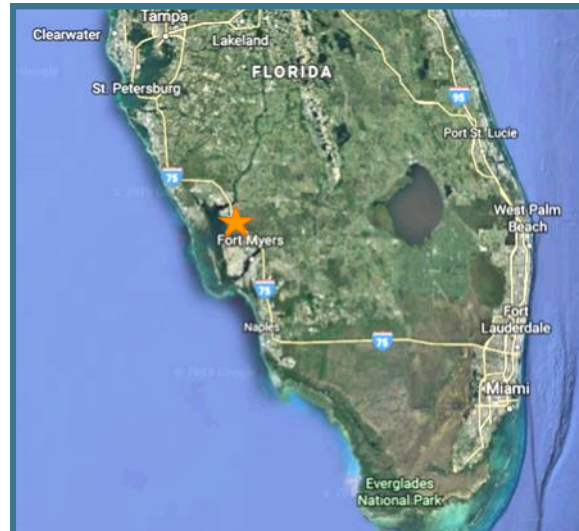


# Yucca Pens Hydrological Data Project

## HYDROLOGICAL RESTORATION



### Summary

The Yucca Pens Unit of the Babcock Webb Wildlife Management Area (hereinafter referred to as Yucca Pens), has been deprived of sufficient freshwater due to man-made hydrological alterations and diversions of freshwater.

The objective of this project was to collect the necessary data to input into an integrated surface/ground water model that will identify the appropriate freshwater flows and levels necessary to support healthy natural systems in the Yucca Pens, as well as to downstream tributaries of Charlotte Harbor. The project was completed by sampling soil borings, installing surface and groundwater wells, and surveying cross-sections of flowways and sloughs on-site. It was conducted in close coordination with Florida Fish and Wildlife Conservation Commission staff who provided critical support and assisted in its successful completion.

CHNEP provided the funding necessary to hire hydrogeological services to obtain hydrological and geological data in the Yucca Pens, which is managed by the Florida Fish and Wildlife Conservation Commission. The data collected during this project is pertinent to the development of an accurate hydrologic model and moving restoration efforts forward.

**Location:** Charlotte and Lee Counties, FL

**Partners:** Charlotte County and the Florida Fish and Wildlife Conservation Commission

**Implemented:** 2019

**Status:** Completed

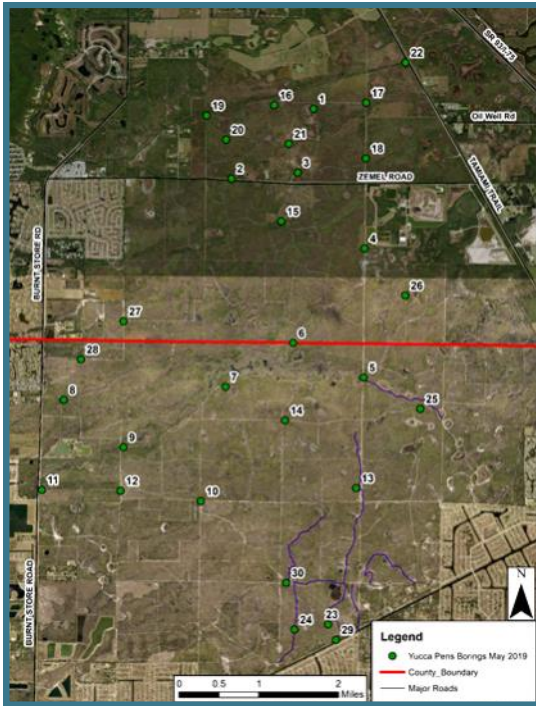
**CHNEP Cost:** \$148,650

**Funding Source:** Charlotte Co. Road Mitigation Funds managed by CHNEP

**2019 CHNEP CCMP Activity:** 

Hydrological Restoration 1.1: Conduct data collection, modeling, and analysis of historical, current, and projected hydrologic conditions to identify needs and guide hydrologic restoration.

# COASTAL & HEARTLAND NATIONAL ESTUARY PARTNERSHIP



## Results and Benefits

### Project Results:

The map in the upper left hand corner shows the 30 locations where soil borings were performed during this project. Soil borings were necessary to provide subsurface conditions to properly form a hydrologic model. 90% of the borings were made up of limestone, shell, and coarse sand deposits. Along with this, ten ground water monitoring wells were installed to monitor current water flow patterns in the area.

### Improved Habitat:

During this project, two fire suppression wells were installed in areas where their water production rate exceeded the 85 gallons per minute needed for filling water tanks used for prescribed burns. This will allow for prescribed burns in the area to help manage growth, restore nutrients, and lead to improved plant growth in the future.

### Informed Decision Making:

The results from this project will allow for the determination of future decisions regarding the restoration of this area. Once the current water flow patterns have been modeled, future flow possibilities can be predicted.

## CONTACT INFORMATION

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