

# **8.5 SMA Proposed Interim Operating Criteria & Environmental Assessment**

**November 19, 2008**

**Public Meeting**

**Homestead, Florida**

**Modified Water Deliveries  
8.5 Square Mile Area**



# Presentation Overview

- **Welcome and Introduction: Kim Taplin, USACE**
- **Meeting Purpose: Provide information on the 8.5 SMA Proposed Interim Operations & EA and receive public input**
- **Modified Water Deliveries Overview and Status  
Timothy Brown, USACE Project Manager**
- **Presentation on the 8.5 SMA Proposed Interim Operations  
Andrew Geller, USACE Water Management Section**
- **Presentation on the Environmental Assessment of the 8.5 SMA  
Proposed Interim Operations  
Susan Conner, USACE Environmental Section**
- **Comment Period**

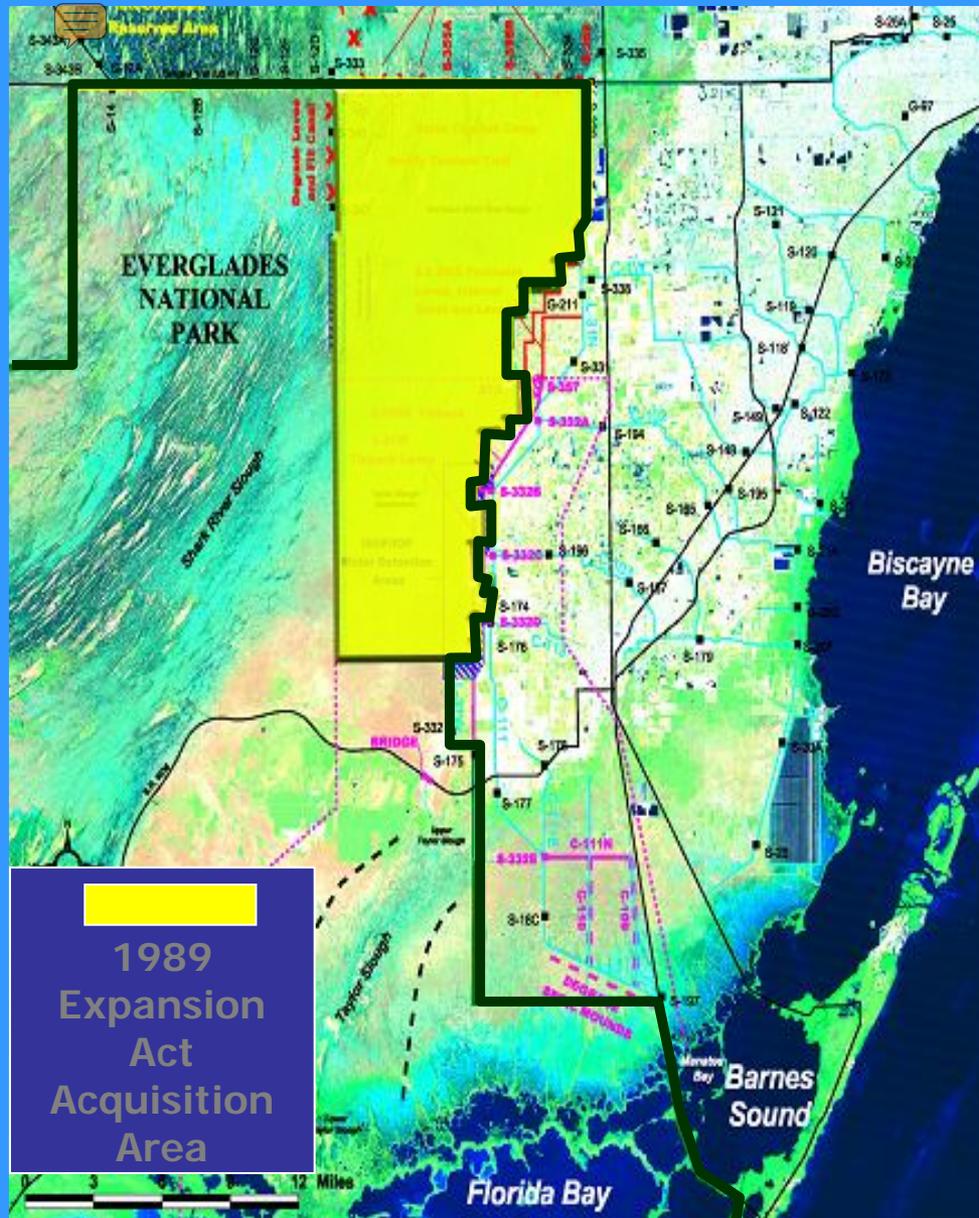
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**8.5 Square Mile Area**



# Modified Water Deliveries Authorization

The Everglades National Park Protection and Expansion Act of 1989....

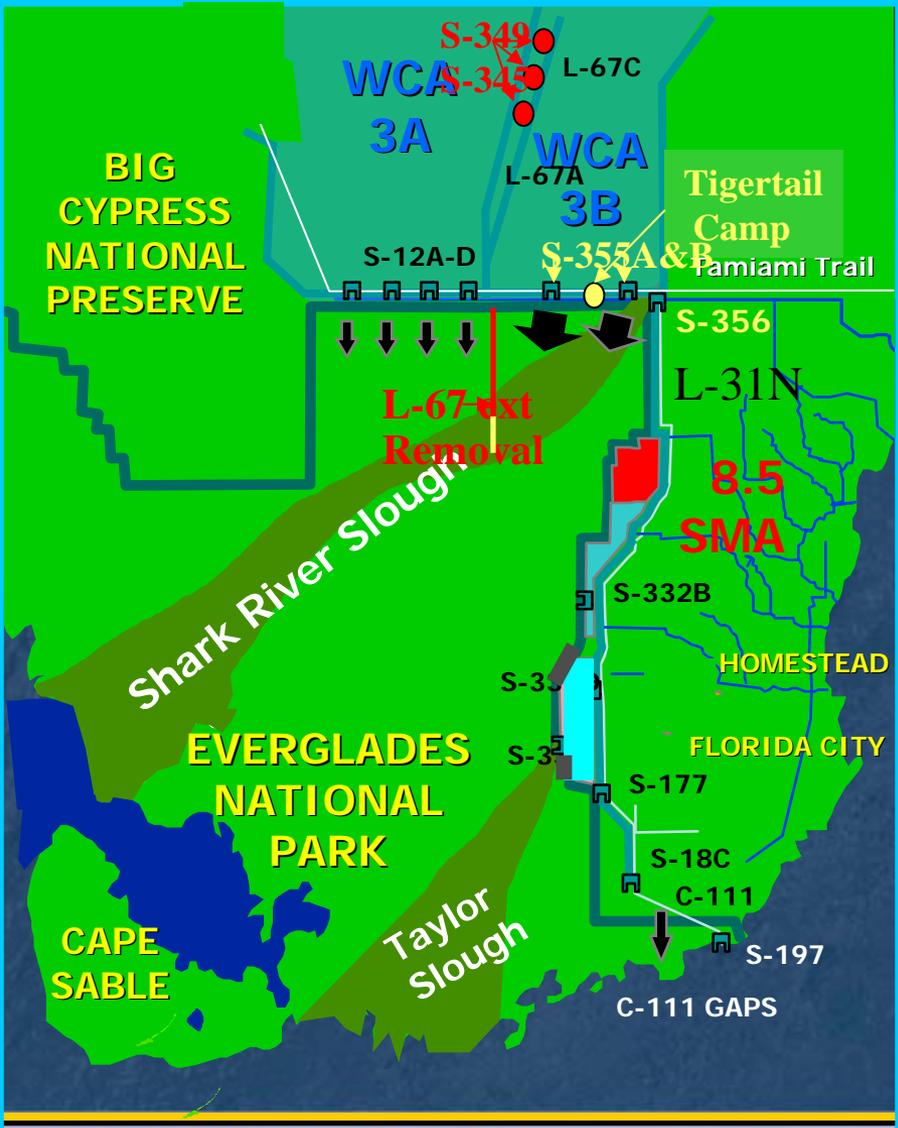
- Authorized the acquisition of 109,000 acres
- Authorized modifications “to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrologic conditions in the Park”



Modified Water Deliveries  
8.5 Square Mile Area



# Modified Water Deliveries Project



## Conveyance Features

- S-355A & S-355B (L-29): Complete
- S-333 Mods: Complete
- L-67 Extension: 4 of 9 miles Complete
- Tamiami Trail: Preliminary Injunction
- L-67A: S-349s & S-345s: Scoping
- L-67C: Gaps: Scoping
- L-29: Weirs: Scoping

## Seepage Features

- S-356 (L-31N): Complete

## Mitigation Features

- 8.5 Square Mile Area: Final Stages
- Tigertail Camp: Complete
- Osceola Camp: DOI Negotiations

## Other Project Activities

- COP: PMP, Planning Conditions
- Monitoring: Ongoing

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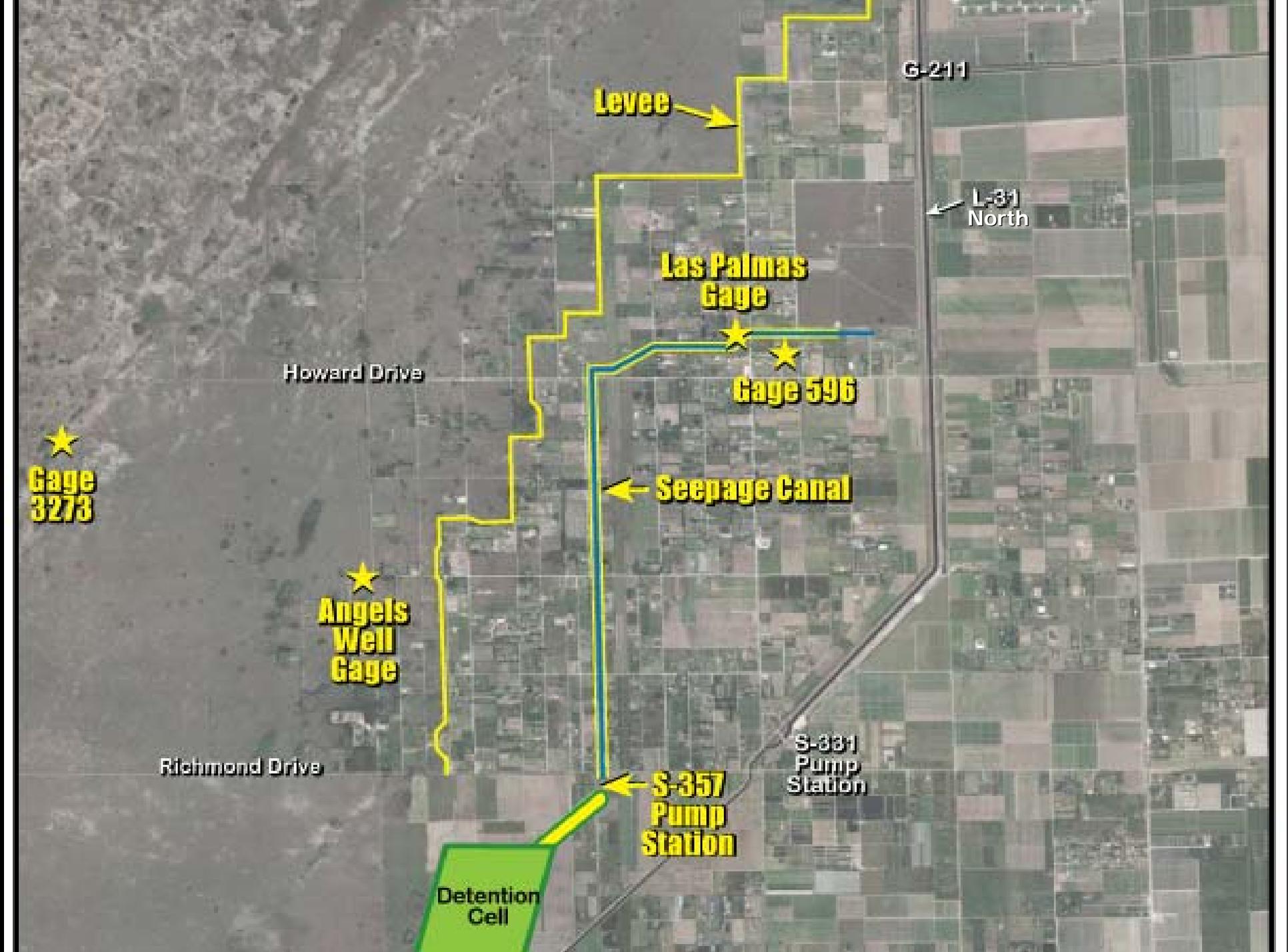
## 8.5 Square Mile Area Construction

- Perimeter Levee (6.93 miles)
- Seepage Canal (3.78 miles)
- S- 357 Pump Station (575 cfs)
- Flow way (20 acres)
- Detention Area (183 acres)
- West of Levee Cleanup
- Construction completed May 08
- Project Transfer to SFWMD and some lands to ENP

**Proposed  
Interim Operating Criteria  
for the  
8.5 Square Mile Area Project**

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**Levee**

G-211

L-31  
North

**Las Palmas  
Gage**

Howard Drive

**Gage 596**

**Gage  
3273**

**Seepage Canal**

**Angels  
Well  
Gage**

Richmond Drive

S-331  
Pump  
Station

**S-357  
Pump  
Station**

**Detention  
Cell**



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# What is a Water Control Plan?

- Involves Public Input
- Contains water management operating criteria and guidelines to balance Congressionally authorized project purposes
- Revised as necessary
- Writing of the Water Control Plan begins after Public Input on proposed operating criteria
- Anticipated approval – January 2009

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# Objectives

- Operate Water Control structures to maintain surface and groundwater levels within 8.5 SMA between the new protection levee and L-31N at pre-MWD Project levels
- Preserve hydroperiods near the 8.5 SMA
- No change to IOP beyond allowing operational flexibility of S-331



# Proposed Interim Operating Criteria

## S-357 Water Management Operations

- Based on seepage canal water level at Las Palmas gage and ground water gage G-3273
- Pumps will be turned off to prevent overflow of the detention cell
- G-3273 outside 8.5 SMA defines regional conditions



# Proposed Interim Operating Criteria

## "Wet" condition:

**G-3273 > 6.8' NGVD**

- S-357 up to 500 acre-feet/day
- Maintain seepage canal at Las Palmas: 4.9' to 5.2' (NGVD)
- Pump(s) off when Las Palmas is < 4.9' (NGVD)

## "Dry" condition:

**G-3273 < 6.8' NGVD**

- S-357 up to 500 acre-feet/day
- Maintain seepage canal at Las Palmas: 5.4' to 5.7' (NGVD)
- Pump(s) off when Las Palmas is < 5.4' (NGVD)

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# Proposed Interim Operating Criteria

## S-331 Operational Flexibility When S-357 is Pumping

- S-331 pump station is the flood control structure for the immediate area
- 8.5 SMA Project features work in conjunction with S-331



# Proposed Interim Operating Criteria

## Existing Operating Criteria for S-331

- **Discharges through S-331 if:**
  - TW stage below 6.0' and S-176 HW stage below 5.5'
- **Angel's Well is currently used for S-331 flood control operations**
- **For the interim period, Las Palmas gage considered**



# Proposed Interim Operating Criteria

## S-331 Flood Control Trigger

### Angel's Well Gage or Las Palmas Gage

(5.5' to 6.0' NGVD), S-331 upstream average daily water level maintained between 4.5' to 5.0' NGVD if permitted by downstream conditions

(Above 6.0' NGVD), S-331 upstream average daily water level maintained between 4.0' to 4.5' NGVD, if permitted by downstream conditions

**Note:** When S-357 does not effectively lower Las Palmas water level and/or detention cell water level is causing pumping to cease at S-357, Angel's Well criteria is followed for S-331 pumping

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# Environmental Assessment



Surface  
and  
Ground  
Water

Water  
Quality

Wetlands

Threatened  
and  
Endangered  
Species

Greater  
Everglades

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# Alternatives

- **Alternative A – No Action**
- **Alternative E-**  
S-357 operations as described in the July 2000 FSEIS
- **Alternative D - January 2008**  
Presented at January public meeting
- **Alternative C – Summer 2008**  
Modeled (with MODBRANCH) Alternative
- **Alternative B – November 2008**  
Recommended Plan - Modified based on MODBRANCH model predictions

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# Environmental Assessment

- Groundwater and Surface Water Hydrology
- Detention Cell Hydrology
- Wetlands
- Listed Species
- Water Quality

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# Groundwater and Surface Water Hydrology

- Potential to benefit ENP due to increased hydroperiods.
- Operational flexibility for S-331 would provide some environmental benefits due to less overall pumping needed to control groundwater levels.

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# Detention Cell Hydrology

Based on MODBRANCH modeling for Alternative C

- **Wet year (1995) – S-357 operates frequently, expect water levels above ground ~50% of time**
- **Average year (1978) - S-357 operates infrequently, expect water levels to remain below ground**
- **Dry year (1989) – S-357 rarely operates, expect water levels to remain below ground**

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# Wetlands

- **Monitoring**
- **S-357 pumping limited to avoid impacts on wetlands adjacent to 8.5 SMA**

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# Listed Species – may affect not likely to adversely affect

- West Indian manatee
- Snail Kite
- Wood Stork
- Cape Sable Seaside Sparrow
- Eastern Indigo Snake
- Florida Panther

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# Cape Sable Seaside Sparrow

- Subpopulation F and Subpopulation C
- Slight changes to hydrology
- Monitoring
- Does not significantly alter IOP

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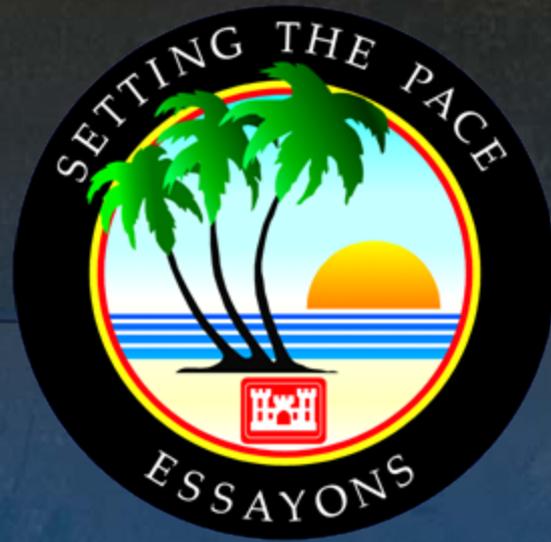


# Water Quality

Because no direct discharge of surface water onto ENP is allowed under Alternative B, this plan should not have a negative water quality impact on lands to the south or west

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**Comments on the 8.5 SMA Project Interim Operations Criteria/EA  
can be provided by e-mail at  
[MWDWCPComments@evergladesplan.org](mailto:MWDWCPComments@evergladesplan.org) or  
U.S. Army Corps of Engineers, Jacksonville District  
Attn: Susan Conner  
701 San Marco Boulevard  
Jacksonville, FL 32207-8175**

**Please provide comments by 10 December 2008. Thank you!**

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