

# A-FIRST

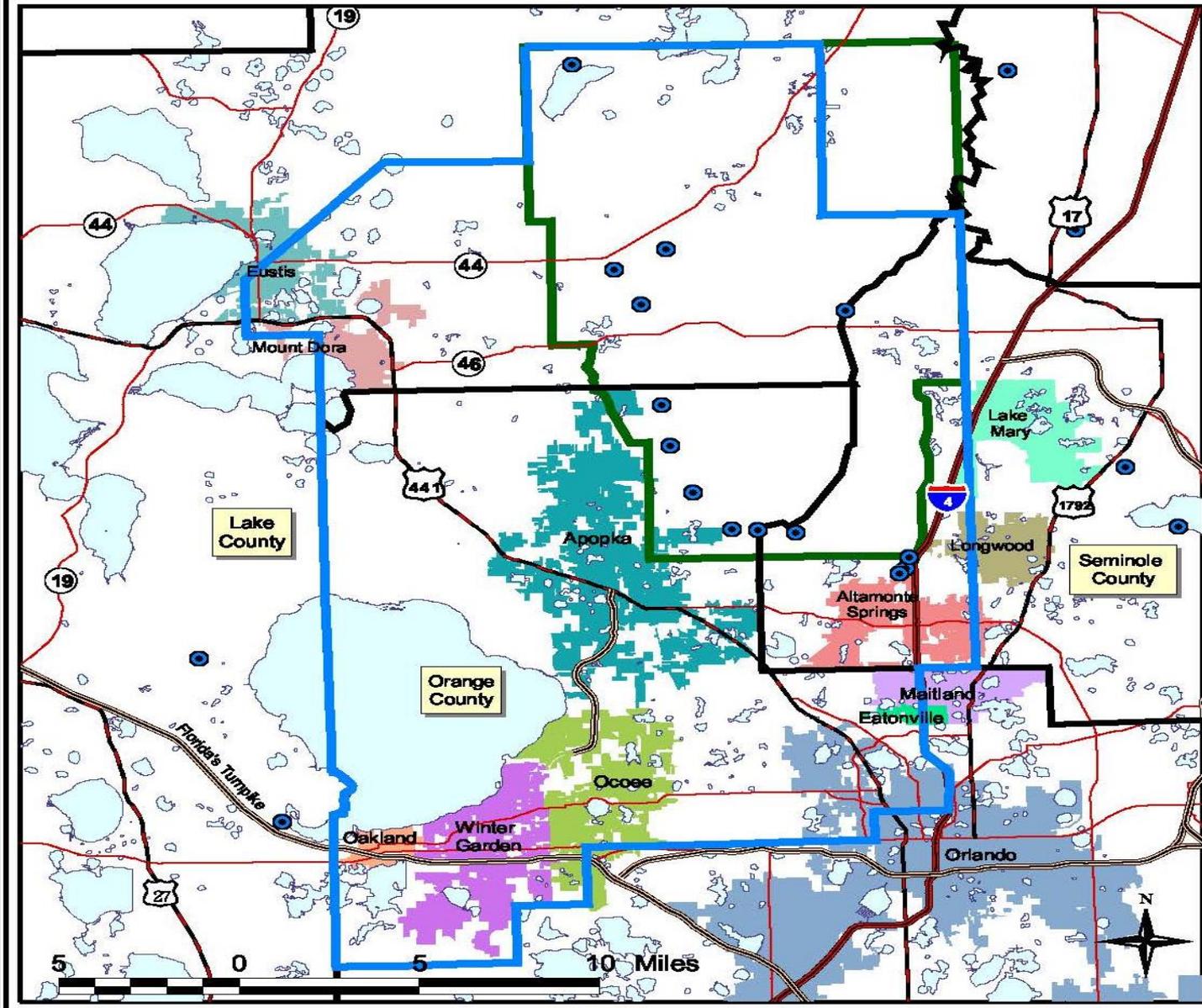


**Altamonte-FDOT Integrated Reuse & Stormwater Treatment**



- Wekiva Parkway Protection Act required expedited TMDLs for the Wekiva River Study Area
- Wekiva River Designated Outstanding Florida Water (OFW) and National Wild & Scenic River
- Numeric Nutrient Criteria (NNC)
- Water Supply Issues/ Minimum Flows and Levels
- Rigorous River, Springs, and Aquifer Protection
- Draft BMAP Wekiva River, Rock Springs Run, and LWR for nitrate-nitrogen and phosphorus

## **Environmental Background**



### Legend

- ▭ WEKIVA STUDY AREA
- SPRINGS
- ▭ WEKIVA RIVER PROTECTION AREA
- ▭ LAKES
- LAKE COUNTY MUNICIPALITIES
  - ▭ Eustis
  - ▭ Mount Dora
- ORANGE COUNTY MUNICIPALITIES
  - ▭ Apopka
  - ▭ Eatonville
  - ▭ Maitland
  - ▭ Oakland
  - ▭ Ocoee
  - ▭ Orlando
  - ▭ Winter Garden
- SEMINOLE COUNTY MUNICIPALITIES
  - ▭ Altamonte Springs
  - ▭ Lake Mary
  - ▭ Longwood

July 13, 2004

**Wekiva Study Area  
Established in Wekiva  
Parkway and Protection  
Act, Section 369.316,  
Florida Statutes**



FLORIDA DEPARTMENT OF  
Community Affairs

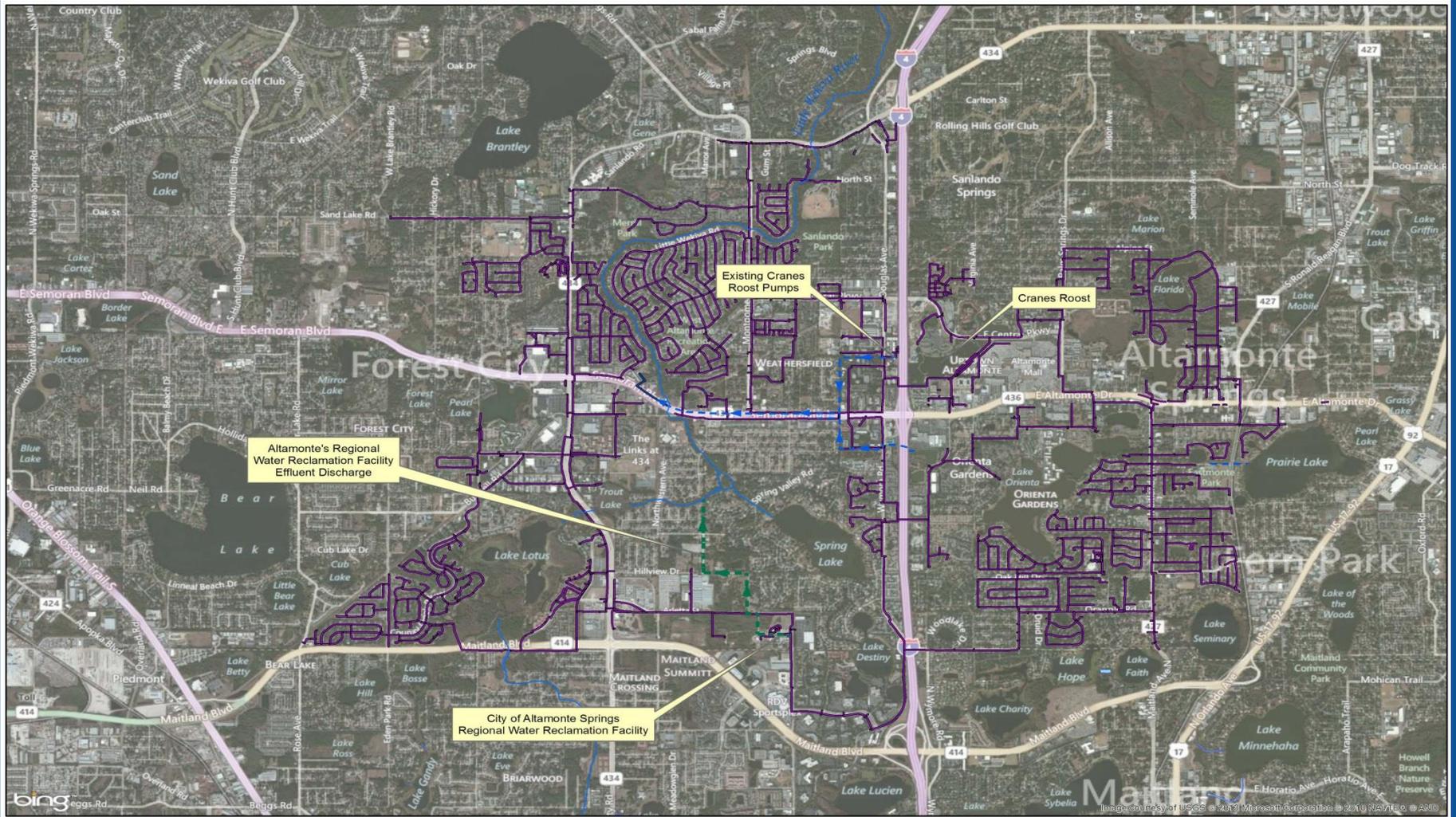
**DCA**

**DCP**

**GIS**

# Wekiva River Study Area

# A-FIRST



## Present Stormwater & Utilities Operations



- Design, permit and construct massive storage ponds and/or storage tanks (never enough)
- Next level of treatment (i.e. treated to drinking water standards)
- Keep continually restricted pumping from Cranes Roost

**Conventional Solution**



- Cannot continue discharges to the LWR indefinitely
- Most effective way to reduce nutrients in the LWR
- Continue tradition of being in the forefront protecting our environment
- Expense of other treatment options

**Challenges to Conventional Solution**

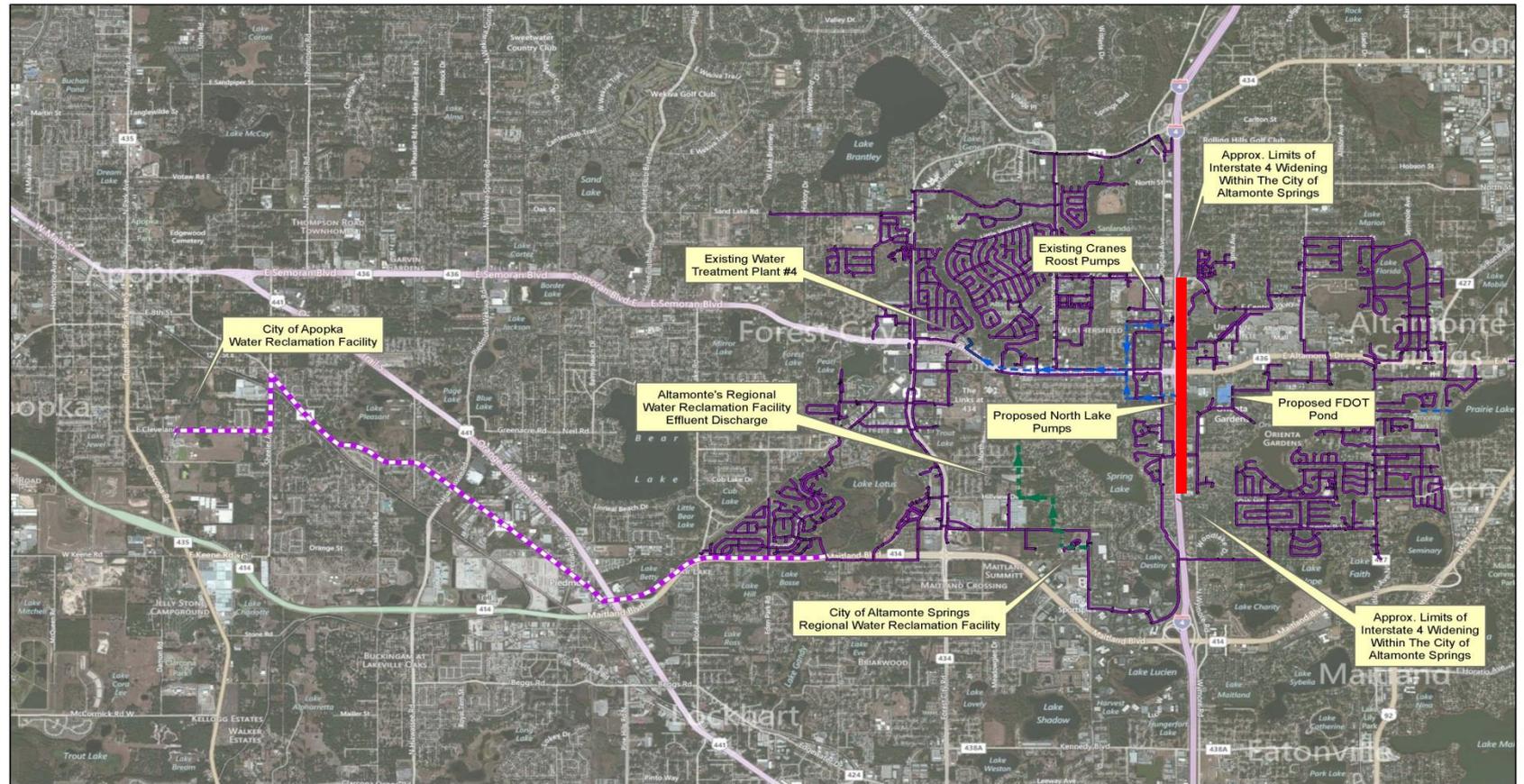


# Unconventional Solutions

**Doing Business Differently**



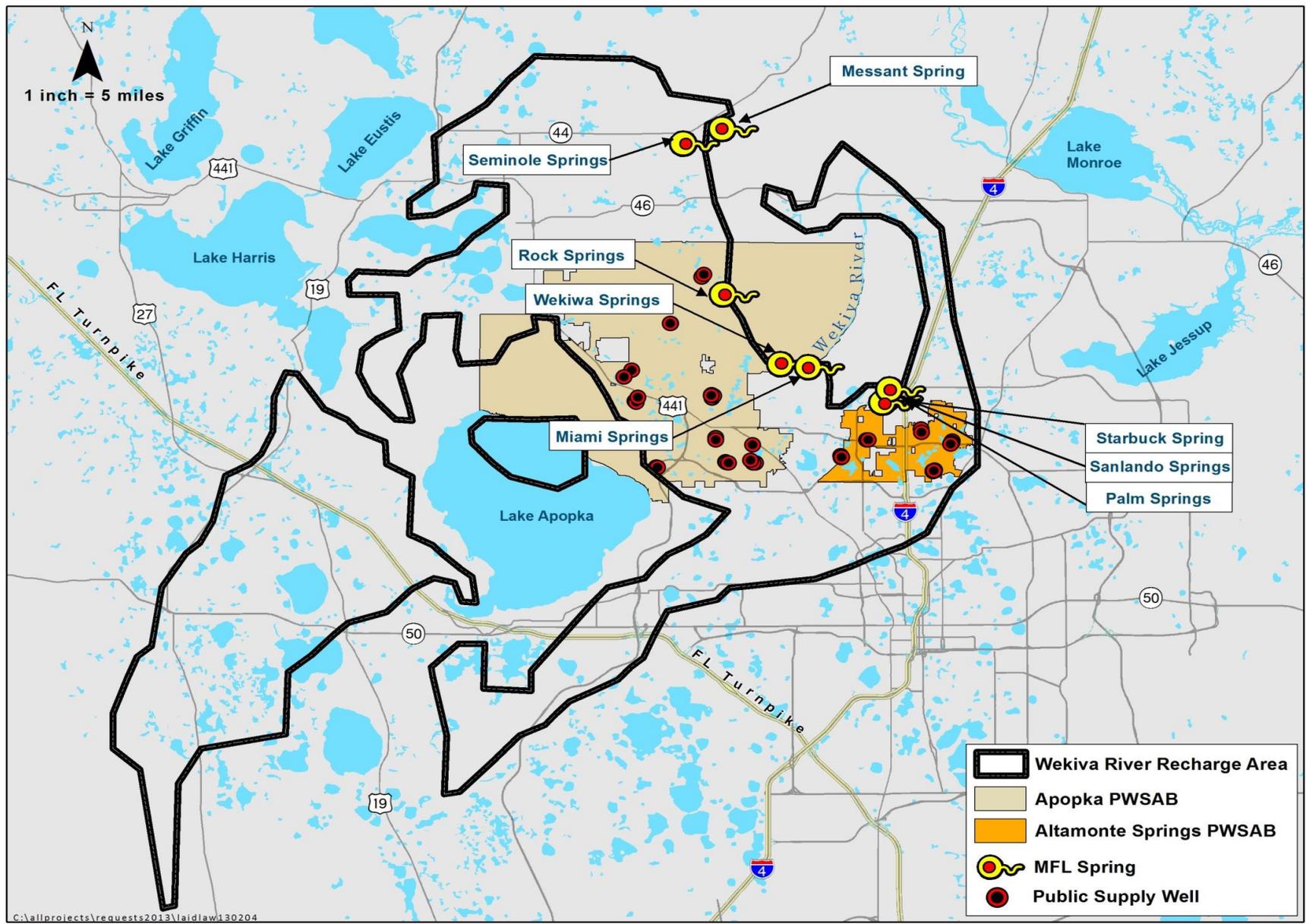
# A-FIRST



Interstate 4 Integrated Stormwater Management & Water Supply Project

- Altamonte Existing Reclaimed Network
- Stormwater Force Main
- Proposed Reclaimed Main to Apopka
- Proposed Stormwater FM
- Effluent Discharge





# Altamonte Springs & Apopka Utility Service Area



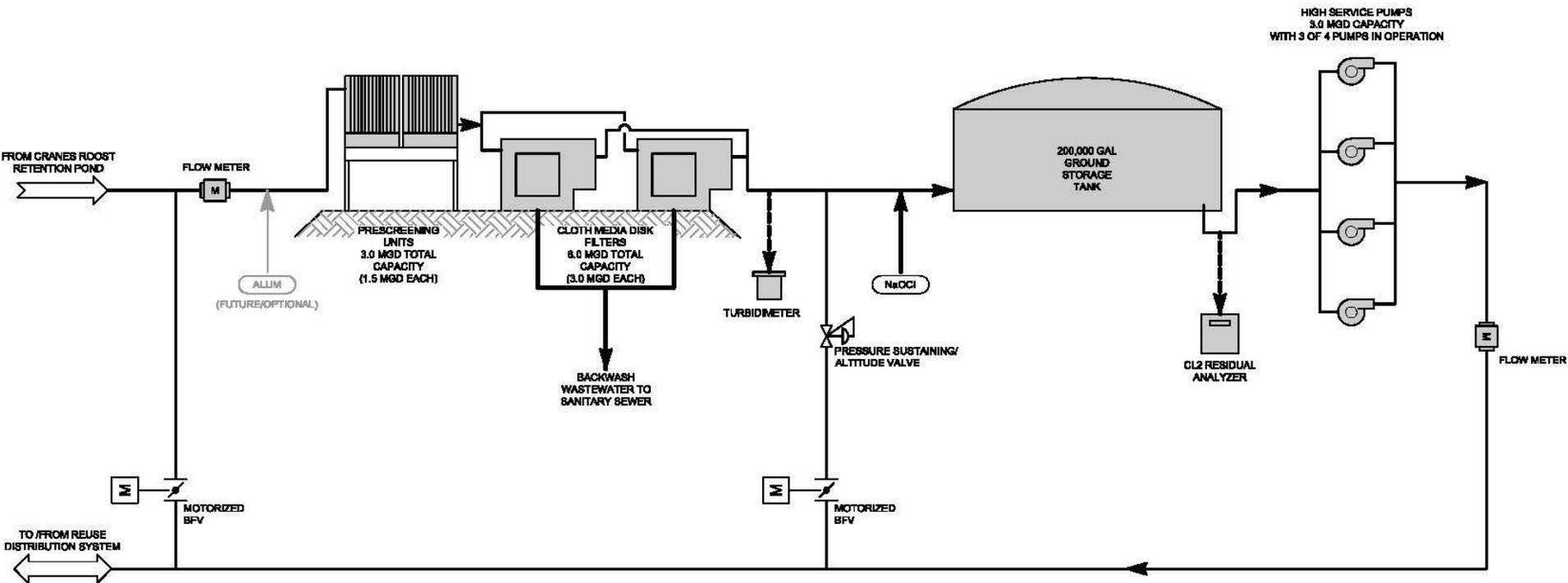
- Water Quality:
  - Stormwater source estimated nutrient reductions: 643 lbs/yr of TP and 3,259 lbs/yr of TN
  - Excess wet-weather highly treated reclaimed water source estimated nutrient reductions: 27,400 lbs/yr of TP and 59,400 lbs/yr of TN
- Water supply:
  - 1.5 MGD of Alternate Water Supply from Cranes Roost
  - 3.0 MGD of Alternate Water Supply from RWRF

# A-FIRST



**Water Treatment Plant #4**

# A-FIRST



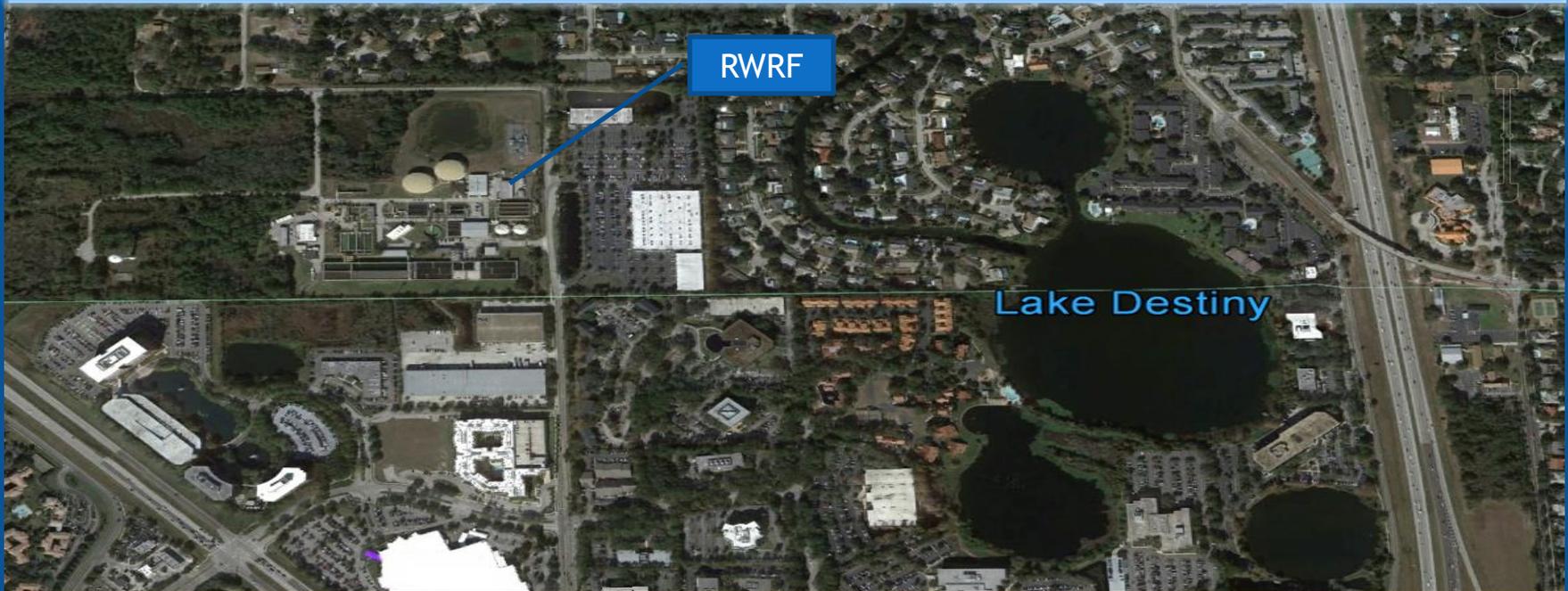
## Water Treatment Plant #4

# A-FIRST



**Water Treatment Plant #4**

# A-FIRST



**Regional Water Reclamation Facility**

# A-FIRST



**Regional Water Reclamation Facility  
Keller Road**



- Major AWS alleviates unmet water supply demands in Apopka's service area
- Reduces groundwater pumping needs in the Apopka and Altamonte springshed, which directly correlates with spring flows and MFLs
- Significant overall nutrient loading reduction in the LWR from non-point and point-sources
- Nutrient reduction in the LWR will have ancillary water quality benefits in the springs
- Addresses NNC and TMDLs as well as the regional Wekiva Parkway Protection Act goals for the area
- Addresses stormwater treatment needs for Interstate 4 in Altamonte Springs and will serve as an example for future

**Benefits of Doing Business Differently**

# A-FIRST

FDOT \$4.5M



SJRWMD \$3.5M



FDEP \$1.5M



Altamonte Springs \$3M + O&M



Apopka (storage construction & retreatment)



**The Right People in the Right Place at the Right Time**



## Schedule:

- Design: March, 2013 - March, 2014
- Construction: April, 2014 - April, 2015

## Current Status:

- Continuous Simulation Modeling - Complete
- Cranes Roost Pumps Improvements - PDR completed & Final Design Underway
- WTP#4 (Reuse Augmentation Facility) - PDR completed & Final Design Underway
- Pipeline to Apopka - Routing completed & Final Design Underway

**Schedule & Status**

# A-FIRST



Thank you.