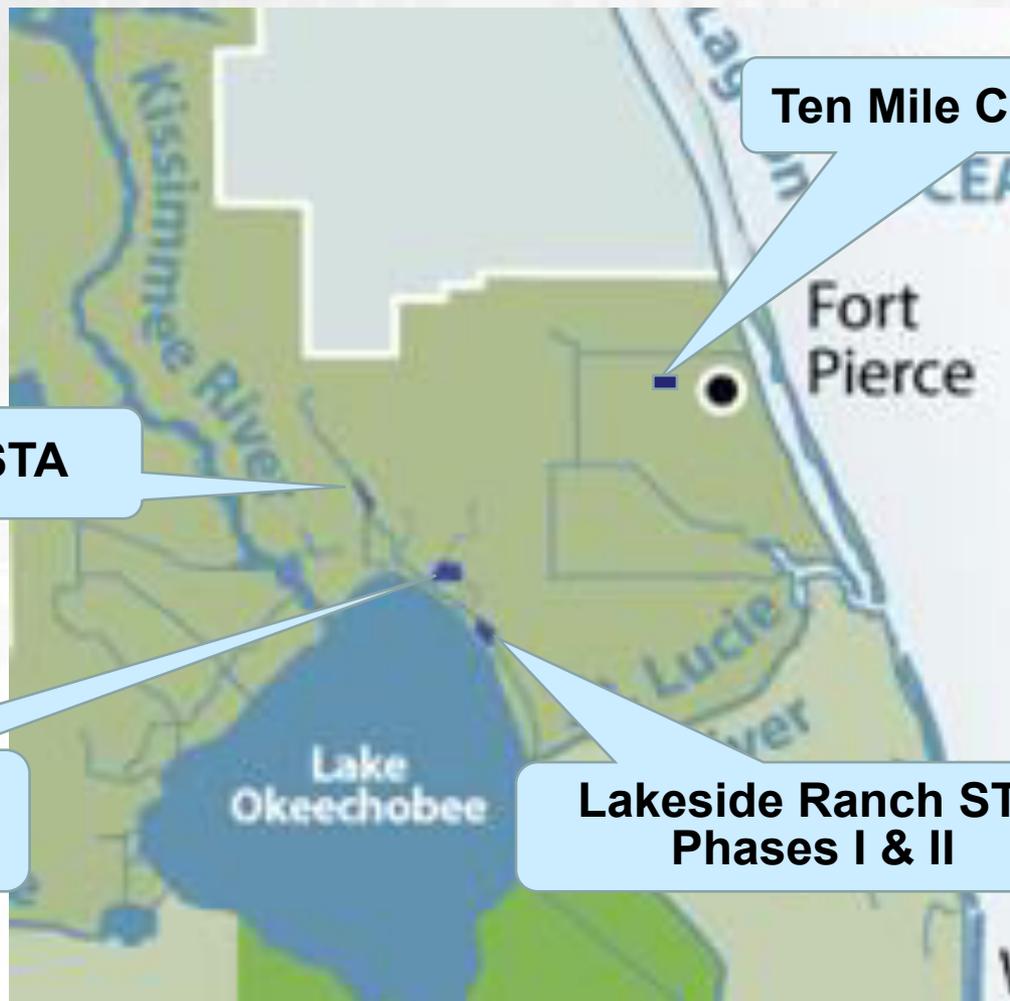




Northern Everglades STAs

Odi Villapando, WQTT Section

Northern Everglades STAs



Ten Mile Creek RaSTA

Taylor Creek STA

Nubbin Slough STA

Lakeside Ranch STA Phases I & II

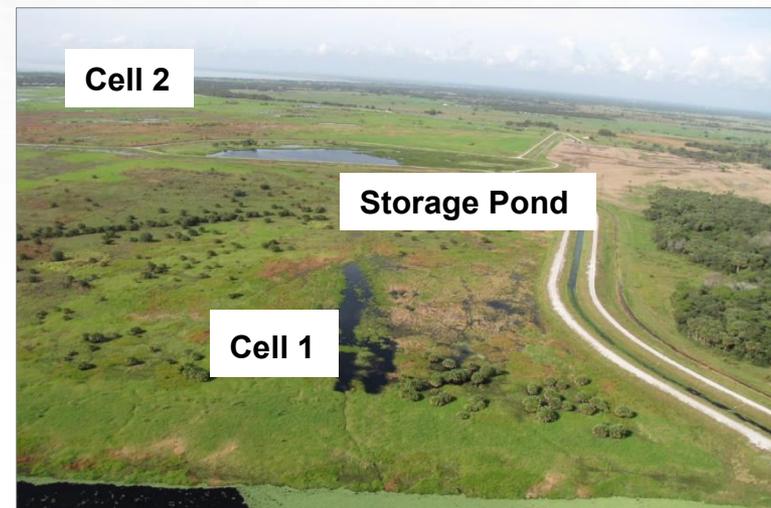
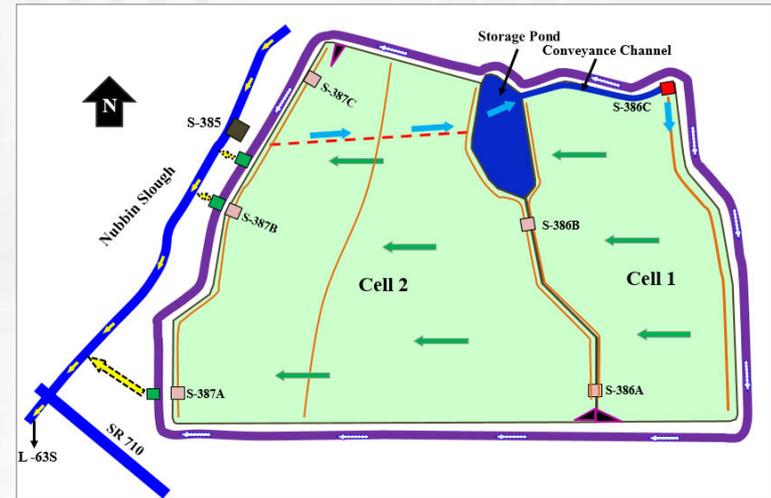
Taylor Creek STA

- **Critical Restoration Project**
- **Two-cell STA with treatment area of 118 acres**
- **Capture and reduce TP mass from Taylor Creek Basin**
- **Expected long-term average TP removal of ~2.08 MT/yr**
- **Operational since 2008**



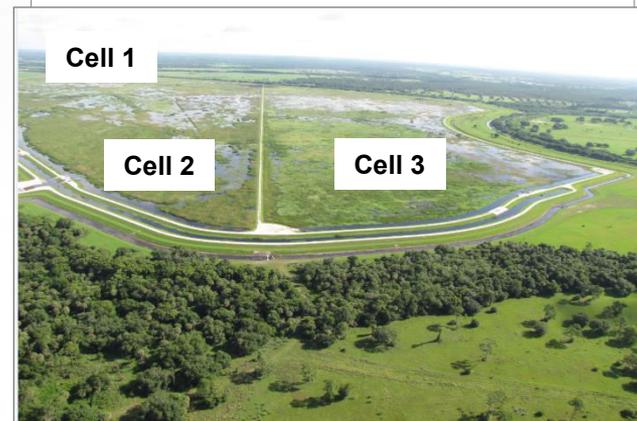
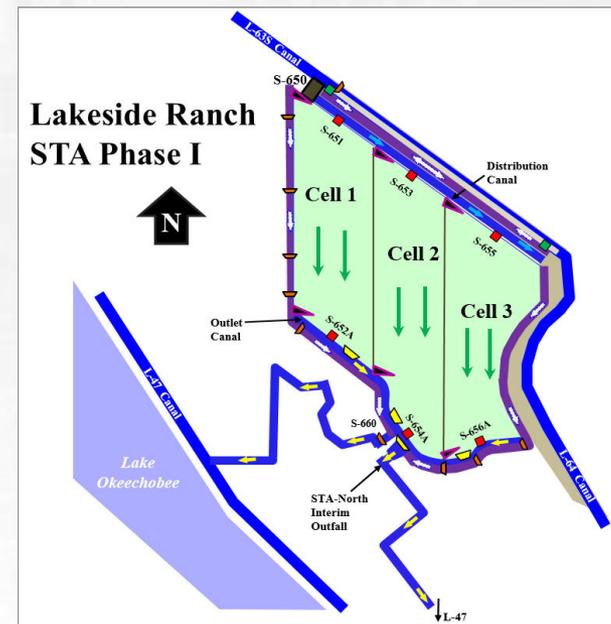
Nubbin Slough STA

- **Critical Restoration Project**
- **Has 773 acres of effective treatment area**
- **Capture and treat as much water through the STA as possible**
- **Projected long-term P removal of 5 MT/yr**
- **Start-up mode**



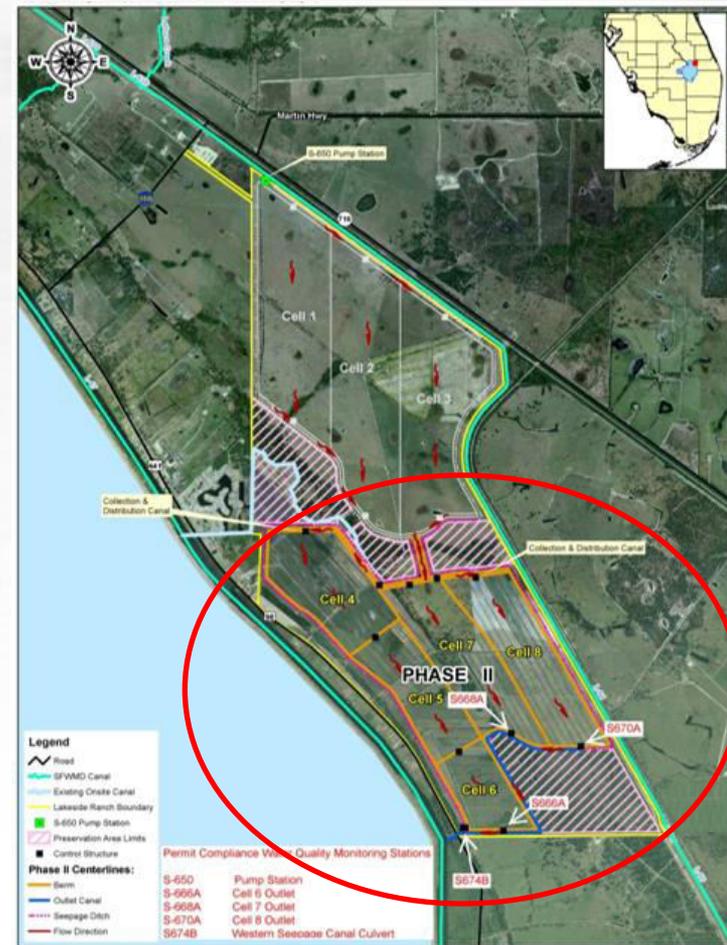
Lakeside Ranch STA Phase I

- Expedited under NEEPP, Phase I construction was completed in 2012
- Has 920 acres of effective treatment area
- Treats runoff water from S-191 and portions of S-135 subbasins
- Projected to remove 9 MT of TP per year
- Operational since 2013



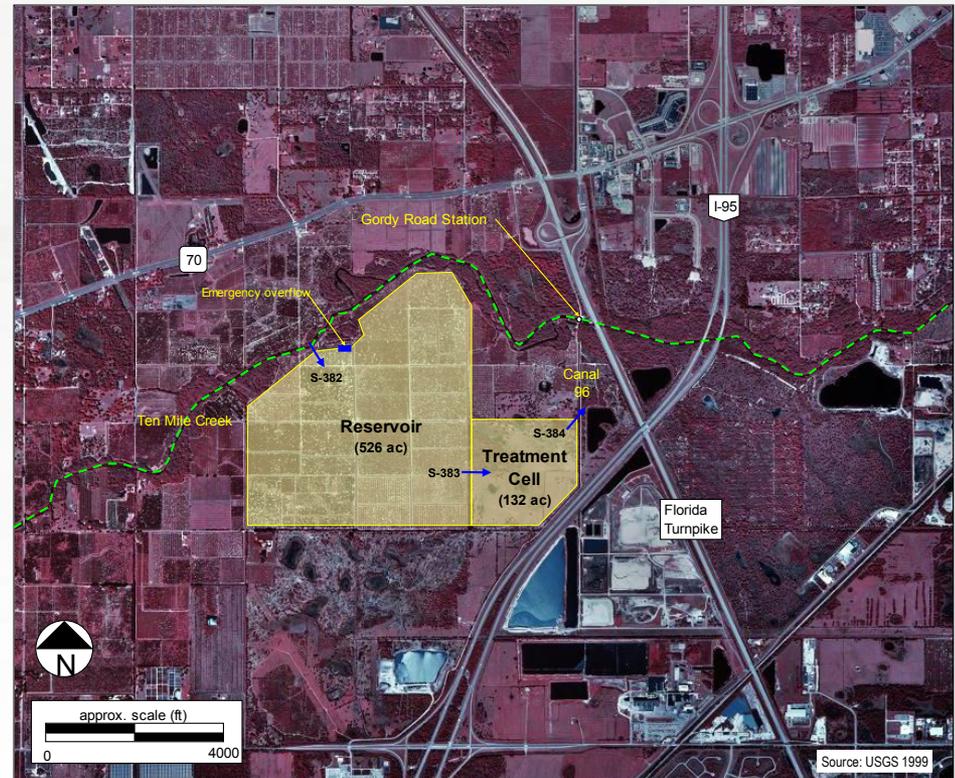
Lakeside Ranch STA Phase II

- Construction of southern STA
- Adds about 800 acres of surface treatment area
- Projected to remove an additional 10 MT of TP/yr
- Construction to be completed in January 2018



Ten Mile Creek RaSTA

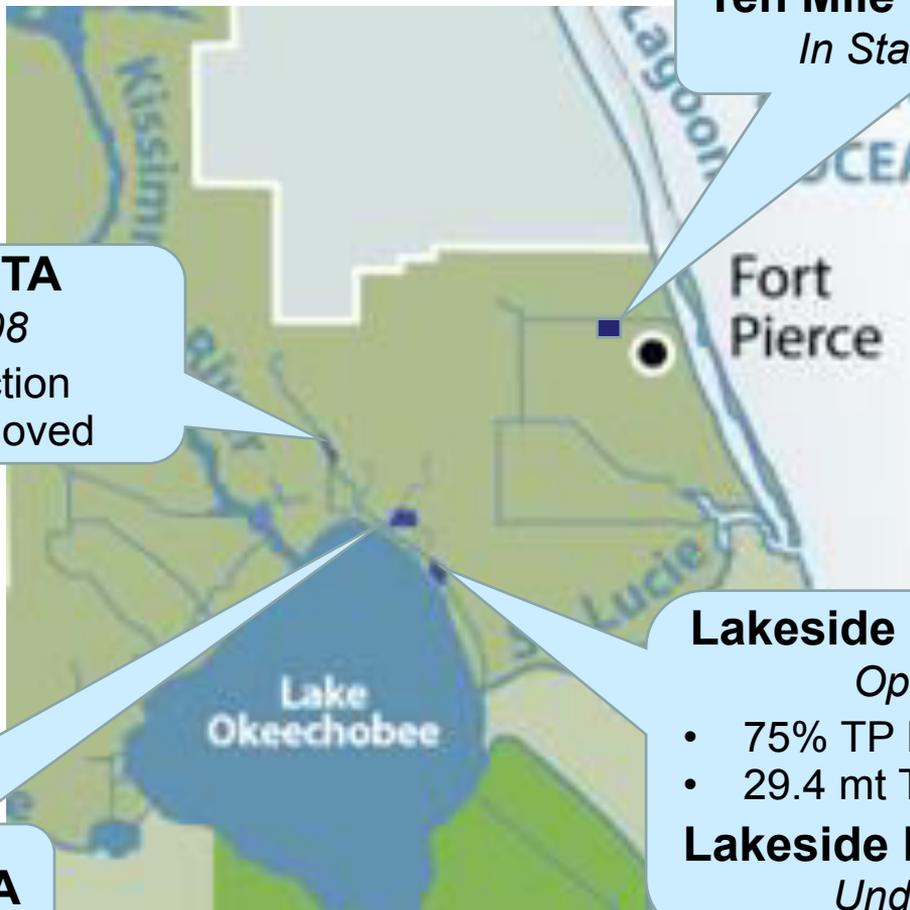
- **Critical Restoration Project**
- **Two-stage detention system**
- **Control the quantity and timing of water deliveries to the North Fork of St. Lucie River and reduction of nutrient and sediment loadings**
- **Start-up mode**



Performance Summary

Parameter	Taylor Creek	Lakeside Phase I
Period of operation	Jun 2008-Feb 2016	Jul 2013-Feb 2016
Volume of runoff water treated, <i>ac-ft</i>	52,671	72,064
Inflow TP conc., $\mu\text{g/L}$	319	443
Outflow TP conc., $\mu\text{g/L}$	244	140
TP mass loading, $\text{g/m}^2/\text{yr}$	7.8	4.4
Inflow TP load, <i>mt</i>	20.7	39.4
Outflow TP load, <i>mt</i>	13.3	10.0
TP load removed, <i>mt</i>	7.4	29.4
TP load reduction, %	36	75

Northern Everglades STAs - Summary



Ten Mile Creek RaSTA
In Start-up Mode

Taylor Creek STA
Operational 2008

- 36% TP Load Reduction
- 7.4 mt TP Load Removed

Lakeside Ranch STA Phase I
Operational 2013

- 75% TP Load Reduction
- 29.4 mt TP Load Removed

Lakeside Ranch STA Phase II
Under Construction

Nubbin Slough STA
In Start-up Mode