

*CSOP:
Accomplishing Restoration,
Not Just Slowing the Decline*

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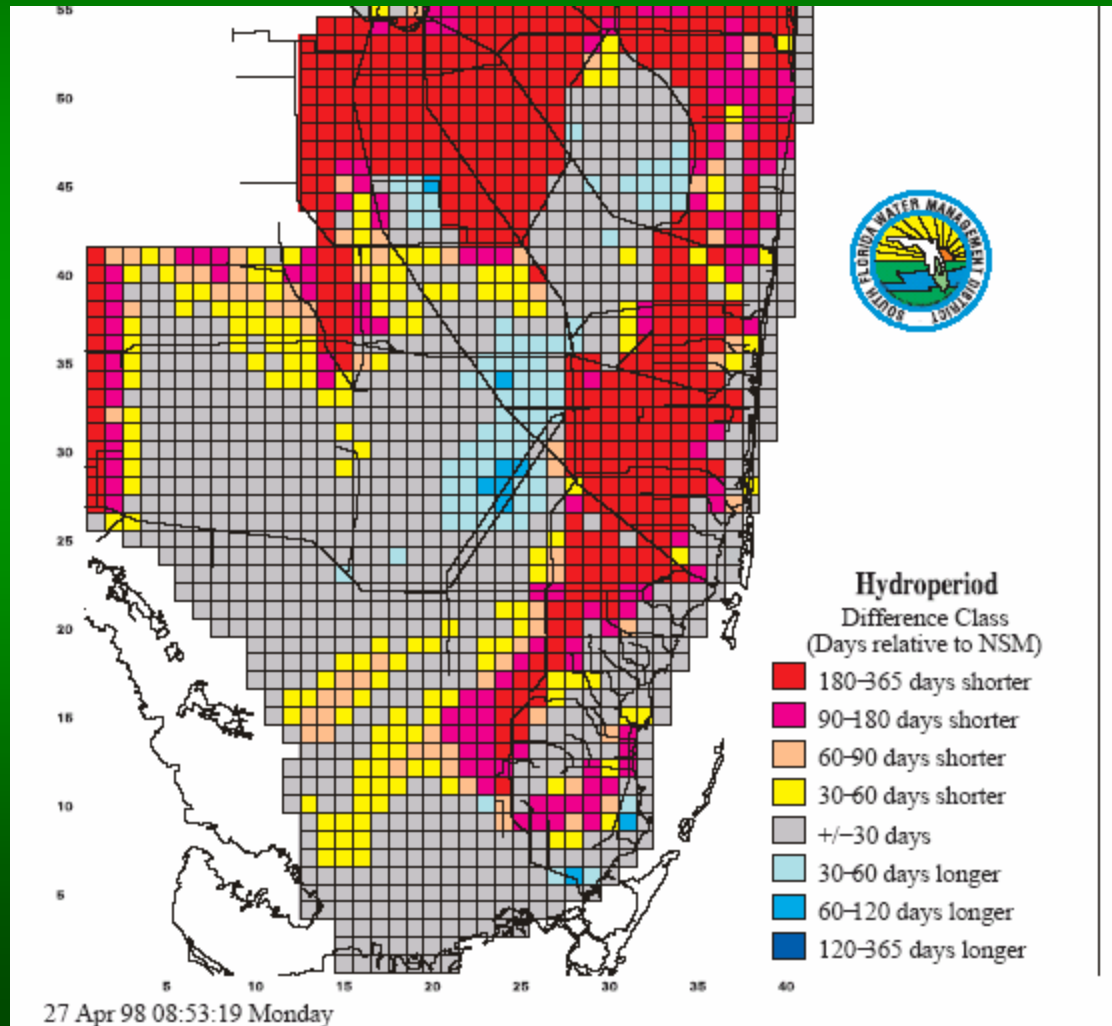
8 March 2004
CSOP Advisory Team Meeting

Key Restoration Objective:

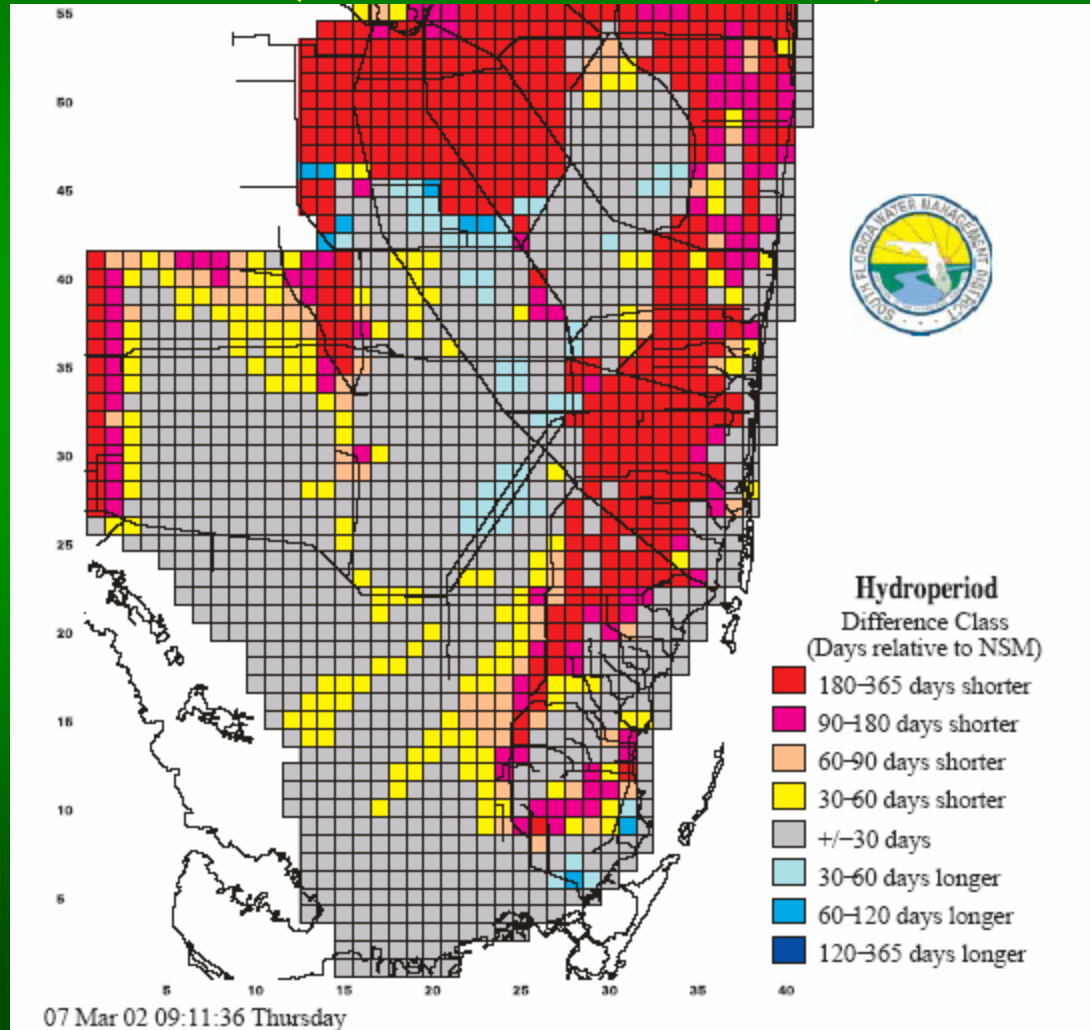
From NPCA's Perspective

- Adequate volumes of clean water will flow from WCA 3 into Northeast Shark River Slough, overtop the rocky ridge into Taylor Slough, while keeping the water from seeping out of the eastern boundary of the Park

Average Annual Hydroperiods: 1995 Base vs. NSM



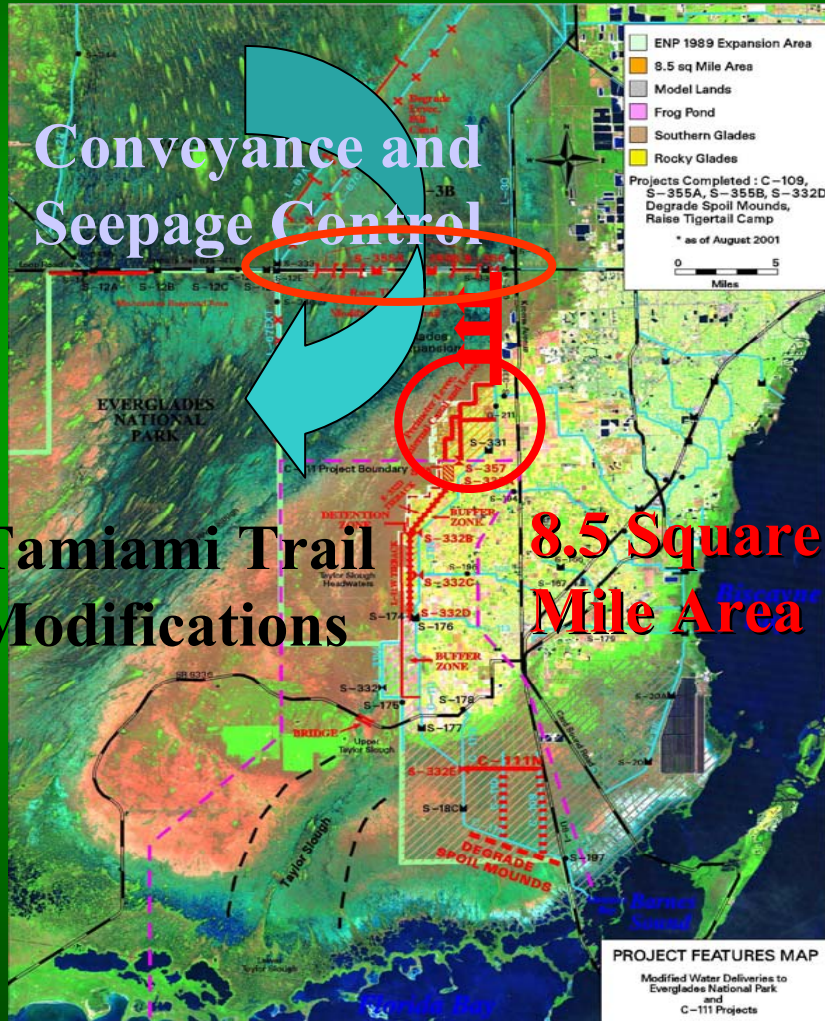
Average Annual Hydroperiods: 2010 Base (MWD/C-111) vs. NSM



Congressional Intent

- Modified Water Deliveries Project (PL 101-229) “to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrologic conditions in the park”
- C-111 Project (1994 GRR) “restoration of the ecosystem in Taylor Slough and the Eastern Panhandle of ENP that were affected by construction of the flood control project in the C-111 Basin. The study also focuses on preserving the current level of flood protection for...the C-111 Basin”

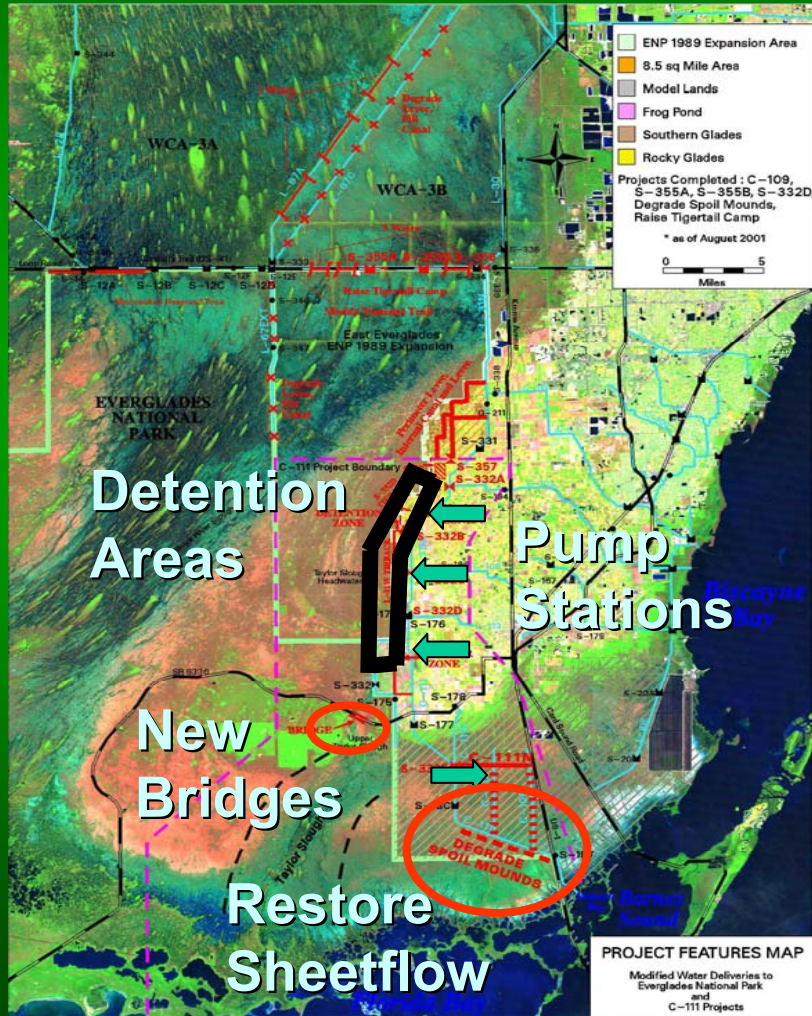
Modified Water Deliveries Project



- Goal: “Restore natural hydrologic conditions in the Park”
- The Army Corps will construct the C&SF Project modifications.
- The NPS will provide full funding.
- The project has three major components:

The C-111 Project Objectives

The Project Consists of Four Components:



- 1 Restoration of historic hydrologic conditions in the C-111 Basin
- 2 Protection of the natural values associated with the Everglades National Park
- 3 Elimination of the damaging freshwater flows to Manatee Bay/Barnes Sound
- 4 Maintain flood protection for the C-111 Basin, east of L-31N and C-111 Canals

Consensus Components of the Solution

- Build buffers along the Park
- Raise canal stages
- Eliminate direct discharges
- Plug canals
- Rainfall-driven/Marsh operations

Limited Benefits of C-111 GRR

- “The [Fish & Wildlife] Service concurs with the Corps of Engineers' [p. A-6] finding that full environmental benefits cannot be realized from any of the alternatives until additional water supplies are made available” ENP report, p.2
- “Flow releases [through S-197 into Manatee Bay/Barnes Sound] decreased by about 39% with the proposed plan” p. A-6

Components still lacking to achieve Restoration

Elements of Park's Proposed Alternative 8:

- Increased volume of flows
- Adequate buffers
 - size
 - configuration
 - location
- High enough canal stages

Assumptions of Base Conditions

- “Hydraulic designs were developed to maintain the authorized level of flood control and to protect the natural values associated with [ENP]” p. A-17
- “To provide environmental benefits to ... [ENP] any proposed structural and operational changes must show a reversal of the on-going drainage” ENP report 93-4
- “Rehydration of Taylor Slough headwater is the project purpose” p. 8-33

Assumptions of Base Conditions

(cont.)

- “Bringing current canal stages up to the authorized levels and pumping water to the west will begin to restore historic hydroperiods in Taylor Slough, an objective of the study” p. 8-5
- “The original plan for improvement[s] ... also anticipated that the majority of the low-lying areas east of the L-31N and C-111 ... would be developed for seasonal agriculture (USACE 1961)” ENP report; p. 153

Comparison of Base Conditions for Lower C-111

Structure	Base 83	IOP	1994 GRR	1994 “Update”
<u>S-176</u>	5.7/5.3	5.0/4.75	6.6/6.0	5.7/5.5
<u>S-175</u>	5.2/4.5	closed	5.0/4.5	5.0/4.5
<u>S-177</u>	5.2/4.3	4.2/3.6	5.1/4.5	4.5/3.9
<u>S-18C</u>	2.4/2.0	2.6/2.3	3.5/2.0	2.4/2.0

Conclusions

- Return to the planning conditions and canal operational schedules of the 1994 GRR
- Evaluate ways to increase the volume of water through Taylor Slough by:
 - Reducing seepage into the canals
 - Providing clean water at the right time
 - Decreasing the freshwater plugs to FL Bay