CREST Project:
From Conception to Sustainable Project of the Year

Agenda

Understanding the Problem

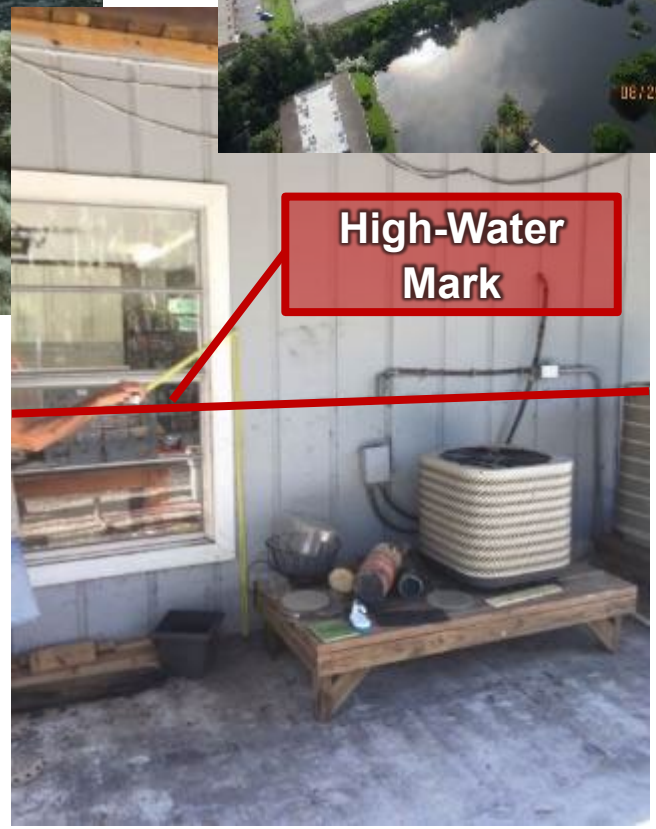
Developing the Solution

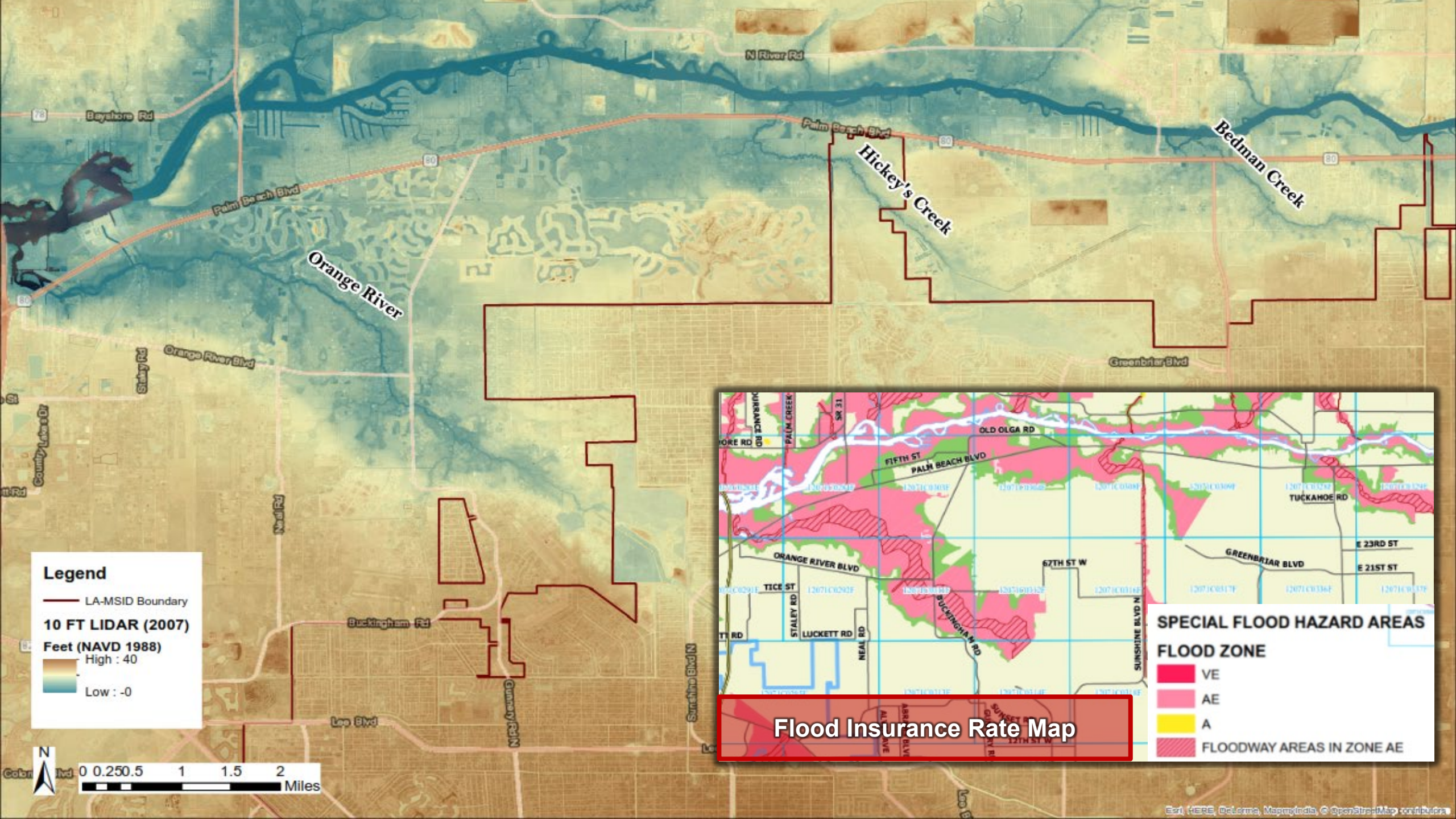
Navigating the Challenges

Understanding the Problem

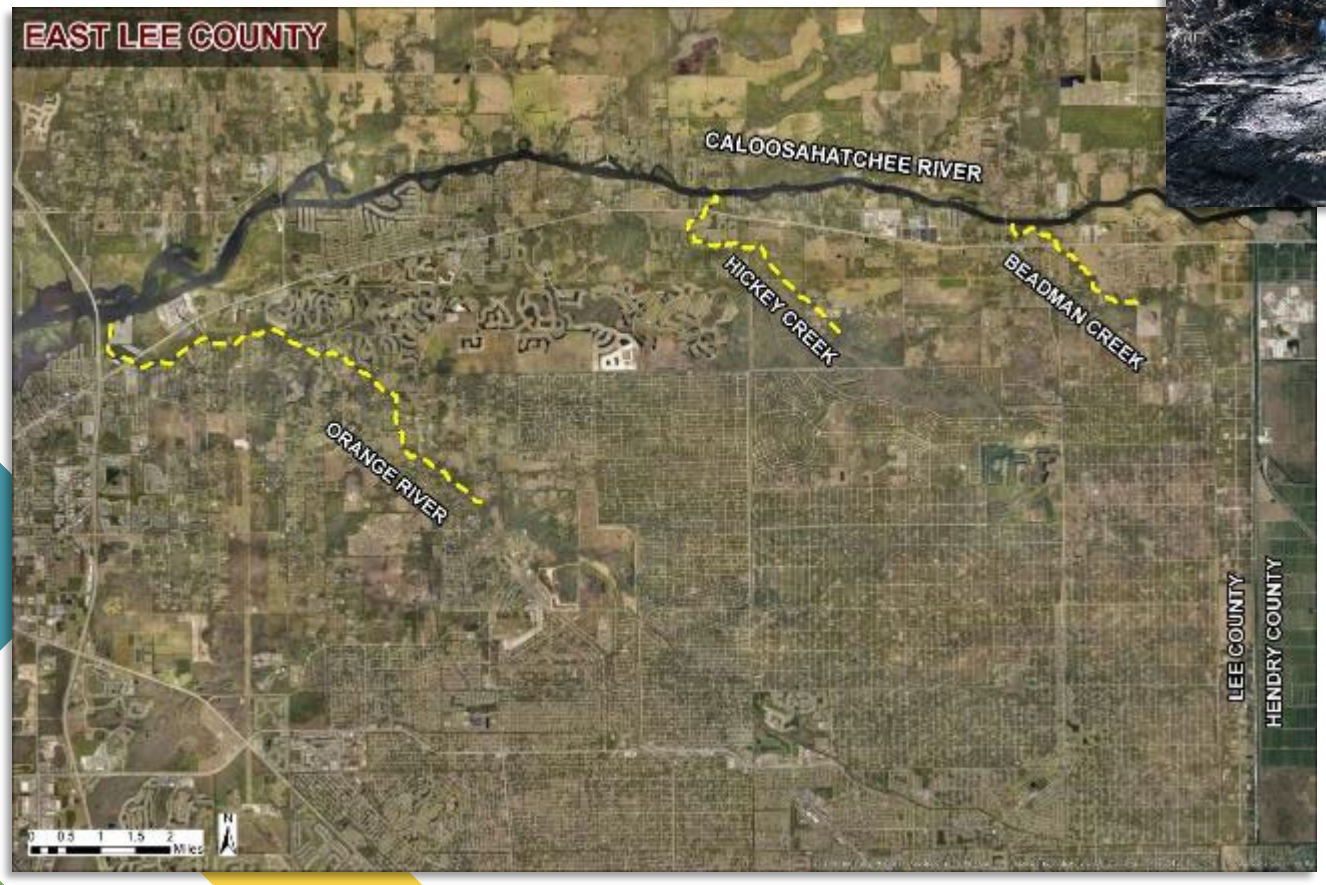
Understanding the Problem

Understanding the Problem

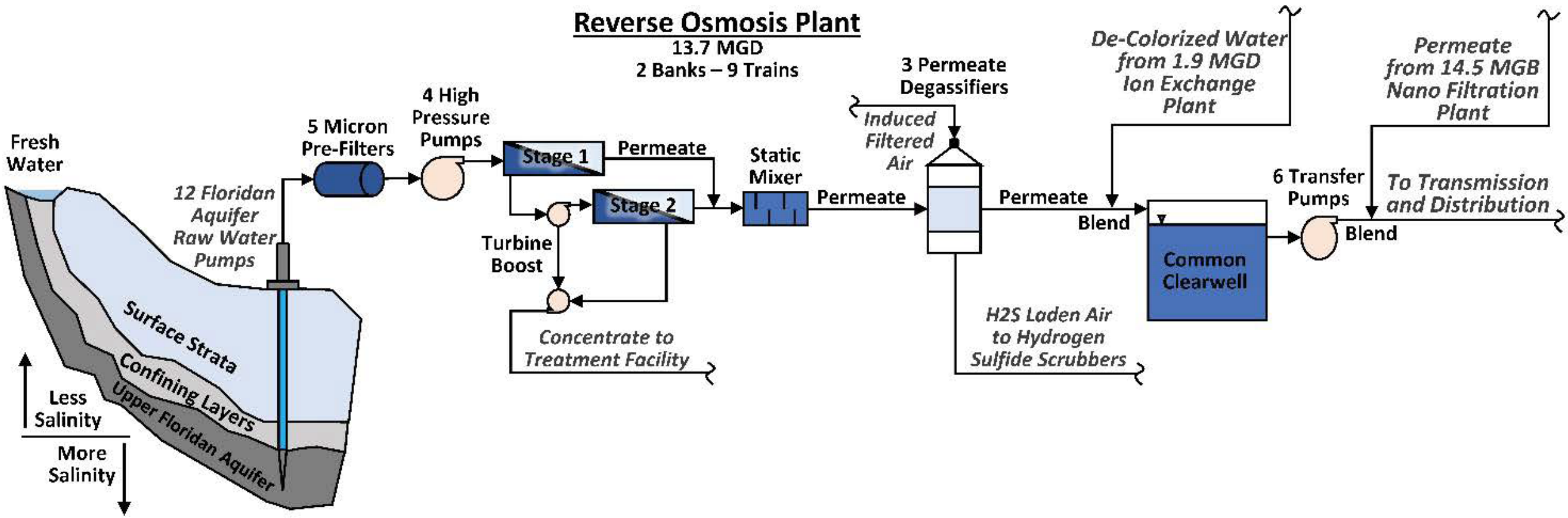



N River Rd
Bayshore Rd
Palm Beach Blvd
Hickey's Creek
Bedman Creek
Orange River
Orange River Blvd
Greenbriar Blvd
Buckingham Rd
Lee Blvd
Legend
LA-MSID Boundary
10 FT LIDAR (2007)
Feet (NAVD 1988)
High : 40
Low : -0
N
0 0.250.5 1 1.5 2
Miles
OLD OLGA RD
FIFTH ST
PALM BEACH BLVD
TUCKAHOE RD
ORANGE RIVER BLVD
67TH ST W
GREENBRIAR BLVD
E 23RD ST
E 21ST ST
TICE ST
LUCKETT RD
STALEY RD
NEAL RD
SUNSHINE BLVD N
SPECIAL FLOOD HAZARD AREAS
FLOOD ZONE
VE
AE
A
FLOODWAY AREAS IN ZONE AE
Flood Insurance Rate Map

Understanding the Problem



Understanding the Problem



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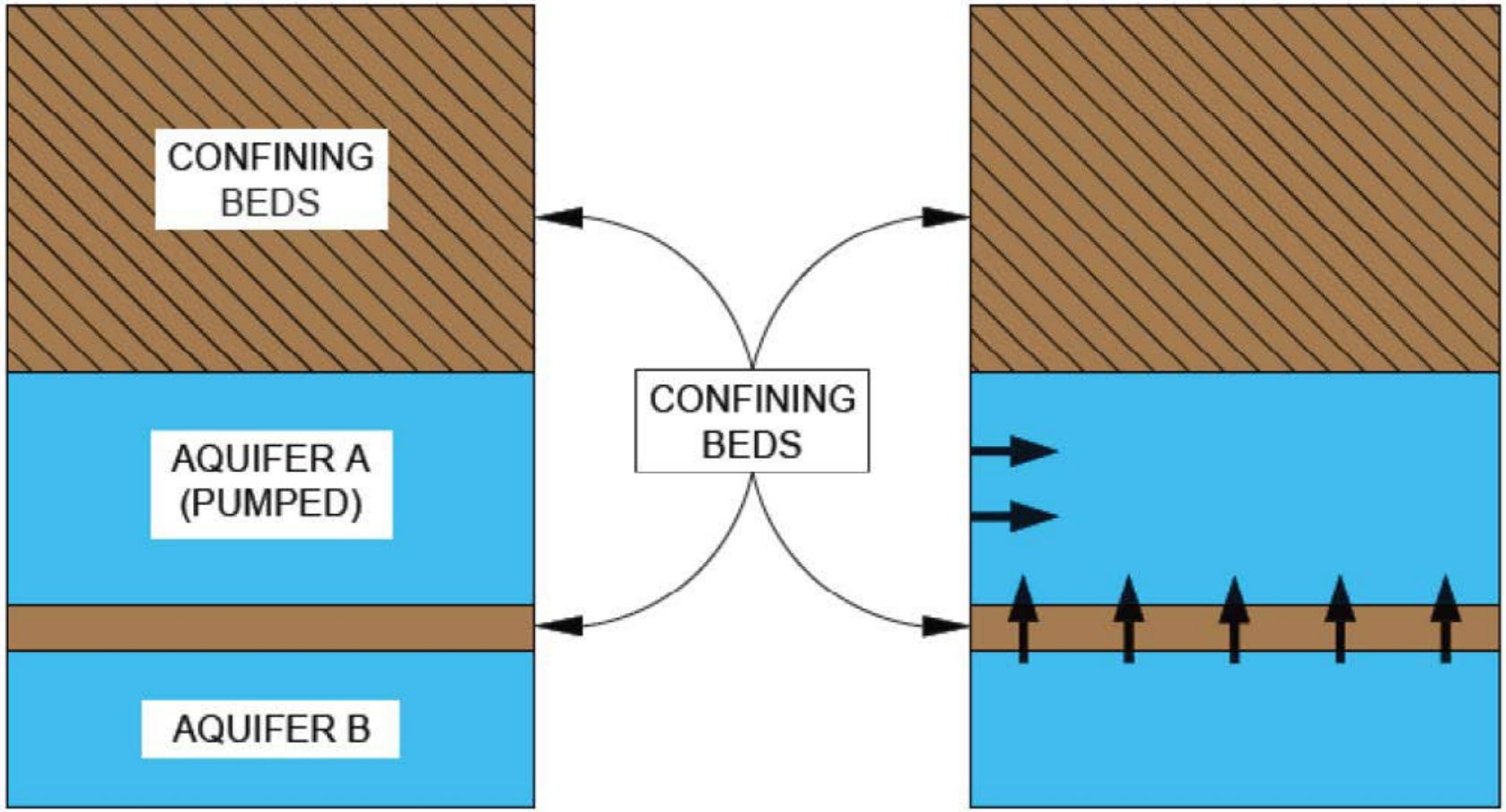

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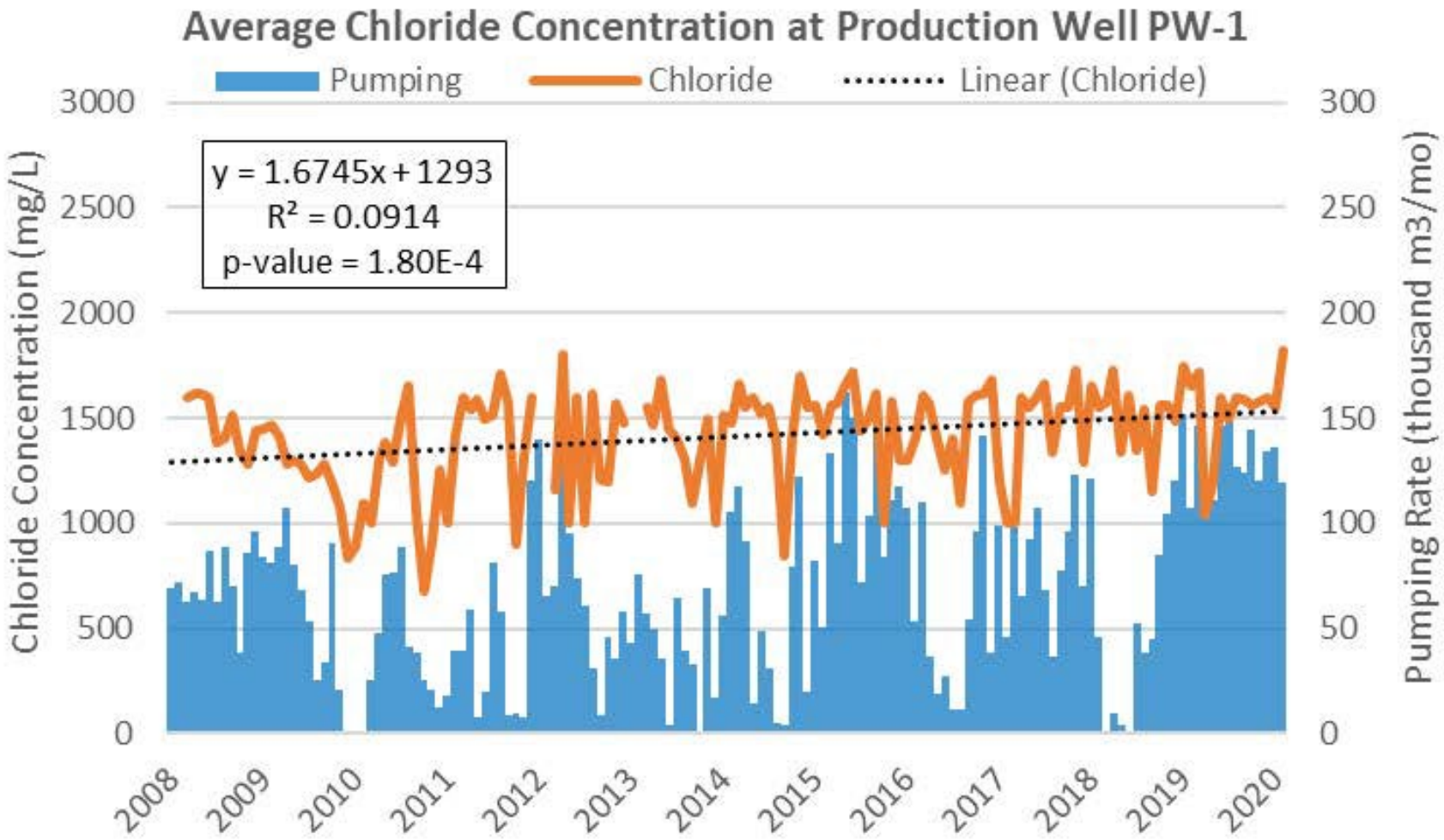
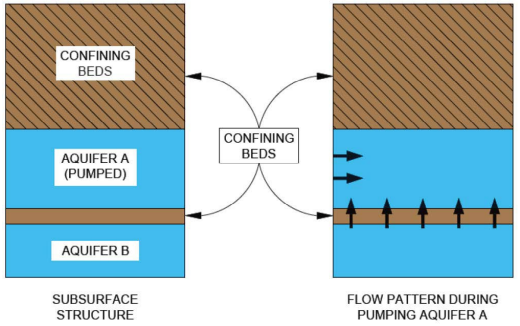
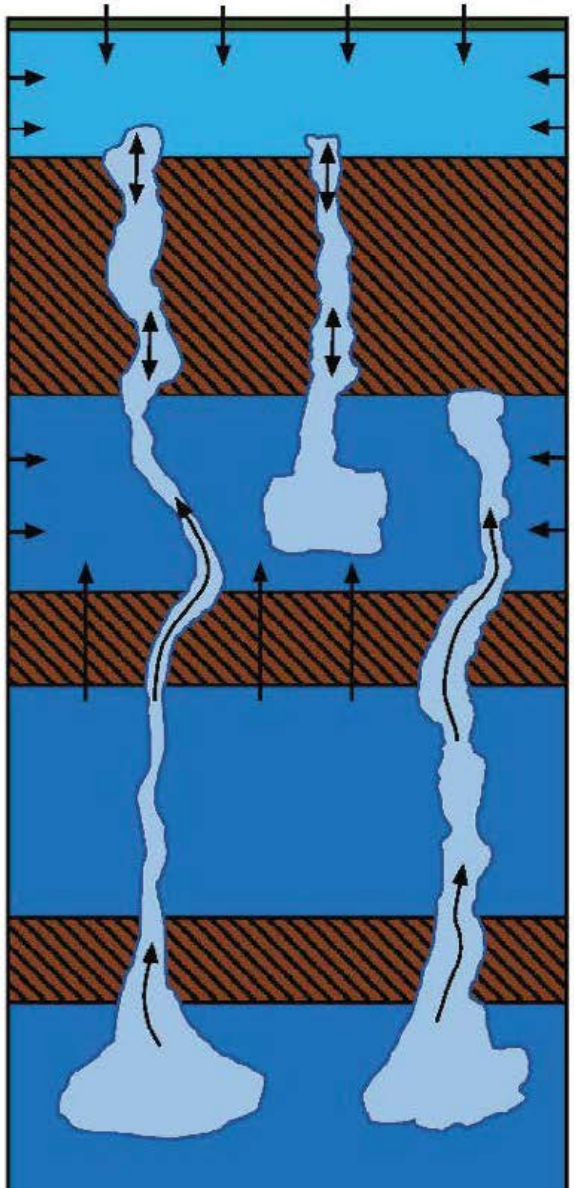
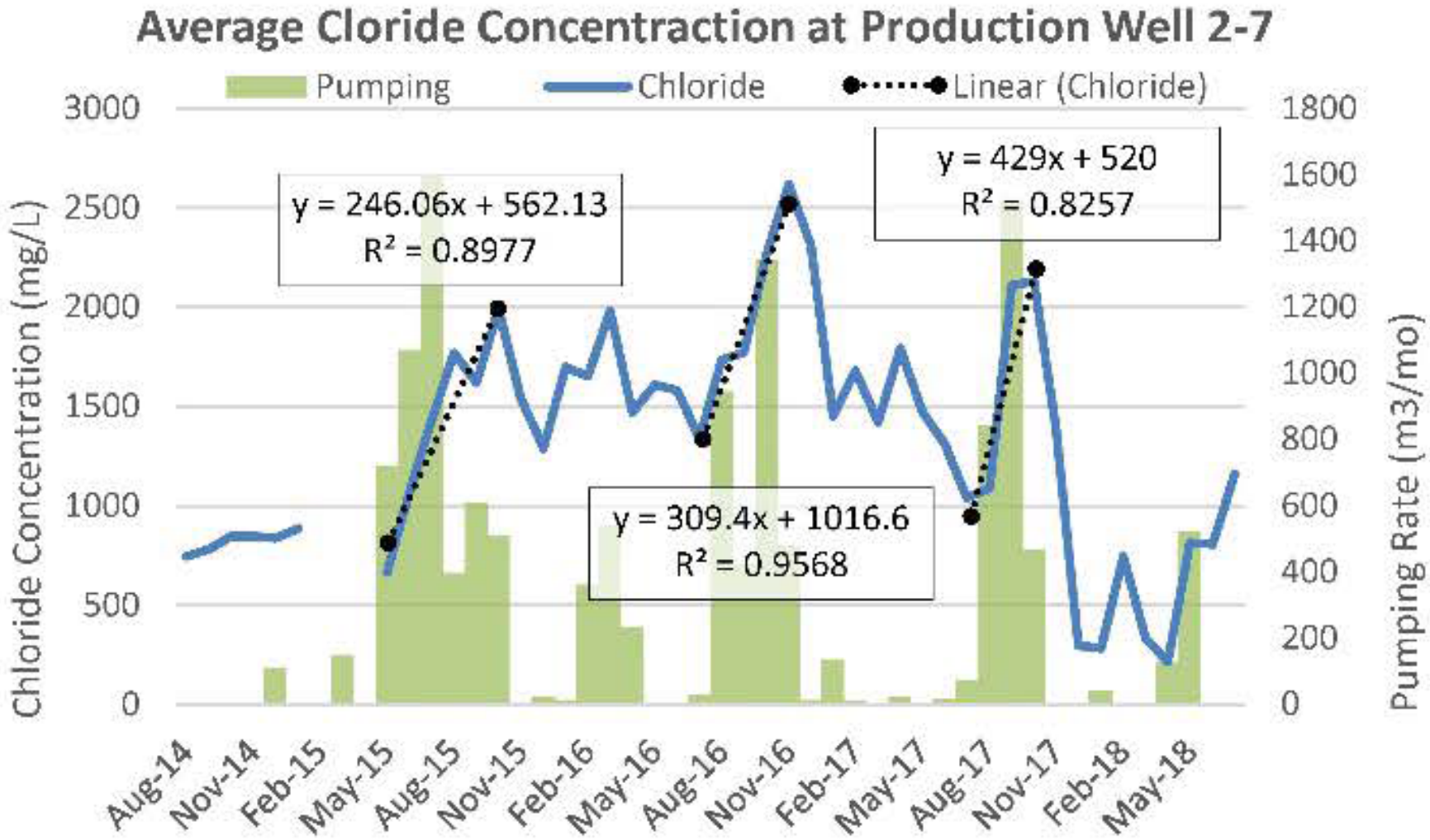


Understanding the Problem

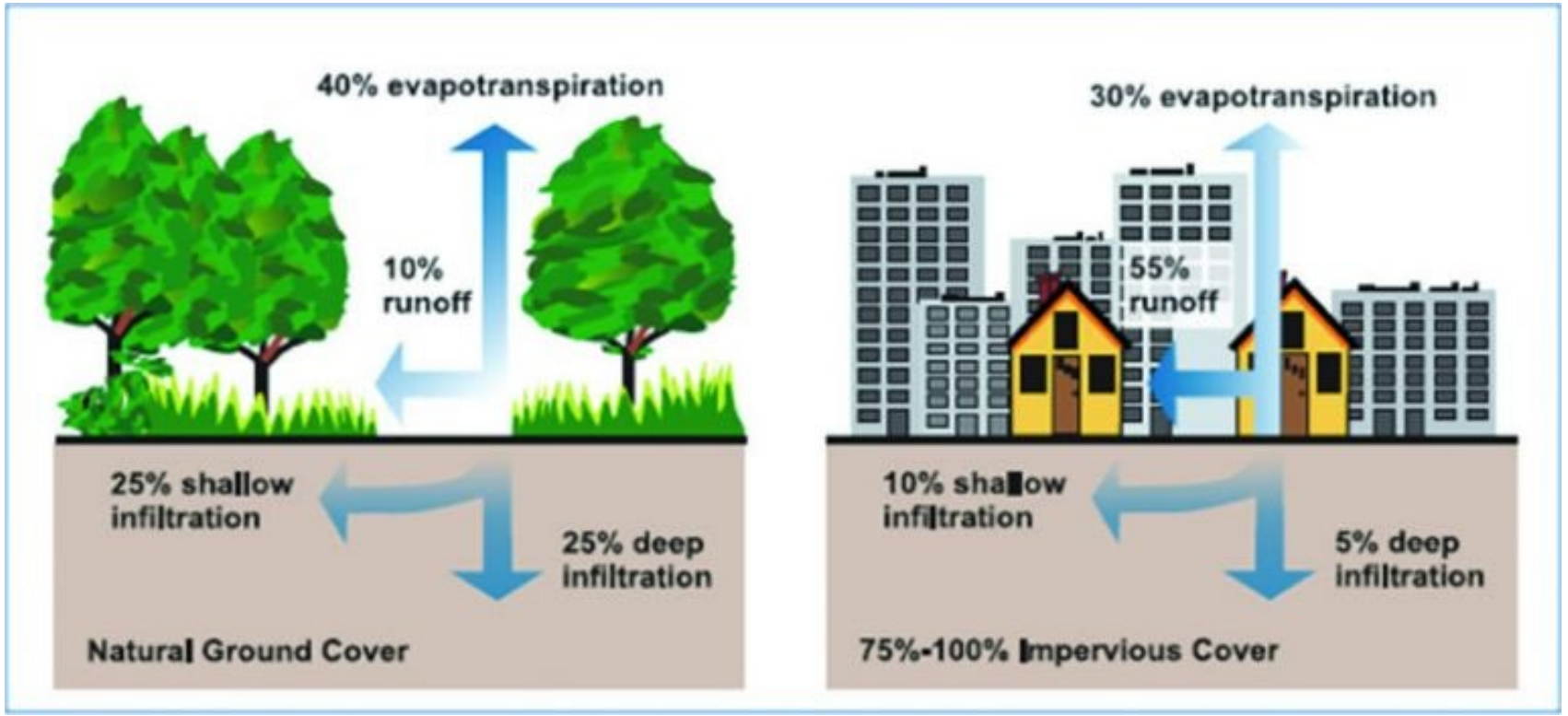




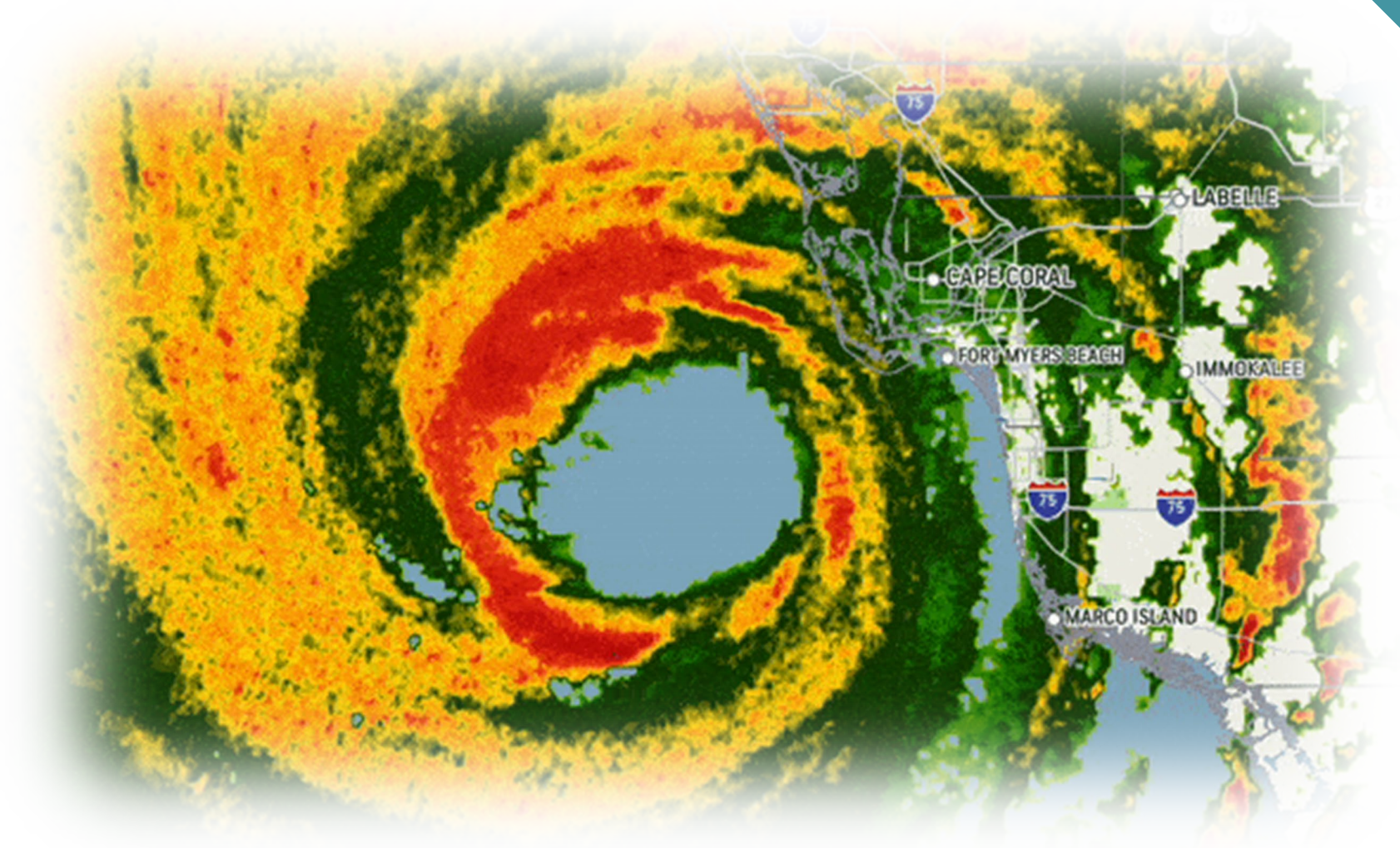
Understanding the Problem



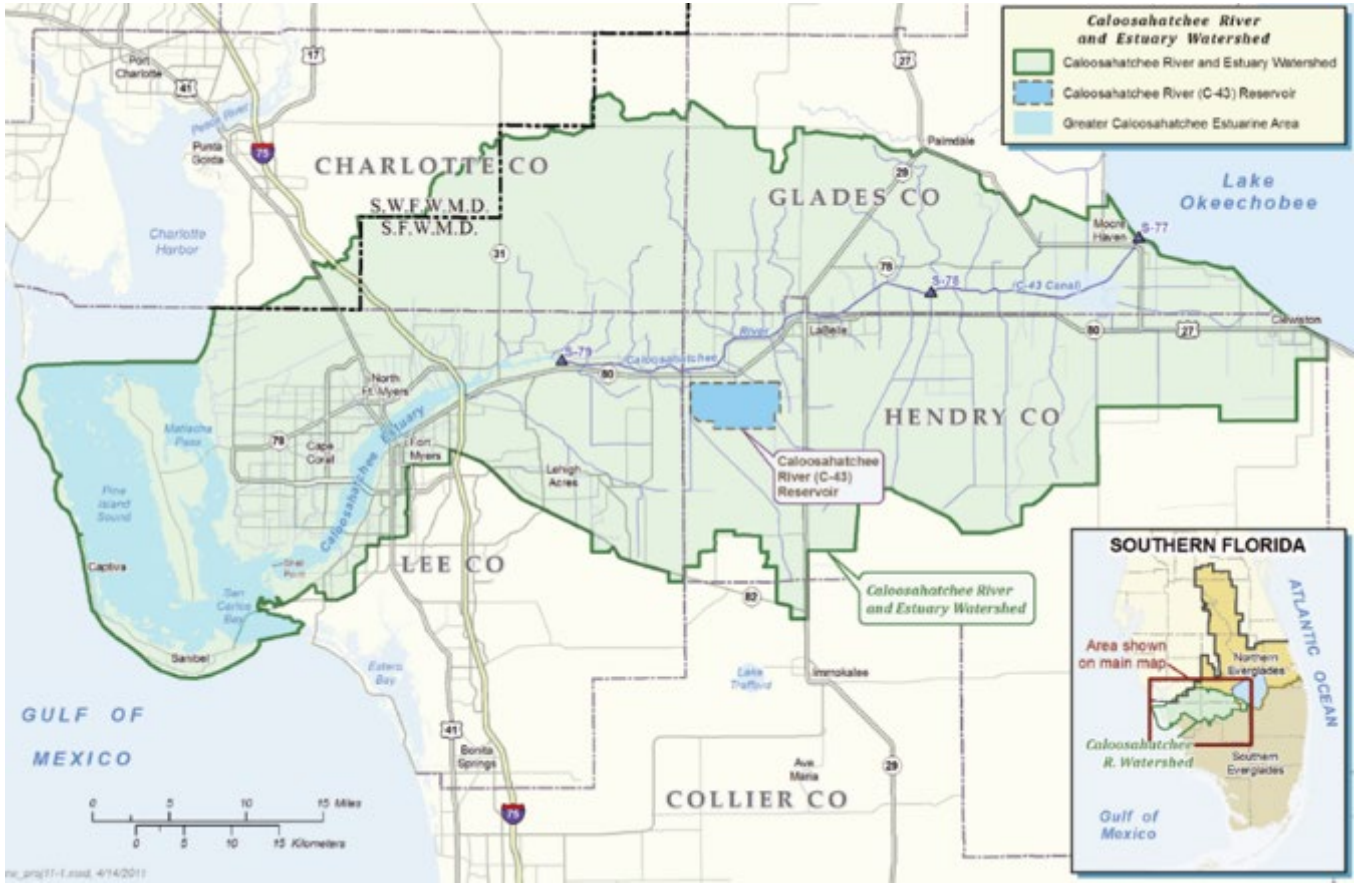
Summary of the Problem



Summary of the Problem

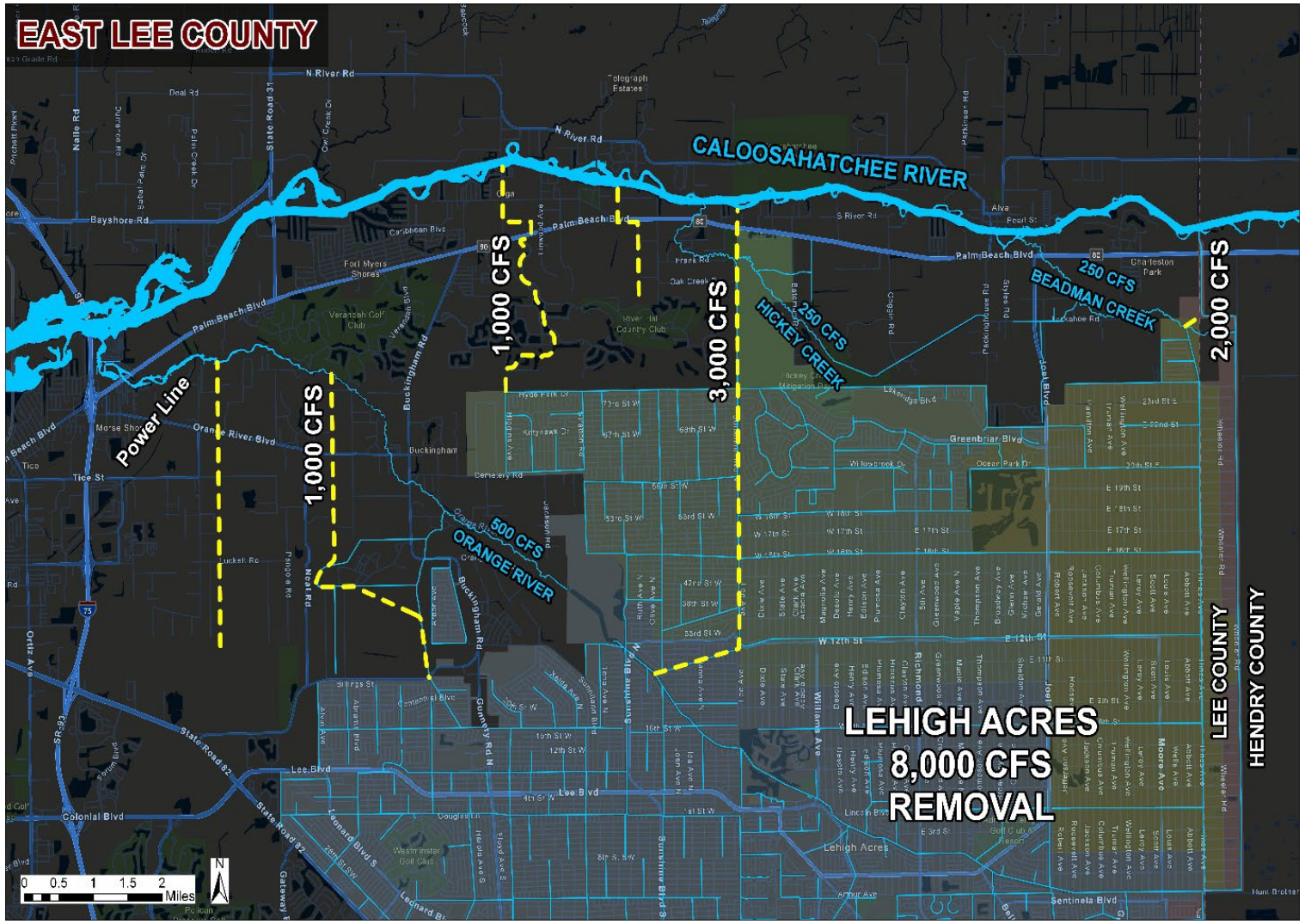


Developing the Solution

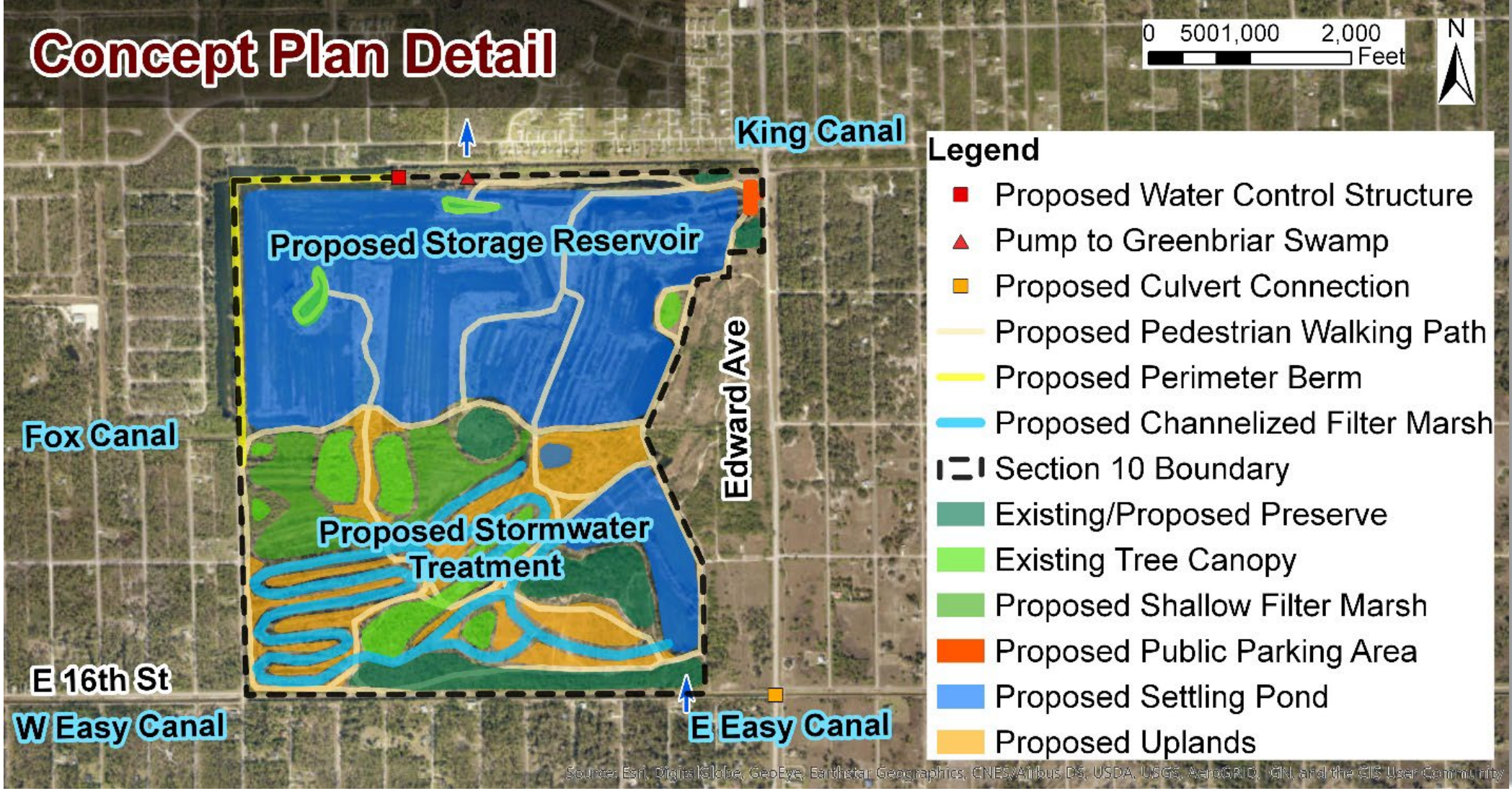


Developing the Solution (Rual)

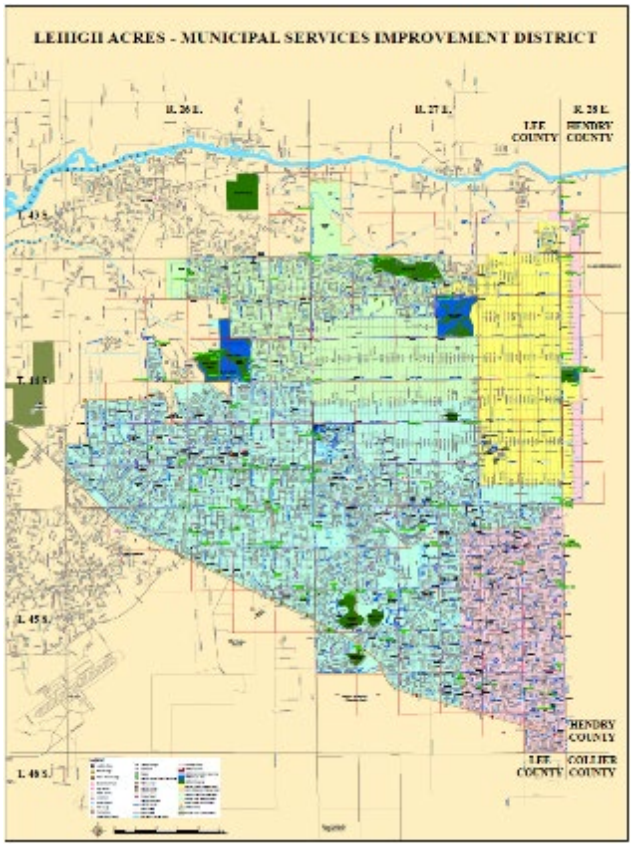
Developing the Solution (Urban)

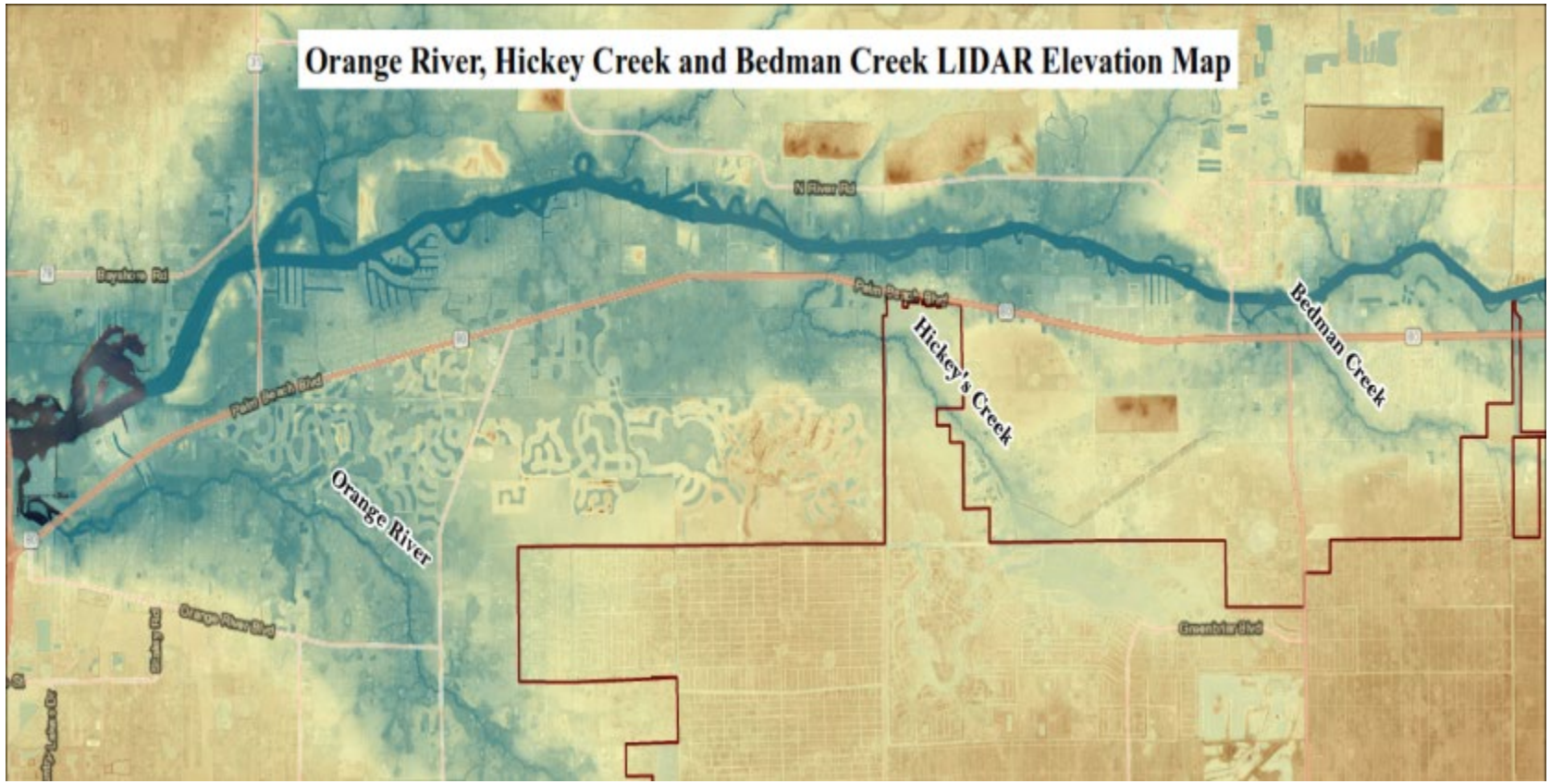


Developing the Solution (Mixed)



Developing the Solution (Ideal)





Lehigh Acres - Municipal Services Improvement District

311 miles of canals

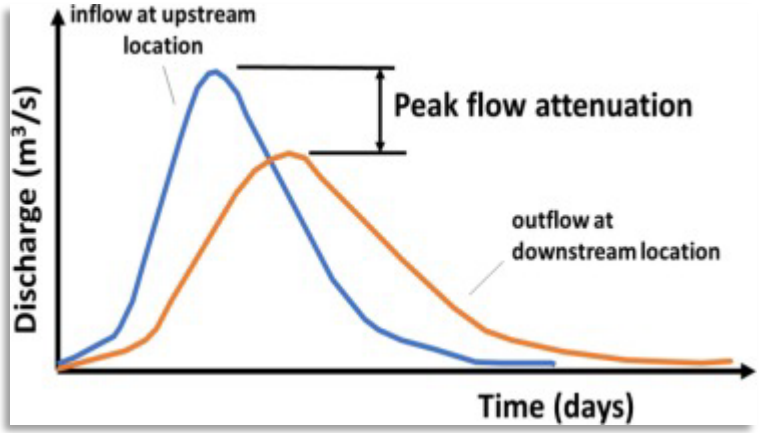
20 Lakes

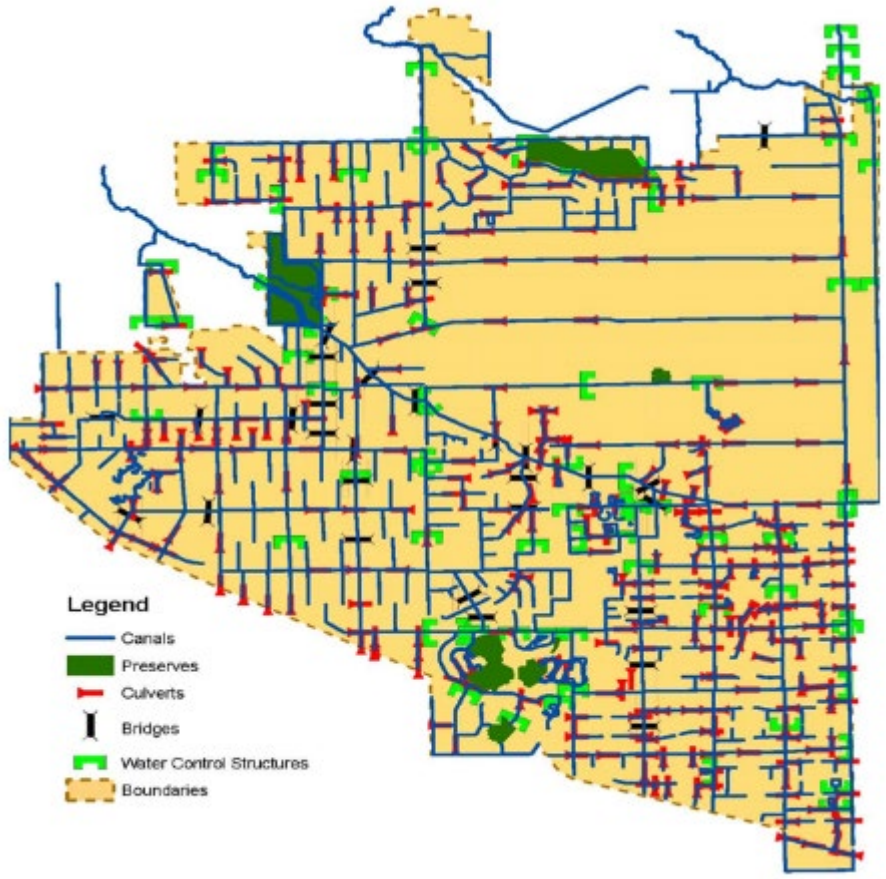
360+ Culvert Crossings

1,500+ preserve acres

112 Water Control Structures

- 37 Automated Weirs
- 34 Stage Recording Stations
- 23 Groundwater Monitoring Stations
- 33 Rain Gauge Stations
- 1 Continuous Stream Gauging Station





LA-MSID Water Control System

CREST

CREST

Stormwater Storage:

600 ac-ft

Nutrient Removal:

1,118 lbs/yr of TN

190 lbs/yr of TP

Habitat Restoration:

5,500 Trees

133,570 Plants

Ecosystem Restoration:

Deep Lakes, Littoral Benches, Circuitous Treatment Marshes, Uplands, and Public Recreation

A multi-benefit project approach provided for a successful and innovative multi-agency partnership that spanned more than 7 years

CREST

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Cost: 4.8 Million Dollars

Completion: February 2026

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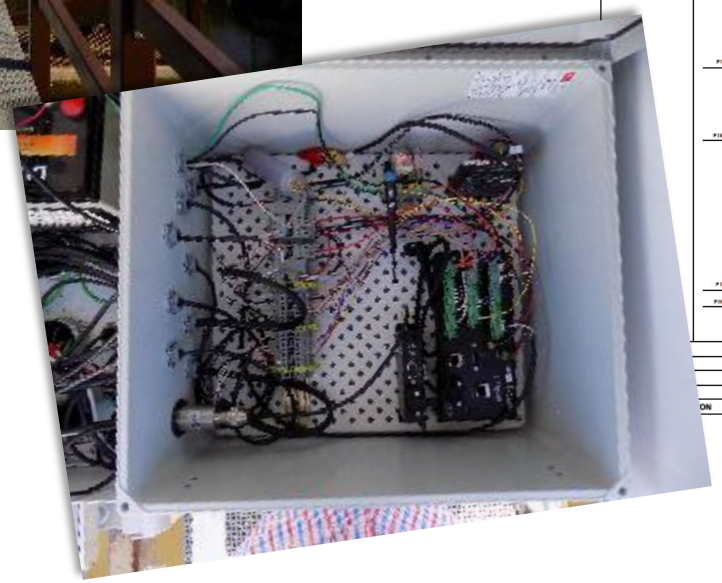
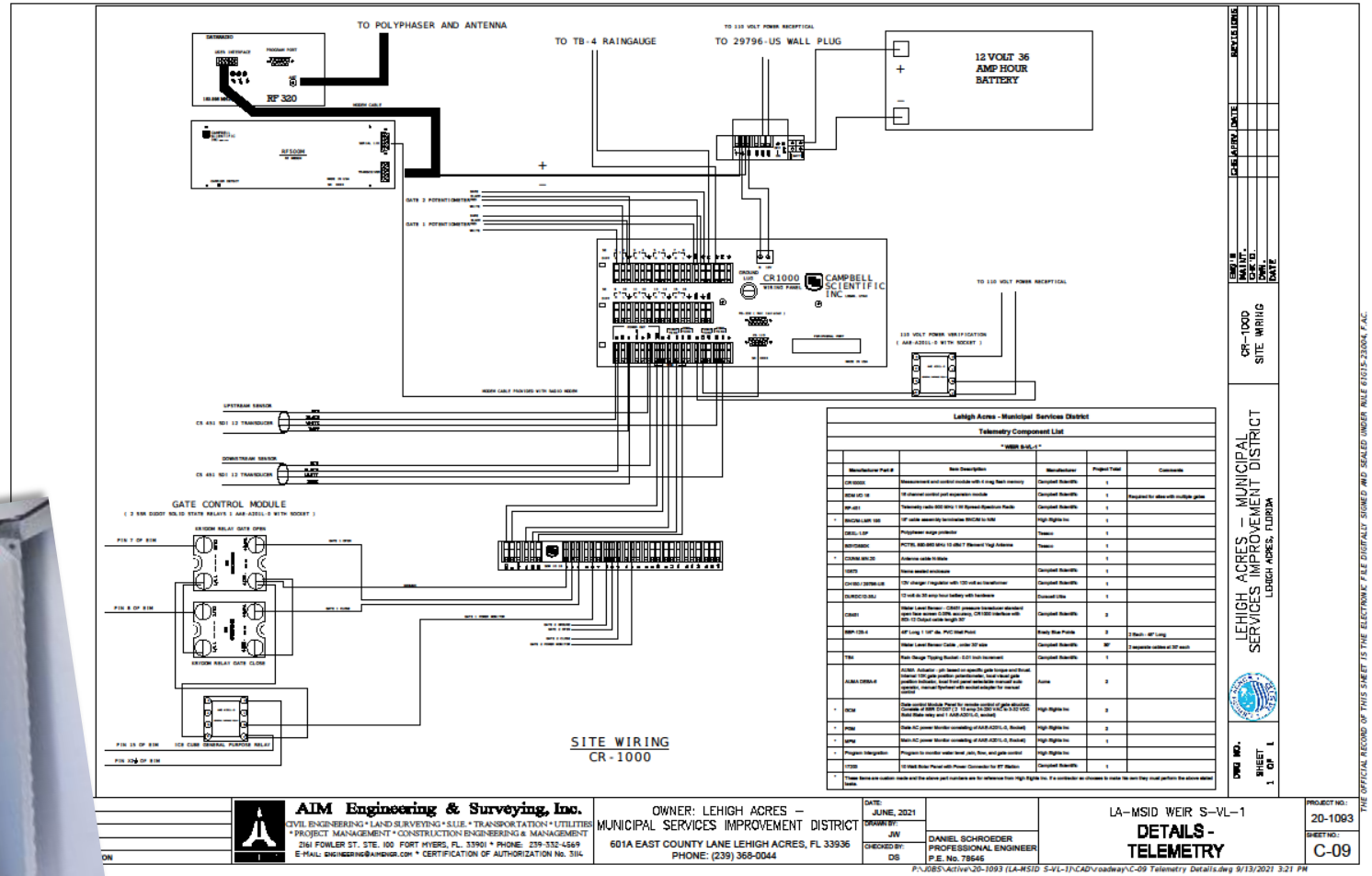




Developing the Solution

CREST

CREST

SEASONAL OPERATION

CREST

PRE-STORM OPERATION

CREST

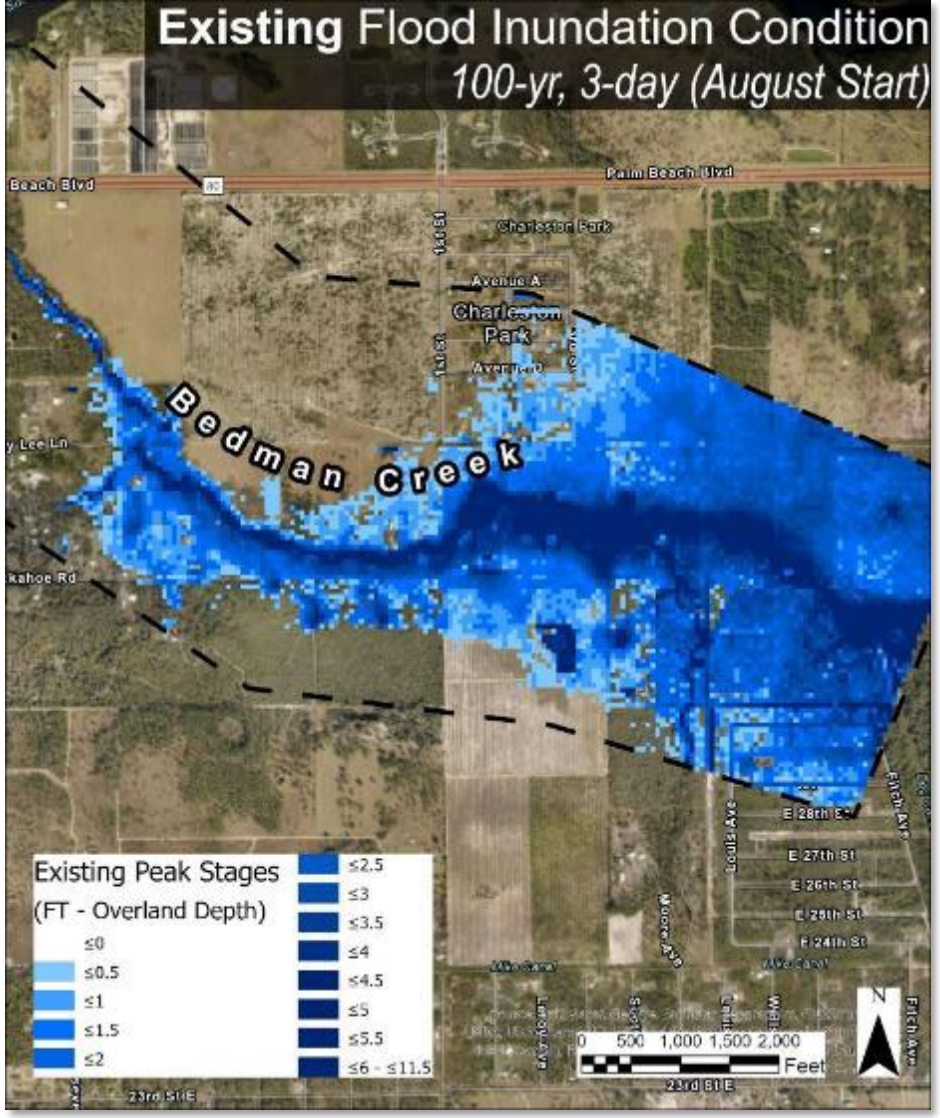
MID-STORM OPERATION

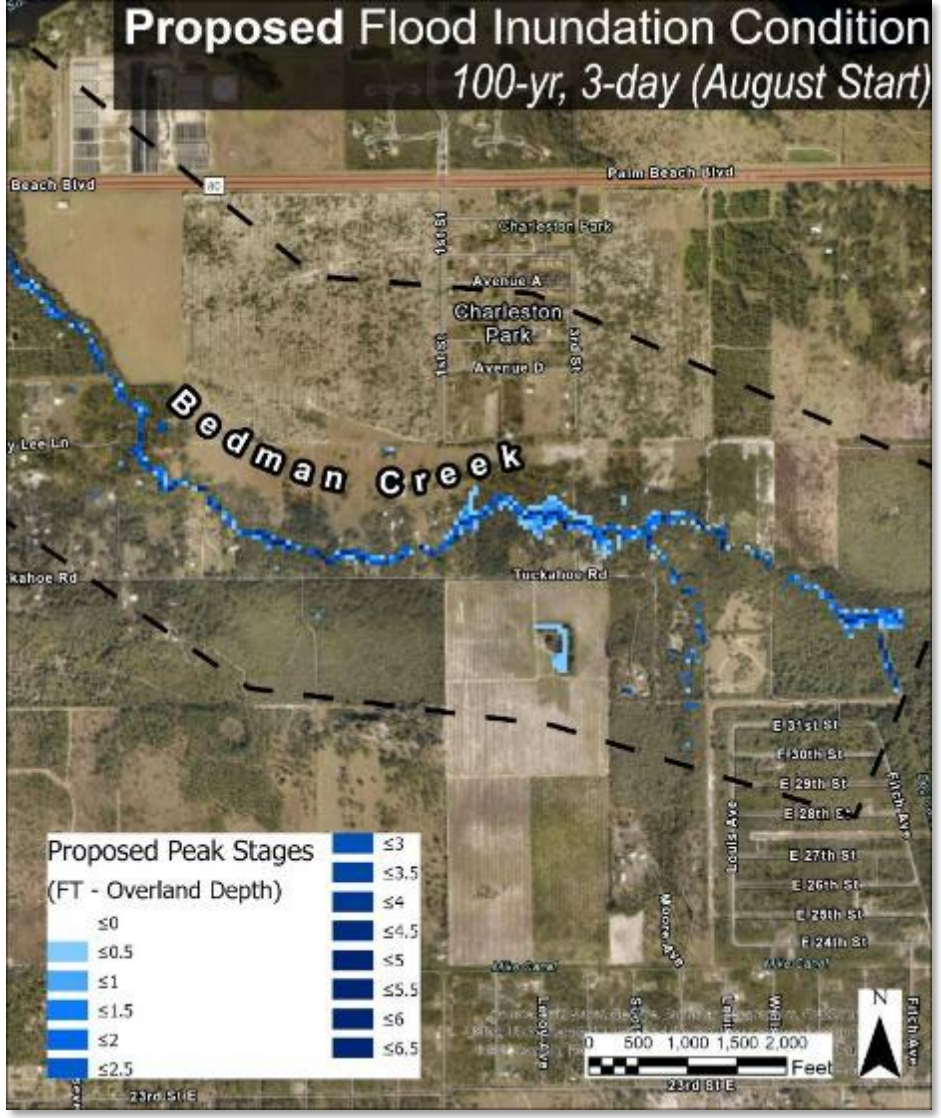
CREST

PEAK-STORM OPERATION

CREST

POST-STORM OPERATION

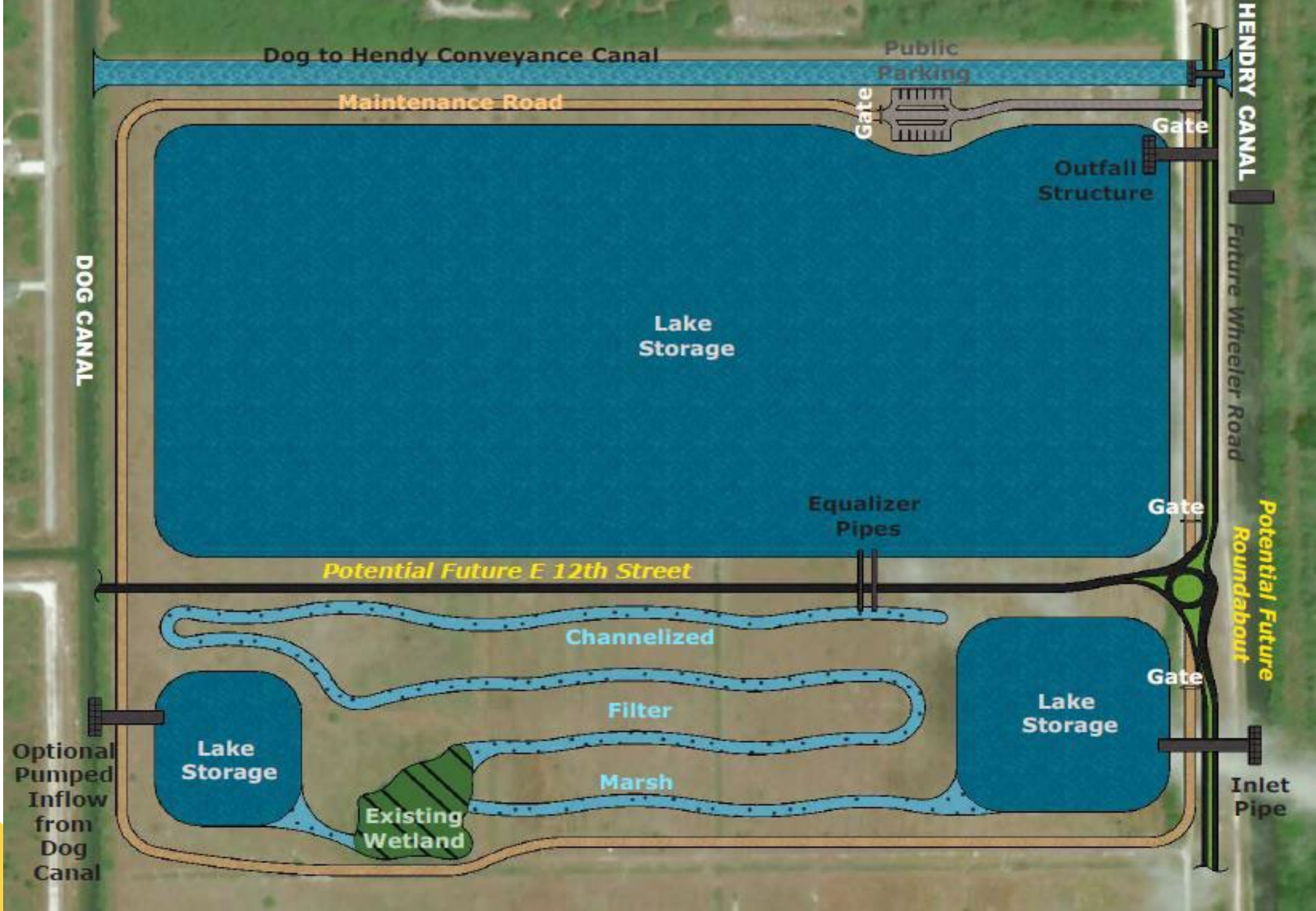




ANTICIPATED RESULTS

Navigating the Challenges

CONCEPT

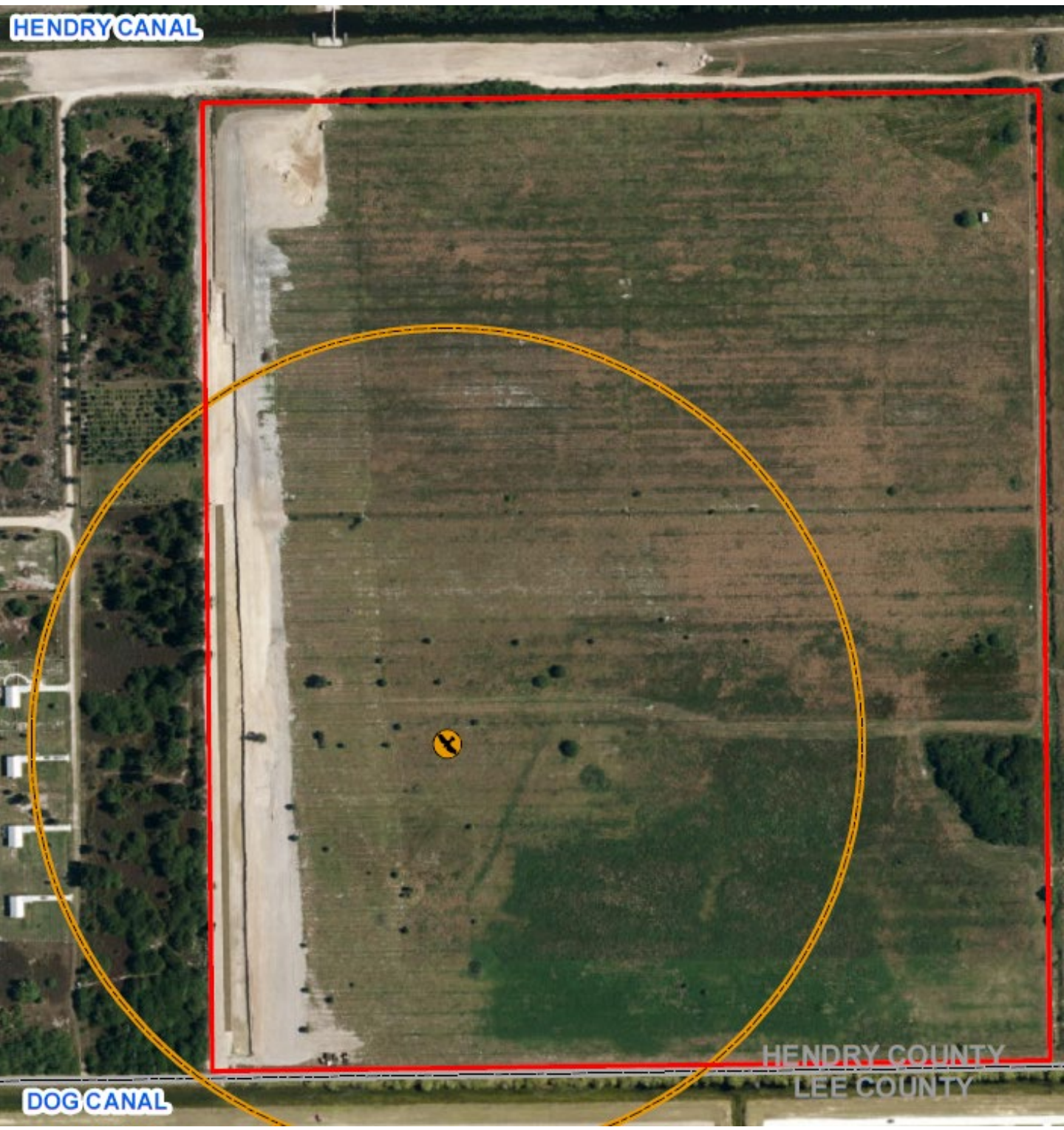

Dog to Hendy Conveyance Canal
Public Parking
Maintenance Road
Gate
Gate
HENDRY CANAL
Outfall Structure
DOG CANAL
Lake Storage
Future Wheeler Road
Equalizer Pipes
Gate
Potential Future Roundabout
Potential Future E 12th Street
Channelized
Gate
Filter
Lake Storage
Lake Storage
Optional Pumped Inflow from Dog Canal
Marsh
Existing Wetland
Inlet Pipe

PHASING

PHASE 1

Dog to Hendry Canal
(CREST Canal)

SPECIES



PERMIT

PHASING

PHASING

PERMIT

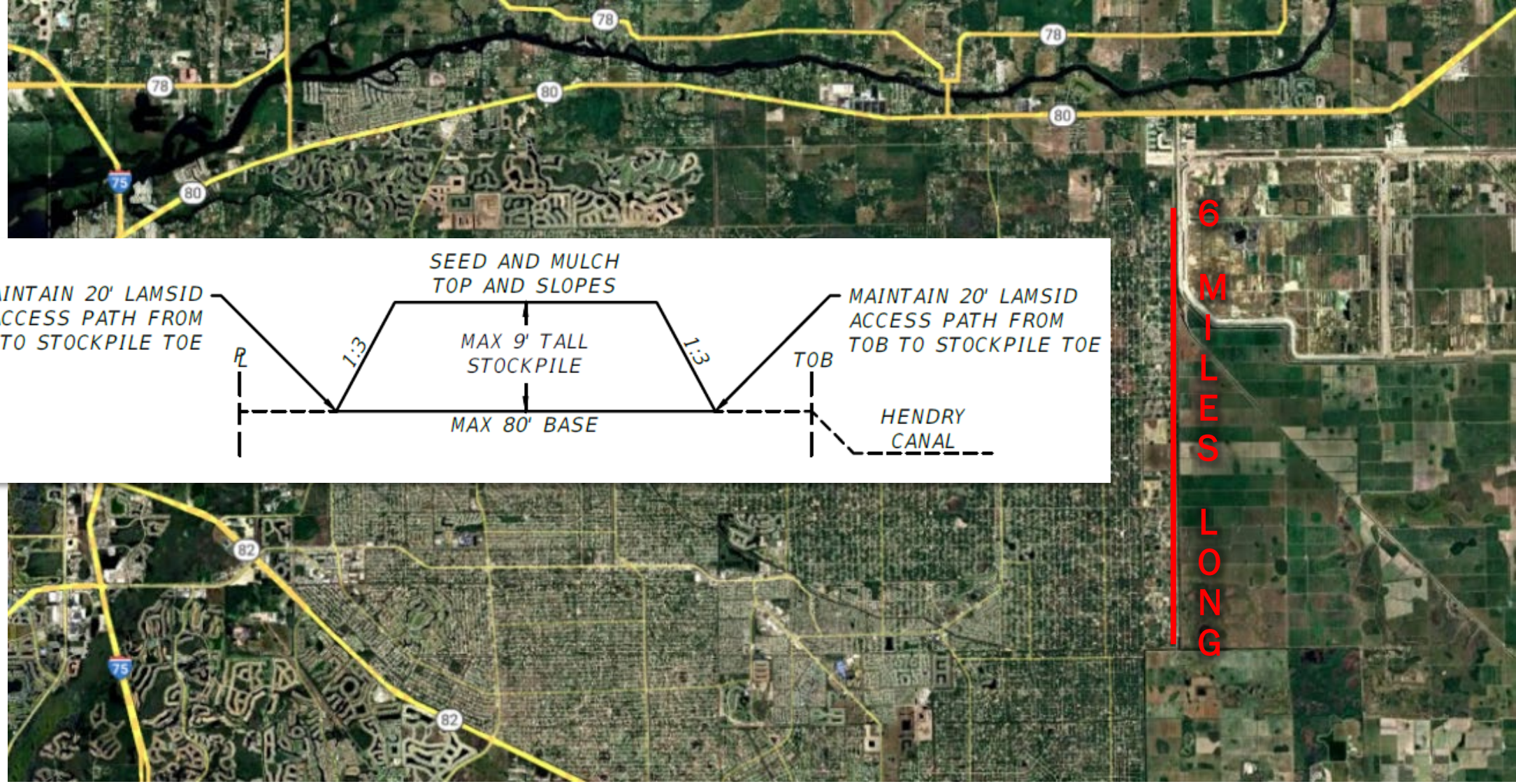

DOG CANAL
HENDRY CANAL
HENDRY COUNTY
LEE COUNTY


Caracara
26.646, -81.564
100m
200m
300m

PHASING

PHASING

ECONOMY



805,000 CY OF EMBANKMENT

FUNDING

PHASE 1

$809,485

USDA Natural Resources Conservation Service (NRCS) Grant

PHASE 2

$2,000,000

FDEP State Water-quality Assistance Grant (SWAG)

PHASE 3

$4,060,000

Florida House/Senate Legislative Appropriation

Caloosahatchee River Estuary Storage & Treatment

PHASE 2

2024 Sustainable Project of the Year (Local)

ASCE Southwest Branch

PHASE 3

2025 Sustainable Project of the Year (Local)

ASCE Southwest Branch

CREST (Caloosahatchee River Estuary Storage & Treatment)

2025 Sustainable Project of the Year (State)

ASCE Florida Section

2025 Top Stormwater Projects (National)

Stormwater Solutions Magazine & StormCon 2025

AWARD WINNING

Thank you

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