

L-31 North (L-30) Seepage Management Pilot Project

Water Resources Advisory Committee Briefing

May 8, 2008



COMPREHENSIVE EVERGLADES RESTORATION PLAN



Purpose of Briefing

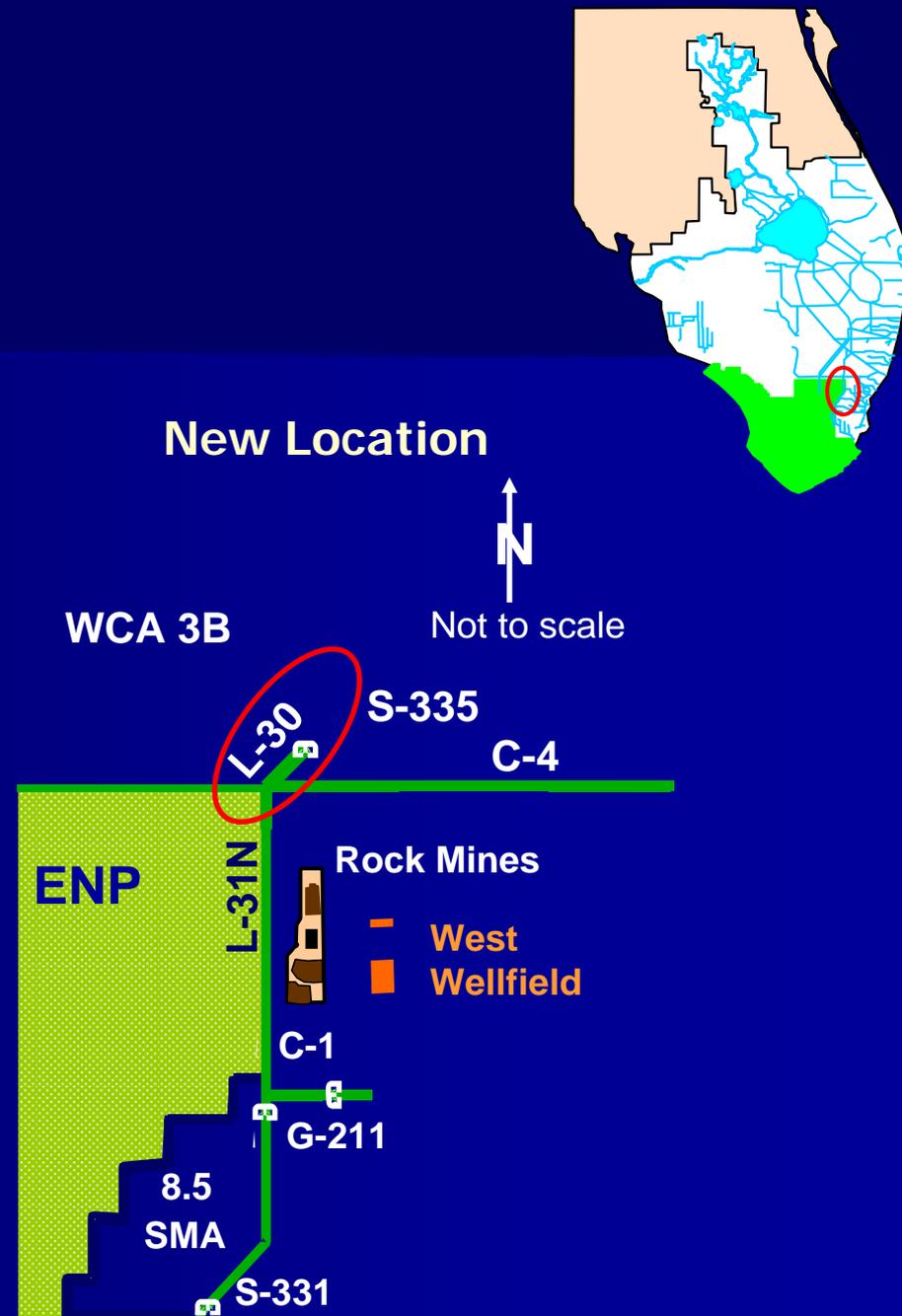
Present the Selected Alternative Plan and Implementation Schedule to the Water Resources Advisory Committee (WRAC)

Project Purpose

To resolve key uncertainties associated with technologies that will likely be considered to control seepage from the Everglades National Park and Water Conservation Area 3B.

Specific Uncertainties to be resolved:

- Reliability** of materials & technology
- Implementability** of a seasonally flexible operating system
- Cost and time** requirements for implementation
- Constructability**



Tree Island Stage
3BS1W1_H

Street Map Aerial Image
 Show labels

S-335

Project Footprint
L-30 Levee & Canal

WCA 3B

1,000 ft

997

Krome Ave

Trail
Glades
Range

0 50 m
150 ft

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QUEST



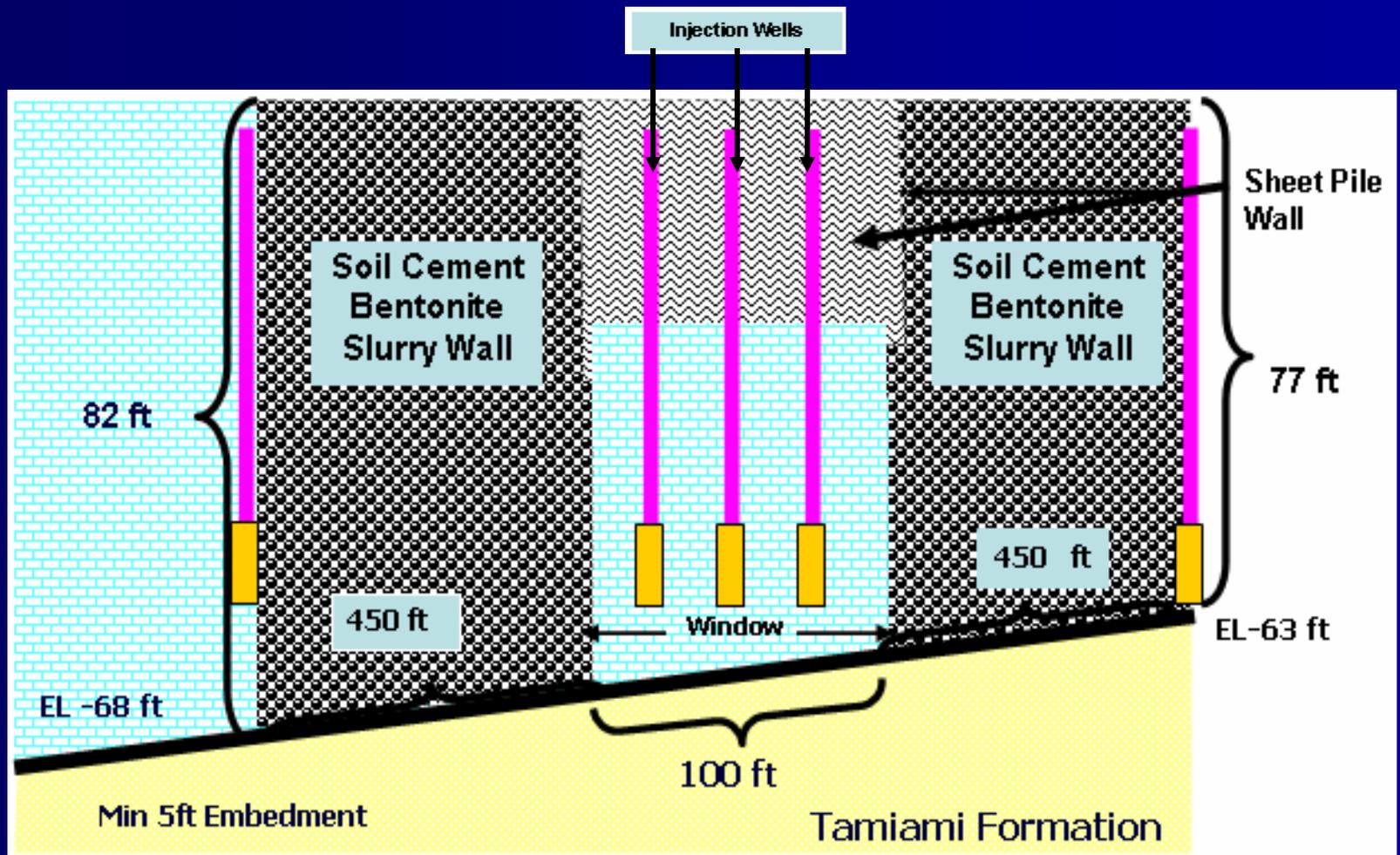
Selected Alternative Plan -1,000 ft Section

- ❖ 2 Slurry Walls (450 ft, -63 ft elev)
- ❖ 1 Sheet Pile (100 ft, -22 ft elev)
- ❖ “Window” (Biscayne Aquifer)
- ❖ 2 Extraction Wells (source water)
- ❖ 3 Injection Wells (hydraulic barrier)
- ❖ 15 Monitoring Wells

Selected Alternative Plan

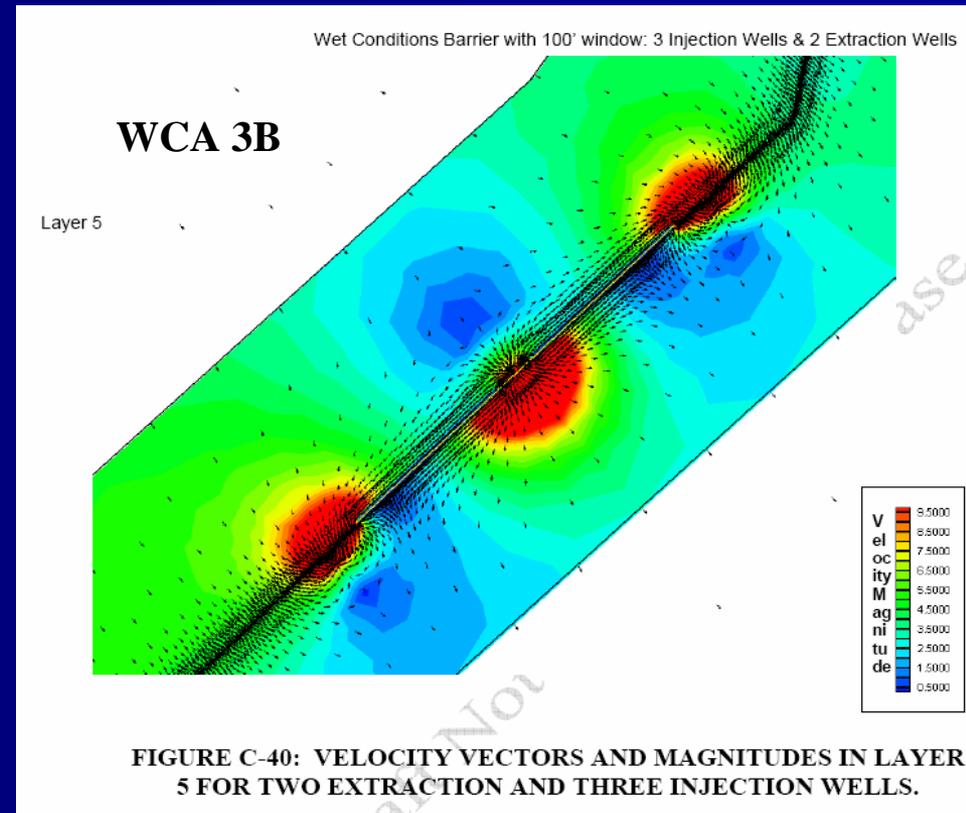
- ❖ Slurry Wall & Sheet Pile - Test constructability and reliability of two structural technologies
- ❖ Extraction & Injection Wells - Test the effectiveness of using injected water to close window as a means to seasonally control seepage
- ❖ 15 Monitoring Wells – Will be used to indicate that window has been closed, and to determine effectiveness of features

Selected Alternative Plan Slurry & Sheet Pile Wall, Injection Extraction Wells



Hydraulic Barrier

❖ Blue represents very low velocity at the window – no flow through window, no flow THROUGH the barrier walls



Flow Comparison

	Existing Flows (cfd)			
	Southwest	Barrier	Northeast	Total
Dry Condition	505,201	366,294	604,063	1,475,558
Wet Condition	1,058,773	608,029	590,463	2,257,265

	With Project Flows (cfd)				% Reduction
	Southwest	Barrier	Northeast	Total	
Dry Condition	557,410	115,000	687,009	1,359,419	8%
Wet Condition	1,056,483	-61,683	634,633	1,629,433	28%

Implementation Schedule

Briefing to Commander	April 08
Draft PPDR/NEPA Complete	July 08
Public/Agency Review of DPPDR	July-Aug 08
External Peer Review	July-Aug 08
Final PPDR/NEPA Complete	Sep 08
DE Transmittal/Filing of EA	Sep 08
NTP (Performance Spec)	Spring 2009
Design/Installation & Testing	Jan 09 – Mar 11

Construction Costs *

		Current (2008)
Planning, Engineering & Design		\$ 9.2 Million
-PED during Construction		
-Project Management Plan		
-Pilot Project Design Report		
-Project Implementation Monitoring		
-Technical Data Report		
Construction – Design, Installation & Testing		\$ 5.8 Million
Construction Management		\$ 0.3 Million
Lands & Damages		None
TOTAL		\$ 15.3 Million

*Construction cost estimate contains 15% contingency

*Section 902 Limit - \$ 15.4 Million (Oct 07 dollars)

QUESTIONS?

