

Caulkins Water Farm Expansion Project

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Project and Lands Committee Meeting
November 9, 2016

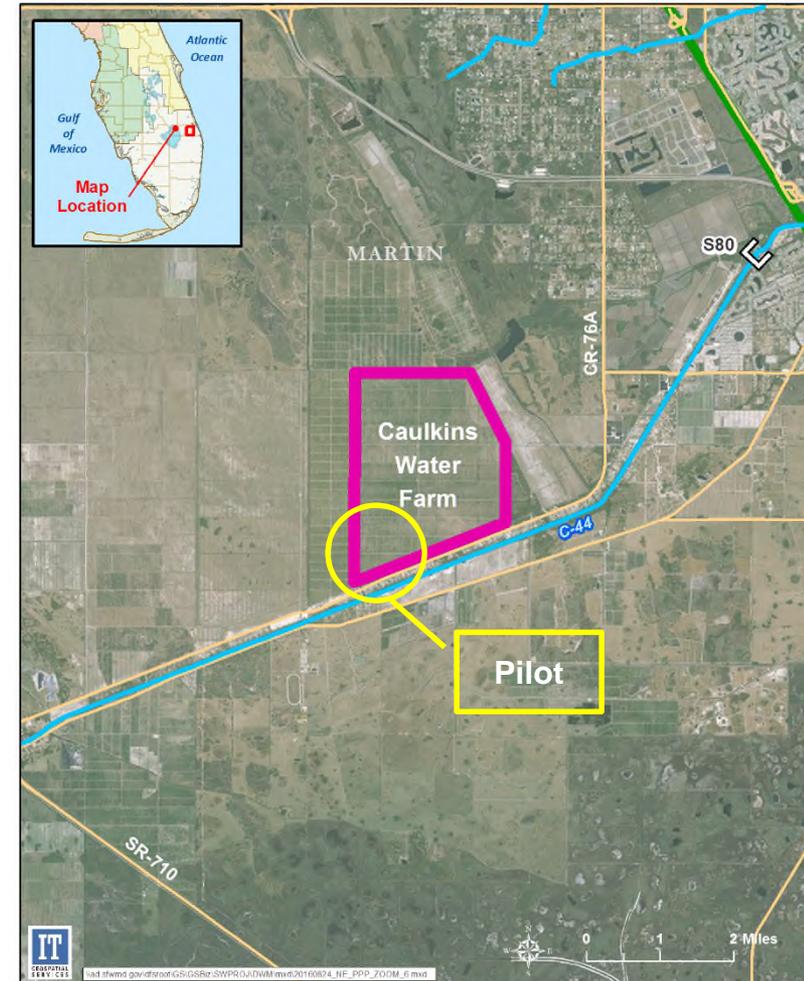
Caulkins Water Farm Background

➤ Pilot Project

- January 2014 to August 2016
- 450 acre fallow citrus grove (one cell – southwest corner)
- Inflow at 125 acre-feet per day
- Retained ~4,500 acre-feet of rainfall
- Stored On-Site: ~36,500 acre-feet (12 billion gallons)
- High infiltration rate of 0.1 feet per day

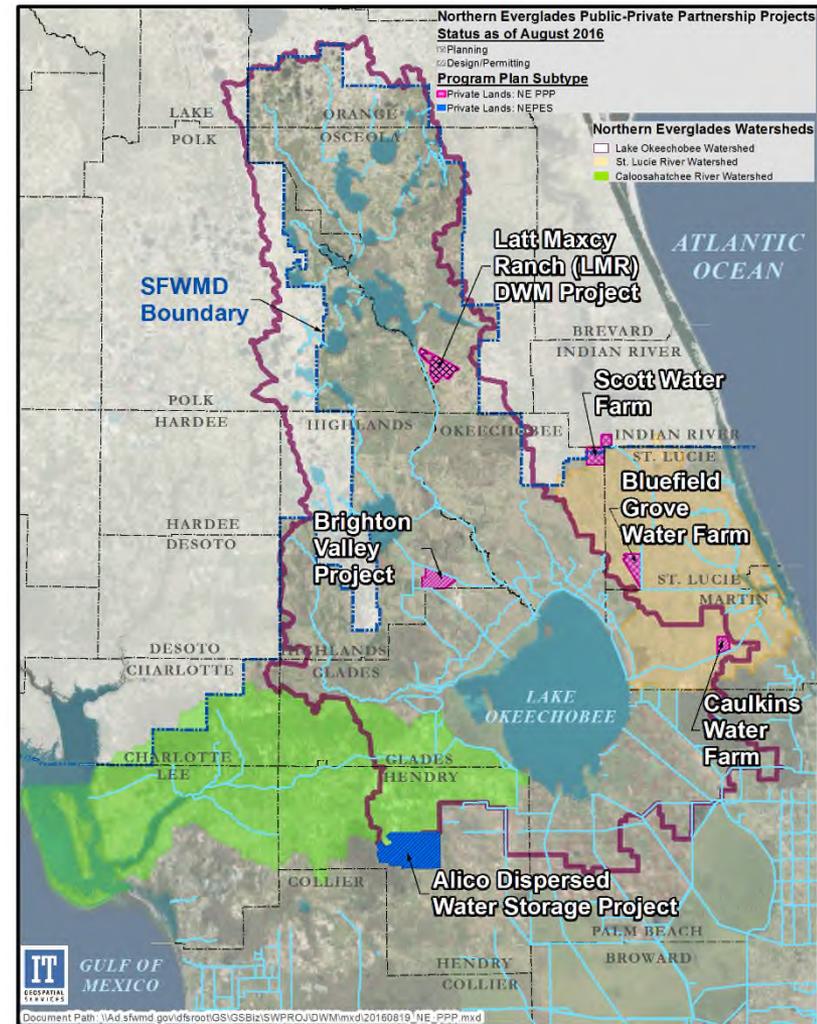
➤ Proposed Expansion Project

- Estimated construction completion in Fall 2017
- 3,275 acre fallow citrus grove
- Five cells (most of Caulkins property)
- Inflow at 460 acre-feet per day



Northern Everglades Public-Private Partnerships (NE PPP) Timeline

- **January 2016:** Florida Department of Environmental Protection (FDEP) surveyed for large, regional-scale Basin Management Action Plan (BMAP) projects
- **February 2016:** FDEP identified 6 projects
- **March 2016:** Projects appropriated
- **June 2016:** Interagency Working Group convened. Members: FDEP, SFWMD, Florida Department of Agriculture and Consumer Services (FDACS)
- **September 2016:** Meeting with Landowners, Cost-Share Agreements with FDACS, and Technical Suitability Criteria completed
- **October 2016:** NE PPP Governing Board presentation



Proposed Caulkins Water Farm Expansion Project

Benefits

- Compares favorably to District's Dispersed Water Management (DWM) Program contract rates
- St. Lucie River Watershed
- Expedited implementation
- Net water quantity benefit of up to 80,000 acre-feet annually (26 billion gallons)
- Nutrient loads pumped out of C-44; Estimated annual range:
 - Total Phosphorus: 8 – 17 metric tons
 - Total Nitrogen: 56 – 123 metric tons

Costs

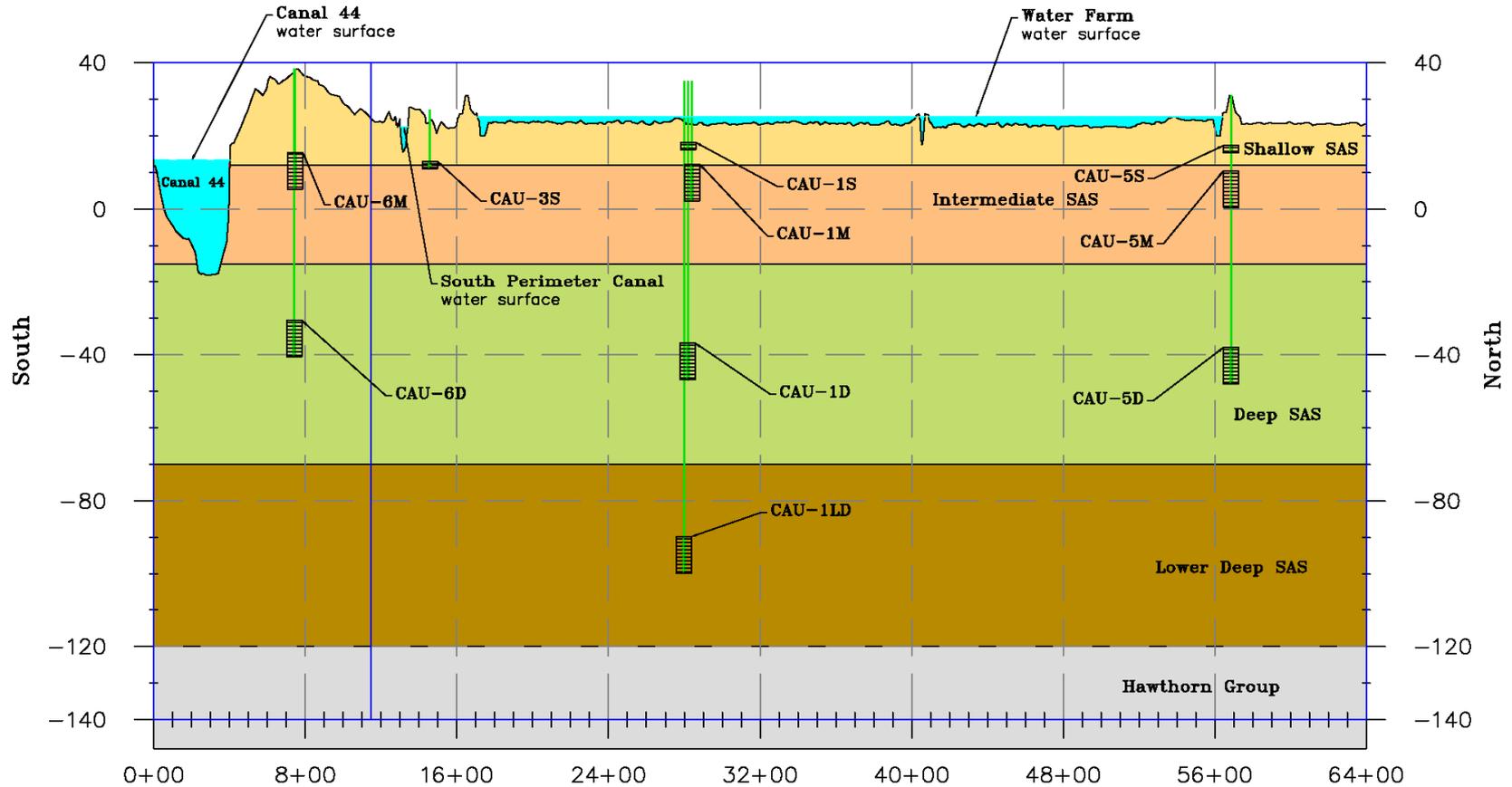
- Average cost-effectiveness rate: \$90 per acre-foot
- Year 1 total construction cost: \$7,446,180
 - Funded by SA1590A
- Years 2 through 11: \$5,500,000 all-inclusive fixed annual Payment for Environmental Services
 - Relies solely on future legislative funding



Caulkins Citrus Pilot Project,
Martin County (2016)

Questions?

Caulkins Water Farm Well Location Cross-Section



SCALE: HORIZONTAL: 1" = 800'
 VERTICAL: 1" = 40'

ELEVATIONS ARE BASED ON (NAVD88)

Profile No. 1

SAS = Surficial Aquifer System