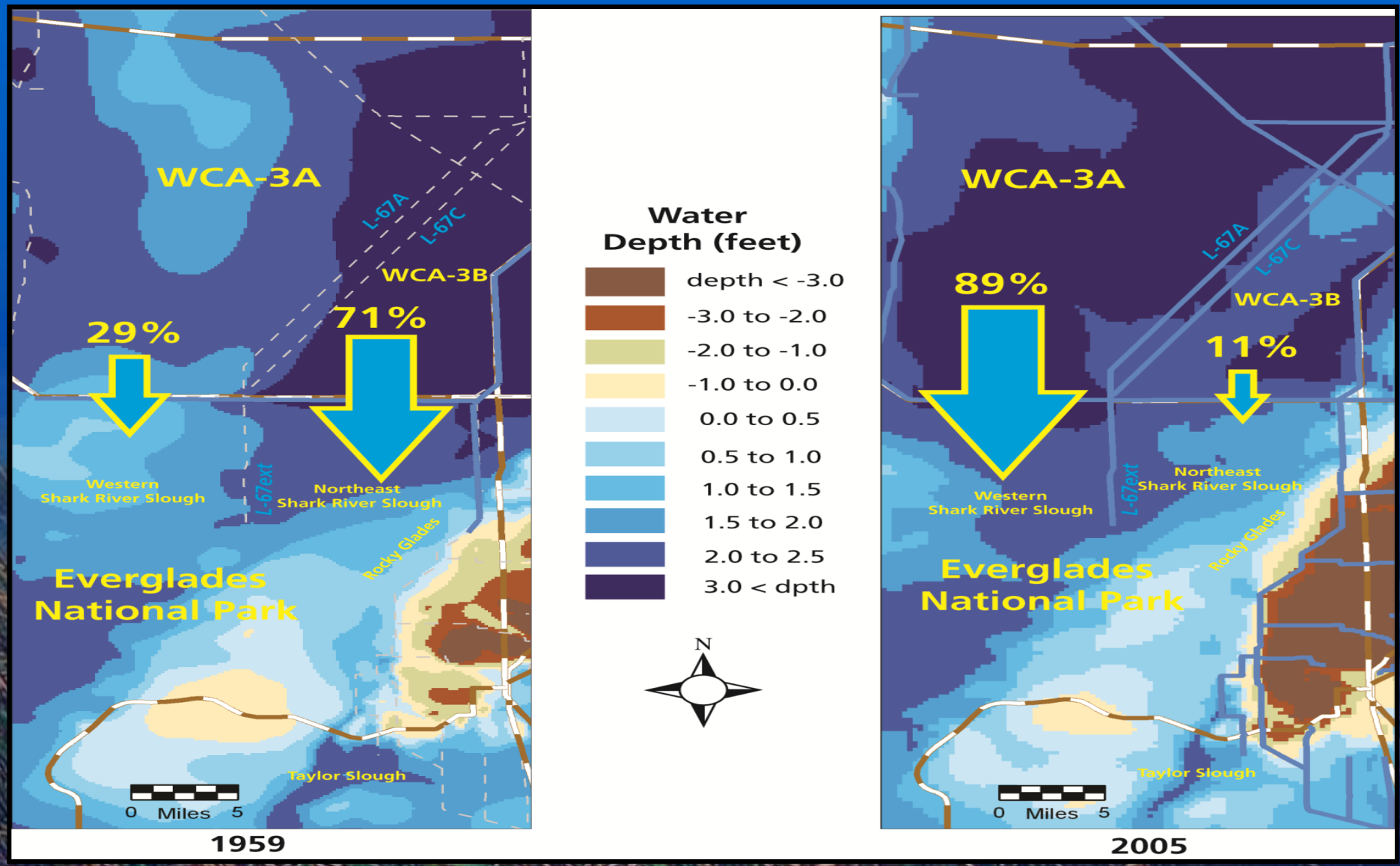
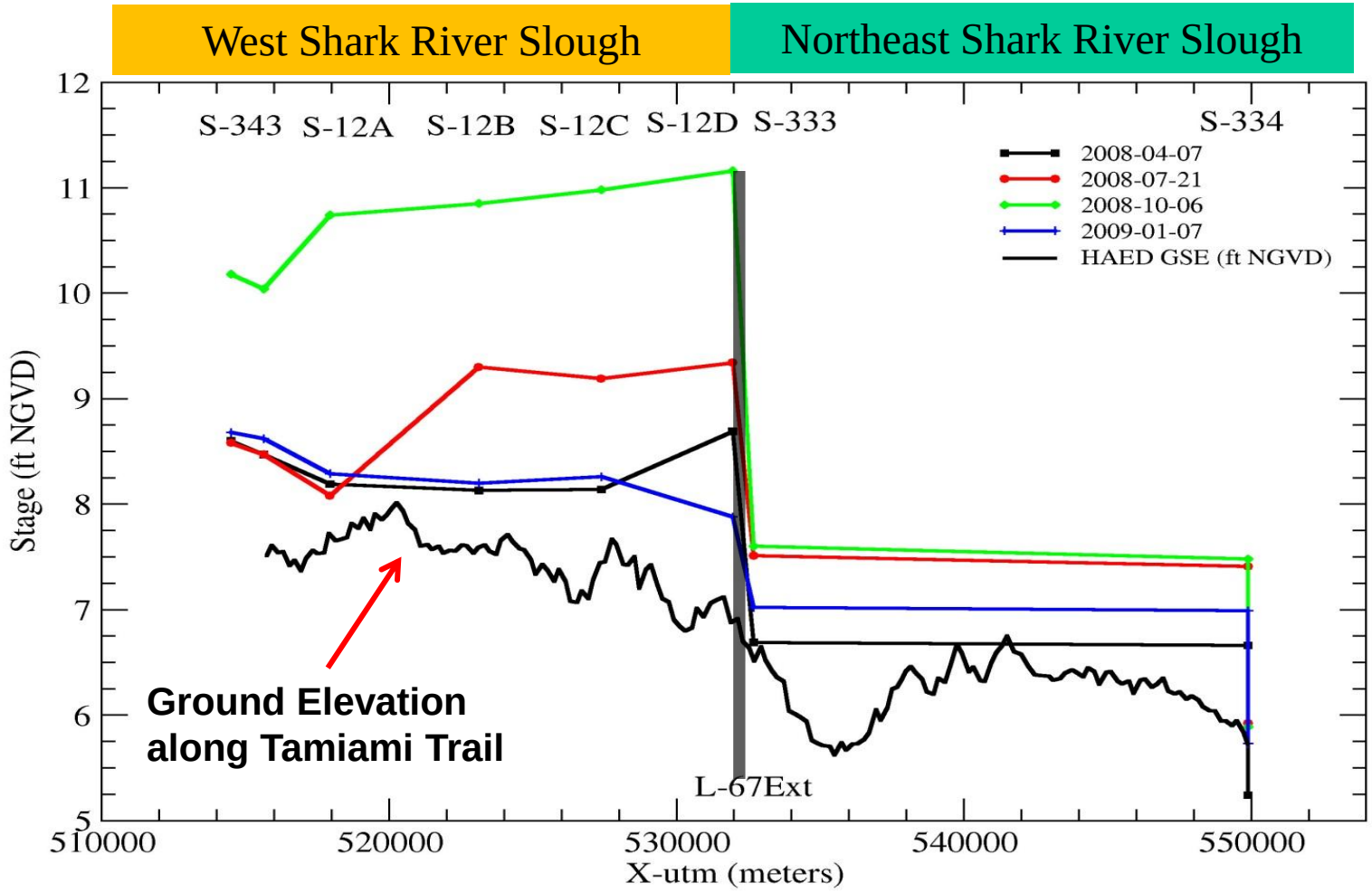
Improved Water Deliveries to Northeast Shark River Slough

TOC Sub-committee Briefing
May 15, 2013

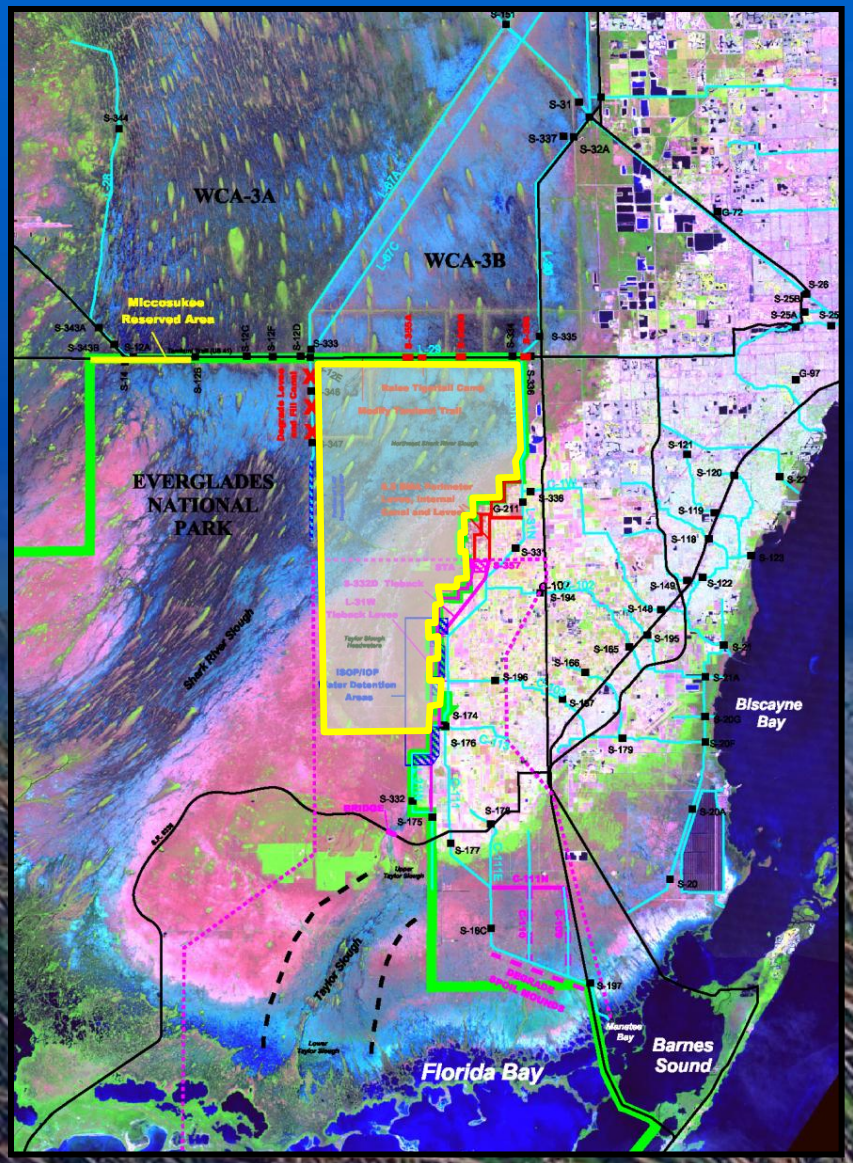
Changes in Surface Water Flows to Everglades National Park (1959 vs 2005)



Comparison of Water Levels and Topography in West vs Northeast Shark River Slough

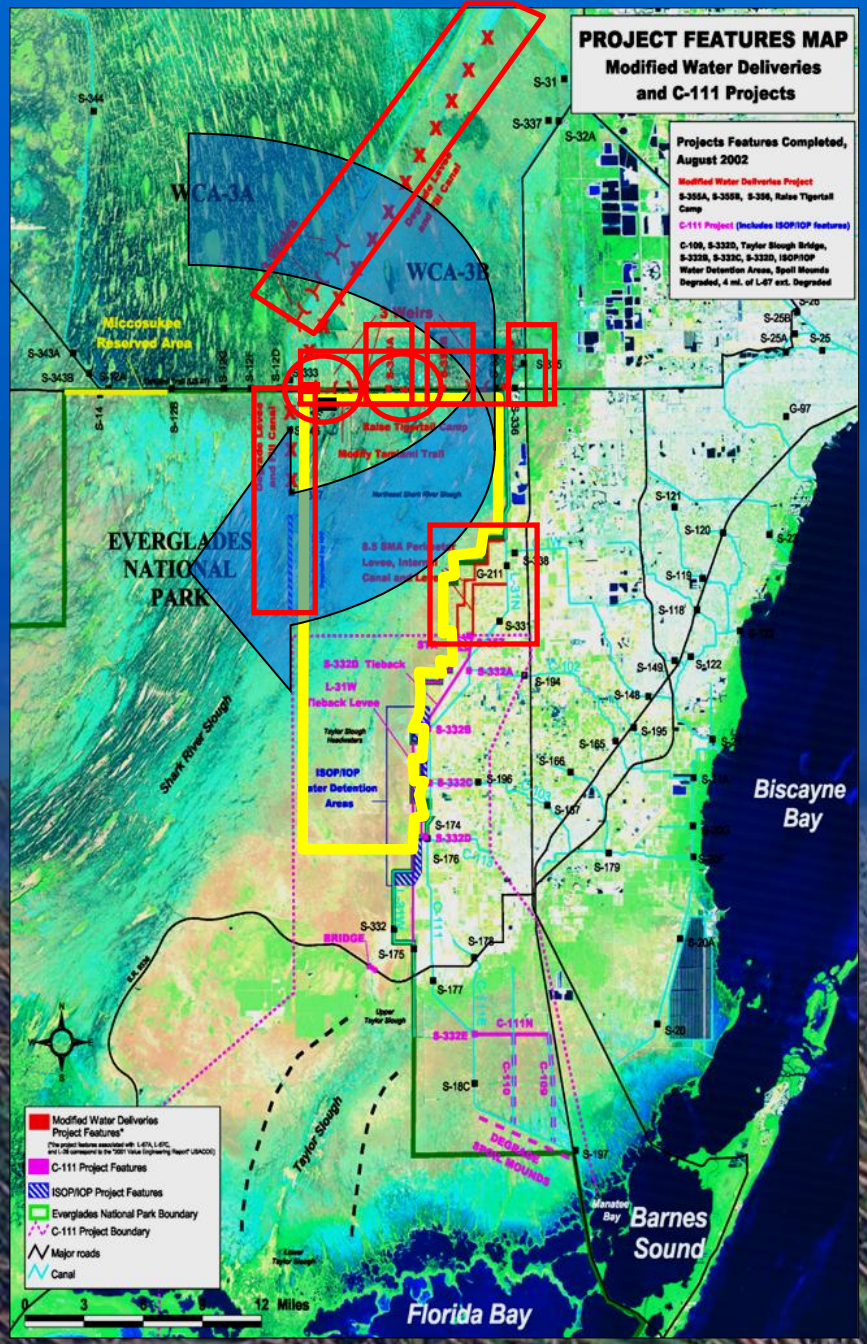


The Everglades National Park Protection and Expansion Act of 1989



- Authorized modifications to the Central & Southern Florida Project "to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrologic conditions in the Park." (Army Corps)
- Authorized the acquisition of 109,000 acres in Northeast Shark Slough and the East Everglades. (National Park Service)

The ENP Protection and Expansion Act (1989)



Modified Water Deliveries Project

- Authorized modifications to the Central & Southern Florida Project "to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrologic conditions in the Park." (Army Corps)

East Everglades Acquisition

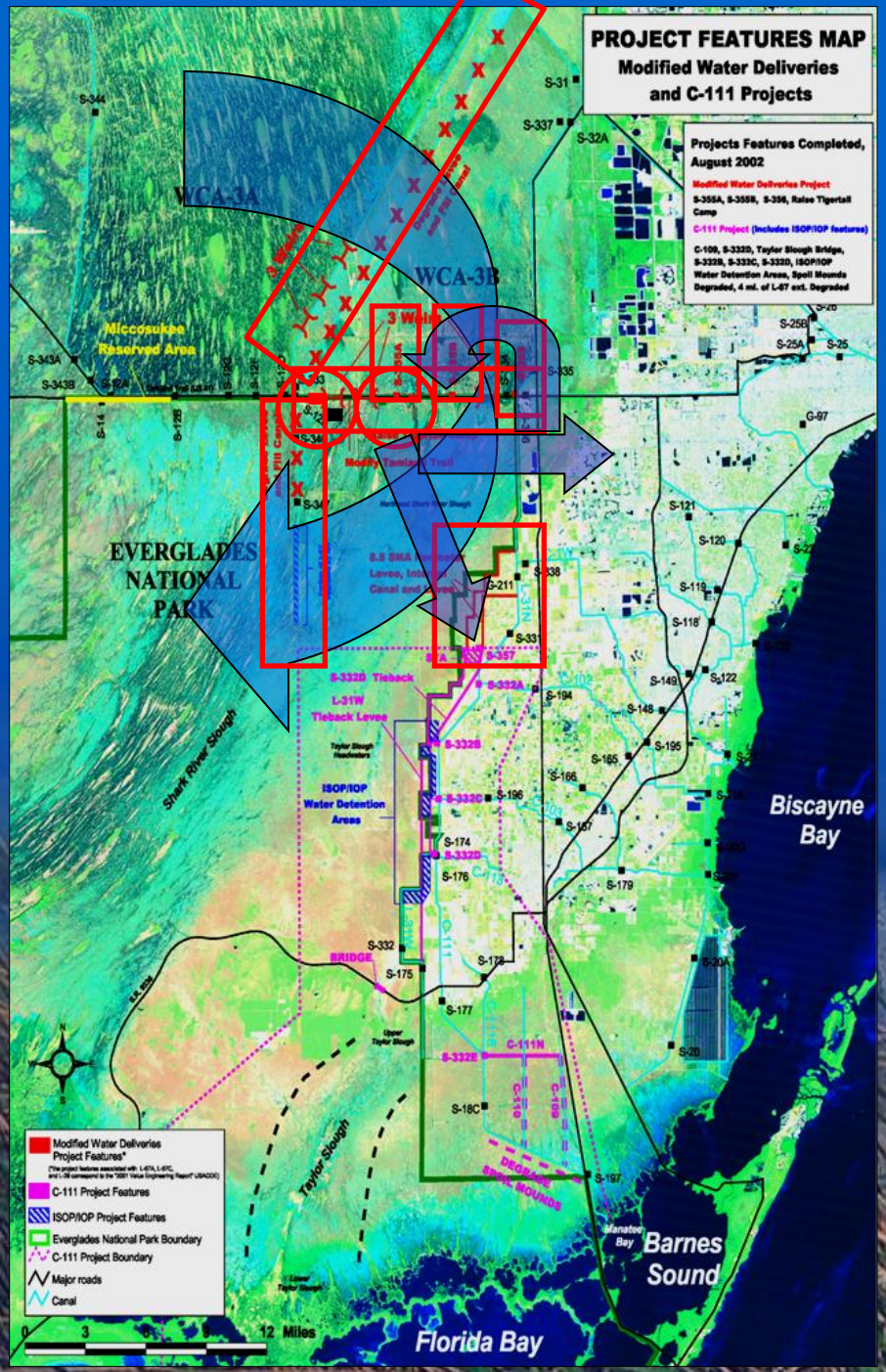
- Authorized the acquisition of 109,000 acres in Northeast Shark Slough and the East Everglades. (National Park Service)

Conveyance

- L-67A/C S-345s)
- L-29 (S-355A/B)
- Tamiami Trail
- L-67 extension

Mitigation

- 8.5 Square Mile Area
- Osceola Camp
- Tigertail Camp
- L-31N (S-356)



Components of the MWD Project

Conveyance Features

- L-67A and C
- L-29 (S-355 A and B)
- Tamiami Trail
- L-67 extension

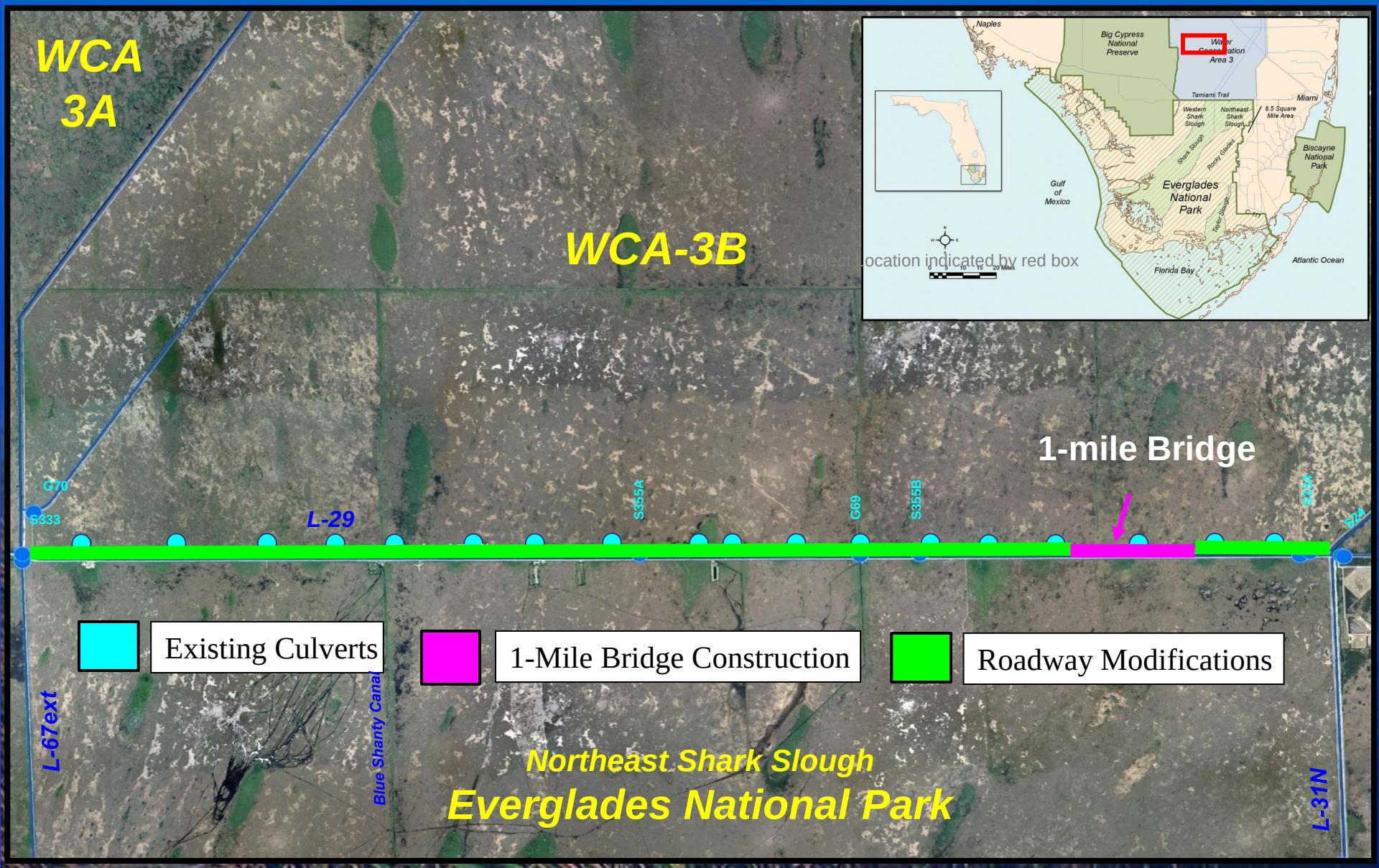
Mitigation Features

- 8.5 Square Mile Area
- Osceola Camp
- Tigertail Camp

Seepage Control Features

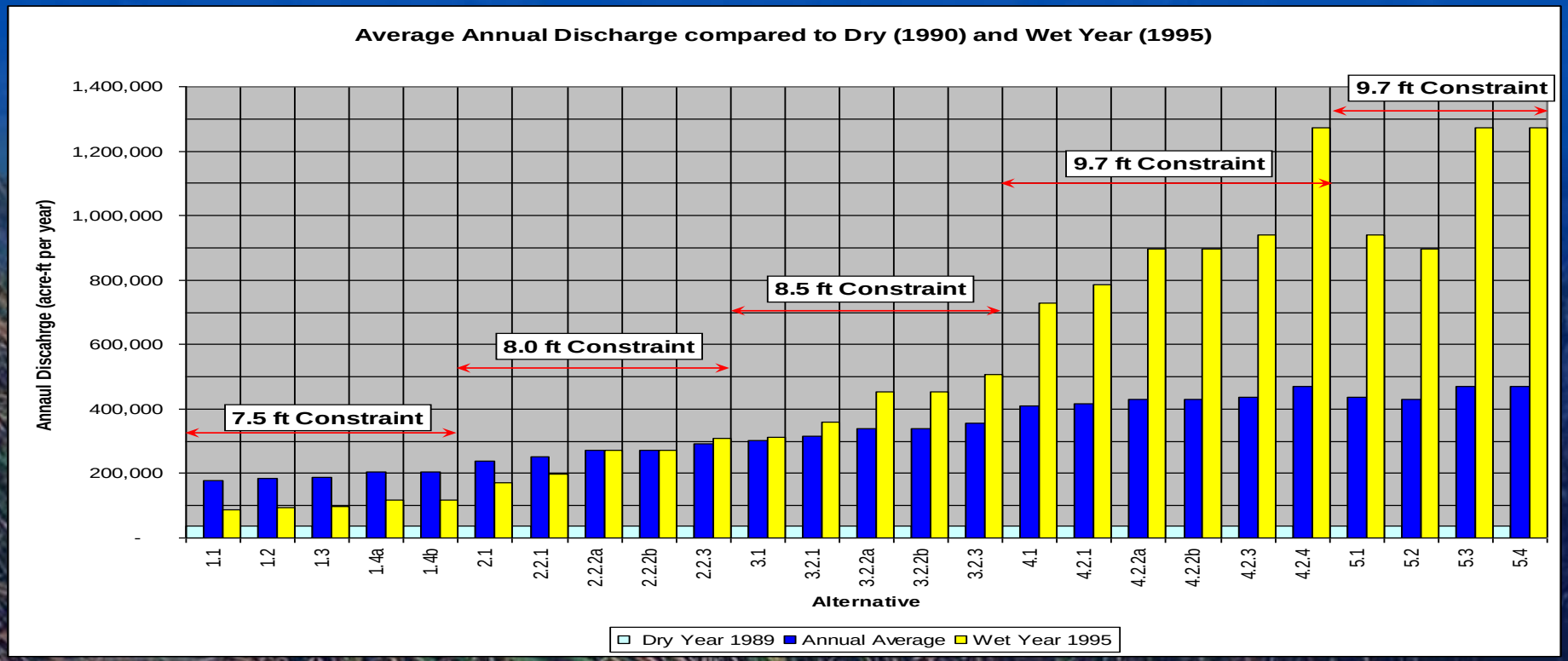
- L-31N (S-356)

Modified Water Deliveries-Tamiami Trail Limited Re-evaluation Report



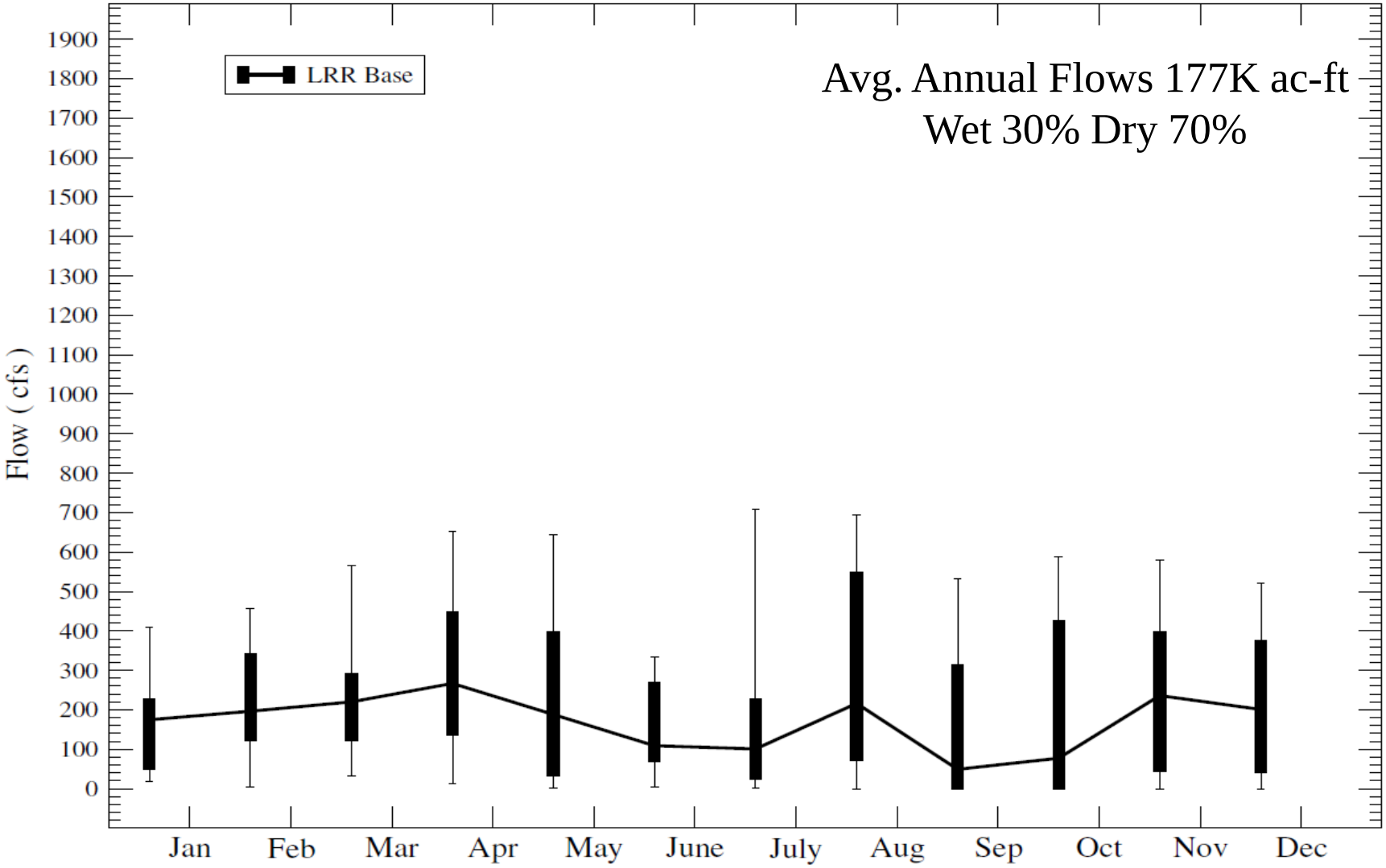
LRR Project Hydrologic Assessment Spreadsheet Model

- A spreadsheet model was developed by the Army Corps to incrementally test the flow benefits associated with different combinations of L-29 canal stage constraints and bridge openings along eastern Tamiami Trail.
- The combination of a one-mile bridge and an L-29 stage constraint of 8.5 (Alt 3.2.2a) was selected as the recommended alternative.
- The model assumes that flow volumes from WCA-3A into Shark Slough are the same and a 45% West – 55% East distribution is the target.



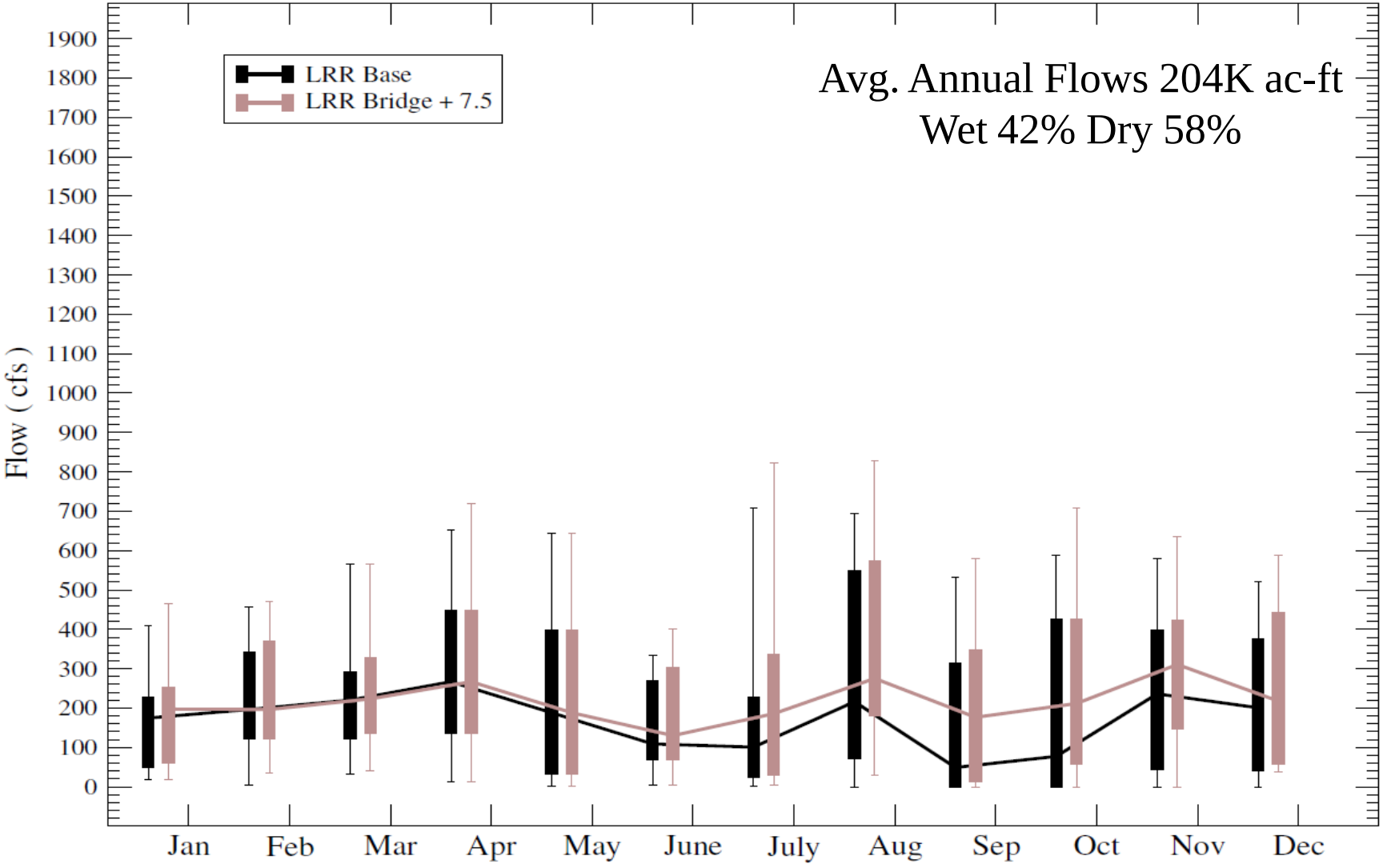
LRR Hydrologic Spreadsheet Model

No Action (no bridging or L-29 stage raising)



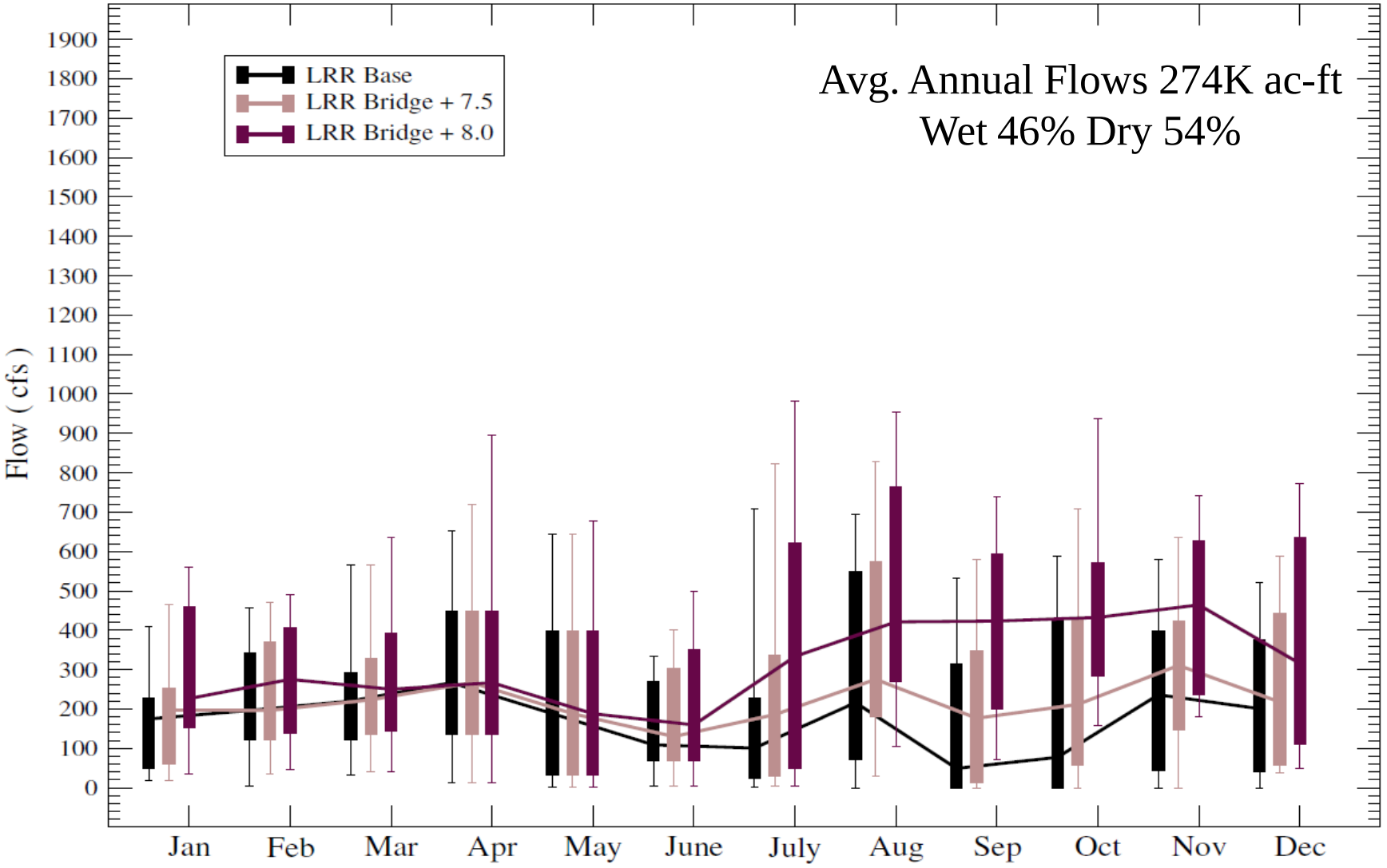
LRR Hydrologic Spreadsheet Model

Initial Field Test (1-mile bridge and L-29 7.5 ft. constraint)



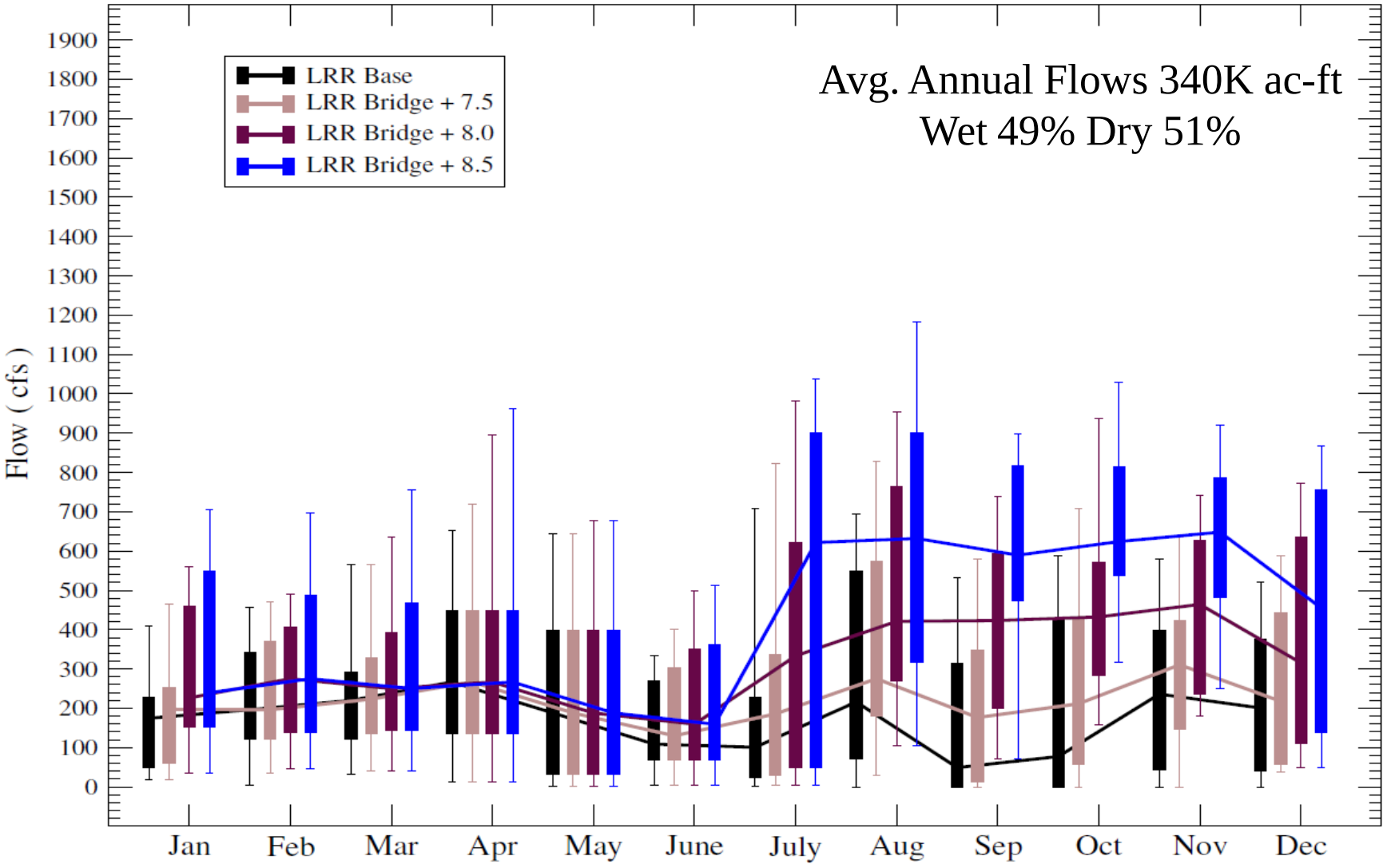
LRR Hydrologic Spreadsheet Model

Second Field Test (1-mile bridge and L-29 8.0 ft. constraint)

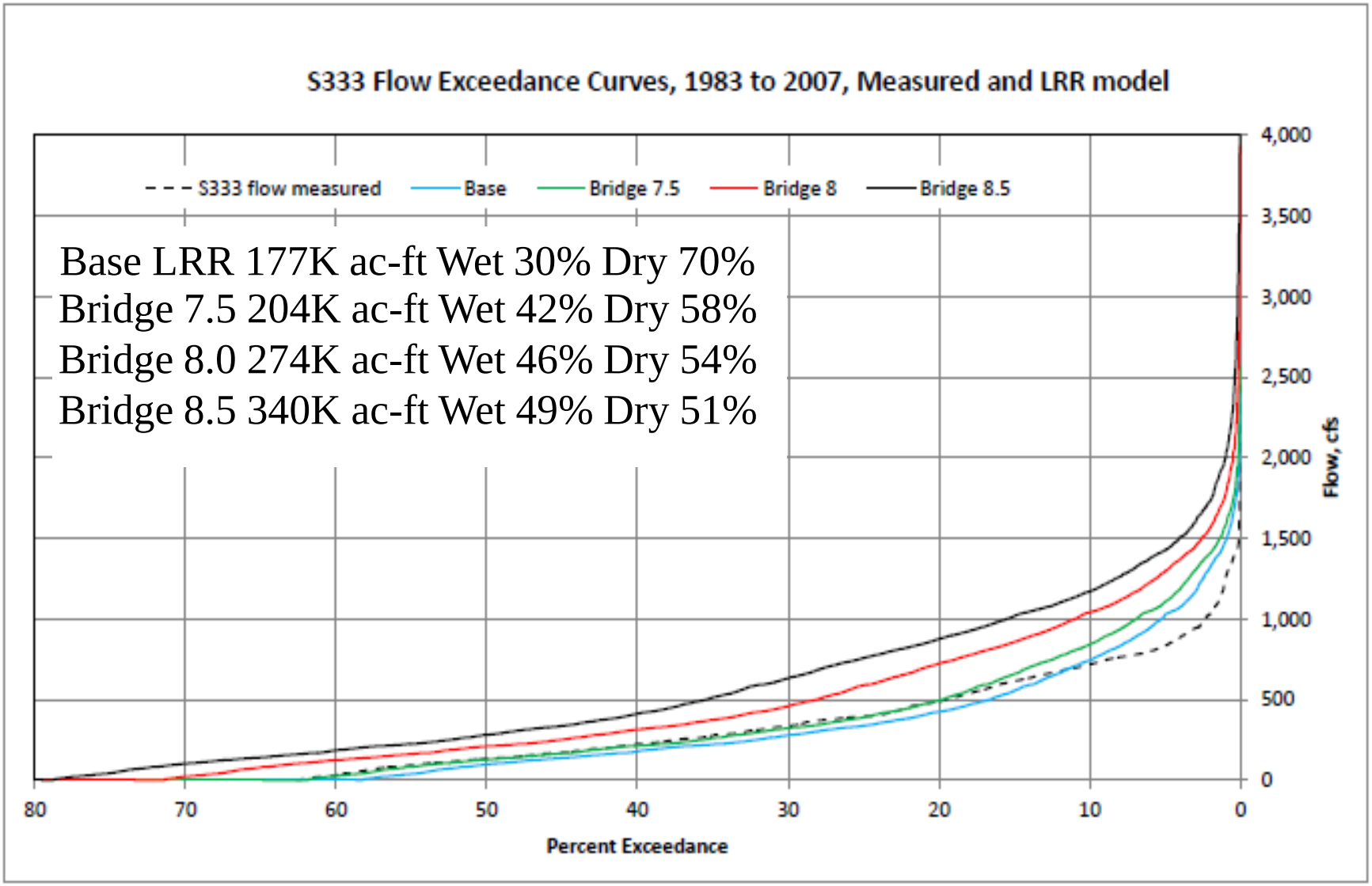


LRR Hydrologic Spreadsheet Model

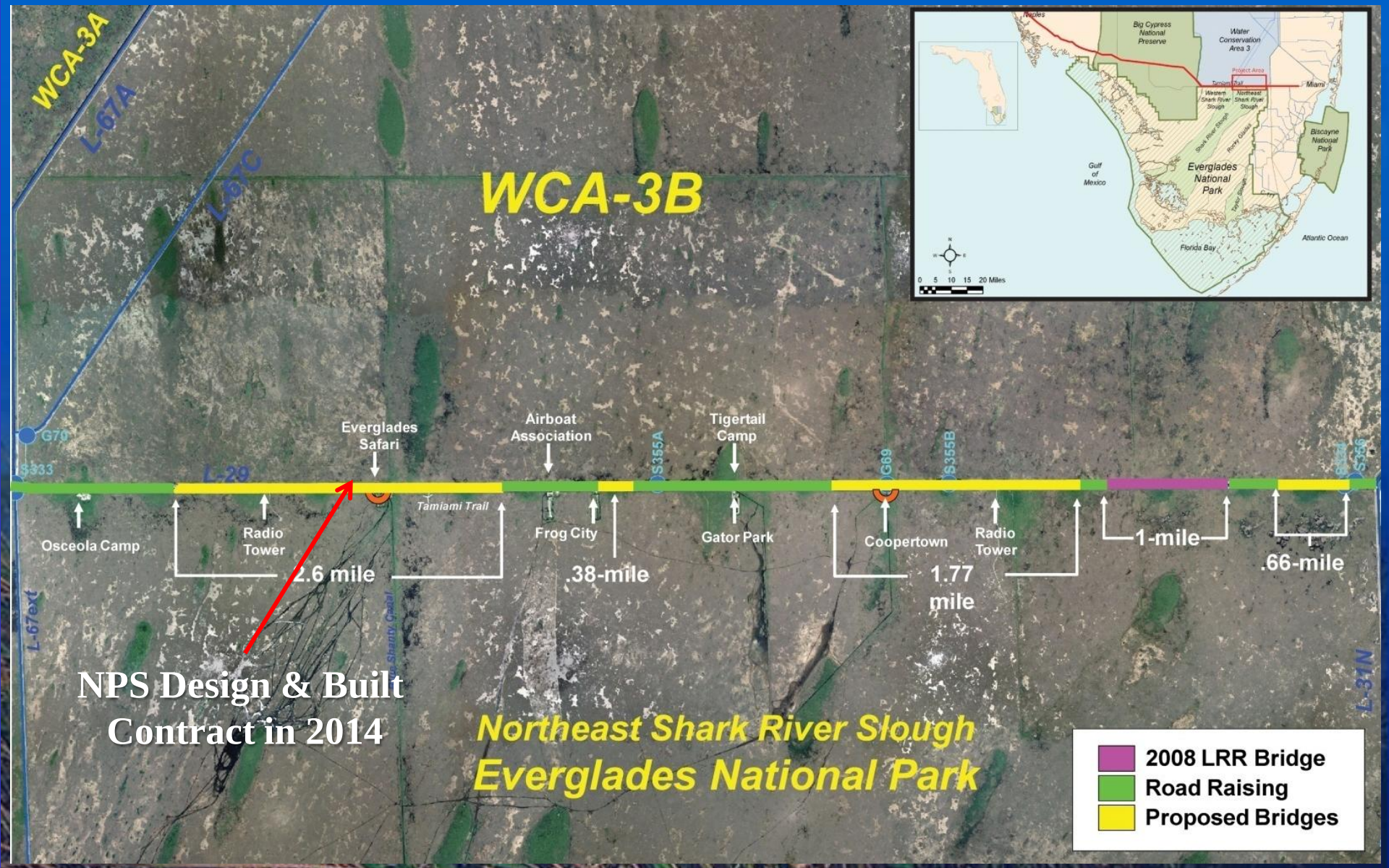
Third Field Test (1-mile bridge and L-29 8.5 ft. constraint)



LRR Hydrologic Spreadsheet Model

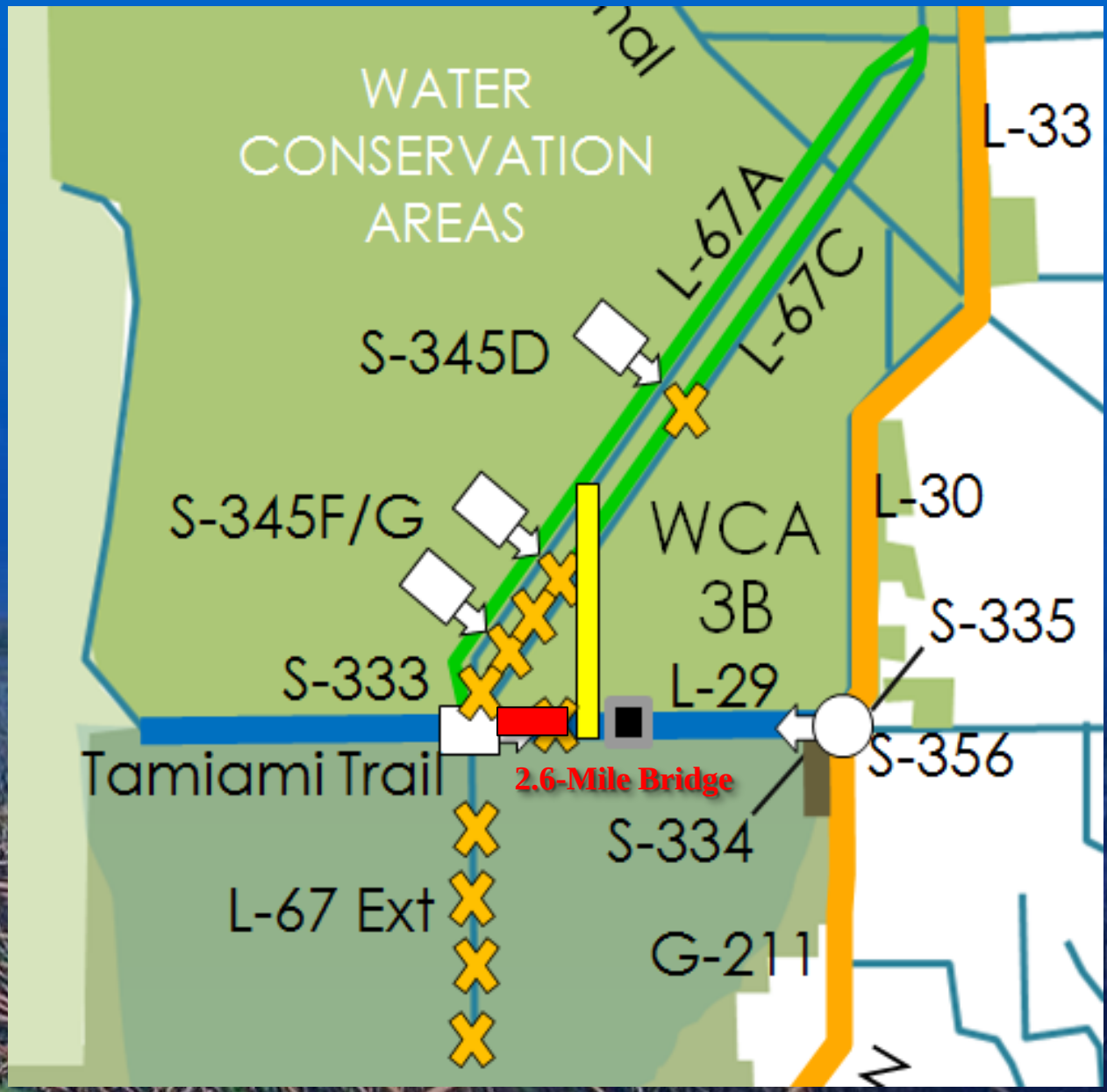


Tamiami Trail Next Steps Project
Alternative 6E (1st Increment)



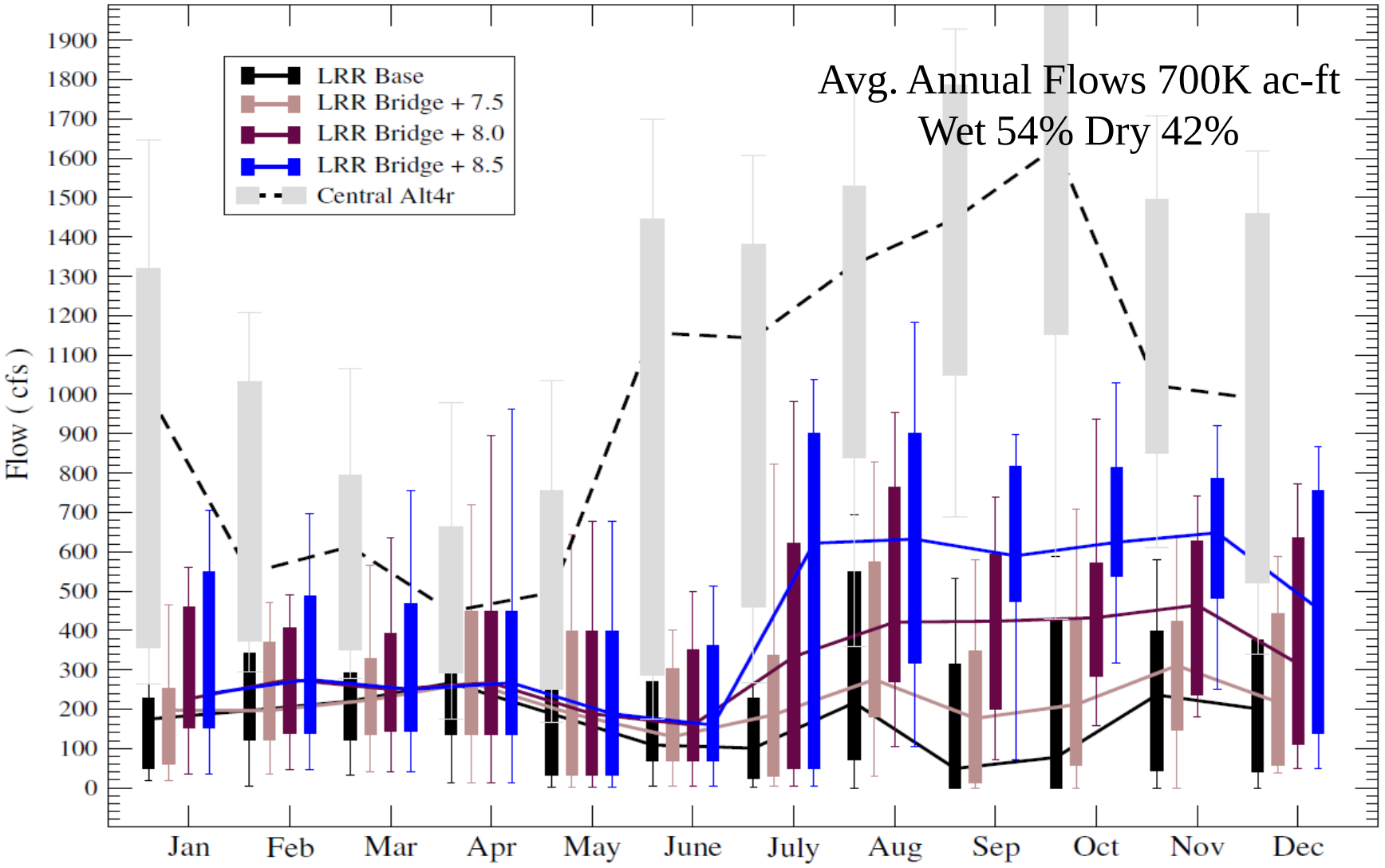
Central Everglades Alt4R Features

- Redirect WCA-3A flows (Enlarged S-333)
- WCA-3B Inflows (Blue Shanty Flow-way)
- Levees Degraded (L-67C & L-29)
- L-29 Divide Structure
- Seepage Mgmt. (Enlarged S-356)



LRR Hydrologic Spreadsheet Model

Central Everglades Planning Project (for comparison only)



LRR Hydrologic Spreadsheet Model