

The Avian Protection Plan

2011
Mid-Season Survey
Report

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Quarterly Communications Meeting on the
Long-Term Plan for Achieving Water
Quality Goals for Everglades Protection
Area Tributary Basins

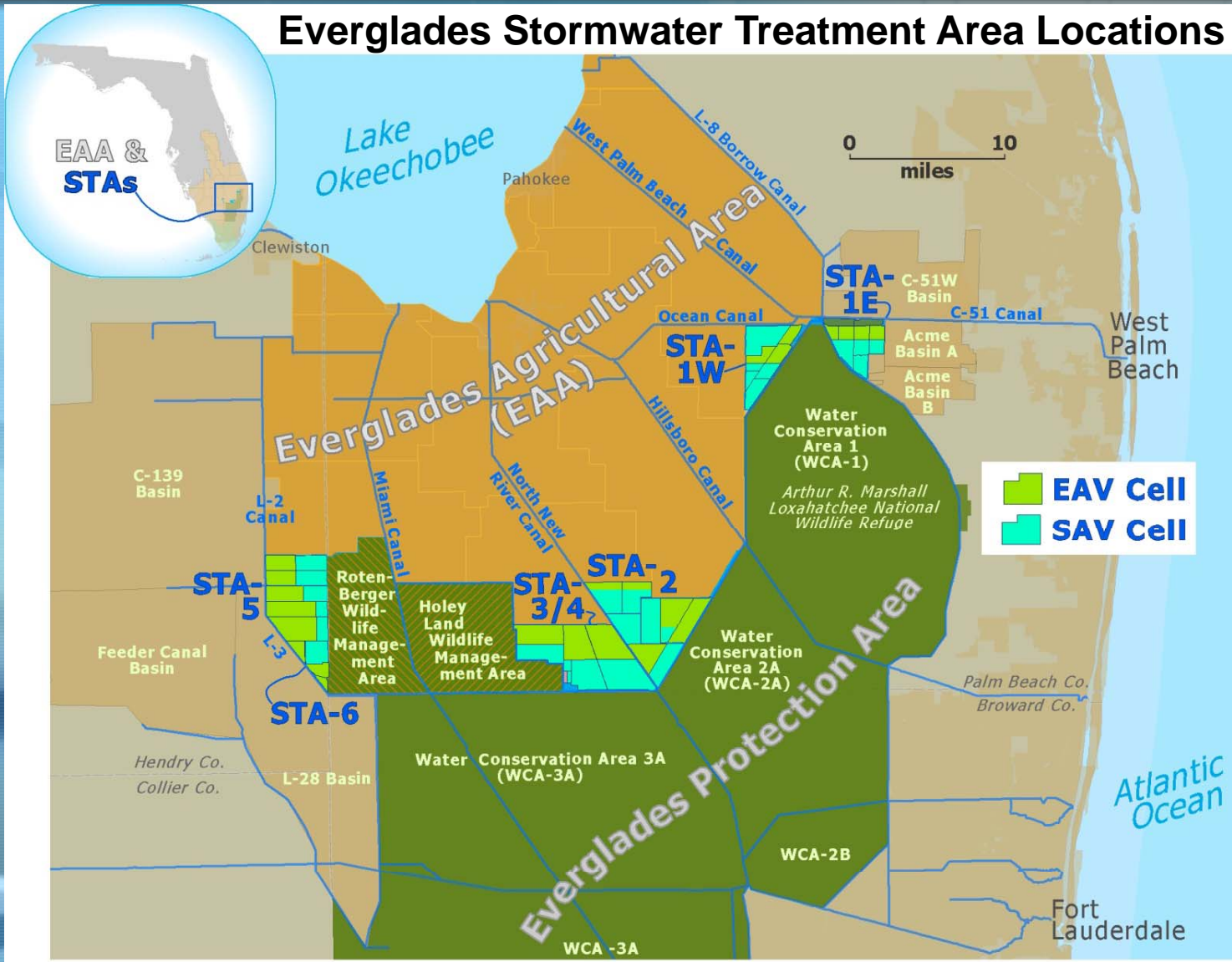
June 1, 2011



Avian Protection Plan

- **An Avian Protection Plan (APP) has been implemented in coordination with United States Fish and Wildlife Service (USFWS) to minimize impacts to ground nesting avian species in the Stormwater Treatment Areas (STAs).**

Avian Protection Plan



Avian Protection Plan



- **This APP was specifically designed to protect black-necked stilts and burrowing owls, but is predicted to give protection to other ground nesting species.**

Avian Protection Plan

- **Pre-season 2011 surveys were conducted in March in the Everglades STAs.**
- **APP monthly nest surveys began in mid-April.**
- **Monthly and supplemental surveys were subsequently conducted in May (each STA will have been surveyed twice during May). Additional surveys will be conducted in June and July.**
- **The nesting season will be considered complete when no more nests are observed (usually in early July).**

Avian Protection Plan

Number of Black-necked Stilt Nests Observed in the STAs During the Past Five Years

STA	2006	2007	2008	2009	2010
1E	186	102	69	102	150
1W	49	236	26	360	19
2	0	74	16	237	29
3/4	5	55	7	69	15
5	122	147	73	105	14
6	0	0	0	0	0
TOTAL	362	614	191	873	227

Source: Pietro et al. (2007, 2008, 2009, 2010, 2011)

Avian Protection Plan

- Little nesting was observed during the April surveys.
- Stilt nesting began to rapidly ramp up during May.

STA	April	May
1E	4	28
1W	0	86
2	0	27
3/4	0	122
5	0	9
6	0	1
Total	4	273

Avian Protection Plan

- **Drought conditions created potential for a big nesting season.**
- **With the onset of the rainy season occurring anytime now, surveys are being kept up-to-date.**
- **Some initial surveys have been conducted in Compartments B & C to get a feel about the time necessary to complete surveys in these areas.**



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- **No burrowing owls have been observed during the APP surveys so far this season.**

Photo by Michael Kickland

Avian Protection Plan

Nest Protection on Levees, Road Tops, & Construction Areas

Killdeer Nest Protection



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Nest Protection on Levees, Road Tops, & Construction Areas

Black-neck Stilt Nest Protection



Avian Protection Plan

Nest Protection on Levees, Road Tops, & Construction Areas

Common Nighthawk Nest Protection



Stilt Questions?



Snail Kite Utilization of STAs

*Photo by
Georgia Vince*



Snail Kite Nesting in STAs

- **During 2010, 29 Everglade snail kite nests were established in STA-5.**



Snail Kite Nesting in STAs

Map Displaying Kite Nesting Locations During the 2010 Nesting Season

STA-5 CELL 1A

STA-5 CELL 2A

G-343 A

G-343 B

G-343 C

G-343 D

G-343 E

G-343 F

G-343 G

G-343 H

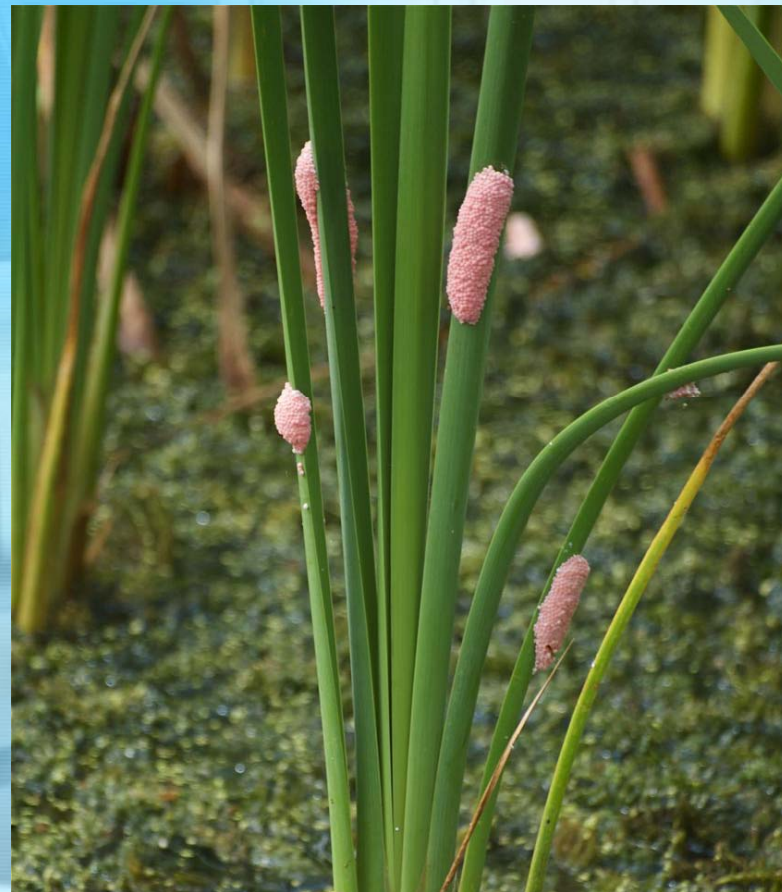
Snail Kite Nesting in STAs

- In 2010, Kites appeared to be foraging within all cells in STA-5.
- Dozens of non-nesting kites were present also.
- Nesting occurred in both cattail and willow trees.
- Those nests in cattail have a tendency to slowly sink toward the water's surface.



Snail Kite Nesting in STAs

- There appears to only be exotic island applesnails in STA-5.



Snail Kite Nesting in STAs

- **In 2010, the District was able to operate around these endangered nesting birds.**
- **This included plans to divert water to all available locations before impacting any snail kite nests.**
 - **STA-6**
 - **Limited amounts delivered to STA-5 Cell 3A**
 - **Diverting water around STAs**

Snail Kite Nesting in STAs

- **Minimum stages of approximately one foot were established in an attempt to minimize predation on nests.**
- **These minimum stages can only be maintained if there is water available.**
- **Maximum stages were adjusted in each cell based on the lowest nest above the water and the estimated amount that the nests might sink down before the next survey was to be completed.**



Snail Kite Nesting in STAs

- **USFWS and the District worked closely together to adjust maximum and minimum water stages in each STA-5 cell in order to minimize impacts to these snail kite nesting efforts.**

Date	Cell 1A		Cell 2A	
	<u>Max</u>	<u>Min</u>	<u>Max</u>	<u>Min</u>
12-Apr	NE	NE	NE	NE
19-Apr	14.0'	13.7'*	14.0'	13.7'*
10-May	14.0'	13.7'*	14.0'	13.7'*
8-Jun	15.5'	13.7'*	15.5'	13.7'*
23-Jun	14.0'	13.7'*	15.0'	13.7'*
8-Jul	15.0'	13.7'*	15.0'	13.7'*
23-Jul	16.0'	13.7'*	15.0'	13.7'*
9-Aug	17.0'	13.7'*	14.5'	13.7'*
18-Aug	17.0'	13.7'*	14.5'	13.7'*
2-Sept	NE	NE	14.5'	13.7'*
16-Sept	NE	NE	15.5'	13.7'*

NE = Not Established

*** = if enough water is available upstream**

Note – the average topographic stage in each cell is 12.7' NGVD29

Snail Kite Nesting in STAs

- Reports from the survey crews explained that 29 birds successfully fledged last year also.



Snail Kite Nesting in STAs

- **This nesting has caused the District, Army Corp, and USFWS to reinitiate consultation on Everglade snail kites for STAs. This process is currently ongoing.**

Back to the
Drawing
Board



Snail Kite Nesting in STAs

- **This year there has only been one kite nest established in the STAs (as of May 31st). It was built in a dead willow tree in STA-3/4 Cell 1B and unfortunately it failed. There are still some snail kites around both STA-5 (7 kites) & STA-3/4 (3 kites).**



Snail Kite Questions?

