

FDOT

Innovative Approaches to Satisfying MS4 Permit & TMDL Requirements

Presented by:



Applied Technology & Management, Inc.

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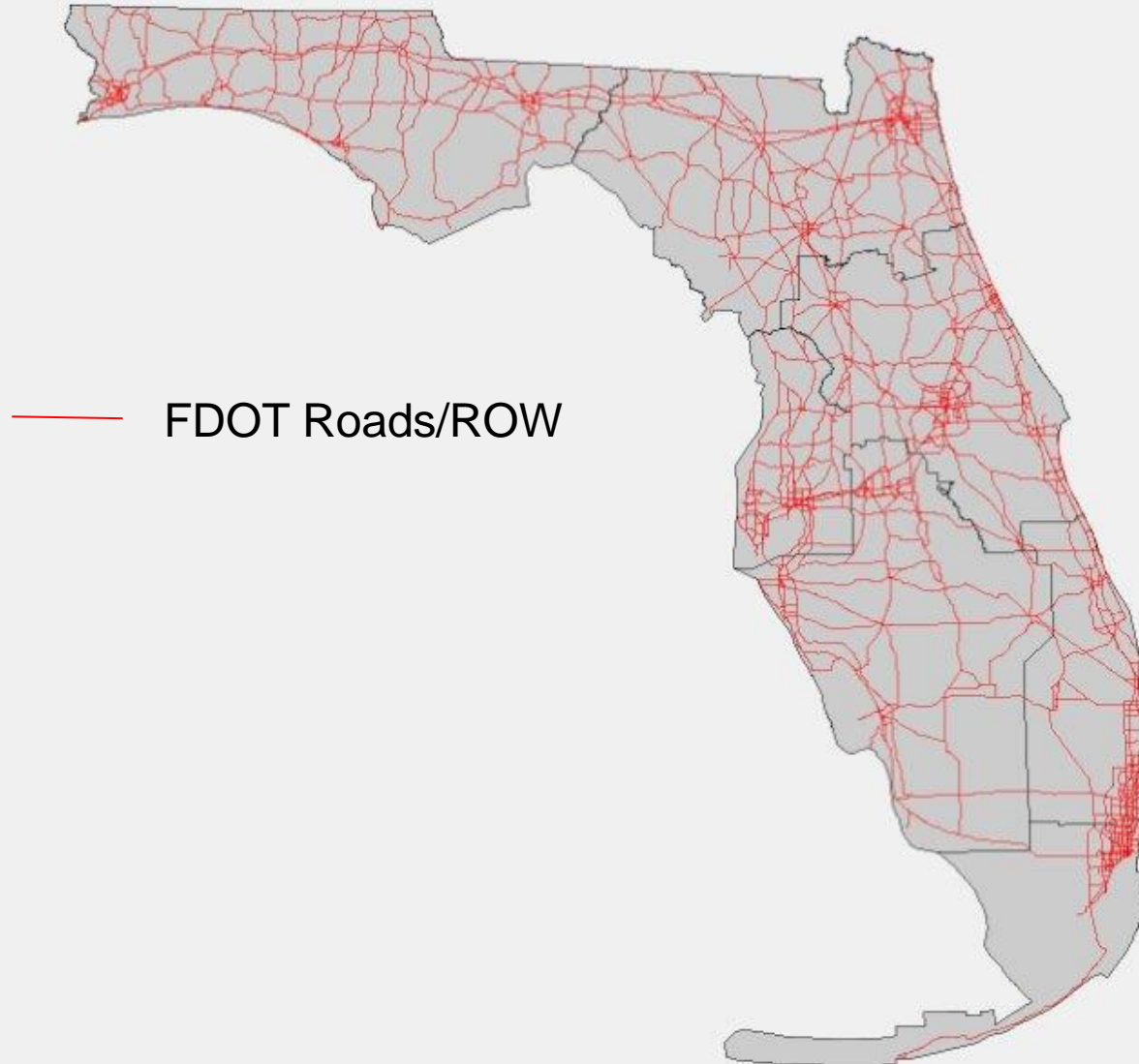
Acknowledgements

- FDOT Central Office
- FDOT District 1
- FDOT District 5
- E-Sciences, Inc.

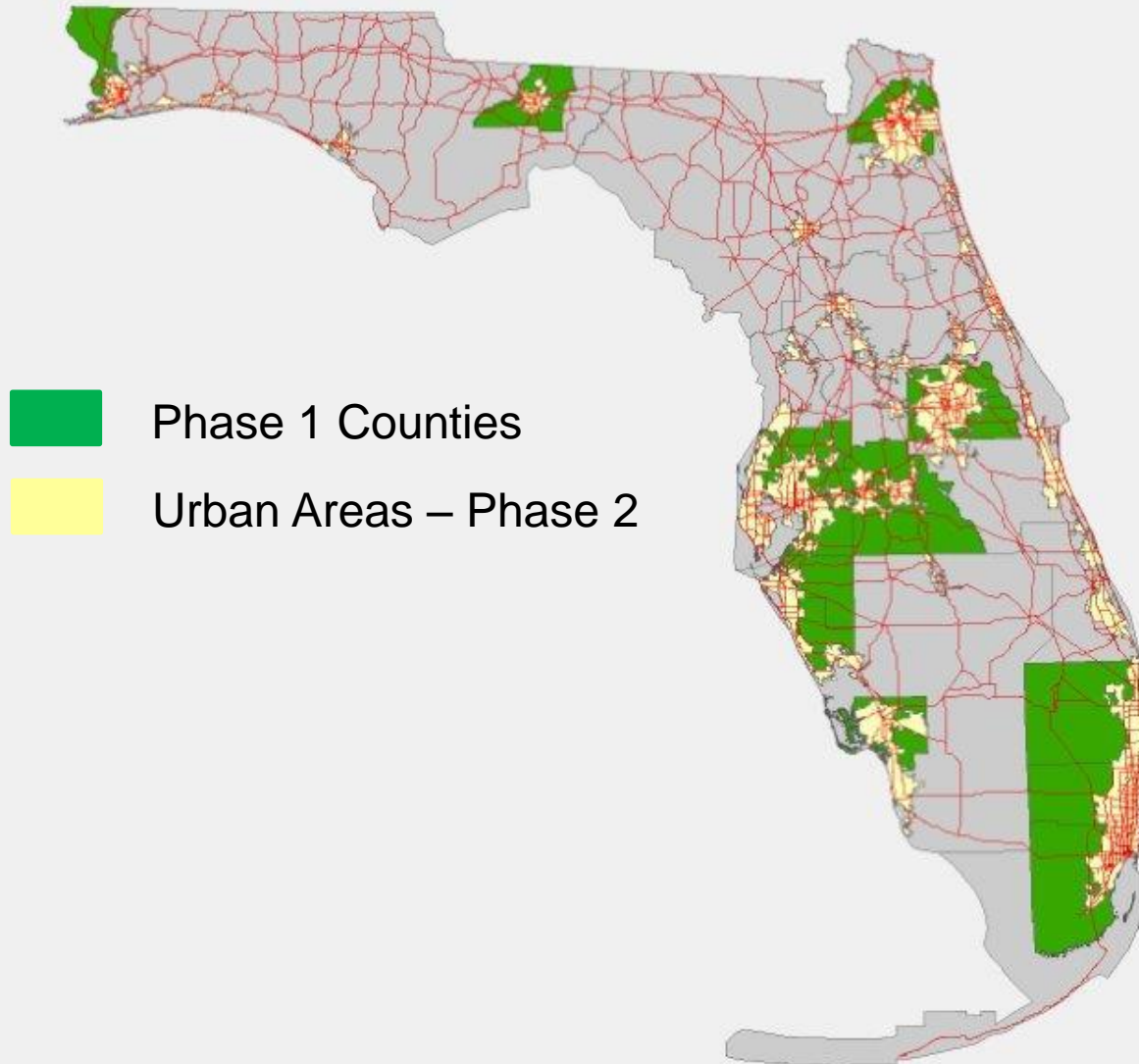
Presentation Outline

- What makes FDOT Unique
- IDDE Tier 1 Training
- Environmental Look Around (ELA)
- TMDL Oversight
- Partnering for TMDL Solutions

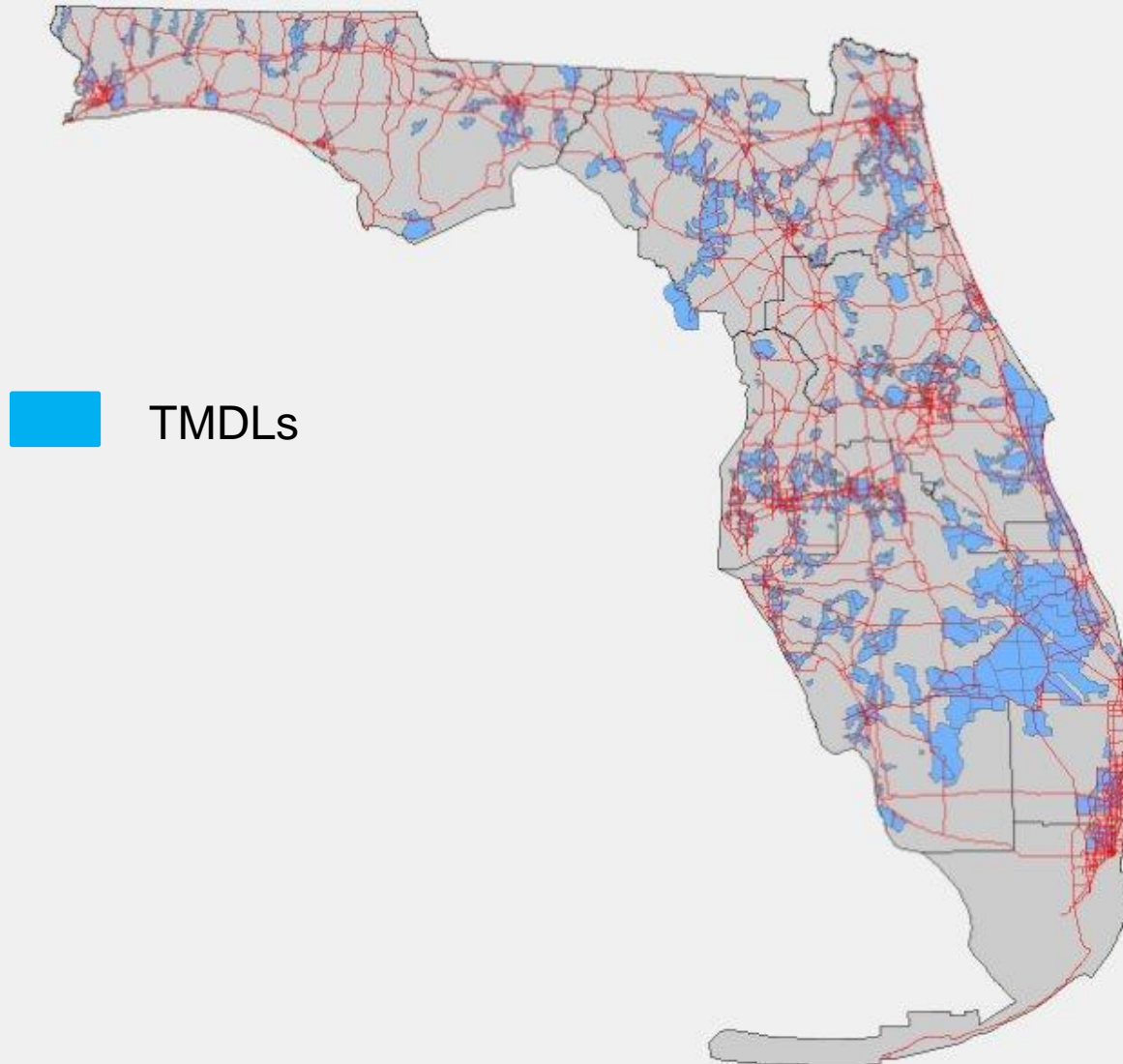
What makes FDOT Unique



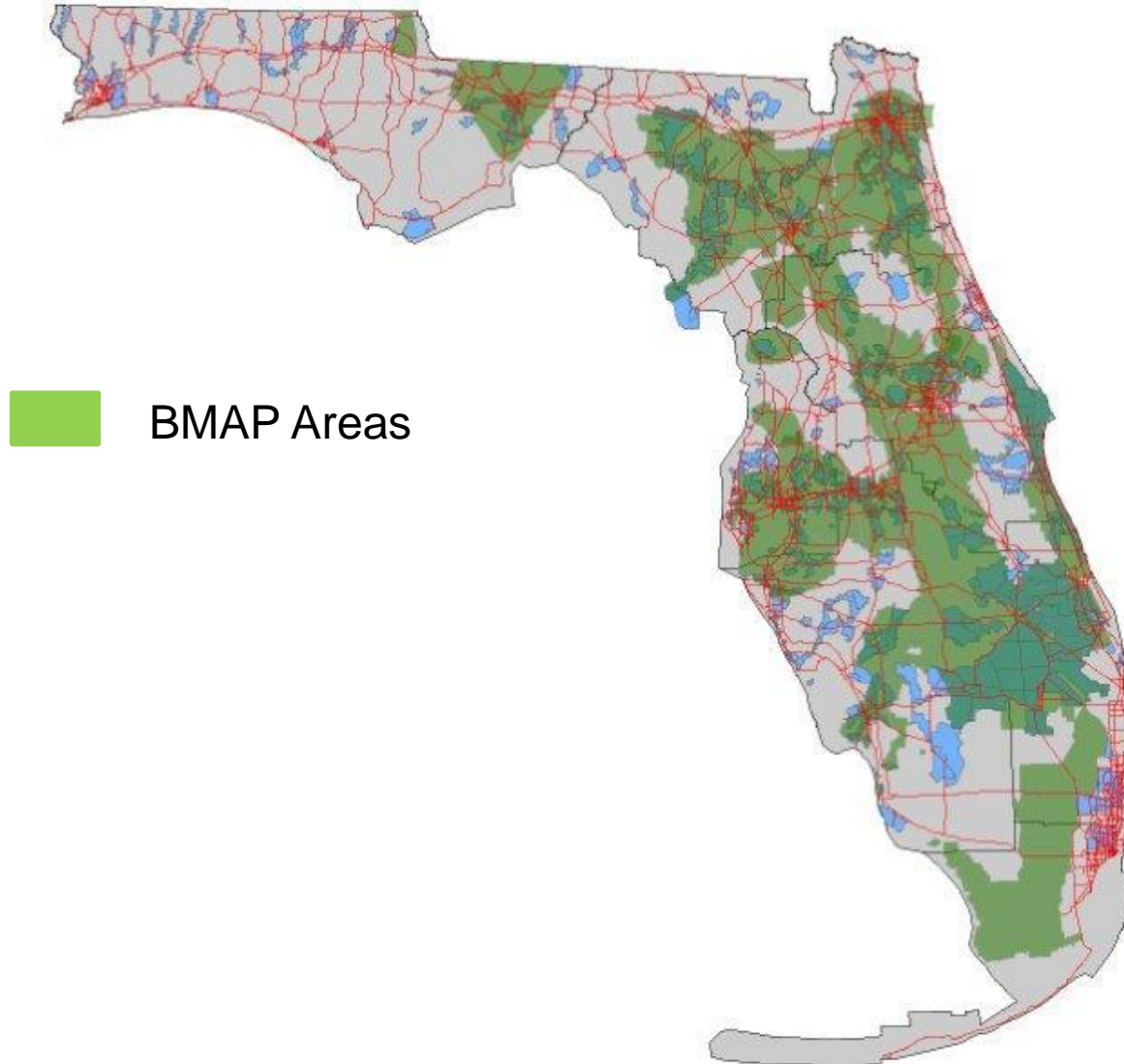
What makes FDOT Unique



What makes FDOT Unique



What makes FDOT Unique



IDDE Tier 1 Training

- Part of Statewide Stormwater Management Plan (SSWMP)
- Satisfies Proactive IDDE Requirement
- Recognizes that FDOT personnel working in ROW all over the State
- Provides basic training in the identification and reporting of potential illicit discharges to all FDOT personnel working in ROW
- Short/Simple web-based video training



*Florida Department of Transportation
Statewide Stormwater Management Plan*

September 2012



ILLICIT DISCHARGE DETECTION & ELIMINATION

Florida Department of Transportation

Illicit Discharge Detection & Elimination (IDDE)

Illicit Connections



Illegal Dumping



Illicit Discharges





05.08.2012

IDDE Tier 1 Training





Reporting Procedures for Potential Illicit Discharges

“Safety First - never touch, taste or inhale”

Potential Problems

1. Unusual pipes
2. Illegal dumping
3. Soapy, muddy or milky water
4. Chemical, petroleum, or sewage odors
5. Dry weather discharge

What to Report

1. What do you see?
2. What color is it?
3. Is there an odor present?
4. Where is the incident located?

Who to Call

FDOT 1 information:

Rob Dwyer
800-292-3368 (toll free)
(863) 519-2362

FDOT 2 information:

Alan Obaigbena, P.E.
800-749-2967 (toll free)
386-961-7064

FDOT 3 information:

Windle Tharpe
888-638-0250 (toll free)
(850) 330-1649

FDOT 4 information:

Broward Operations: 954-776-4300
Palm Beach Operations: 561-432-4966
Treasure Coast
Operations: 772-465-7396

FDOT 5 information:

Ferrell Hickson, P.E.
800-780-7102 (toll free)
386-943-5433

FDOT 6 information:

Mohammad Shahed Pervez, P.E.
800 435-2368 (toll free)
(305) 470-5281

FDOT 7 information:

Sue Moore
800-226-7220 (toll free)
813-975-6639

FDOT Turnpike Enterprise information:

Jeremiah Marek
954-934-1213
954-868-4851 (cell)

Benefits of IDDE Tier 1 Training

- Makes every FDOT worker or contractor an IDDE inspector
- Feet on the ground all over the State
- CBT approach allows for direct recording of number of personnel trained for MS4 reporting
- Inexpensive solution to Proactive requirements of MS4 permits

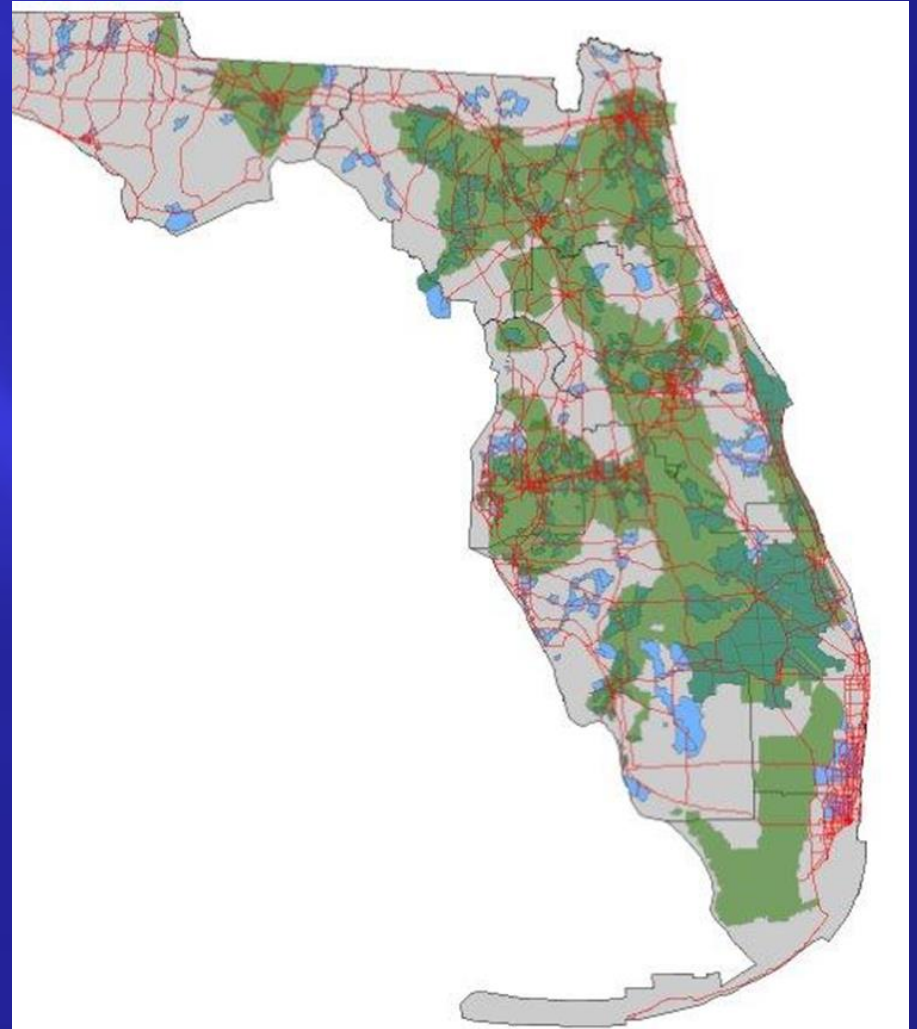
Environmental Look Around (ELA)

- Part of requirements in Drainage Manual
- WMD/FDEP Issues: wetland rehydration, water supply, minimum flows and levels, flooding, TMDLs
- City/County issues: stormwater re-use, flooding, discharge to golf courses or parks, NPDES needs, water supply needs
- DOT Project Permitting: regional treatment, stormwater re-use, joint use



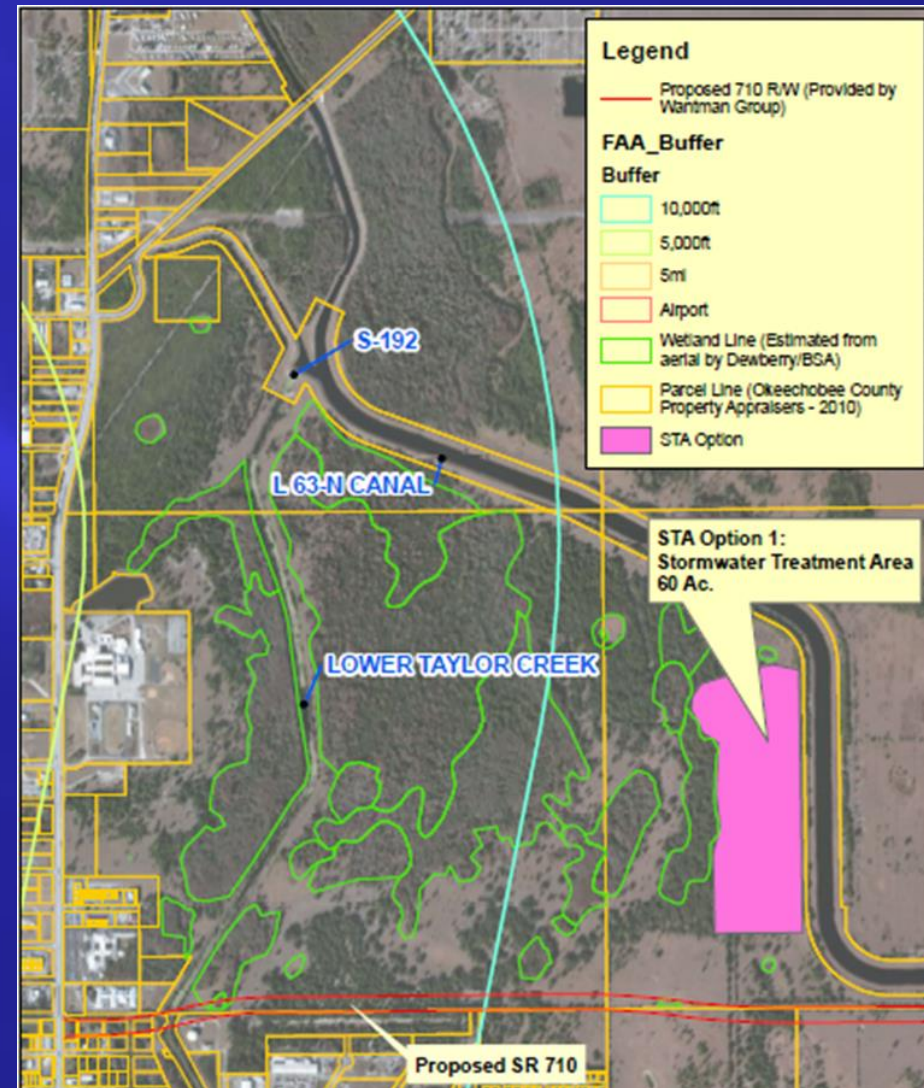
TMDL/BMAP Oversight

- FDOT active oversight and participation in all areas of Florida's TMDL Program
- Listing/TMDL/BMAP
- NPDES Statewide Coordinator
- Maintains ongoing database of TMDLs/BMAPs
- Provide review and comment on all listings, TMDLs and BMAPs which may impact FDOT

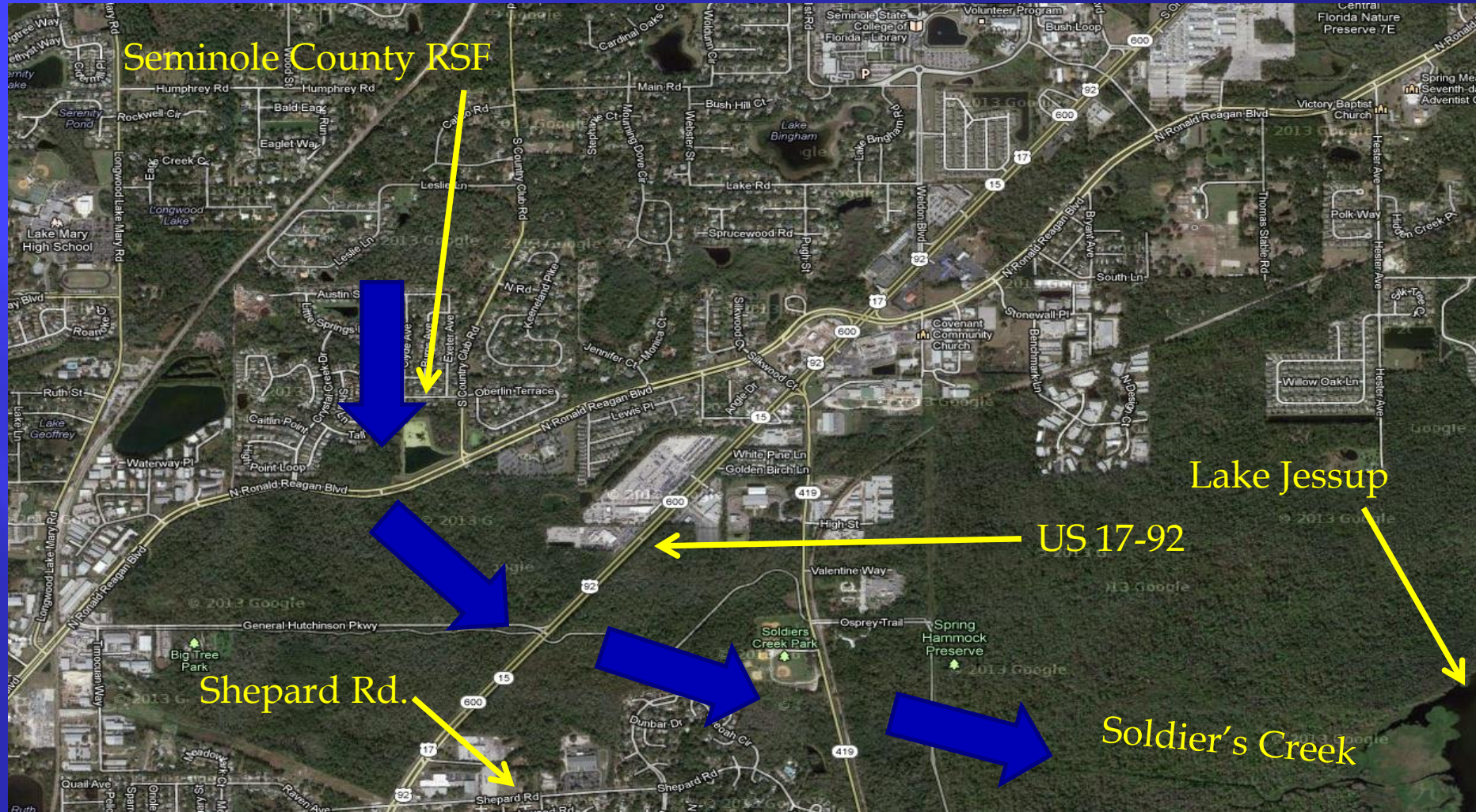


Project Partnering

- MS4 co-permittee situation tends to foster FDOT partnering with local cities, counties and state agencies
- FDOT has funding but often is space limited within ROWs
- FDOT Districts have multiple Joint Participation Agreements (JPA) with co-permittees to satisfy MS4 requirements



Seminole County Regional Stormwater Facility – District 5



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- Benefits

- The Regional Facility provides compensatory treatment to meet FDOT's ERP requirements for US 17-92
- FDOT eliminates Pond B, reduces size of Pond A, minimizes wetland impacts
- Seminole County Owns, Operates and Maintains the Regional Pond; FDOT Funded Maintenance
- Eliminates All Remaining FDOT Pollutant Loading Reduction Obligations for the Lake Jessup BMAP
- All Left Over BMAP Credits Go to Seminole County
- No Out-of-Pocket for Seminole County

District One

Regional Stormwater Management

- Design, Permit and Construct Off-site “Postage Stamp” Wet-Detention Ponds
- Aka: BURPs – Big Ugly Rectangular Ponds
- Pros:
 - Typically easy to Permit
 - Relatively easy to maintain
 - Generates fill dirt
- Cons:
 - See next slide

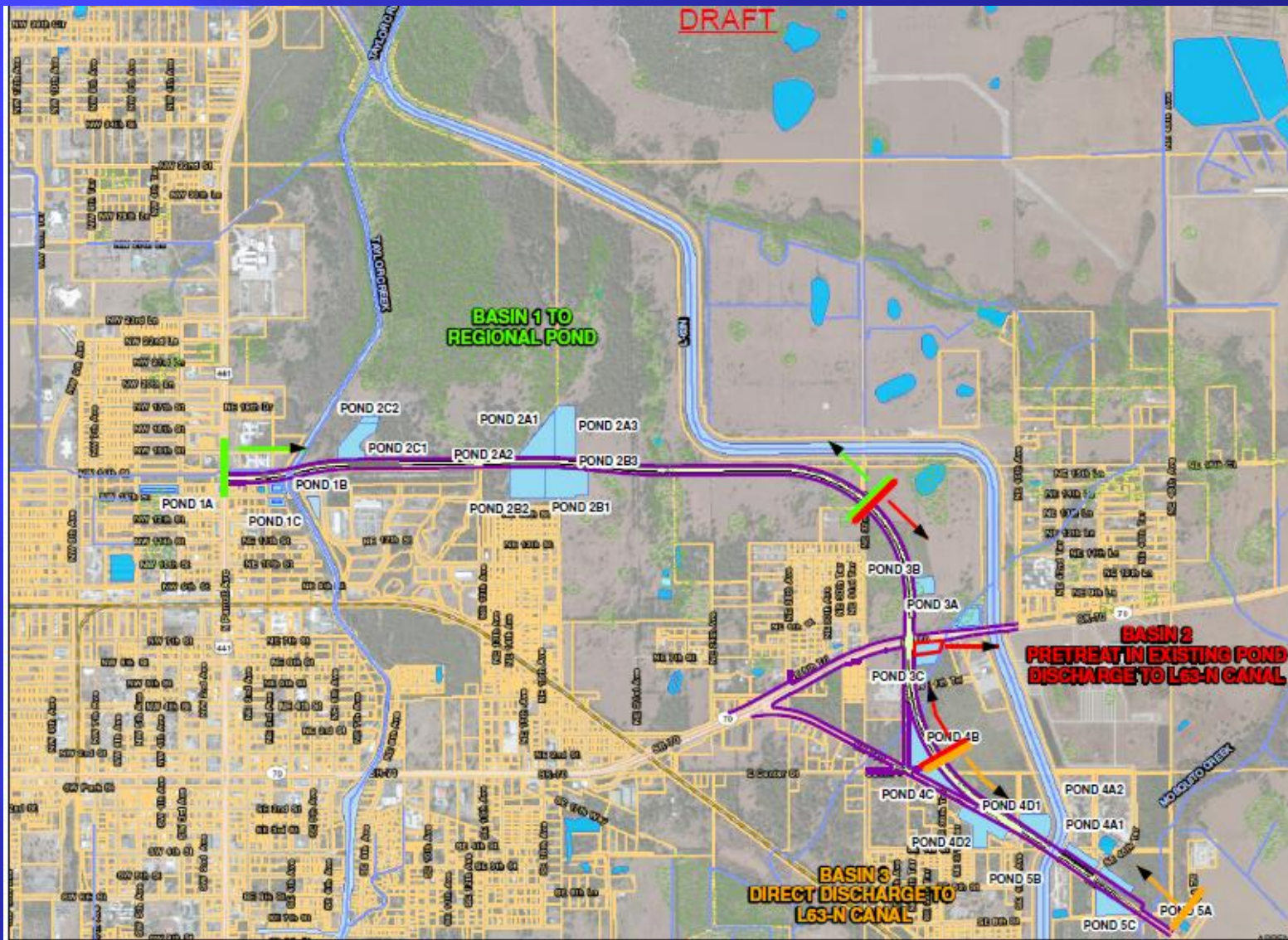
Issues with “Postage Stamp” Ponds

- ROW acquisition is expensive.
- ROW adds 2-years to the schedule.
- Requires dealing with multiple property owners and each of their attorneys.
- Undeveloped Land may NOT be available.
- Business damages.
- Cost of pond versus nutrient load reduction benefit is poor.
- Off-site ponds create additional wetland and species impacts (ie sand skink, panther) which costs more to mitigate.

Regional Treatment Solution

- Provide regional stormwater management in lieu of “Postage Stamp” ponds.
 - Work with Counties, Cities, WMDs, WCDs & private land owners to identify projects.
 - Can provide treatment for previously untreated runoff including from non-roadway land uses which typically have higher nutrient concentrations.
 - HB 599 (2012) or 373.413(6) F.S. allows FDOT to treat off-site runoff where it may benefit FDOT (and the associated watershed).

SR 710 – New Alignment



SR 710 Regional Treatment

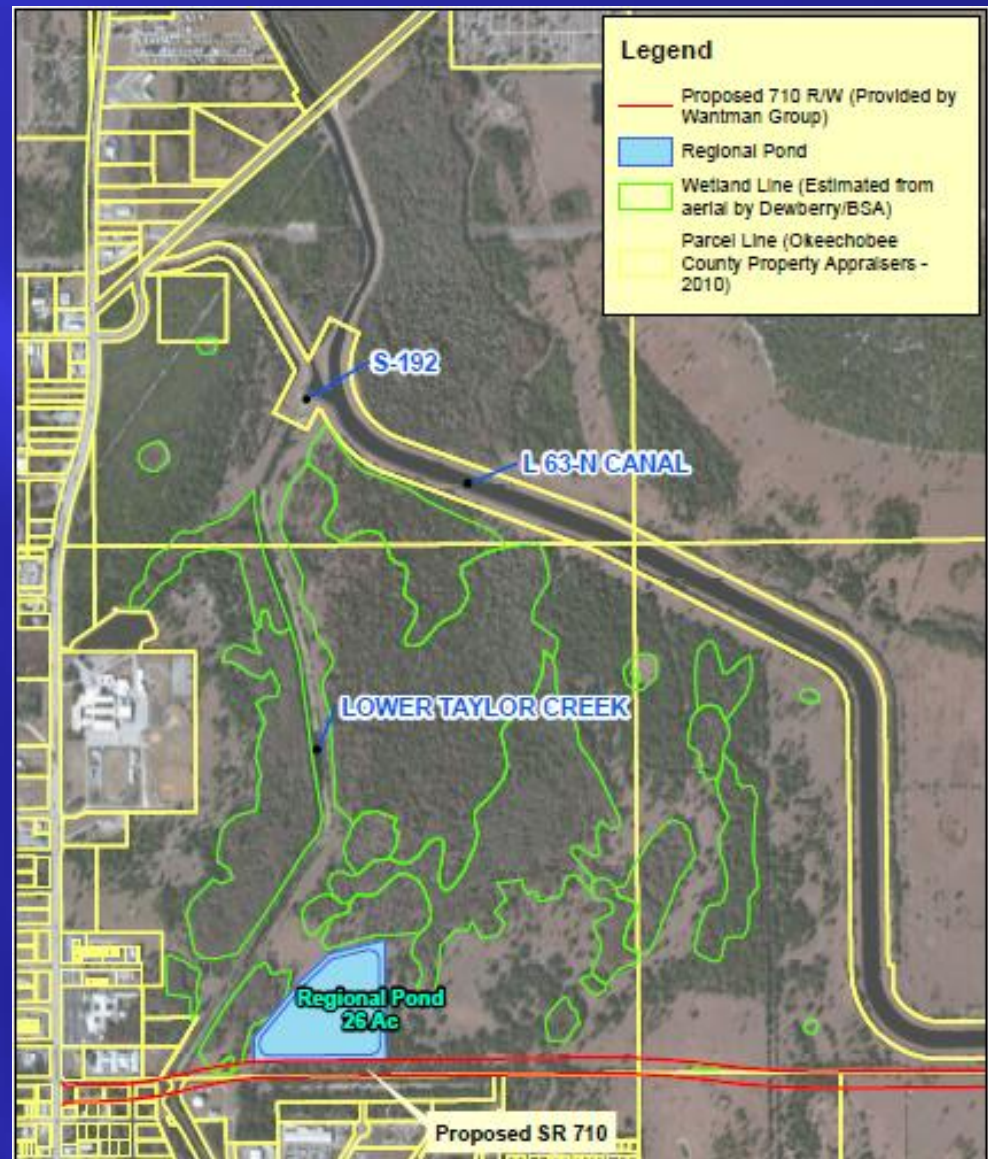
- Construction is not funded.
- Lake Okeechobee is severely polluted.
- Suspended the pond siting efforts to check regional treatment feasibility.
- Coordinating with FDEP, SFWMD, FDACS, locals, & other stakeholders.
- Conducting feasibility study to look at two options:
 - Regional Treatment – FDOT only
 - Stormwater Treatment Area (STA) – multi-party agreement

SR 710 Regional Treatment

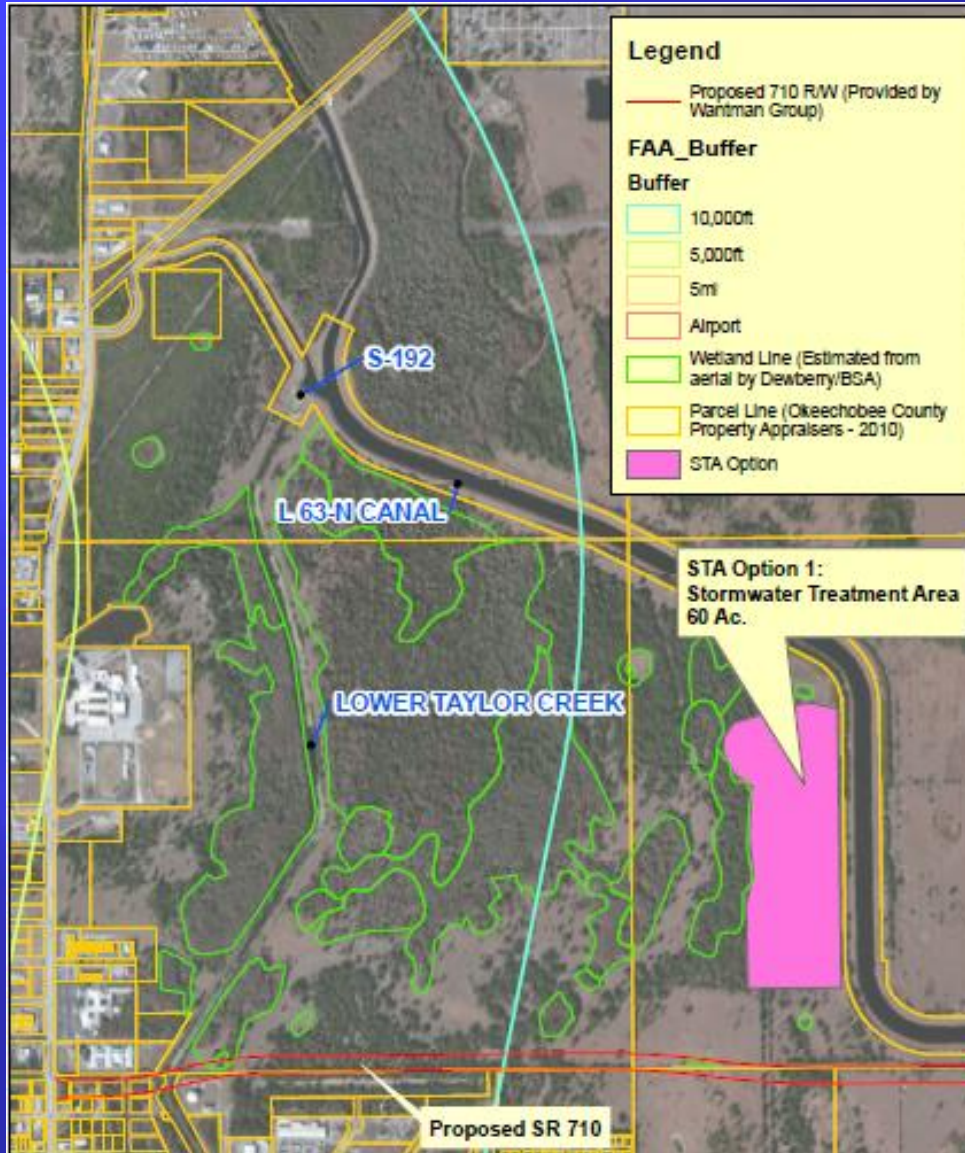
26 Acre Regional Treatment Ponds provides compensating treatment for entire SR 710 project, plus.

FDOT can design, acquire, and construct independently of any other stakeholder involvement.

Reduced
Schedule Risk
Option



SR 710 – STA Option



Multi-agency coordination required.

FDOT would likely pay FDEP or SFWMD to acquire, design, and maintain.

FDOT needs fill material for roadway embankment so may participate in construction.

SR 710 Regional Treatment

Alternative	Estimated TP Removal (kg/yr)
Postage Stamp Ponds	12
Regional Pond (26 ac)	500
STA (60 ac)	700

The regional treatment and STA options provide significantly more nutrient reduction above roadway requirements.

Helps satisfy FDOT's Lake Okeechobee Basin Management Action Plan (BMAP) requirements.

QUESTIONS