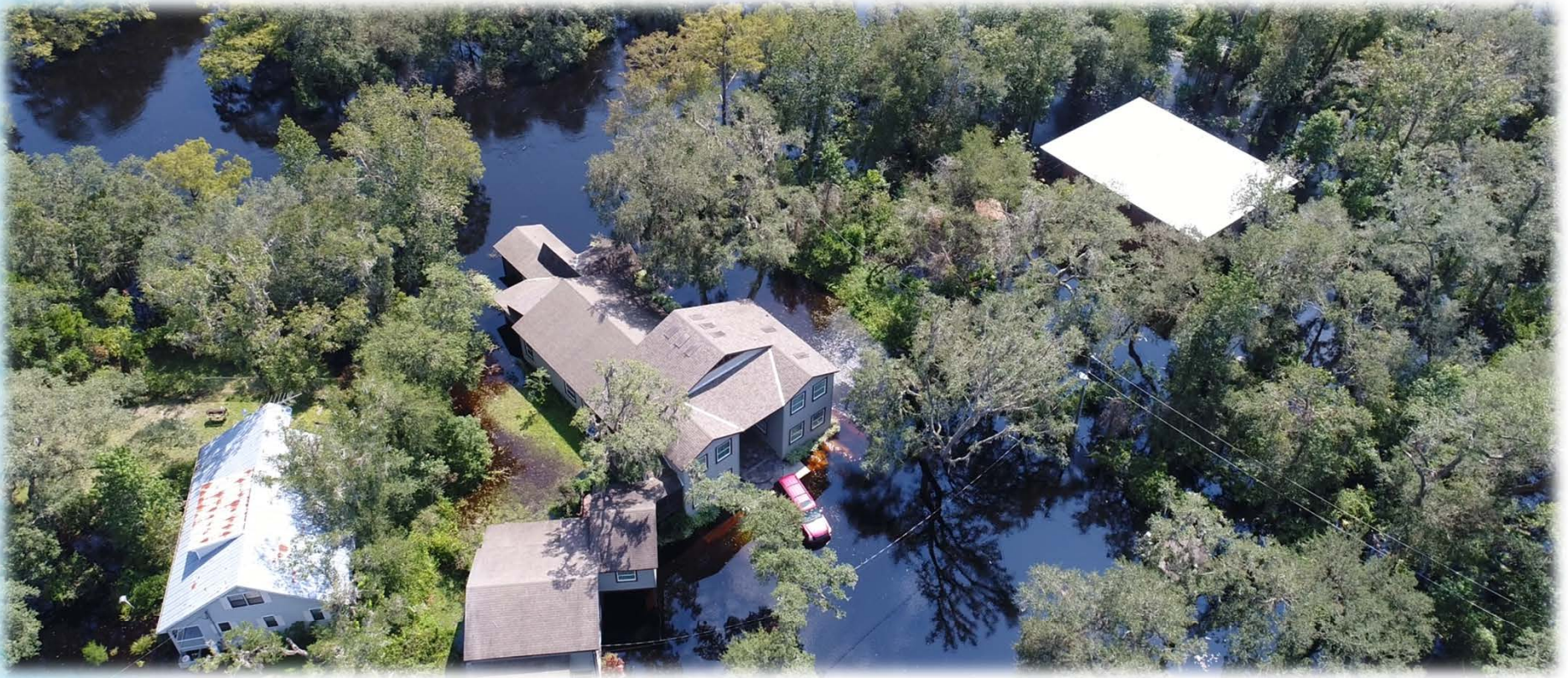
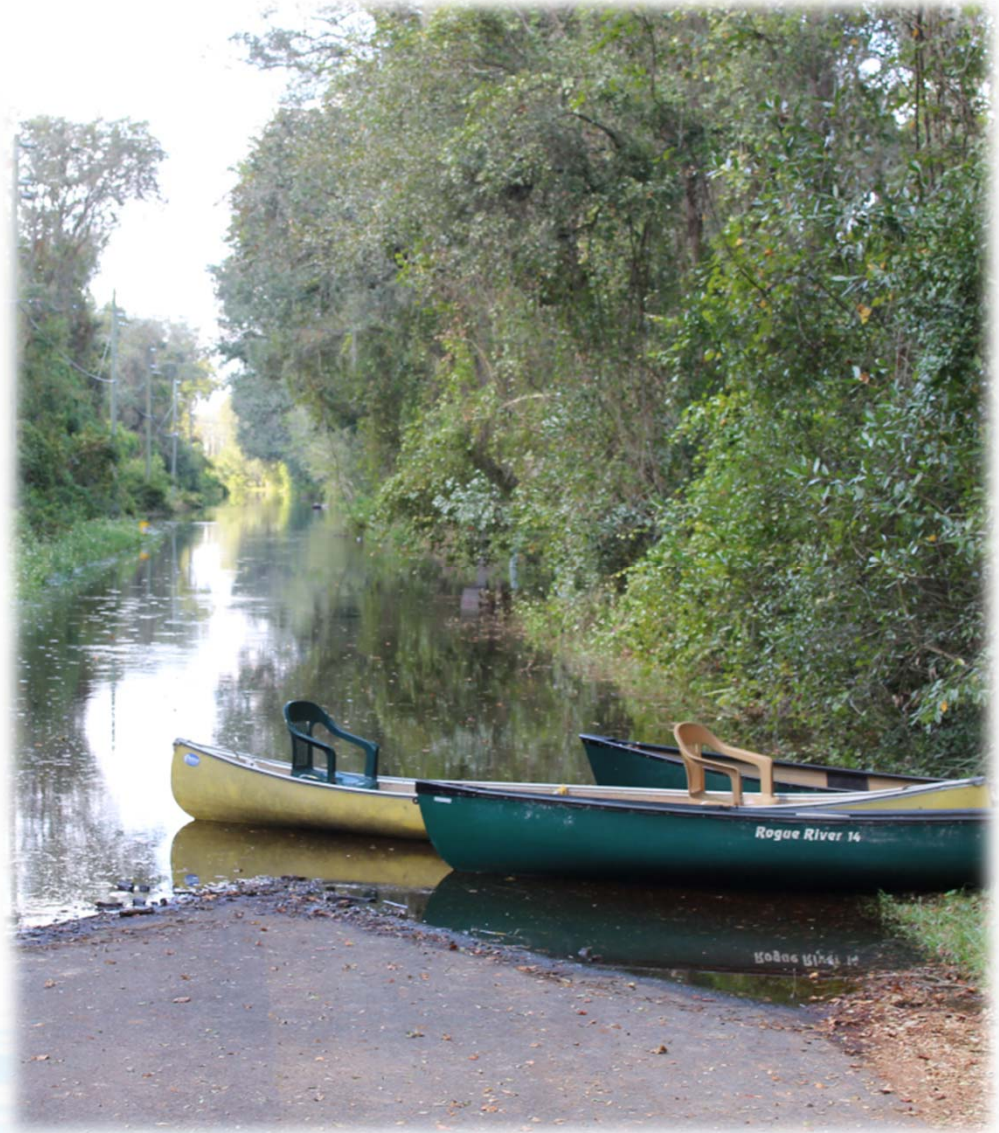


WE-THALKO-CHEE (LITTLE BIG WATER)



Mark Fulkerson, Ph.D., P.E.
November 15, 2017

- Overview
- Recent Flooding
- Watershed Initiative
- Current Projects



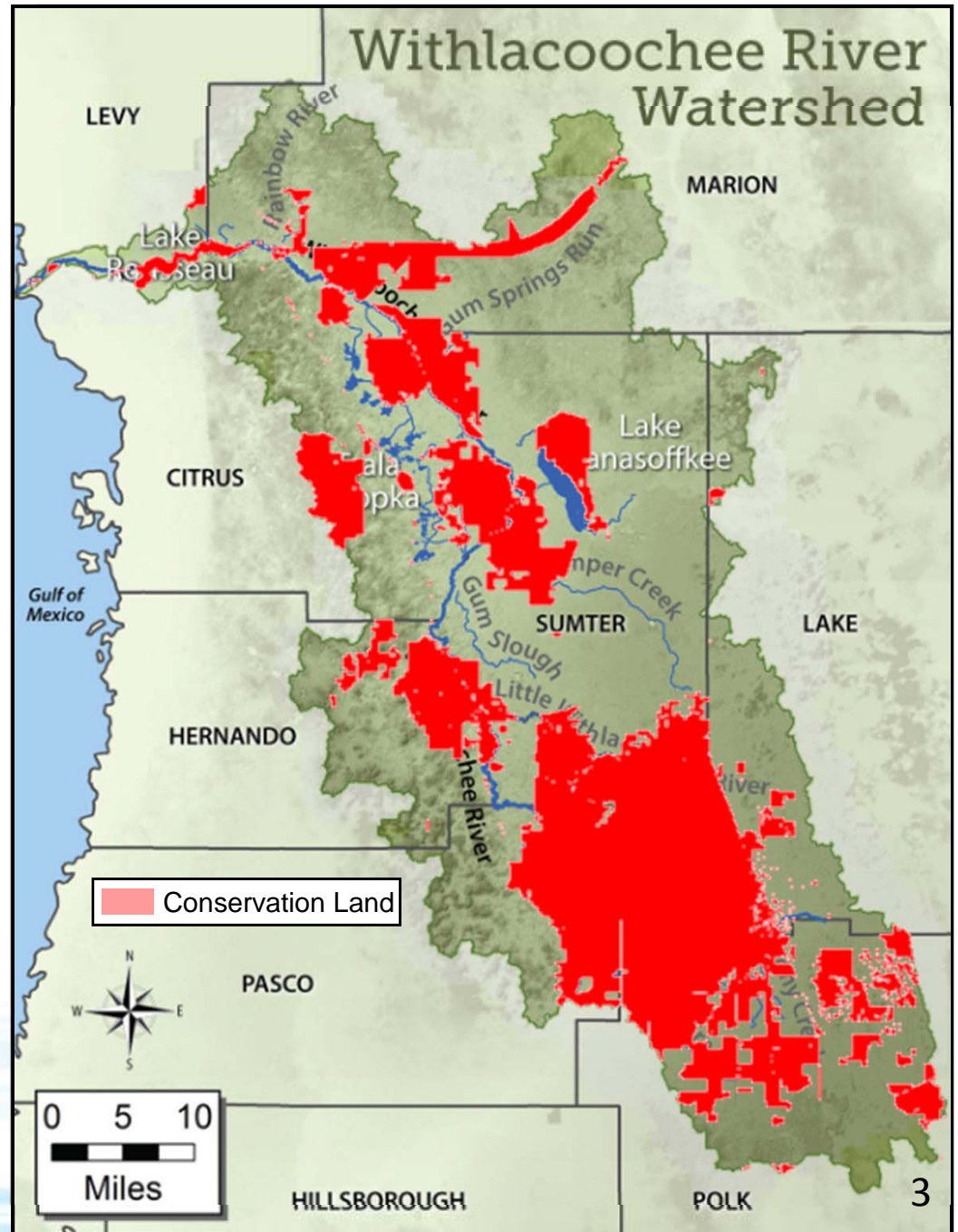
Overview

RIVER

- 160 miles long
- Streams, lakes, wetlands

WATERSHED

- Over 2,000 square miles
- All or part of 8 counties
- 30% - conservation land



FLOODING



(SR 50, 2017)



(Trilby, 1933)

DROUGHT

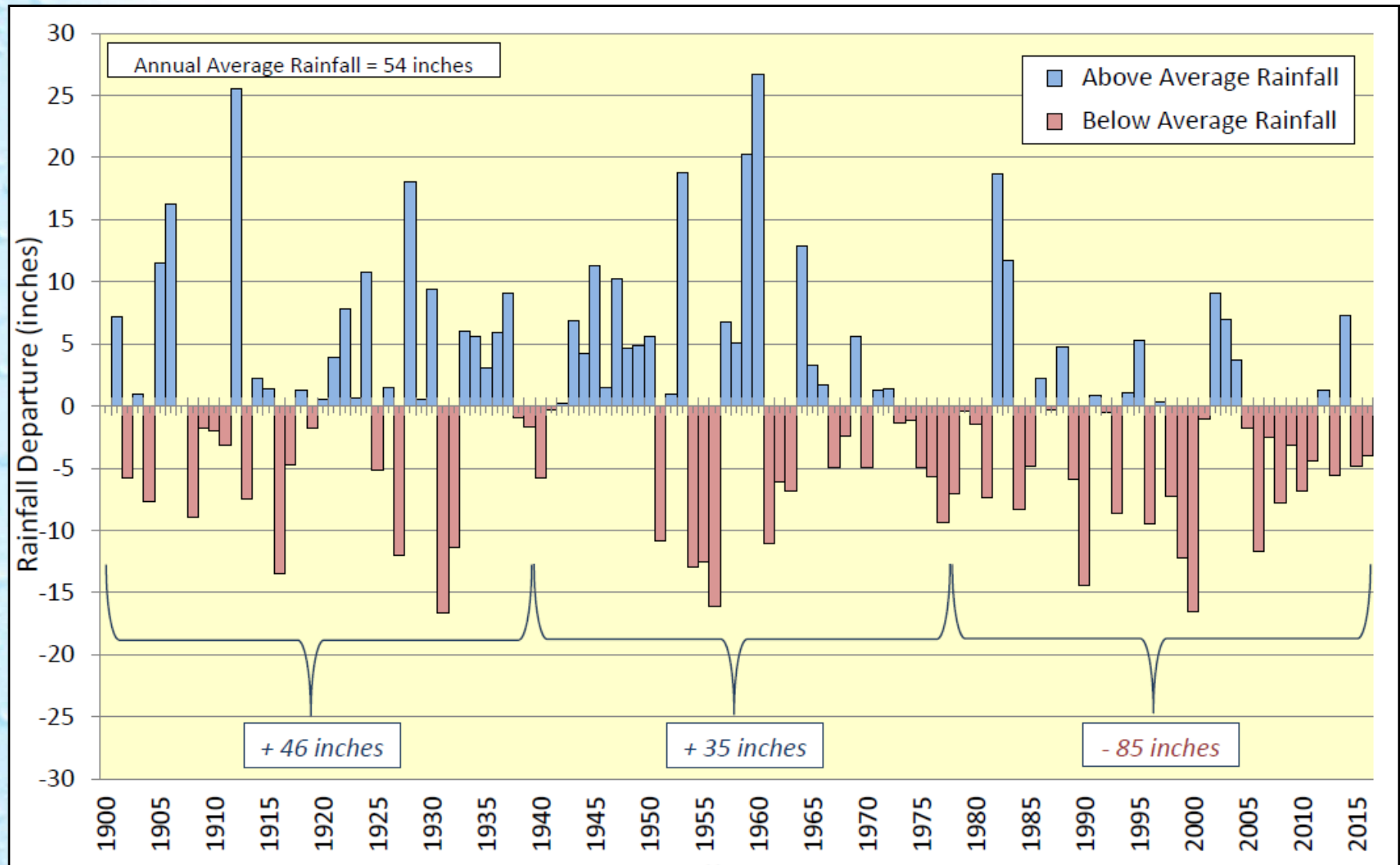


(Nobleton, 2000)

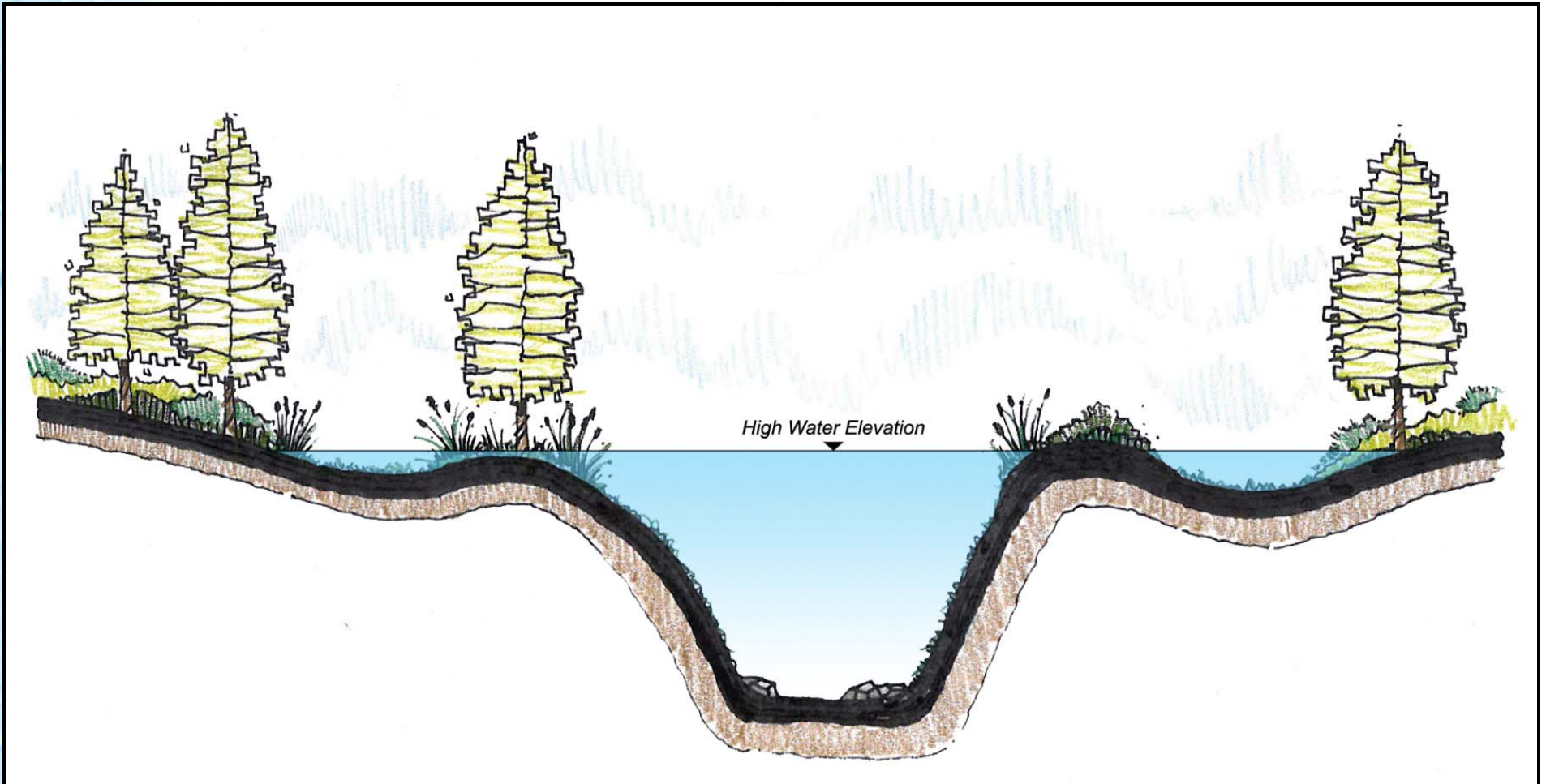


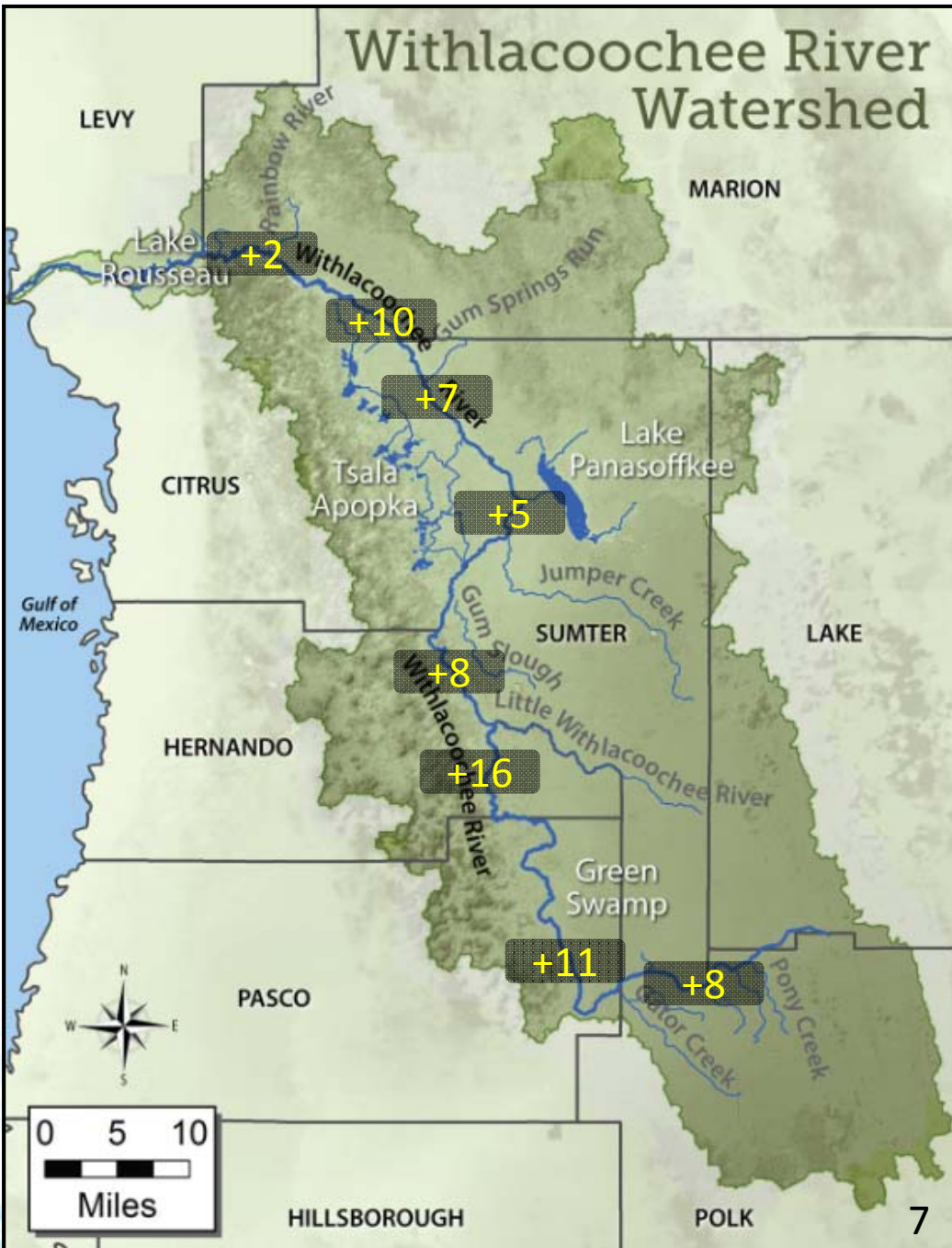
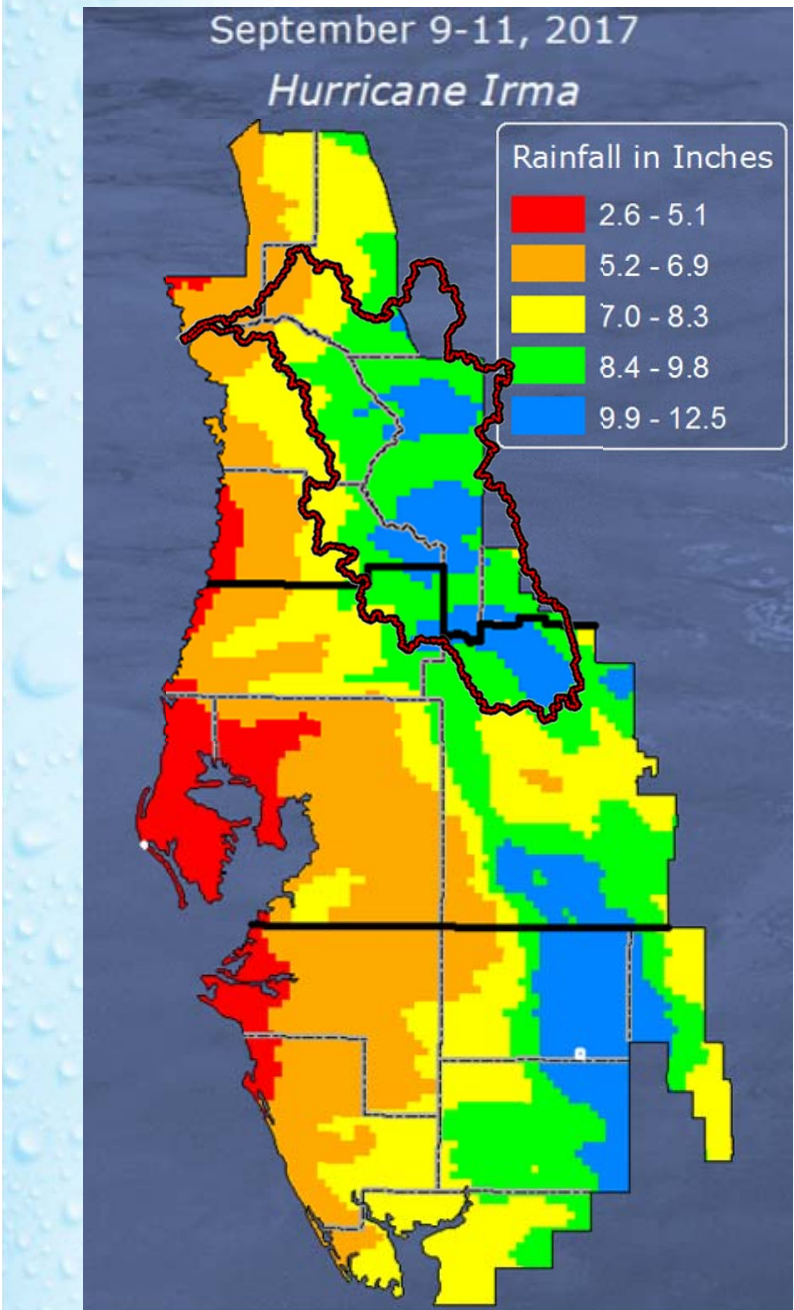
(Croom, 2007)

Regional Rainfall...*the past 116 years*



2017... a year of extremes

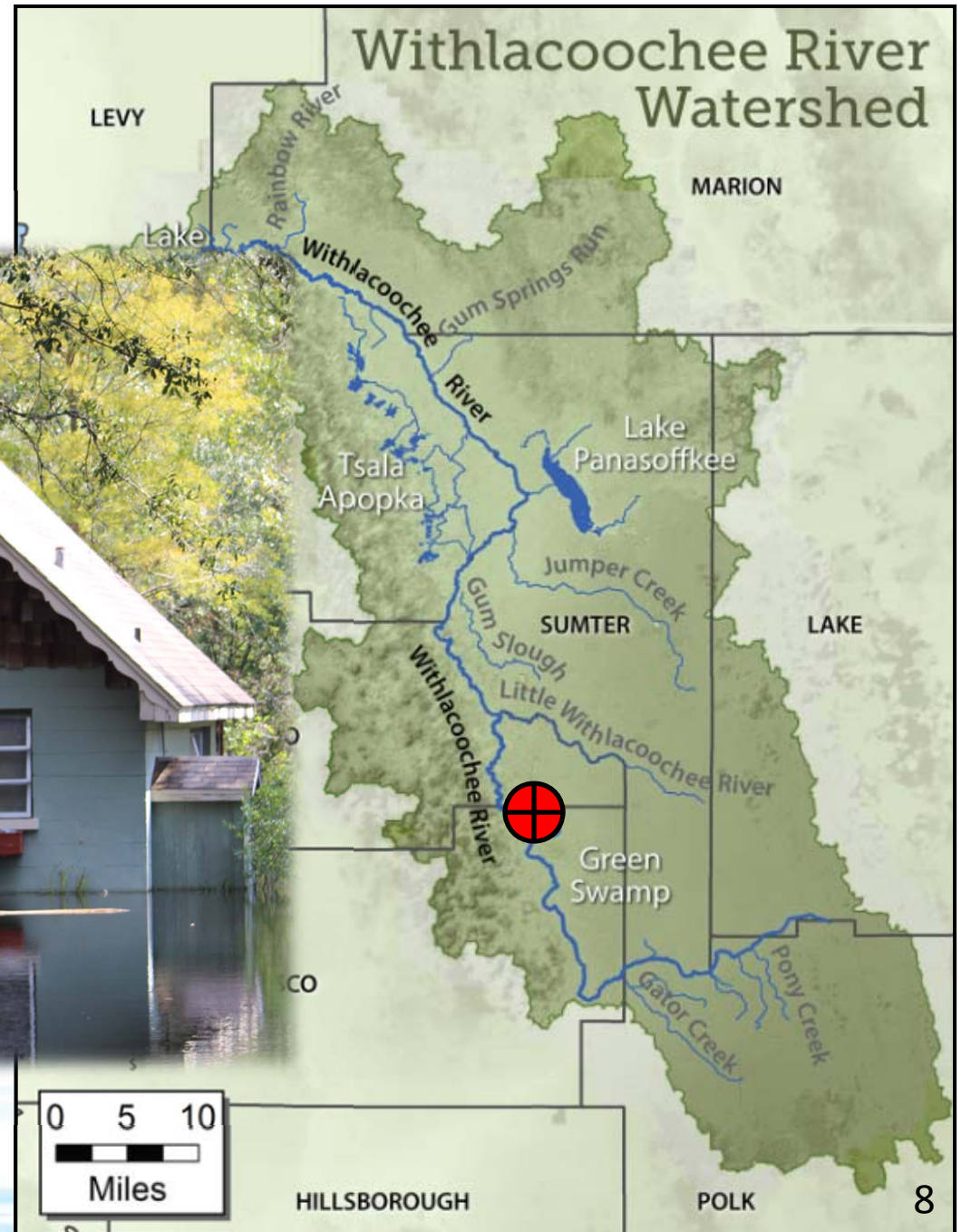




Hurricane Irma



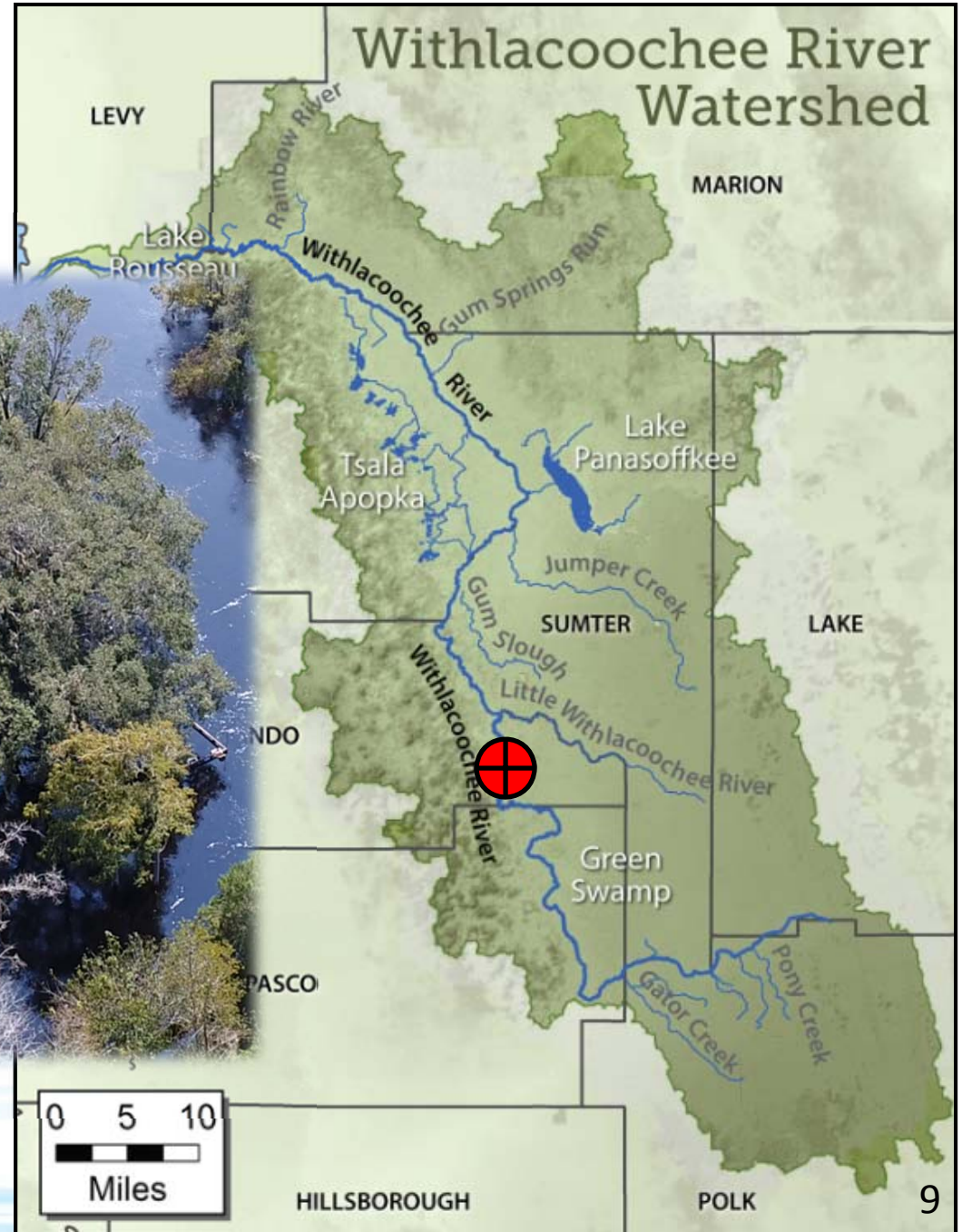
(Lacoochee, Sept 20th)



Hurricane Irma



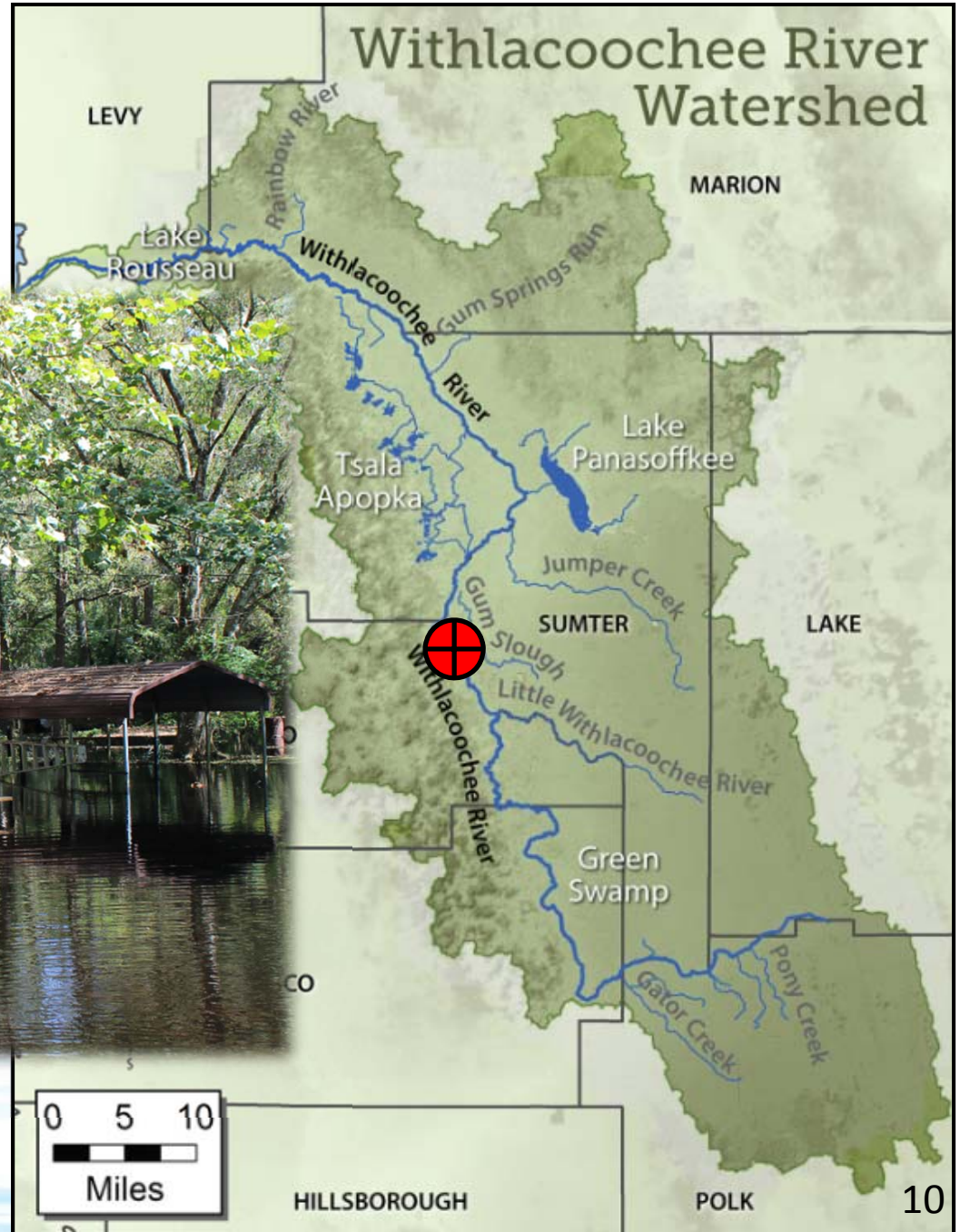
(SR 50, Sept 21st)



Hurricane Irma



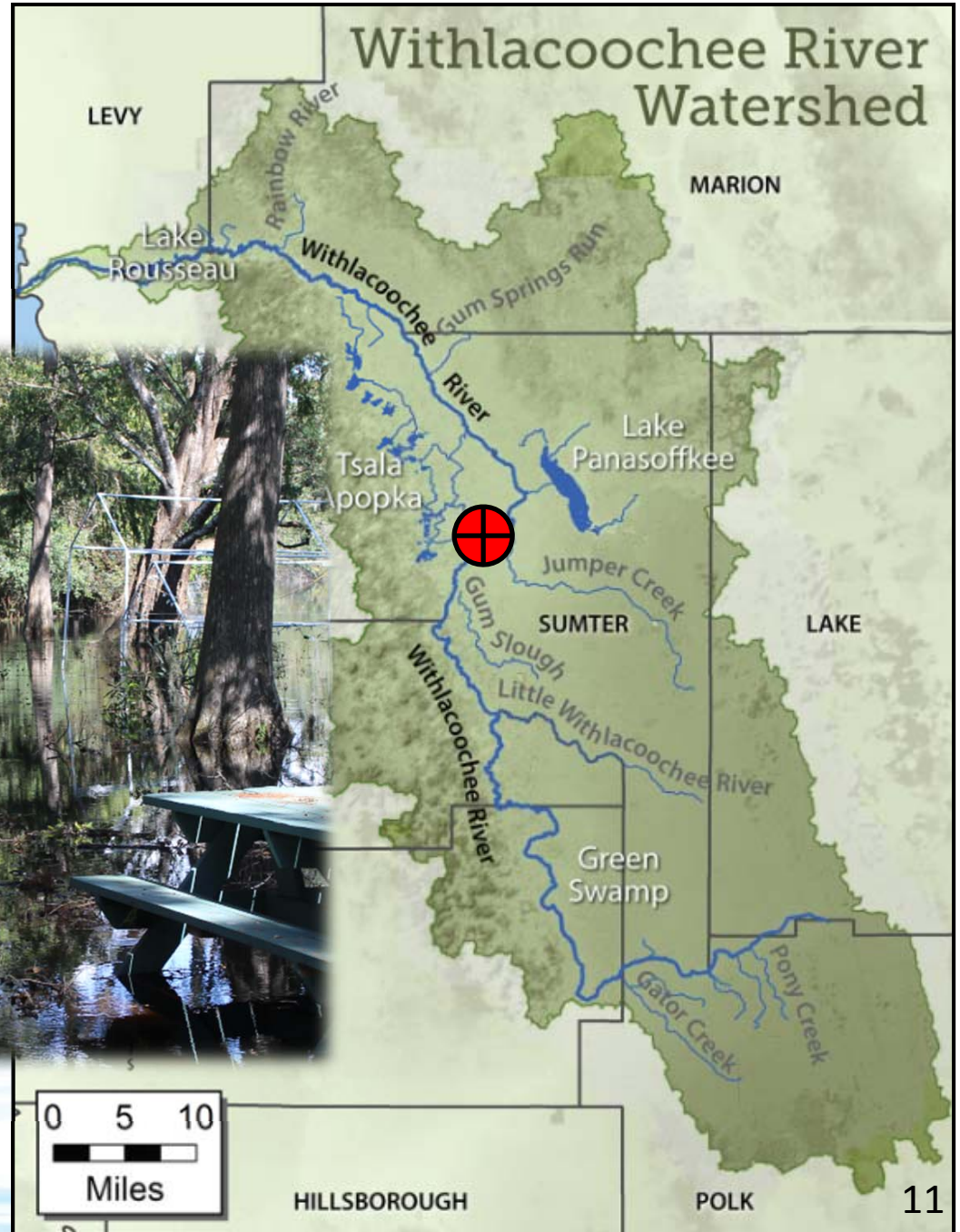
(Nobleton, Sept 23rd)



Hurricane Irma



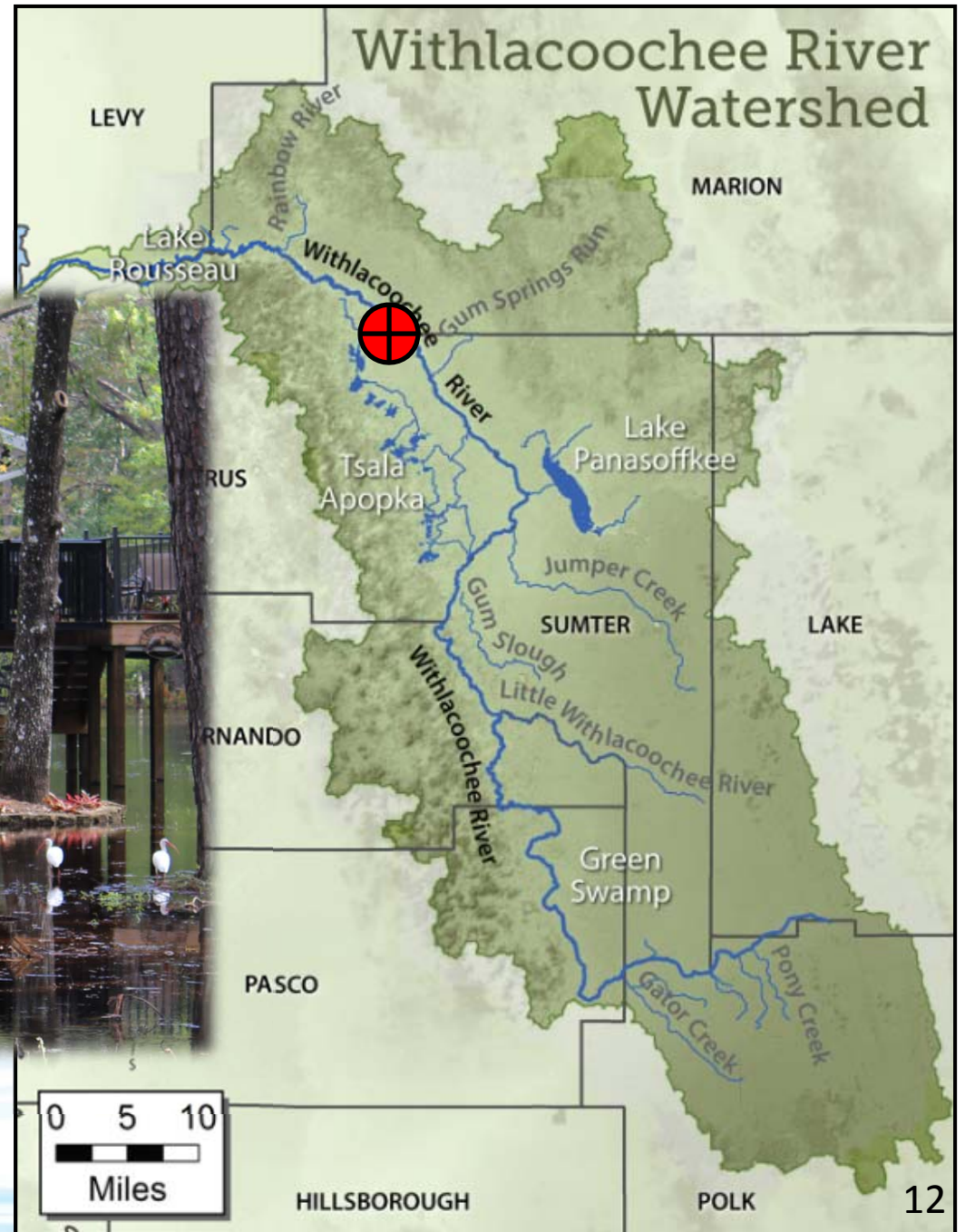
(Trails End, Sept 25th)



Hurricane Irma

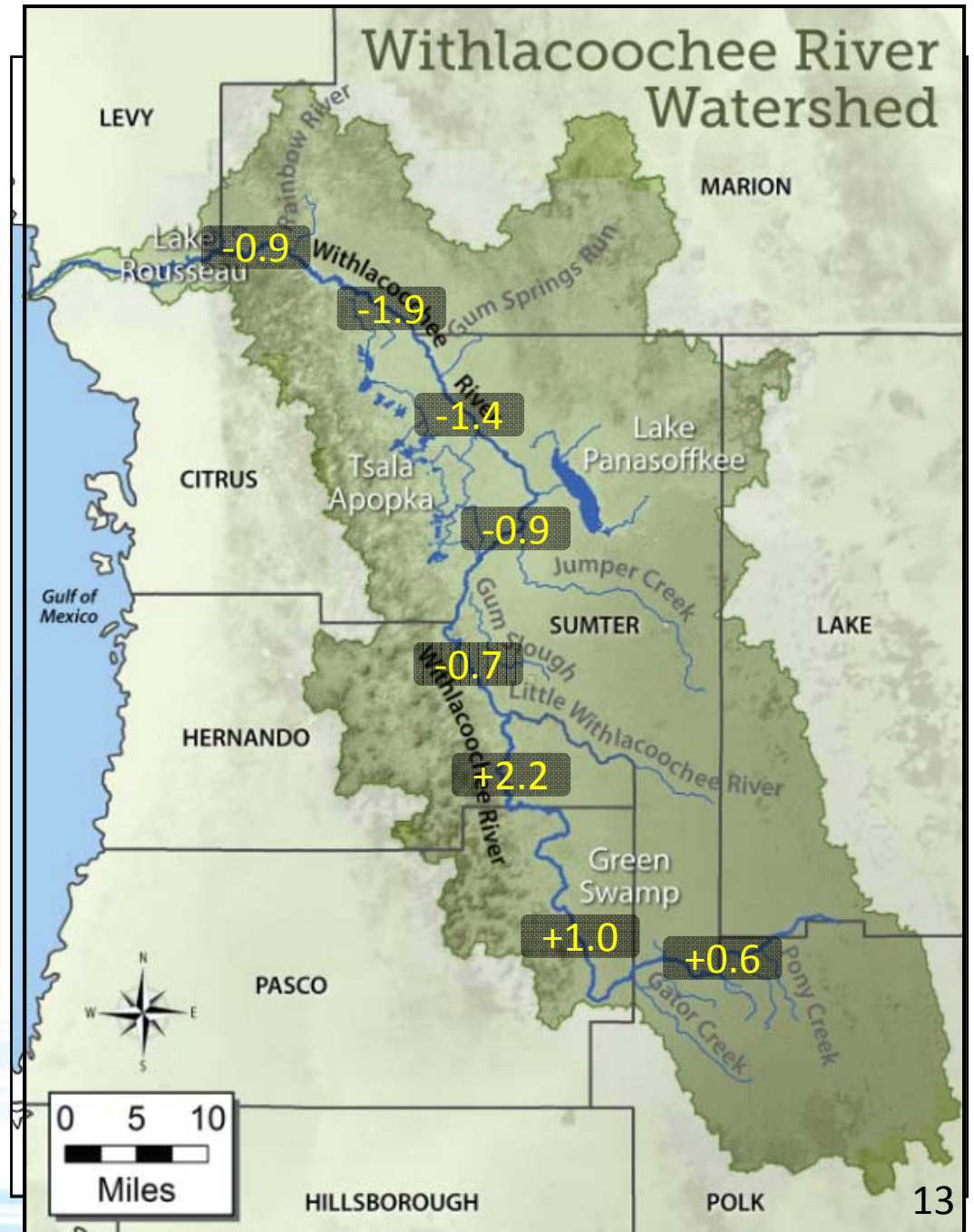


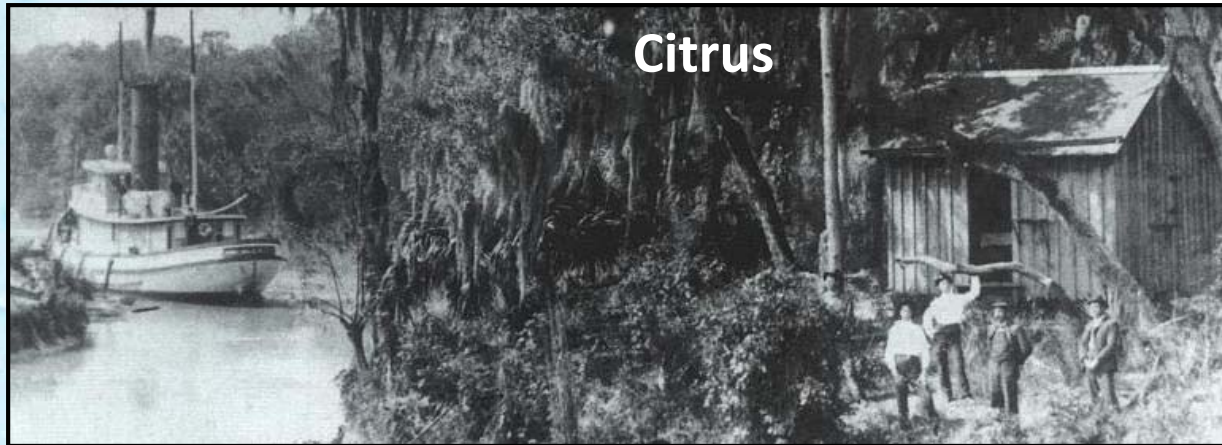
(Arrowhead Estates, Oct 9th)



Hurricane Irma Flooding

- Difference from 2004
(in feet)





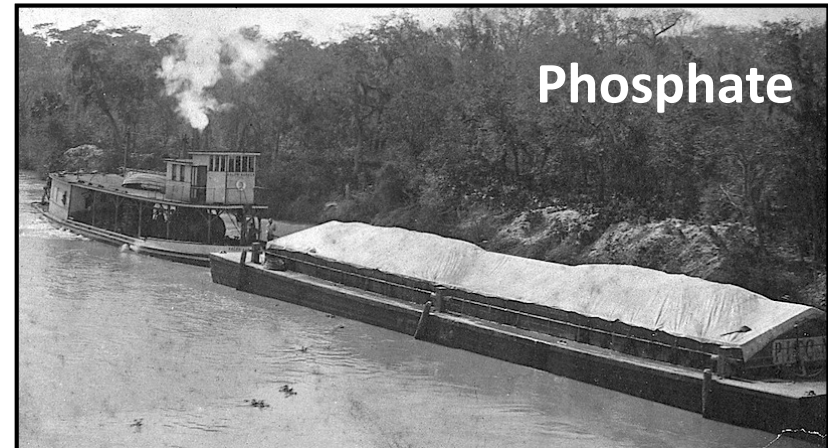
Citrus



Timber



Railroad



Phosphate



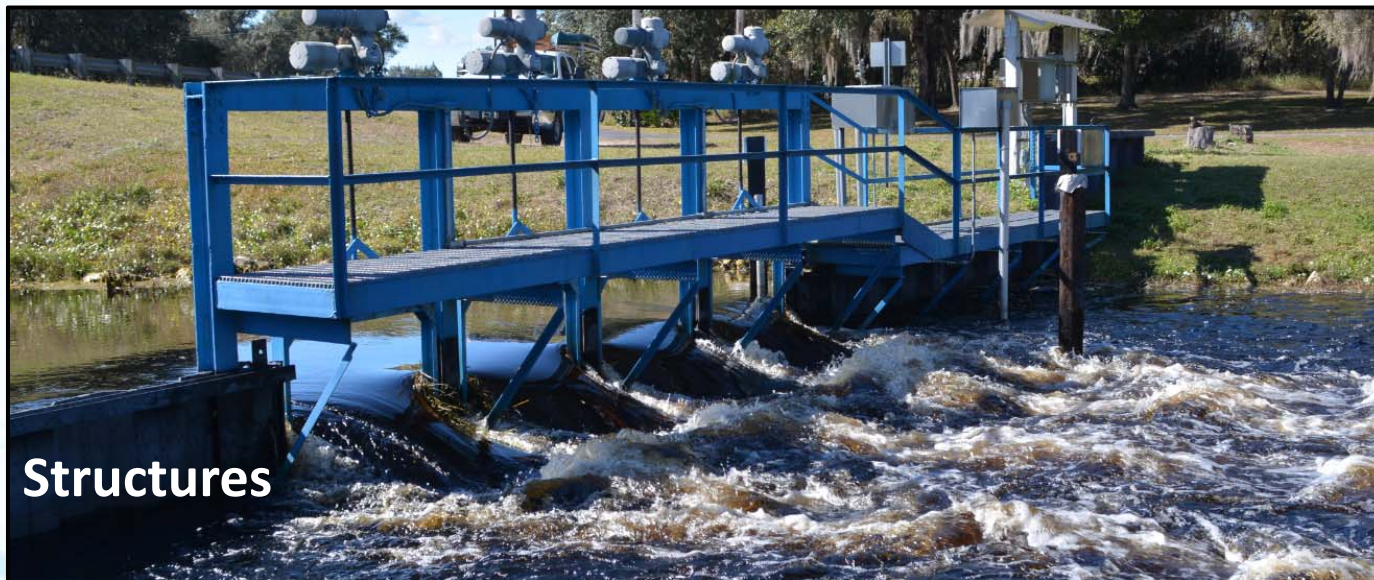
Seminole Wars



Ditches



Berms



Structures

CITIZEN CONCERNS



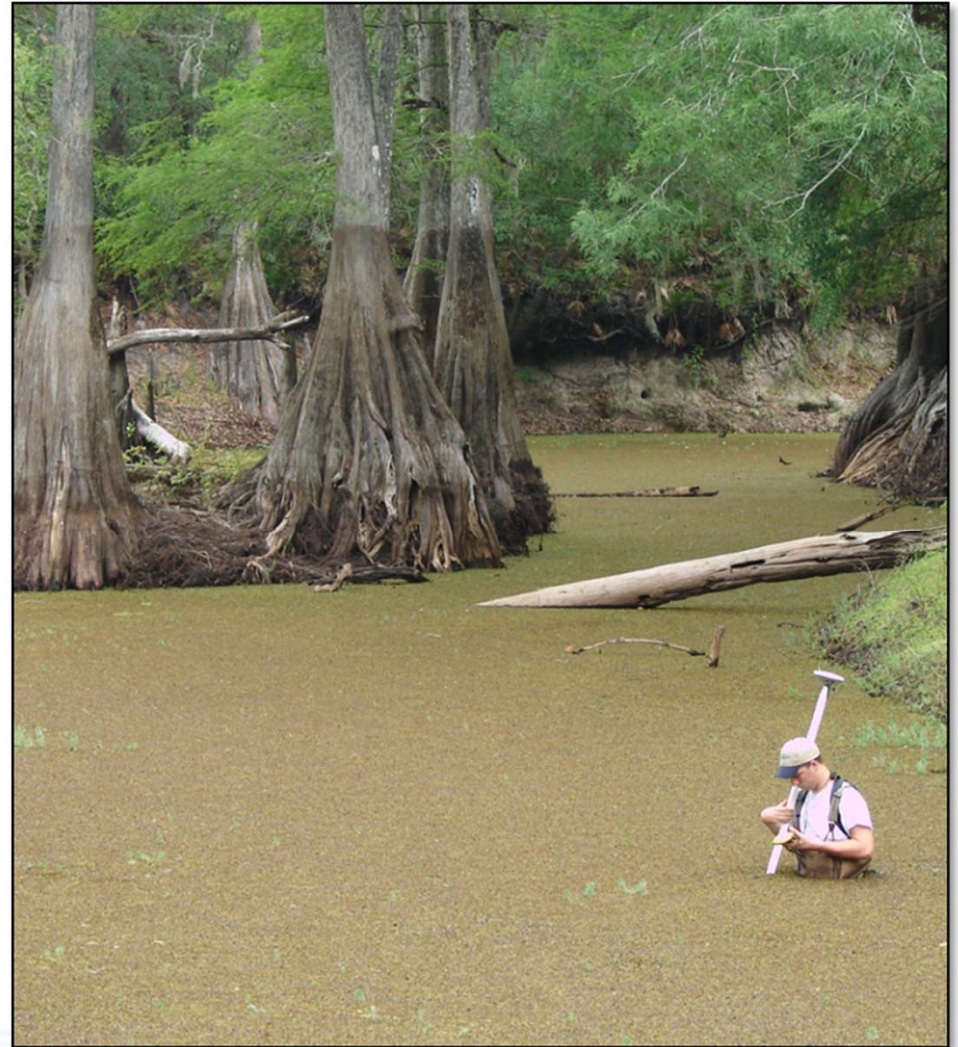
WITHLACOOCHEE RIVER WATERSHED INITIATIVE

- Understanding
- Effects of alterations
- Management/restoration



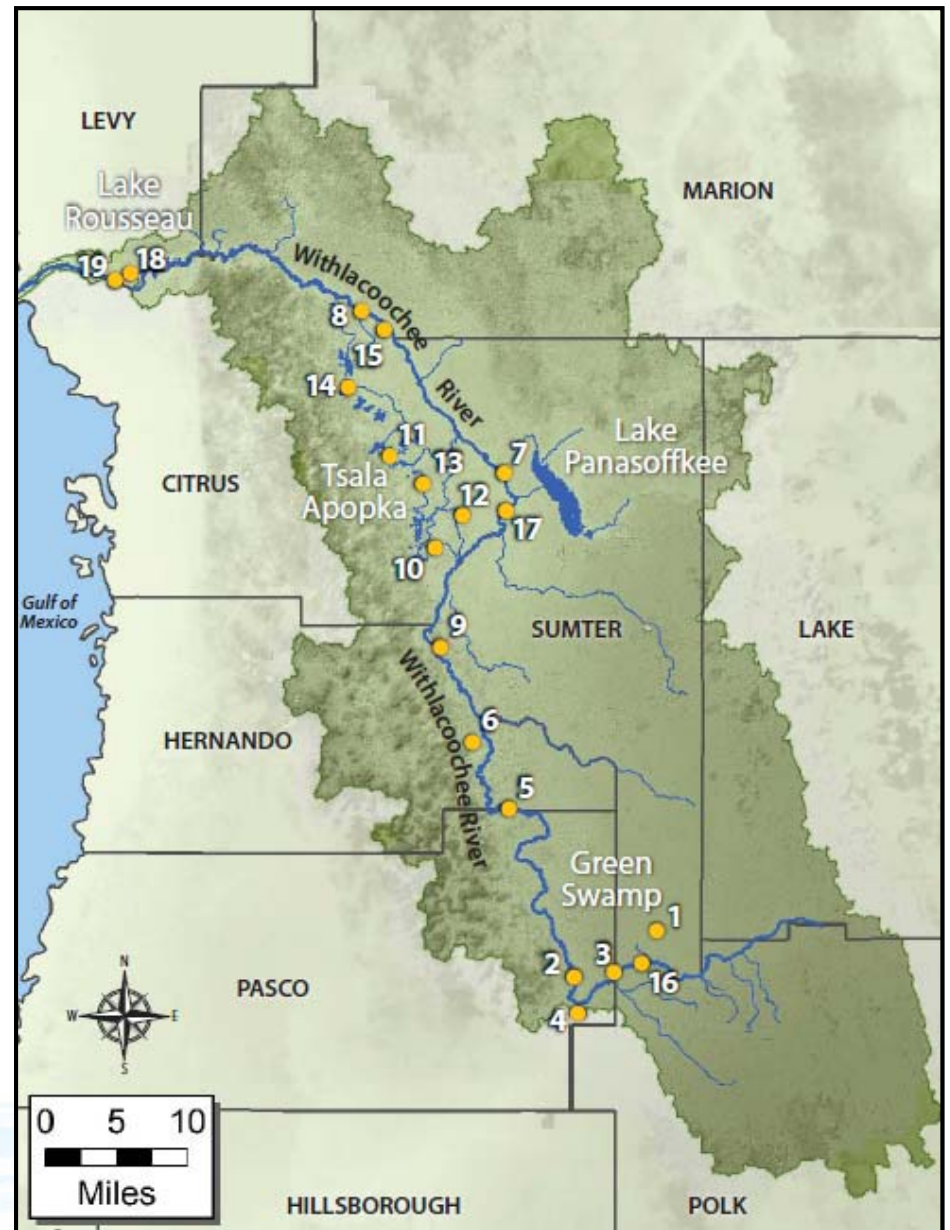
WITHLACOOCHEE RIVER WATERSHED INITIATIVE

- River survey
- Comprehensive model
- Public outreach



- **Scenario Results**

- 19 original
- 3 new



Model Scenarios

SR 200

- **History of Flooding**
 - Arrowhead
 - Withlacoochee Tr
- **Bridge constriction**

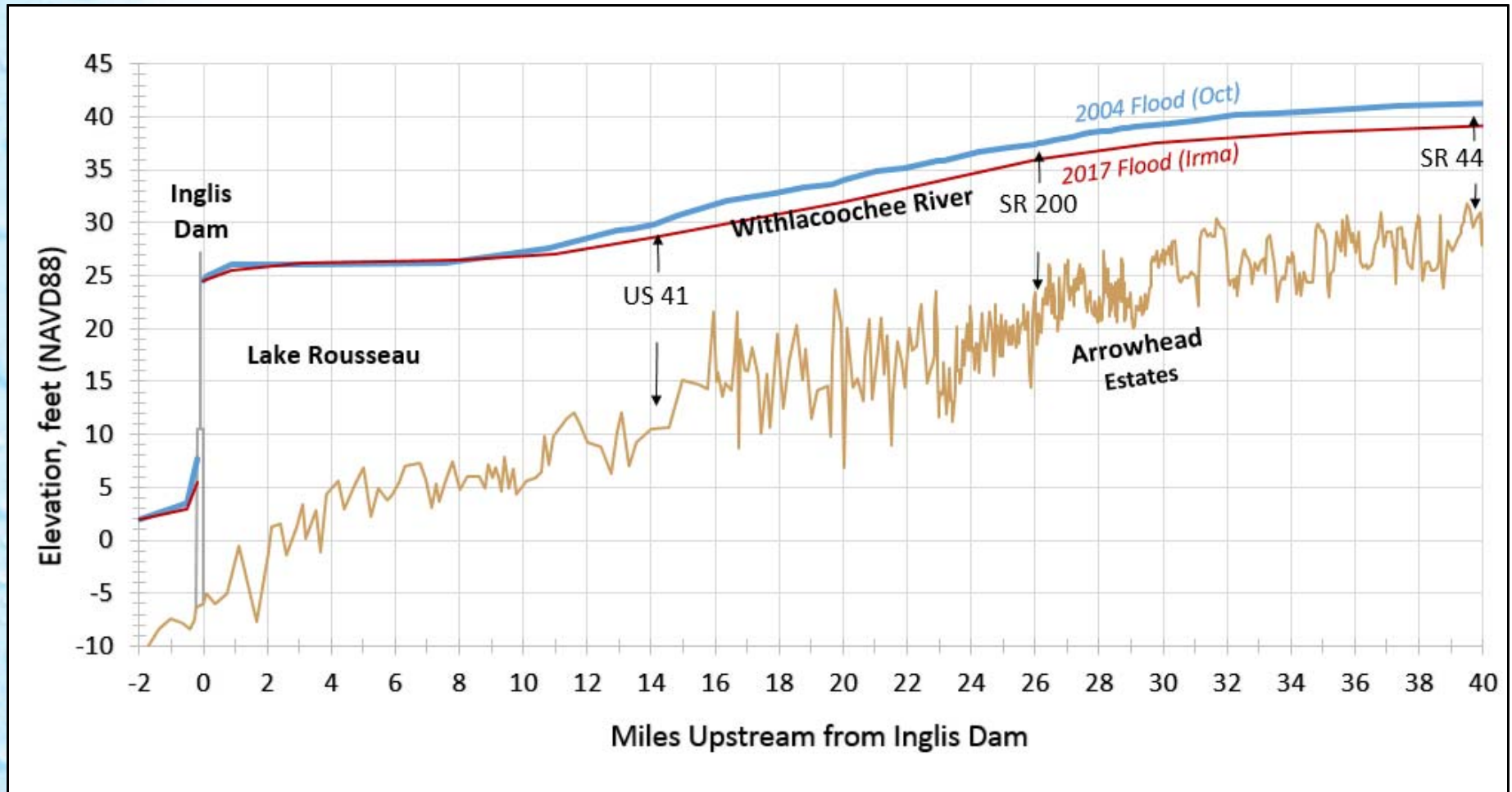


Oct 2017



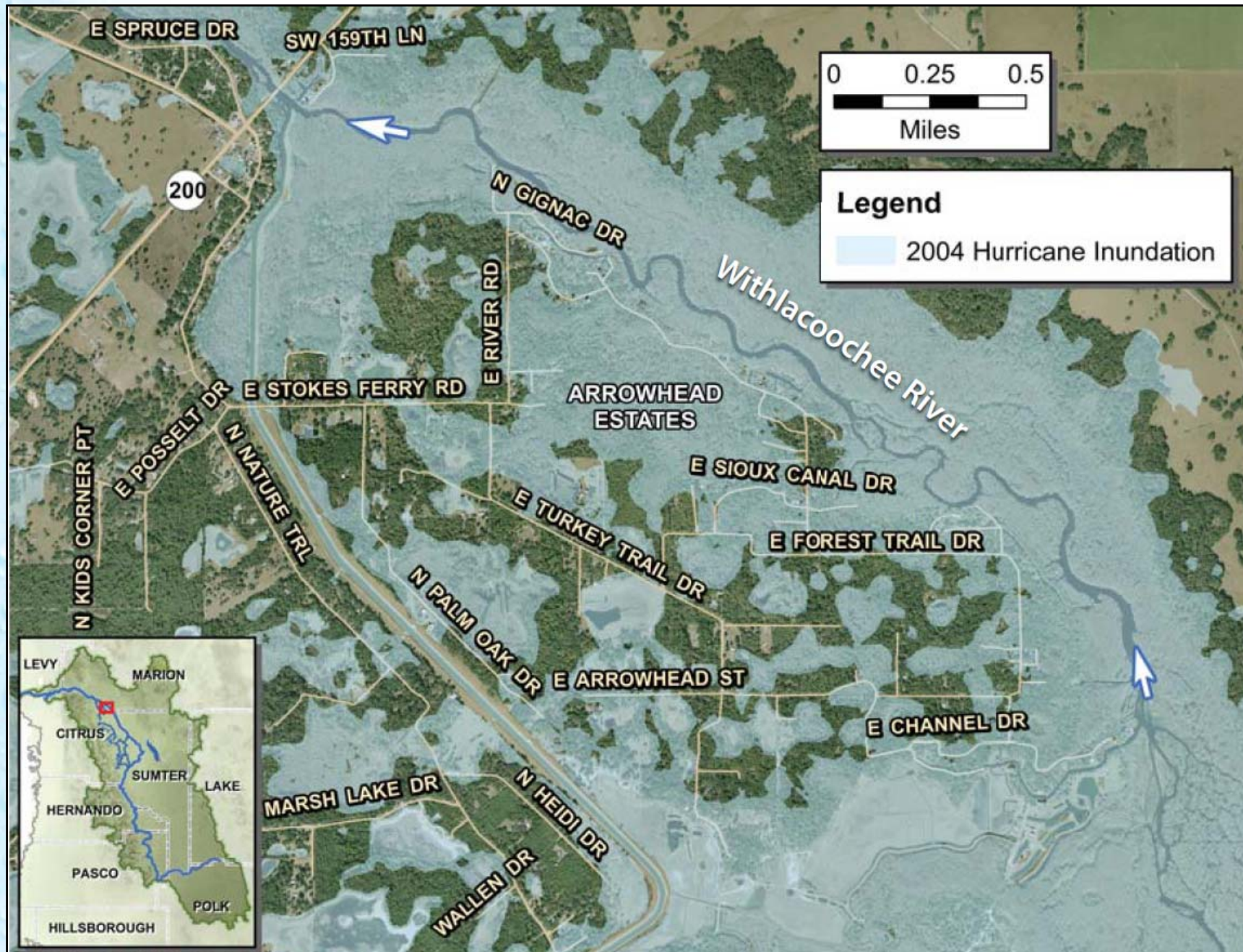
Feb 2017

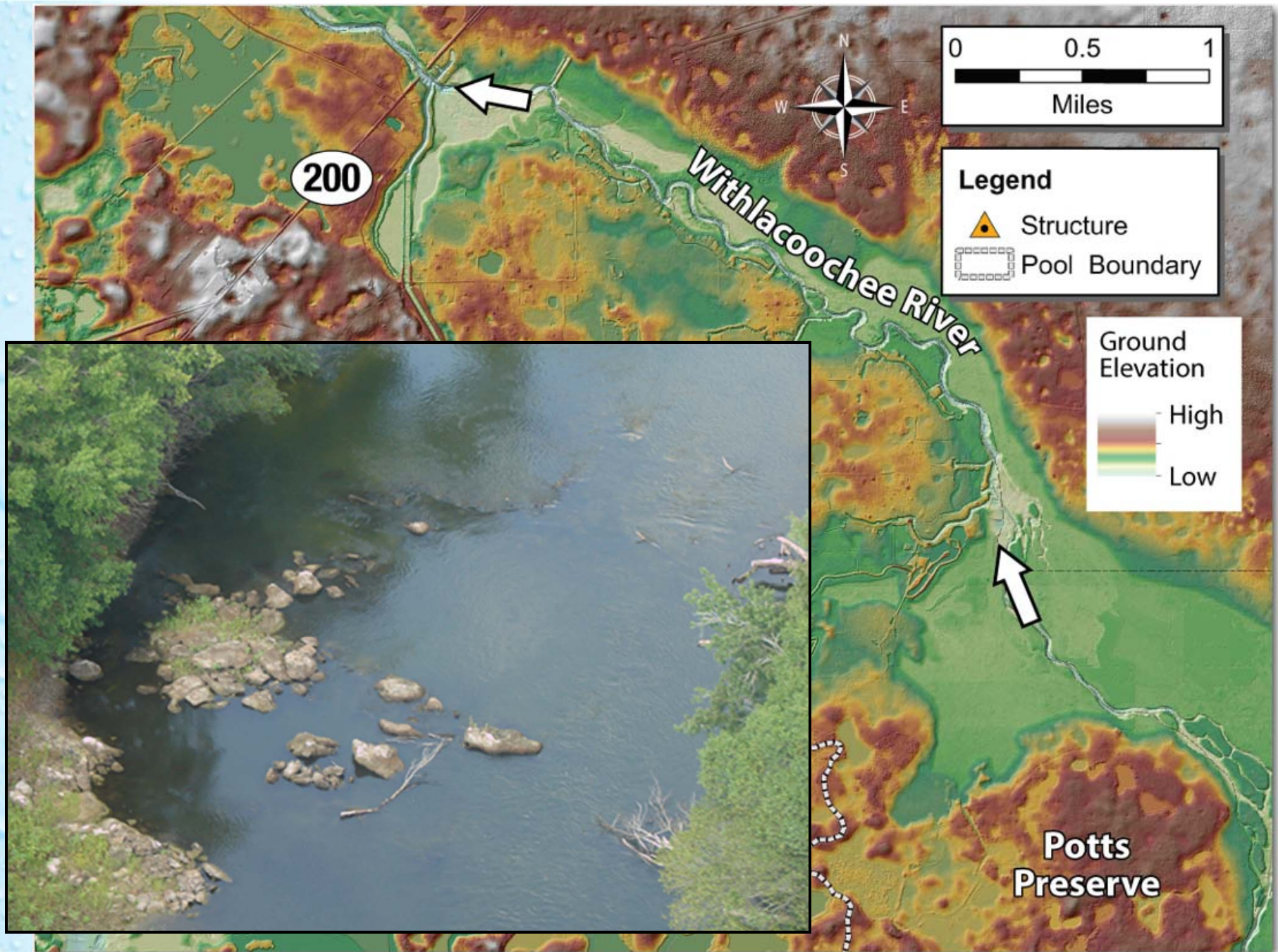
2004 HURRICANES

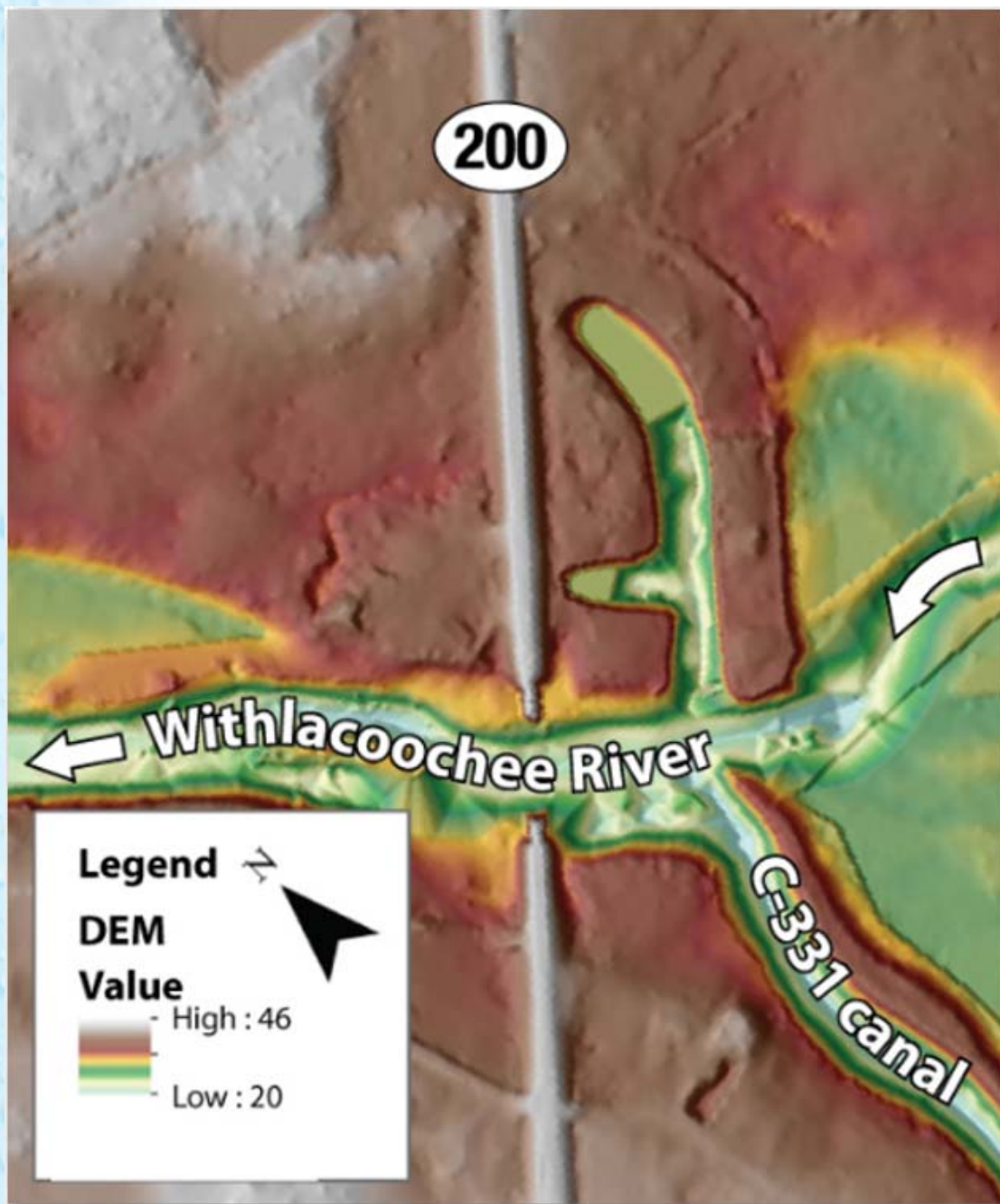




October 2017

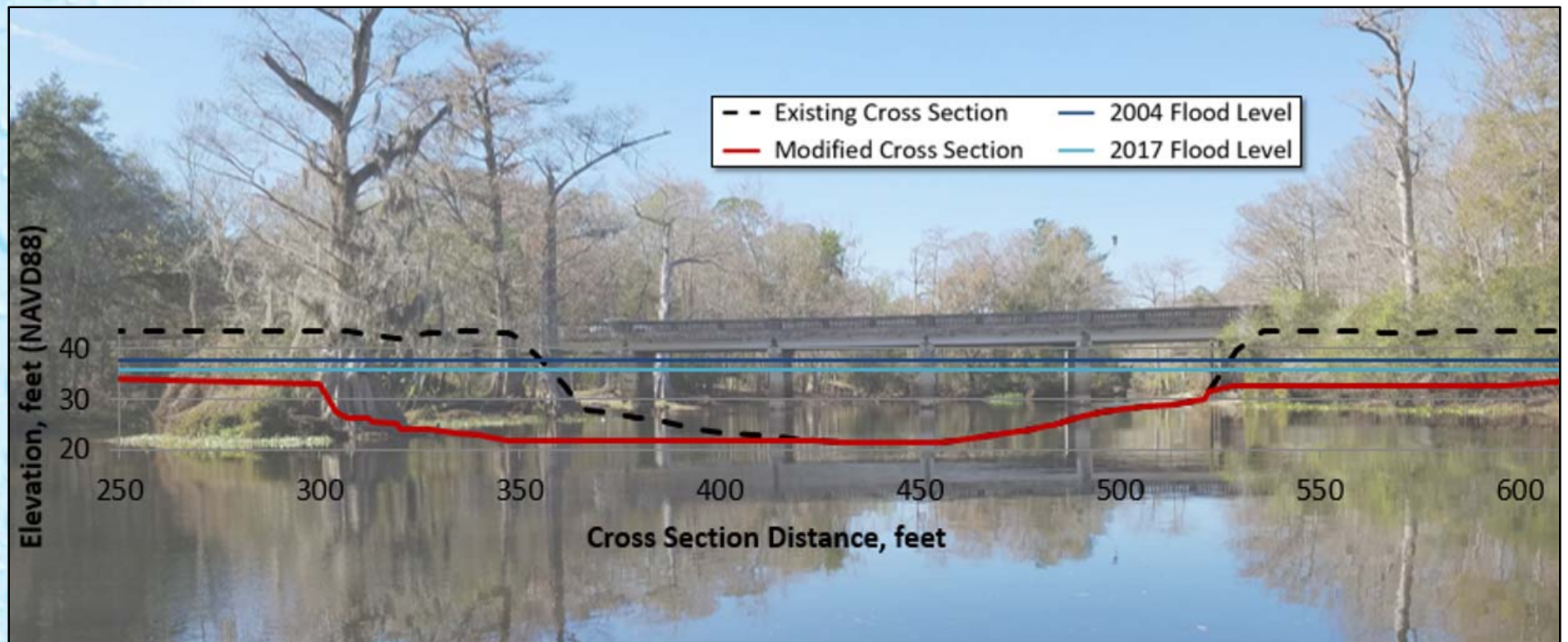


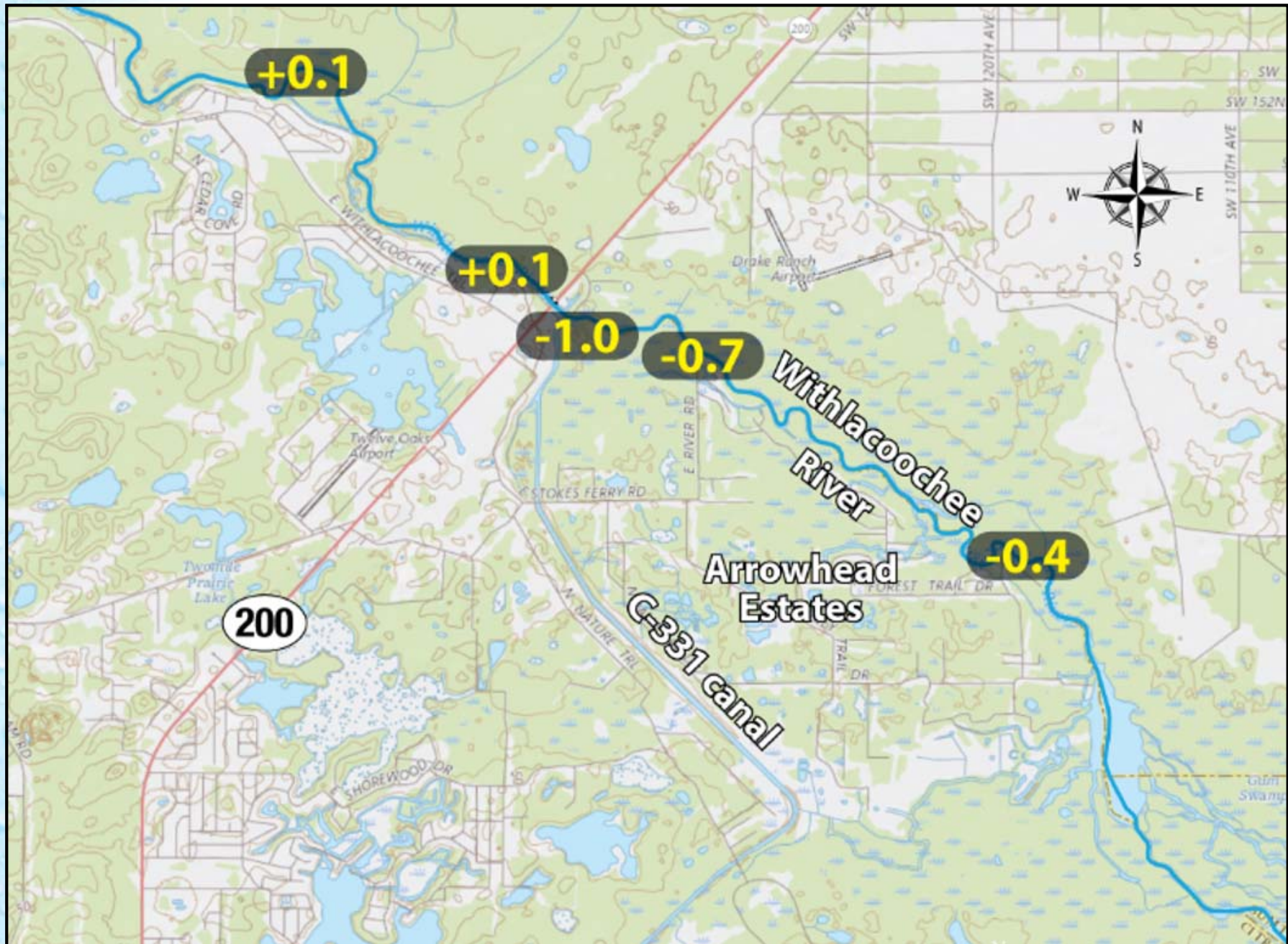




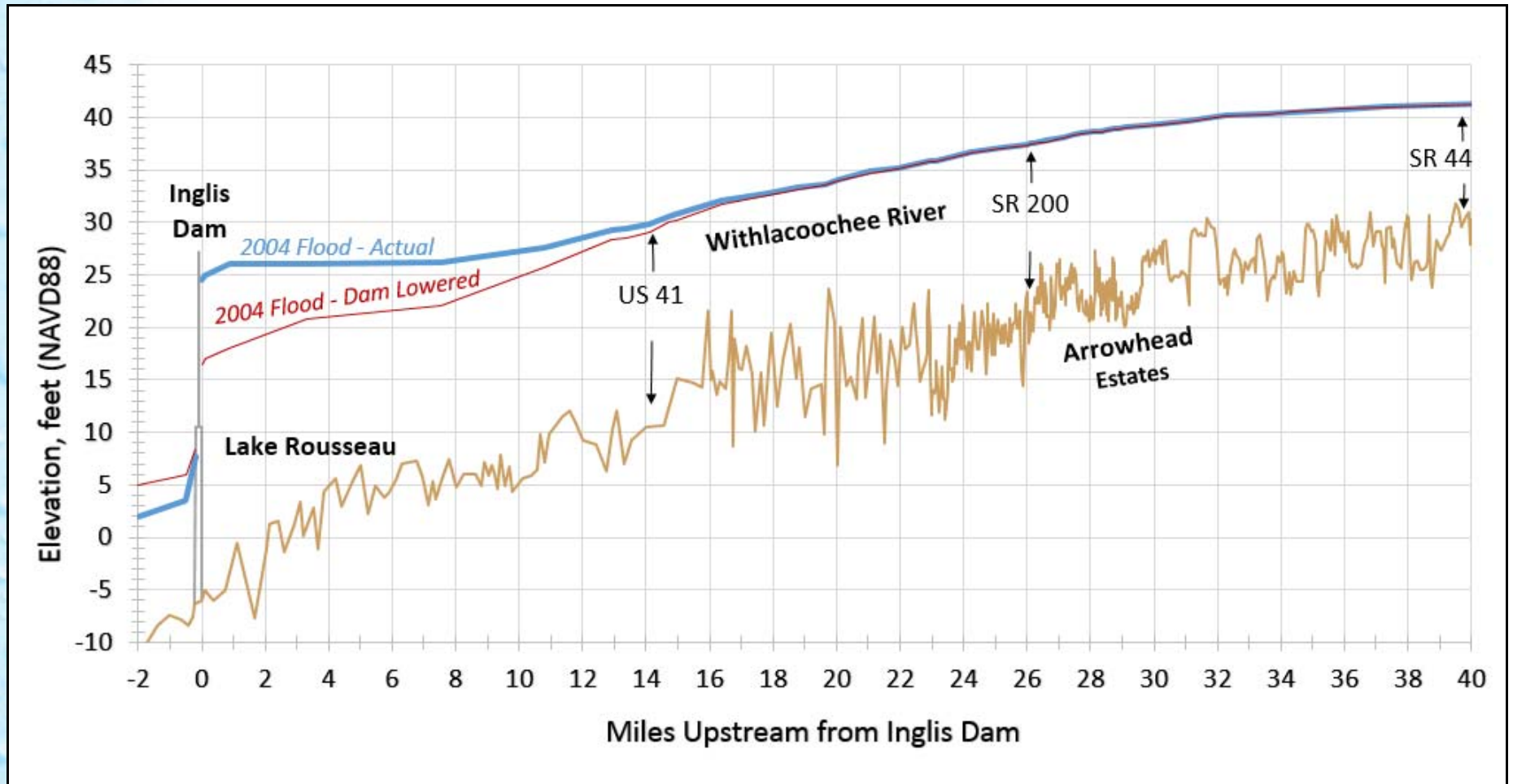
- **Simulated removal of:**

- SR200 bridge
- C-331 canal berm
- Rock outcropping

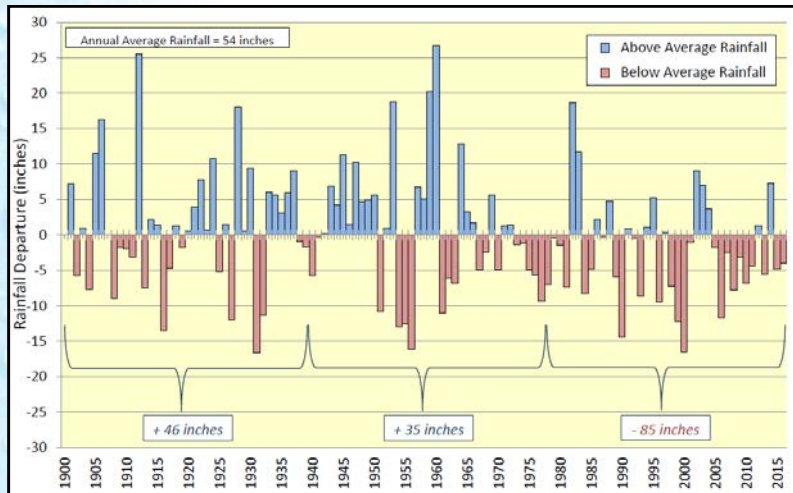




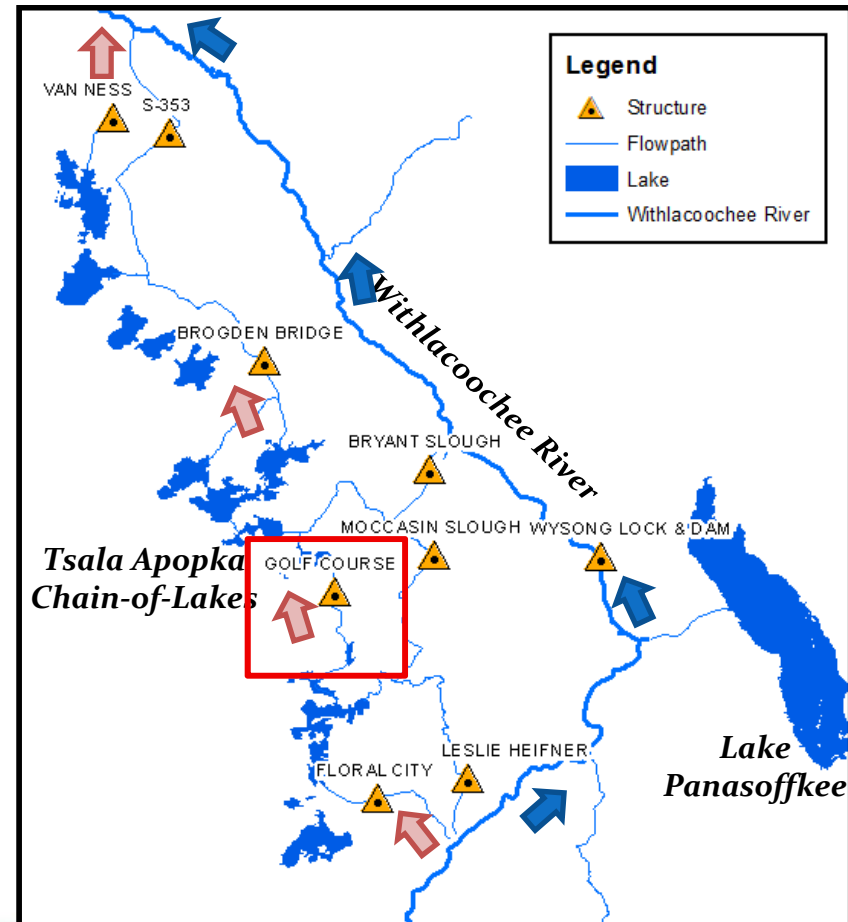
SIMULATING A FULLY LOWERED INGLIS DAM



- **Scenario Results**
 - 19 original
 - 3 new
 - Future concerns



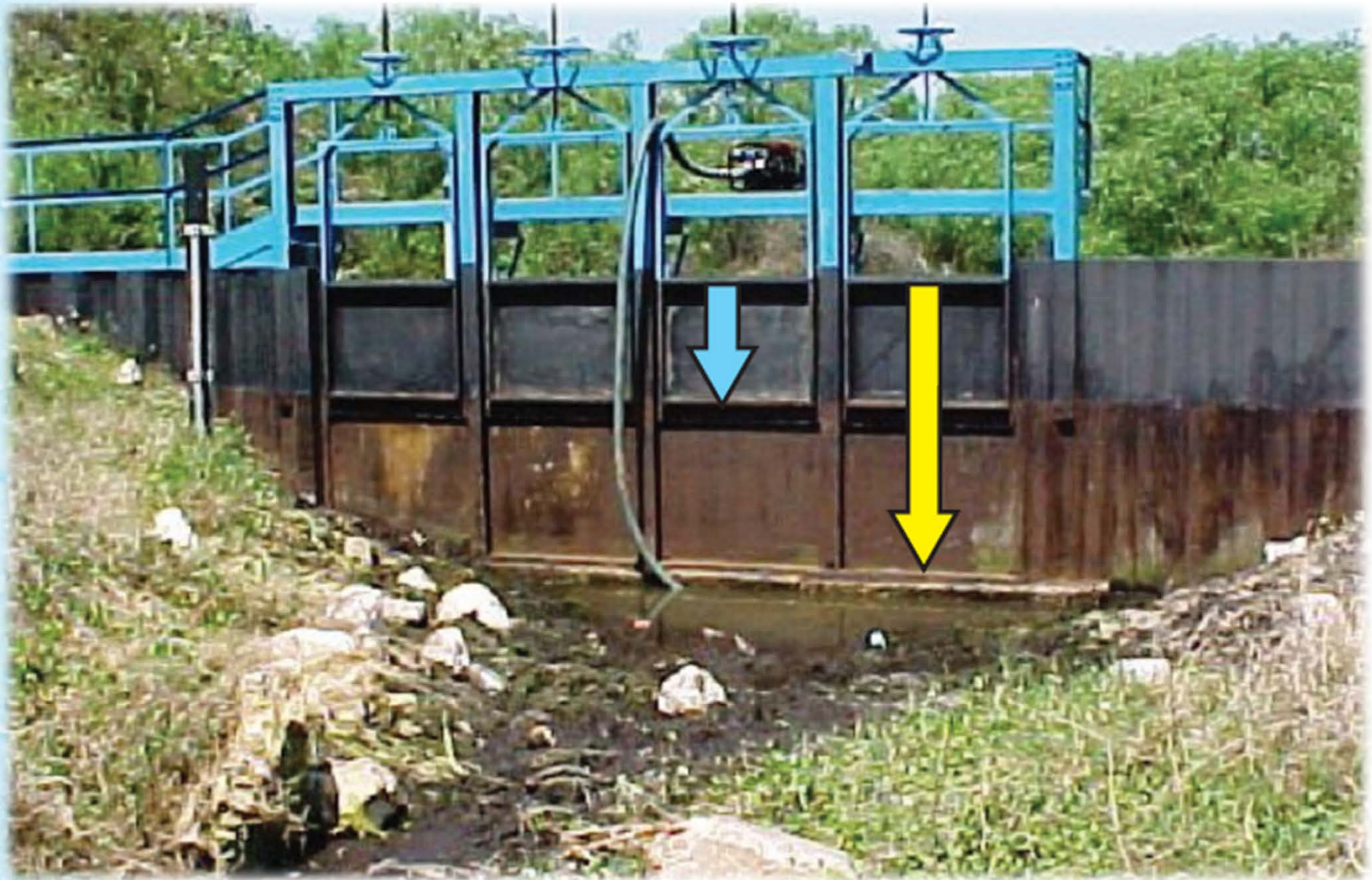
CURRENT PROJECTS



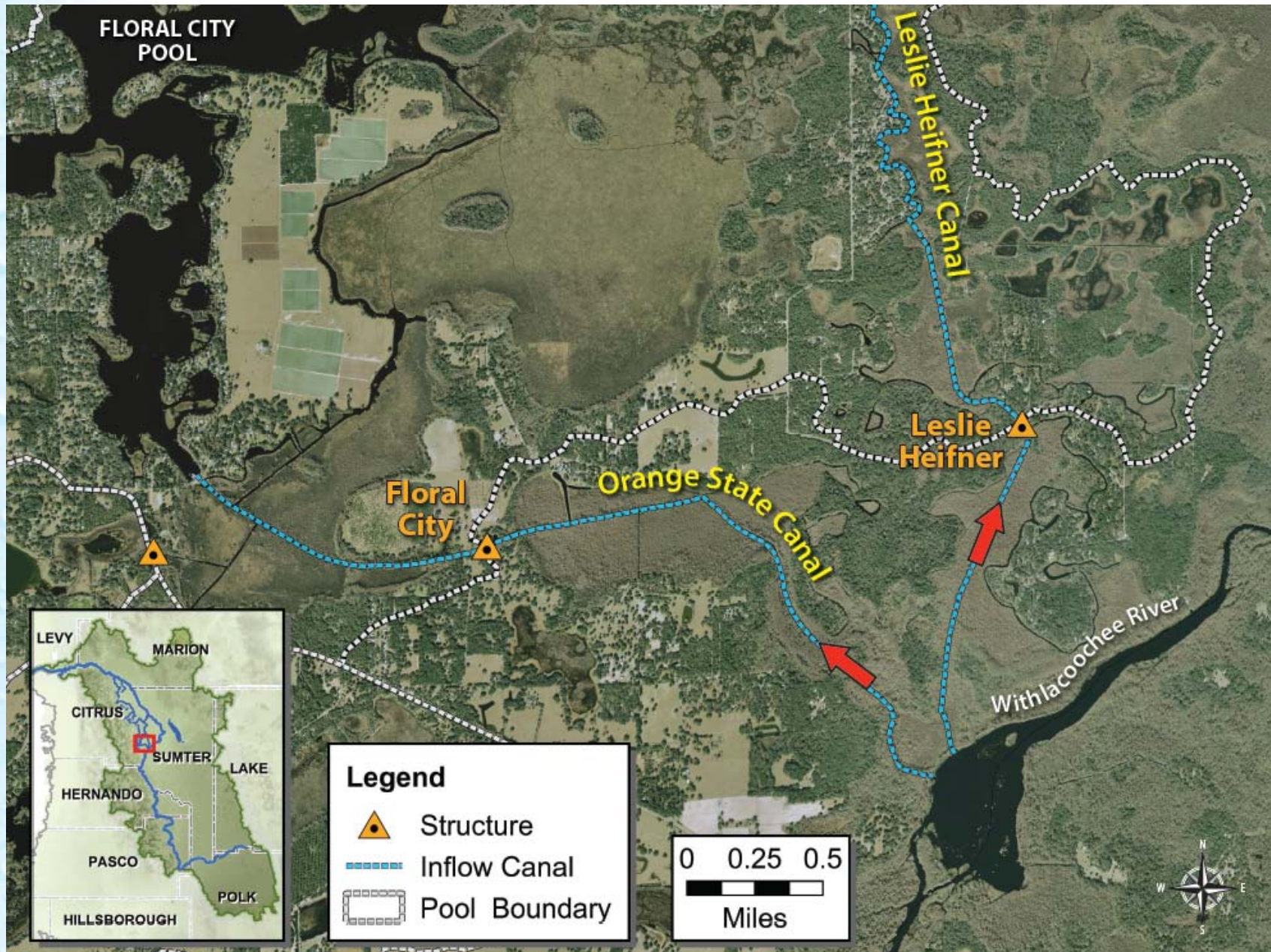
GOLF COURSE STRUCTURE MODIFICATION





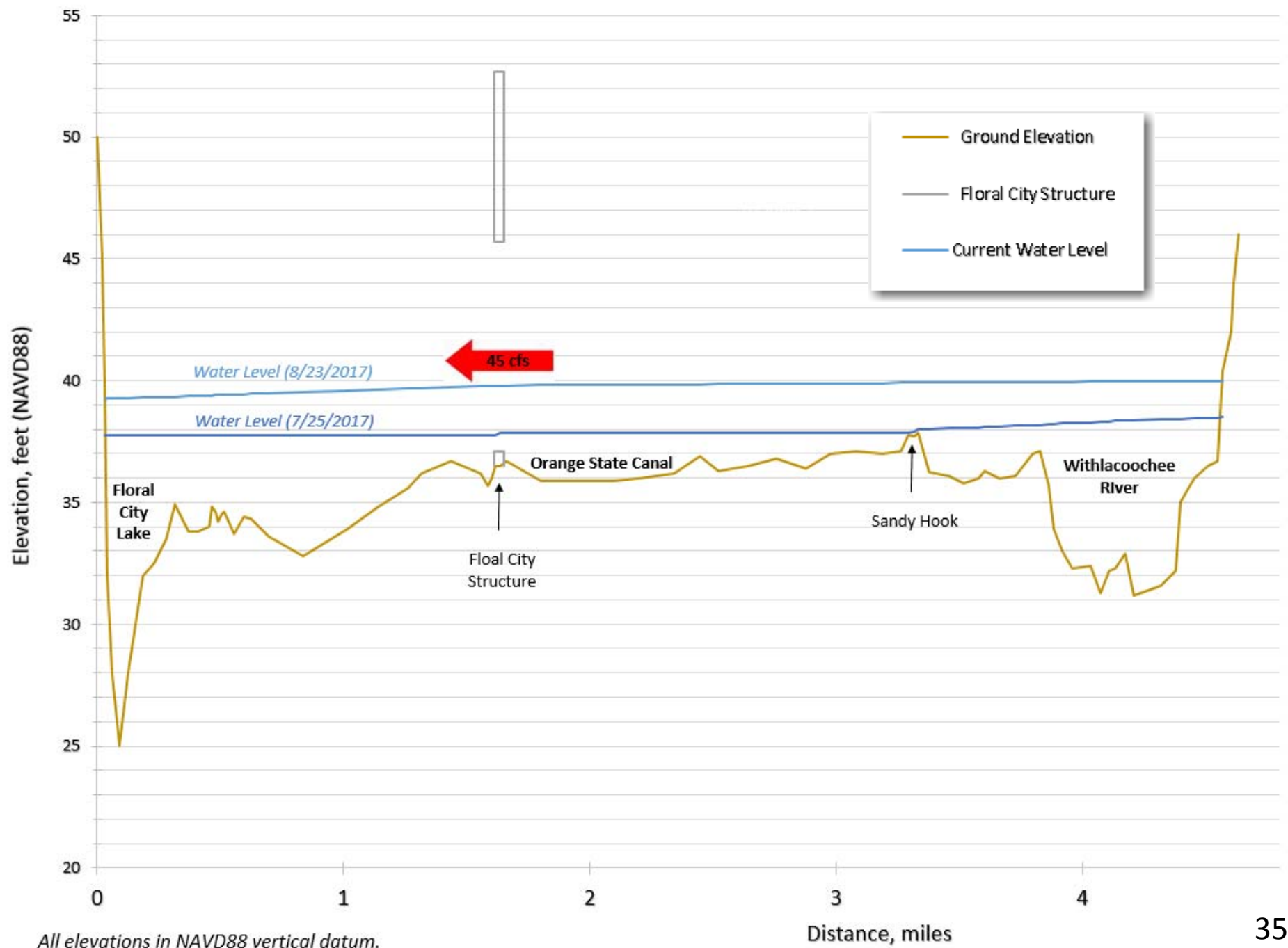


ORANGE STATE CANAL- CONVEYANCE IMPROVEMENT





Looking NW towards Sandy Hook



An aerial photograph showing a two-lane asphalt road that has been completely inundated with floodwater. The water is a deep, dark blue color, reflecting the sky. The road is flanked by dense green trees and vegetation. In the background, a large body of water, possibly a lake or reservoir, is visible, surrounded by more trees and some distant buildings. The overall scene depicts a significant flooding event in a rural or semi-rural area.

Visit:

WWW.WATERMATTERS.ORG/WITHLACOOCHEE

FOR MORE INFORMATION

