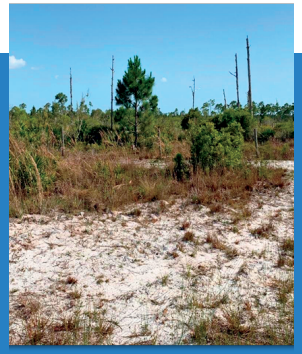
The issues...

Babcock Webb

Too Wet for Too Long

Babcock-Webb flows to the west have been restricted, increasing wet season water levels and hydroperiods in portions of Babcock-Webb such that the site is now too wet for the pine flatwoods, mesic oak hammocks, and shallow marshes on-site.



Yucca Pens

Too Dry for Too Long

Due to upstream flow constrictions and downstream drainage over decades, Yucca Pens and tidal creeks west of I-75 experience lower water depths and shorter hydroperiods for its cypress forests and marshes.

More Information

To read the Full Report and appendices including:
-Existing Conditions
-Natural Systems Analysis
-Future Conditions / Climate Changes

To view detailed project info. on the CHNEP Water Atlas, including:
-Prior studies
-Scientific data
-Meeting notes
-Model files
-Presentations

Thank you to project partners including:

South Florida Water Management District
Southwest Florida Water Management District
Florida Fish and Wildlife Conservation Commission

Coastal & Heartland National Estuary Partnership

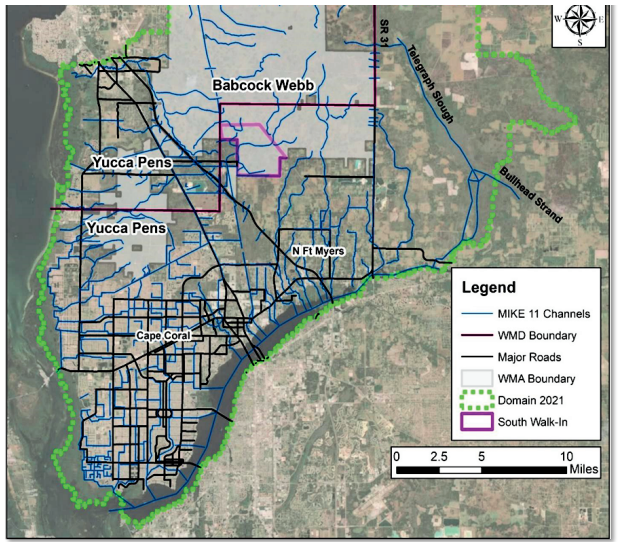
CHNEP.org

Lower Charlotte Harbor Flatwoods

HYDROLOGICAL RESTORATION PLANNING & PROJECTS

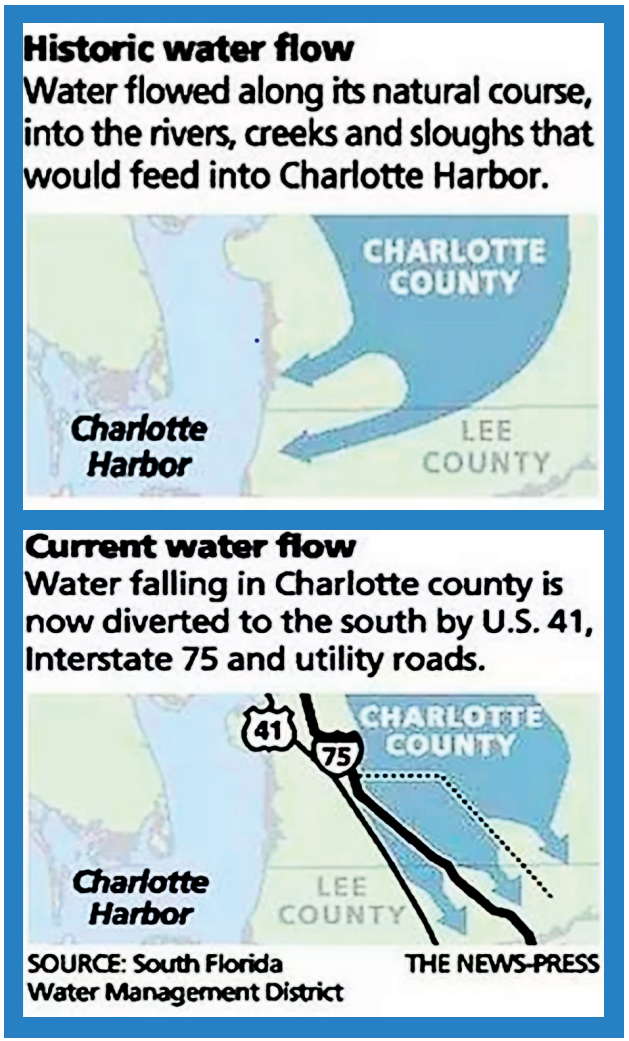
Project Area

The Charlotte Harbor Flatwoods is approximately 90 square miles of land in the Charlotte Harbor and Caloosahatchee watersheds, including Fred C. Babcock/Cecil M. Webb and Yucca Pens Wildlife Management Areas. It feeds numerous creeks that flow into coastal waters along southwest Florida's Lee and Charlotte counties.



Planning for the Future

Flow from Babcock-Webb to Yucca Pens has been altered through the years by farms, mining, highways, and residential land on both sides of I-75. As a result, the Charlotte Harbor Flatwoods Initiative (CHFI) was formed to restore more natural water flows and levels to natural lands and waterways across the project area.



This project identified historic flows/levels, current flows/levels, and potential restoration scenarios for restoring flows/levels, while maintaining or enhancing water supply, flood protection, water quality and water-dependent resources.

The result was a Strategic Hydrological Planning Tool and recommendations on what projects could be implemented to improve water resource management.

Restoring the Flow

The project outcomes included project and policy recommendations.

Project Examples:

- Construct ATV ditch blocks in existing ATV trails that drain isolated wetlands in Yucca Pens
- Construct 26 weirs representing either low-water fords or constructed weirs in Yucca Pens to minimize excess drainage
- Construct a partial groundwater seepage barrier in southern Yucca Pens to hold water back on-site
- Construct Bond Farm water retention project
- Construct a flow-way from Bond Farm to Yucca Pens along the southern border of the Southwest Aggregates Reservoir property, passing under US-41 and I-75.
- Add either a pump station or gated culverts on the west side of Bond Farm to deliver water to Yucca Pens during the late wet and early dry season
- Add a culvert under US-41 where the flow-way intersects US-41 to enhance flows west
- Acquire use of the Southwest Aggregates Reservoir to potentially store additional freshwater
- Construct a gate on the east side of the Southwest Aggregates south ditch that will open during wet season flow deliveries