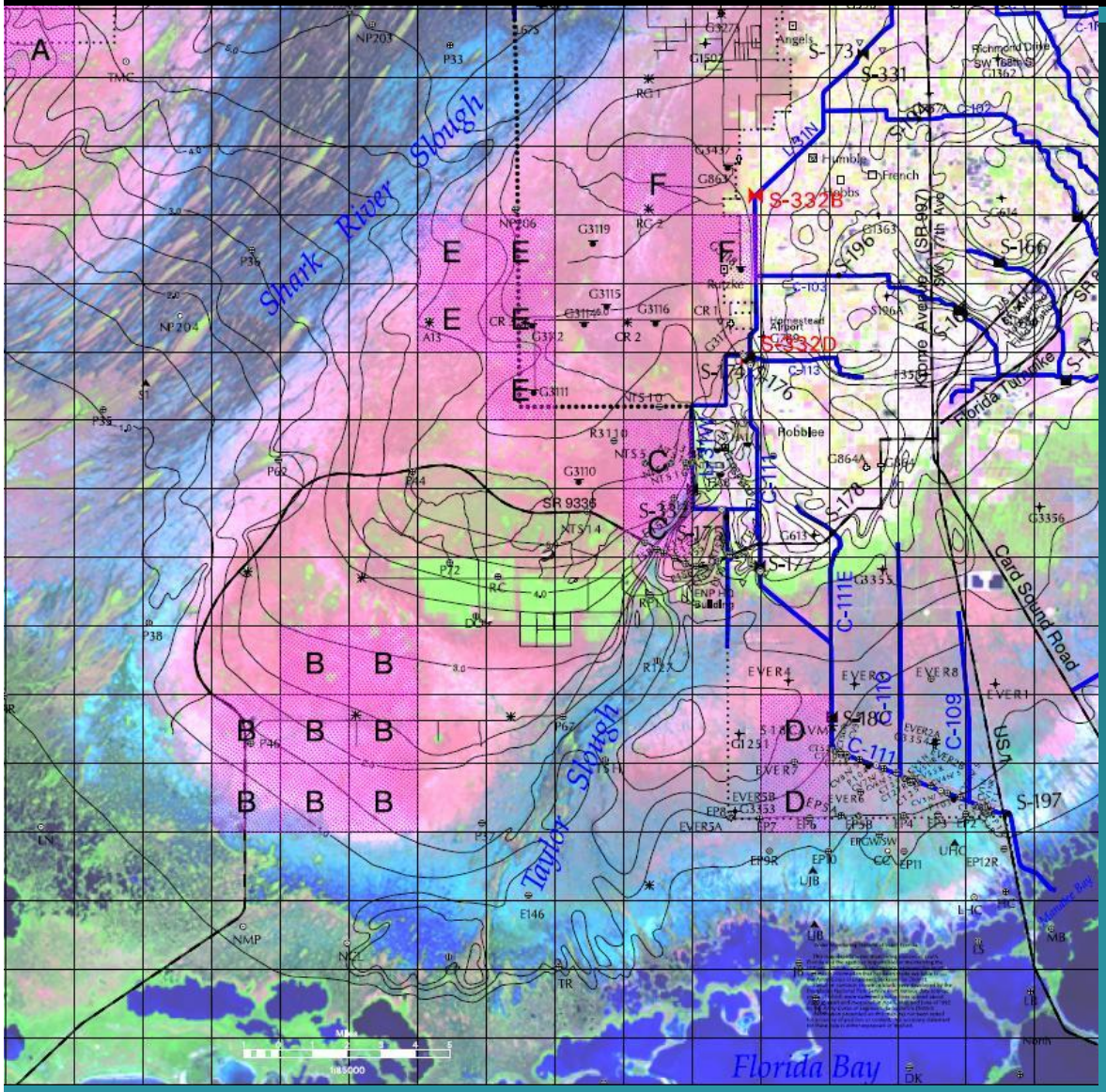
Total flow to Shark Slough more strongly affects western Florida (Lake Ingraham and Bear Lake)





Monthly flow to Shark Slough (T17+T18) mimics NSM pattern

Considerable increase in the dry season flows.



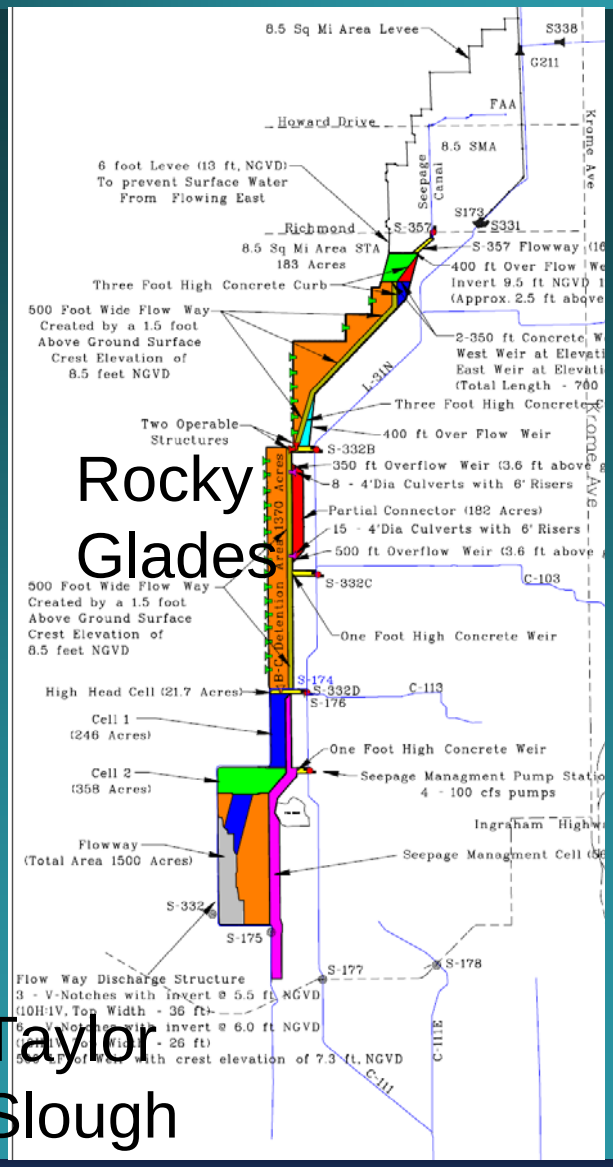
Flows to Taylor Slough more strongly affect central and eastern Florida Bay

Flows to through the C-111 Canal more strongly affect eastern Florida Bay

Alternative 5R Benefits

- Buffer & Detention area – improves flows into Taylor Slough by reducing seepage losses from Rocky Glades and providing flow to Taylor Slough
- Florida Bay damaging flows reduced
- G-211 is a basin divide during wet conditions but available for water supply during dry conditions

~ 8 miles



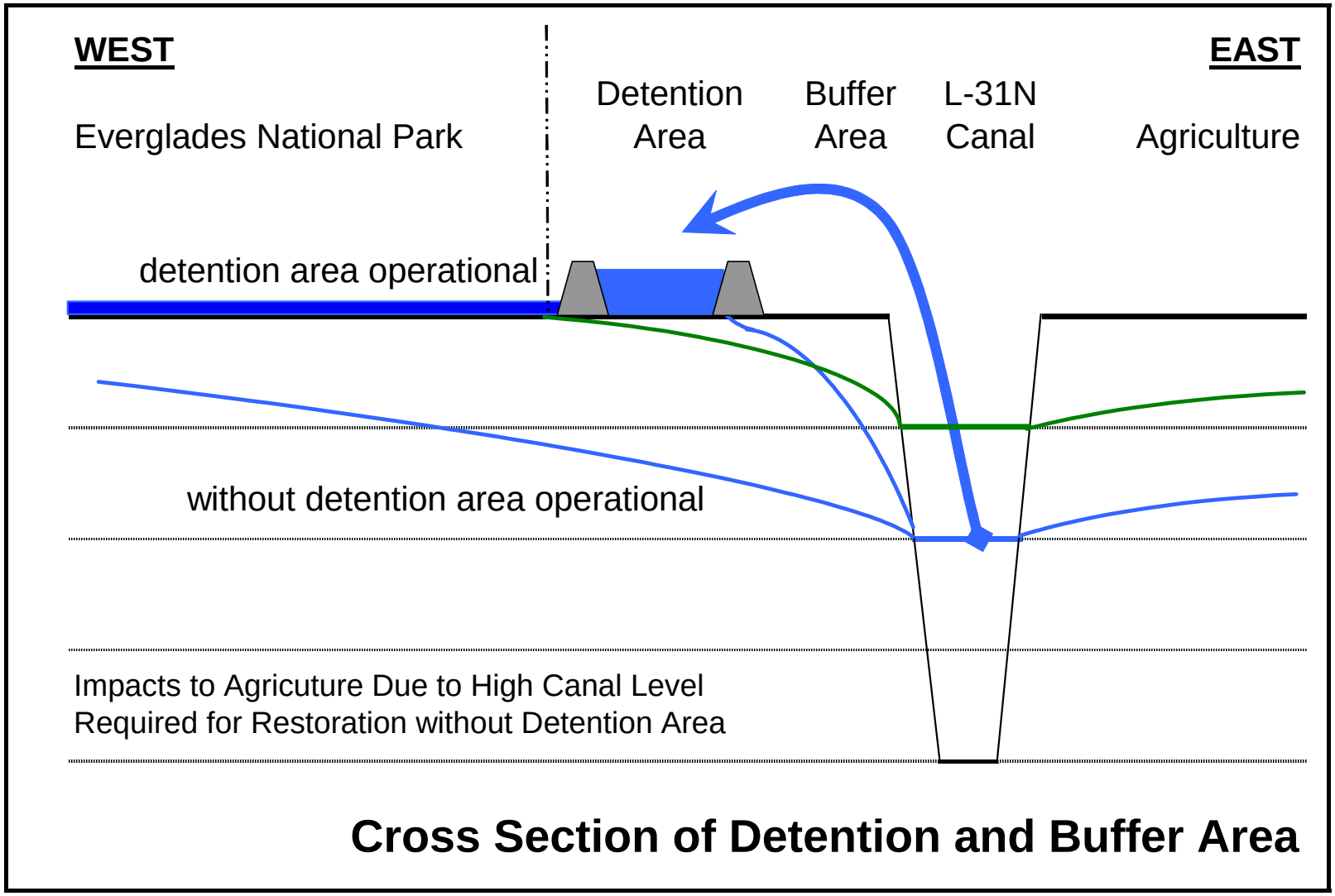
Rocky Glades

Taylor Slough

CSOP will complete the construction of an 8 mile long detention area providing approximately 3,000 acres of detention area.

The IOP detention areas cover only 2.5 miles of the 8 mile length and provides less than 600 acres of detention area.

The fully functioning hydraulic ridge is expected to maintain high water levels in the Rocky Glades



Cross Section of Detention and Buffer Area

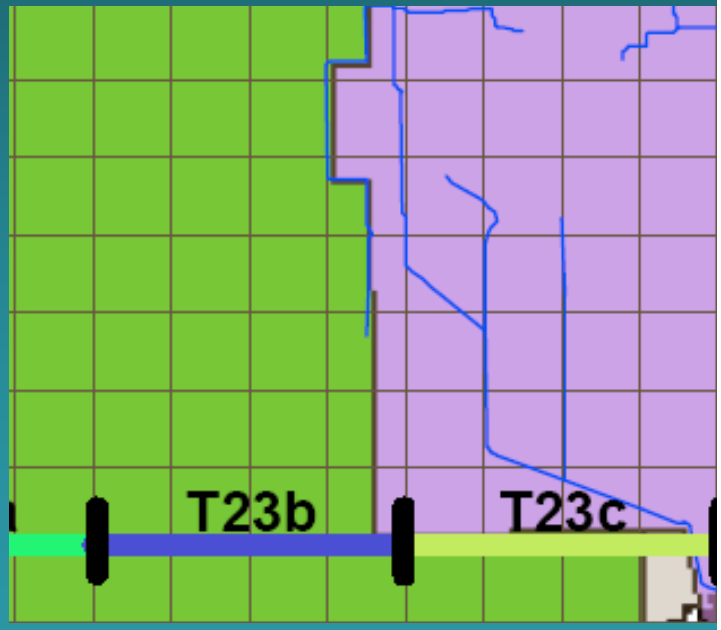
Taylor Slough

Shifted Flow to Taylor Slough: Total (Dry Season)

Run	T23B	T23C
NSM	87 (30)	76 (29)
Existing	71 (16)	84 (19)
ALT5R	76 (22)	57 (12)

Average Annual Flow in KAF/YR

Still a little dry in the dry season but CSOP is capable of delivering supplemental water to Taylor Slough through S-332D



Dry Season Test

Currently performing a dry season test which:

gradually reduced S-332D flows at the start of the dry season to

1) Prevent premature nesting of spoon bills associated with the rapid decline of water levels at the beginning of the dry season
2) Moderate the recession rate in Taylor Slough to prevent early dry outs.

Explore the benefits of providing small flows (e.g. 75 cfs) to Taylor Slough on the levels, recession rates, and salinity in Taylor Slough and Florida Bay

Dry Season Test

The benefits are expected to be focused around Taylor Slough given the large size of Florida Bay (over 500,00 acres), location of Taylor Slough and the flow rate.

Observable changes are expected because the 75 cfs flow equates to about 0.4 inches per week over the approximately 50 square miles of Taylor Slough. This is comparable to the average dry season rainfall rate of 0.5 inches per week.

Each acre-feet of fresh water flow can reduce seven acre-feet of water with a salinity of 40 to 35 or reduce six acre-feet from Salinity of 35 to 30.

CSOP Summary

Improves the average dry season flow to Shark Slough

Improves early dry season flows to Taylor Slough by more gradually reducing S-332D pumping as canal levels reduce.

Opportunities for improvement include identification of flow require to both Taylor Slough and ENP pan handle to prevent premature nesting by Spoon Bills and identification of early dry season flow which may moderate late dry season salinities.

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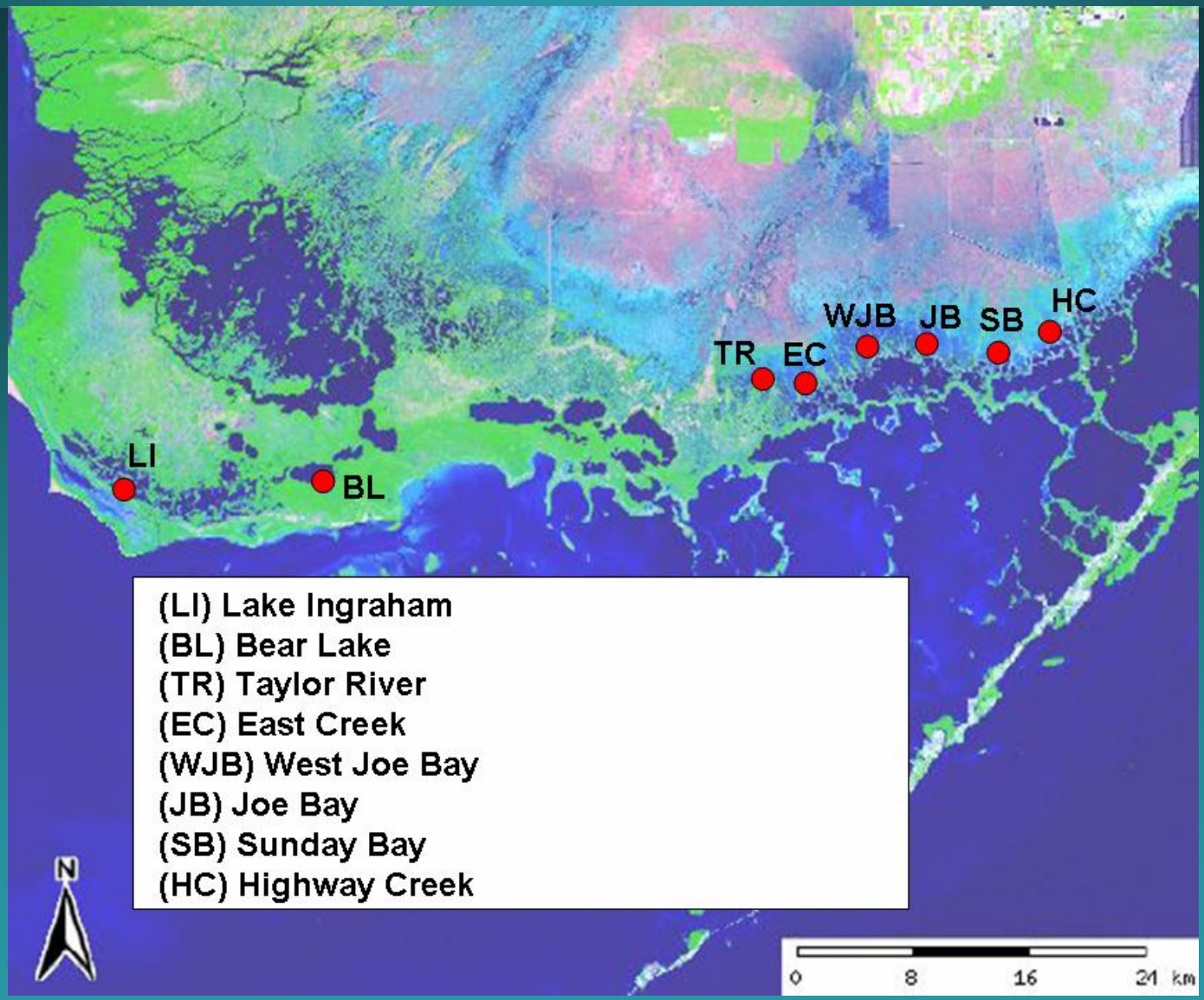

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Map of SFWMD Canals