



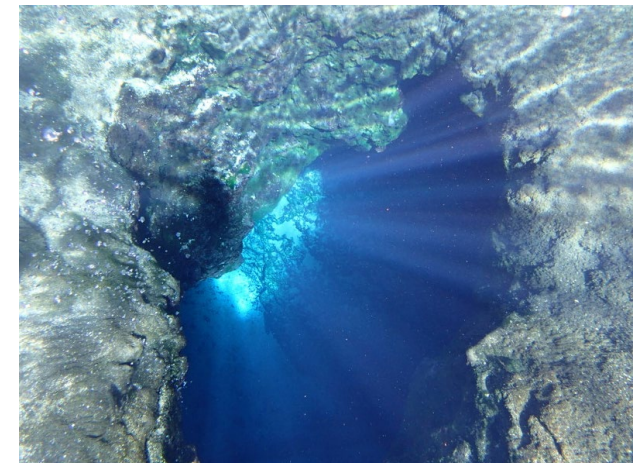
Florida Department of Environmental Protection

Division of
Recreation & Parks

Ichetucknee Springs State Park

River Ecosystem Health and Access Management

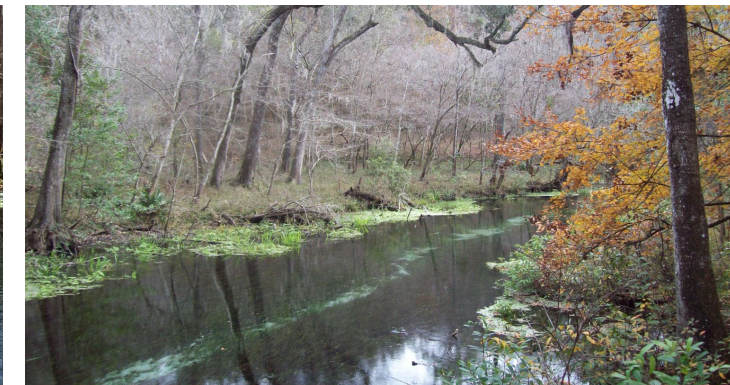
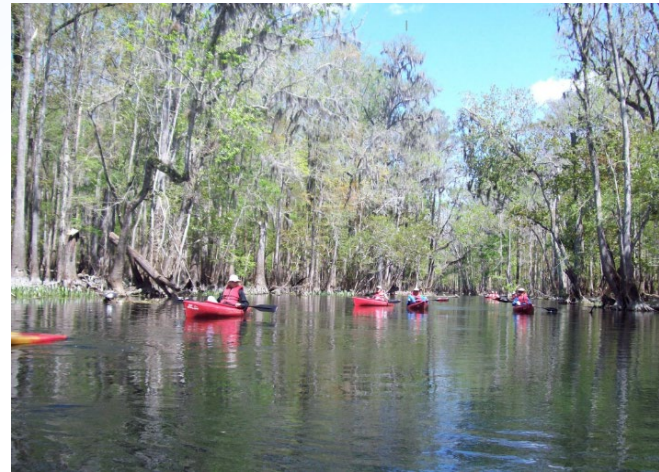
Protecting the Aquatic Resource in Perpetuity





Park Overview

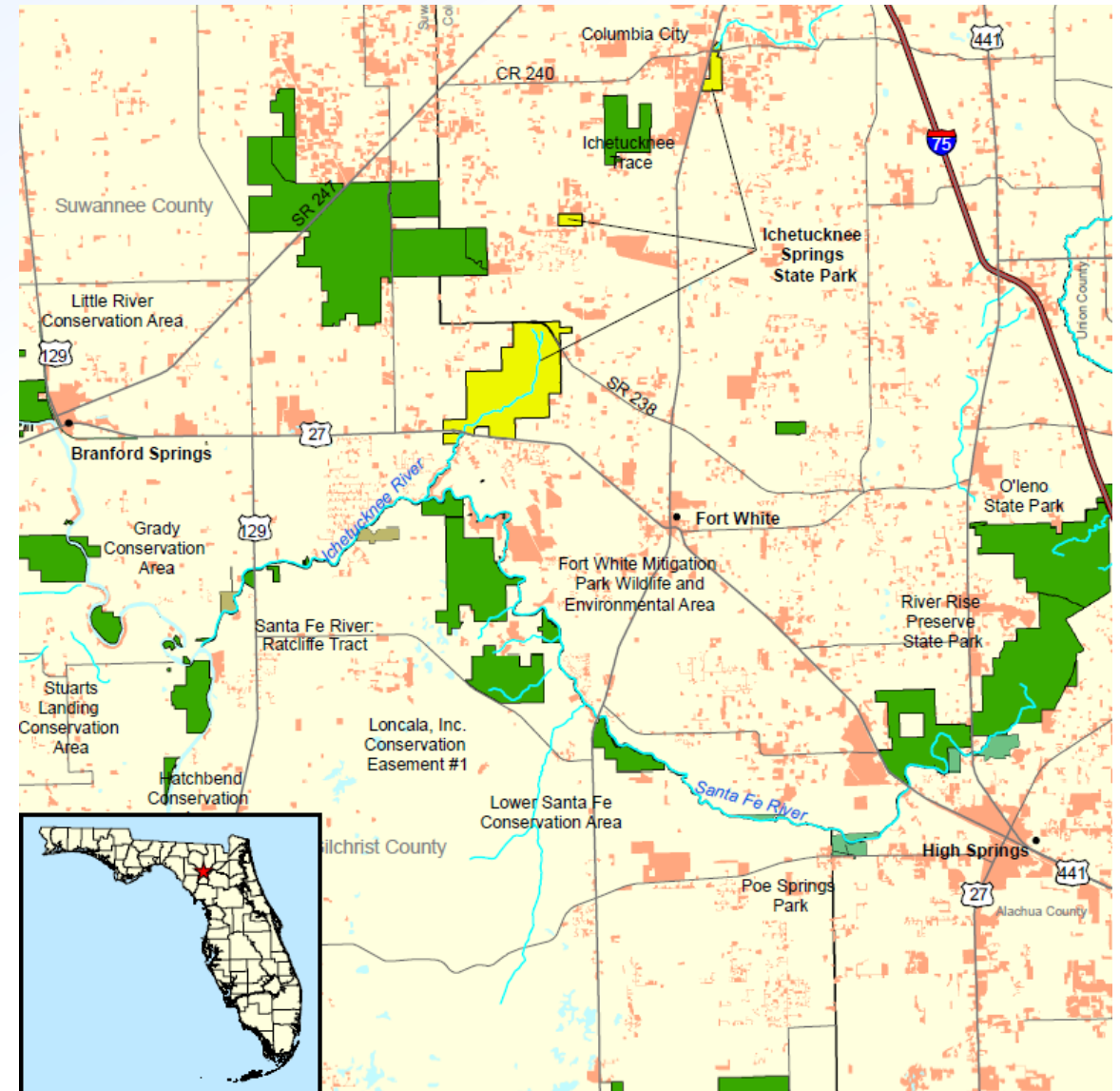
- 3.5 miles of the Ichetucknee River
- 1st and 2nd magnitude springs at headwaters
- 8 major springs along the park's river corridor
- 2 distinct sections:
 - Upper Ichetucknee
 - Lower Ichetucknee





Park Overview

- located in Columbia and Suwannee counties, northwest of Fort White
- acquired January 1970
- consists of 2,531.87 acres
- yields high annual visitation and economic impact
- renowned for various outdoor recreational and interpretive pursuits
 - swimming/snorkeling
 - tubing
 - paddling
 - scuba diving (cavern/cave)
 - hiking/wildlife observation

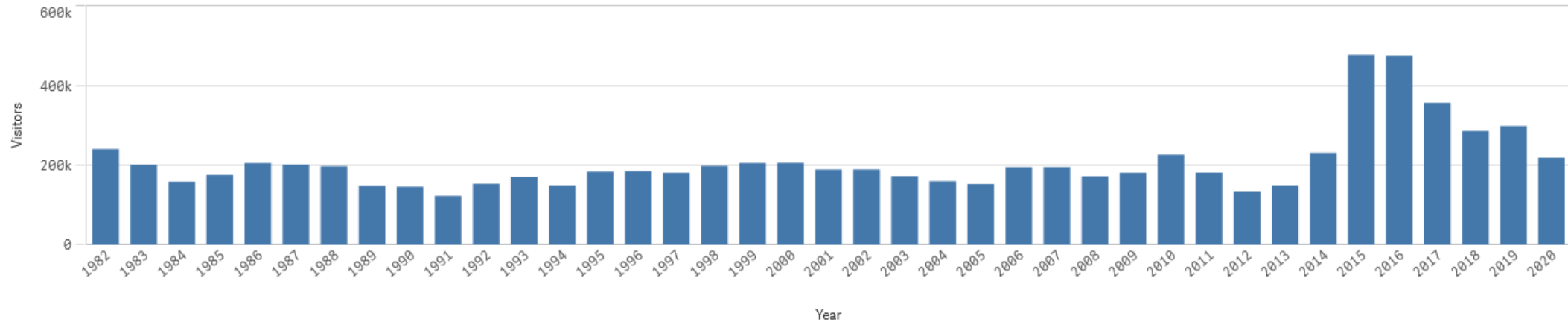




Park Attendance Trends

Ichetucknee Springs State Park

Attendance by Calendar Year



*Data does not exist prior to July 1982.



An Underwater Forest

Within a spring ecosystem, the plants that make up the submerged aquatic vegetation (SAV) or its “underwater forest” are the foundation of a healthy freshwater community.





Submerged Aquatic Vegetation

- **dominant species**

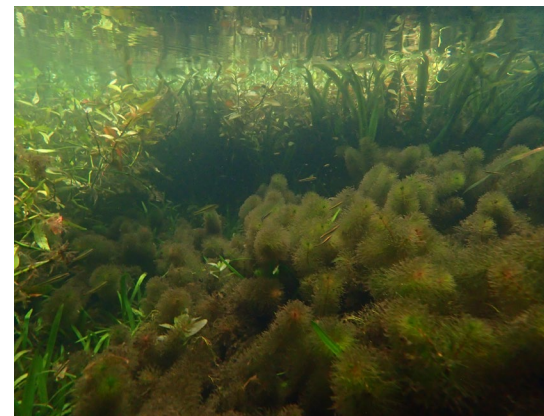
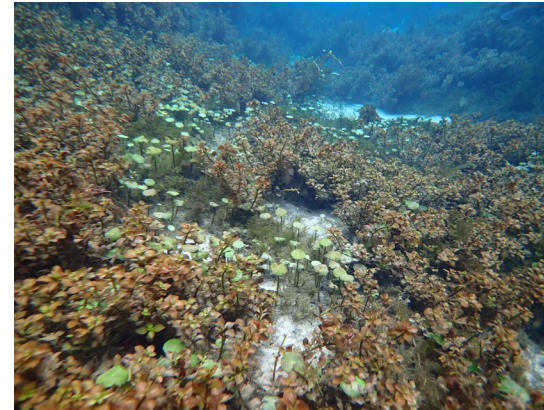
- springtape (*Sagittaria kurziana*)
- American eelgrass (*Vallisneria americana*)
- creeping primrosewillow (*Ludwigia repens*)
- wild rice (*Zizania aquatica*)
- spring-run spiderlily (*Hymenocallis rotata*)
- water hemlock (*Cicuta maculata*)
- watercress (*Nasturtium* spp.)
- pennywort spp. (*Hydrocotyle umbellata*, *H. verticillata*, *H. ranunculoides*)

- **decreasing species**

- twoleaf water-milfoil (*Myriophyllum heterophyllum*)
- muskgrass (*Chara zeylonica*)

- **high-nutrient species**

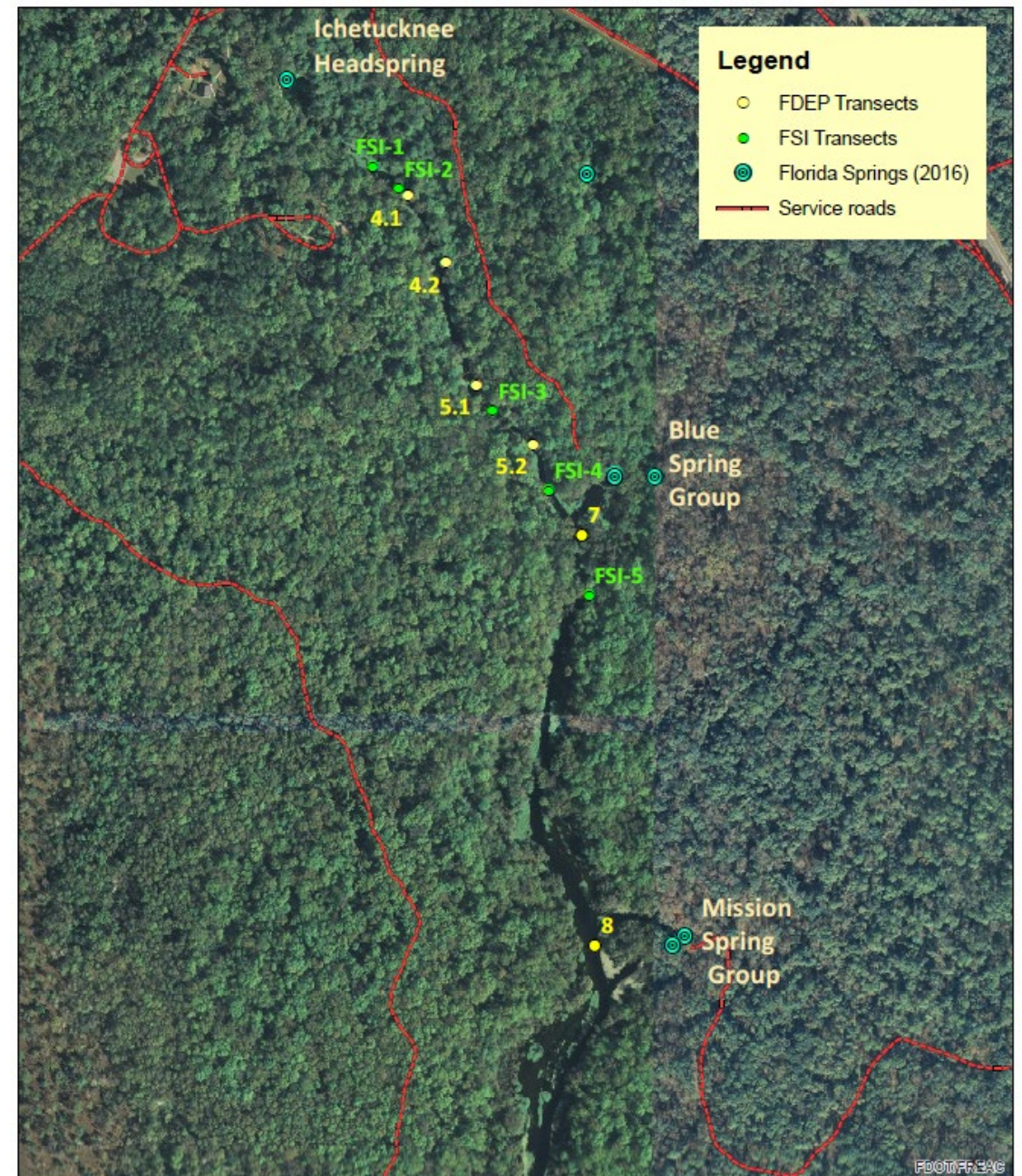
- southern waternymph (*Najas guadalupensis*)
- coontail (*Ceratophyllum demersum*)
- water spangles (*Salvinia minima*)





Studying Ecosystem Health

- photopoint monitoring since 1979
- biannual transect studies conducted since 1989
- water level gauges located throughout river corridor
- ongoing water quality sampling



Ichetucknee Springs State Park North End SAV Transect Locations

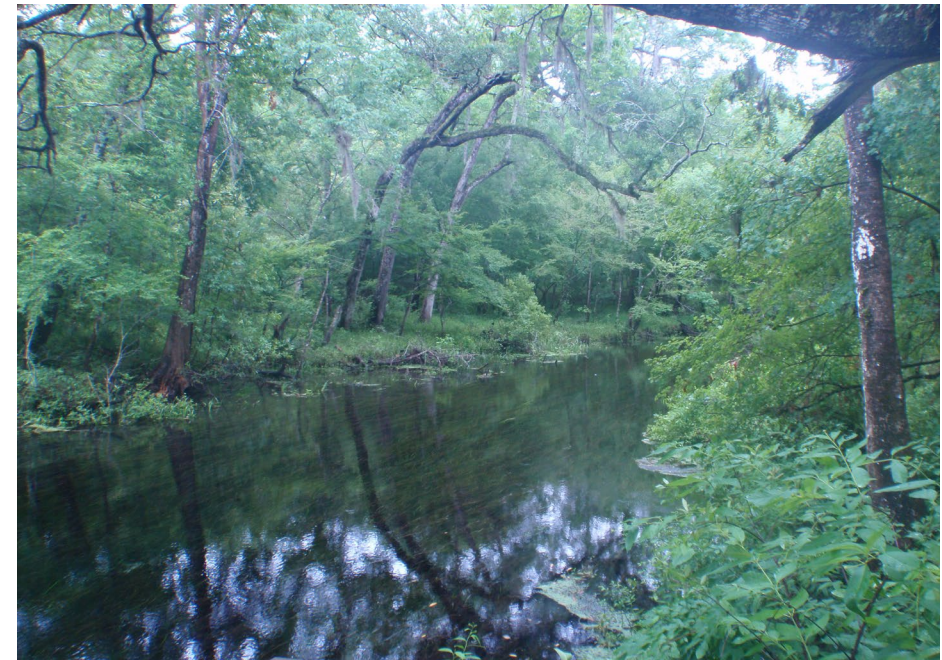
0 250 500 1,000 Feet



Studying Ecosystem Health

- trending declines observed
- impacts primarily in shallow water areas
 - inadvertent trampling
 - bare sand exposures
 - increased turbidity
 - interrupted photosynthesis
 - reduced SAV coverage
 - increased algae presence
- brief recovery period occurring between summer visitation seasons
 - extent of annual recovery decreasing

May 18, 2009



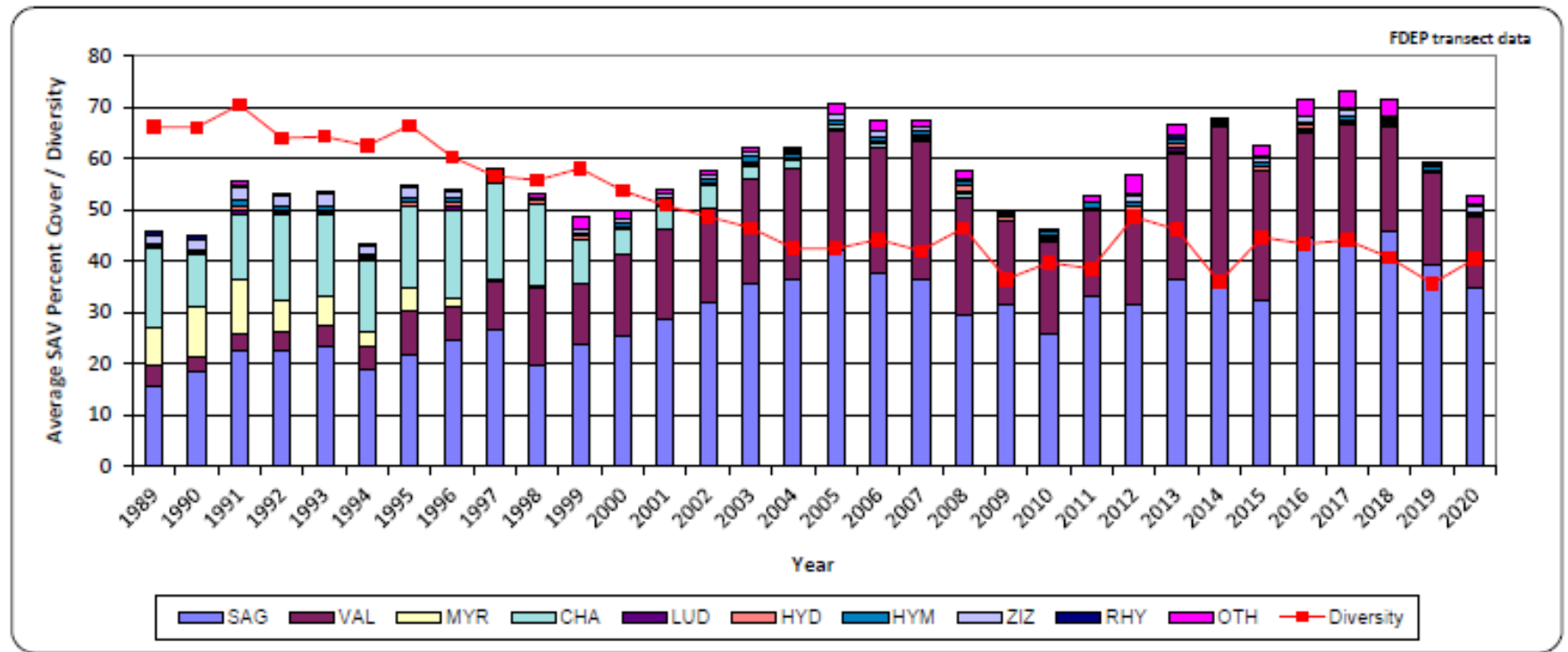
September 14, 2009





Studying Ecosystem Health

Annual Average All Transects 1989-2020



SAG = *Sagittaria kurziana*
 VAL = *Valisneria americana*
 MYR = *Myriophyllum heterophyllum*

CHA = *Chara (prob.) zeylonica*
 LUD = *Ludwigia repens*
 HYD = *Hydrocotyle (prob.) verticillata*

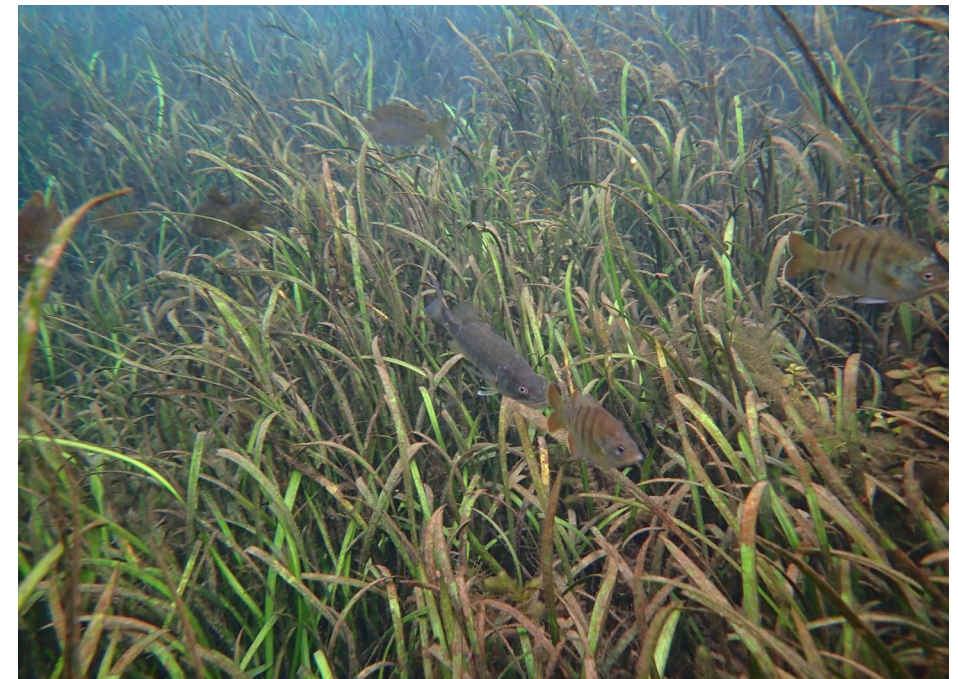
HYM = *Hymenocallis rotata*
 ZIZ = *Zizania aquatica*
 RHY = *Rhynchospora sp. or Carex sp.*

OTH = *Lobelia cardinalis, Rorippa officinale, Cicutu maculata*



Recent Trends

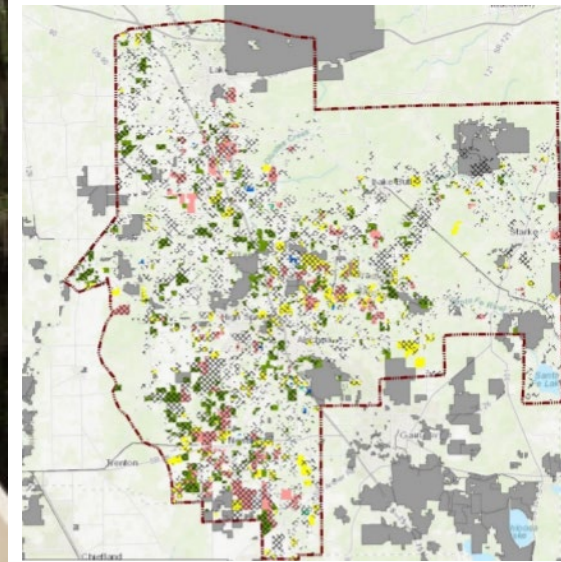
- **decreases in impactful recreational activity**
 - September 2019 – September 2020
 - extended recovery period
- **increases in SAV distribution and diversity**
 - in progress
- **indications that more profound recovery is attainable**
 - given removal of recurring impacts





Opportunities for Ecosystem Recovery

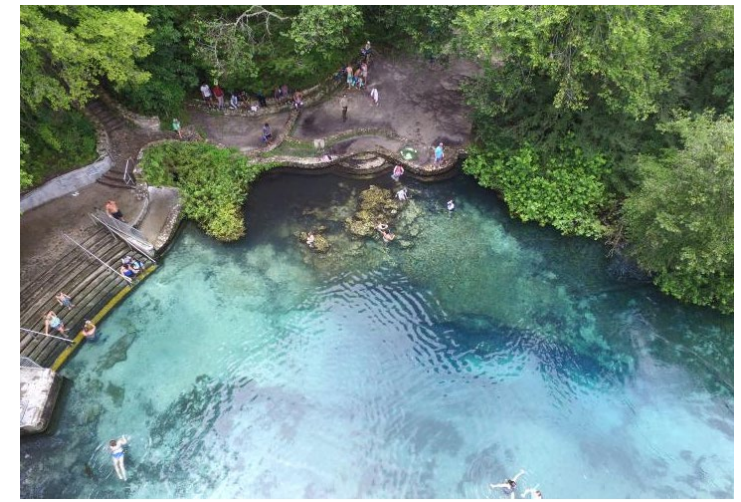
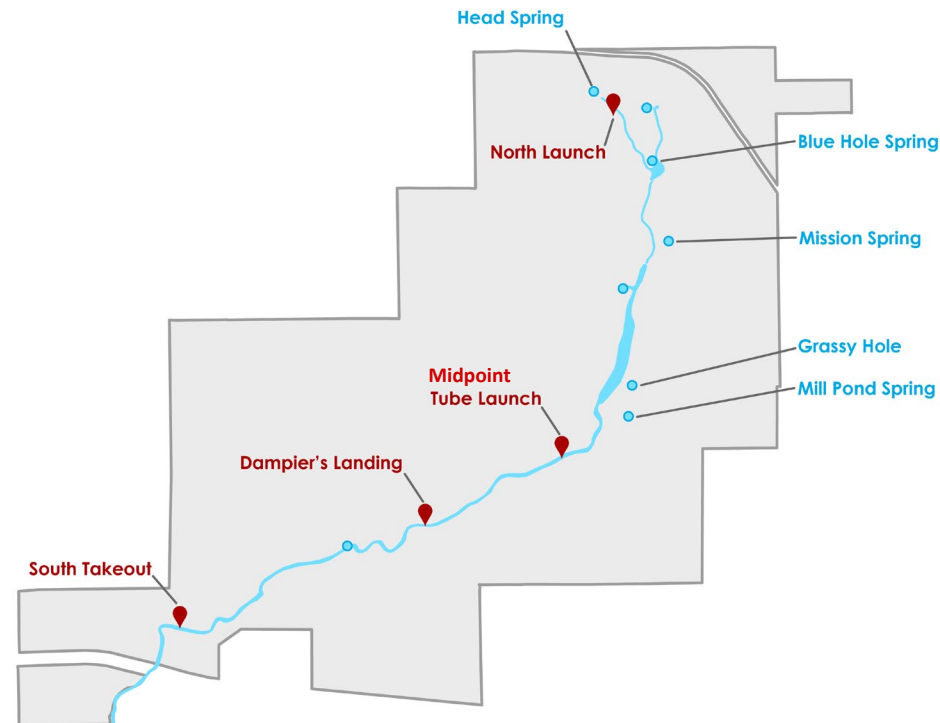
- **Basin Management Planning**
 - **seeks regional watershed solutions to**
 - water quality
 - nitrates/phosphates
 - malfunctioning septic tanks
 - agricultural fertilizers
 - water quantity
 - decreased water flow
 - regional groundwater over-consumption





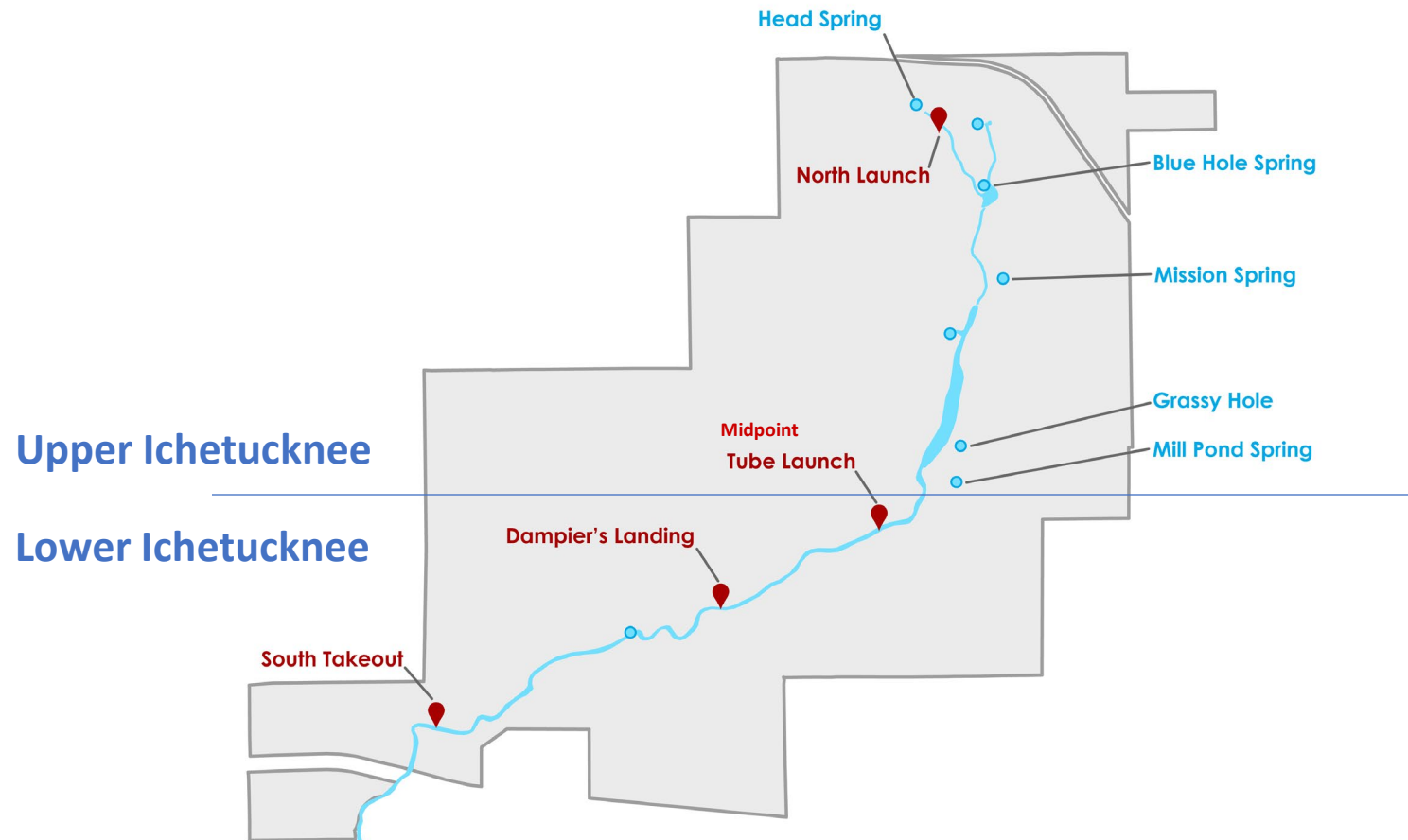
Opportunities for Ecosystem Recovery

- Head Spring and Blue Hole – swimming continues
- Upper Ichetucknee – paddling only
- Lower Ichetucknee – tubina continues





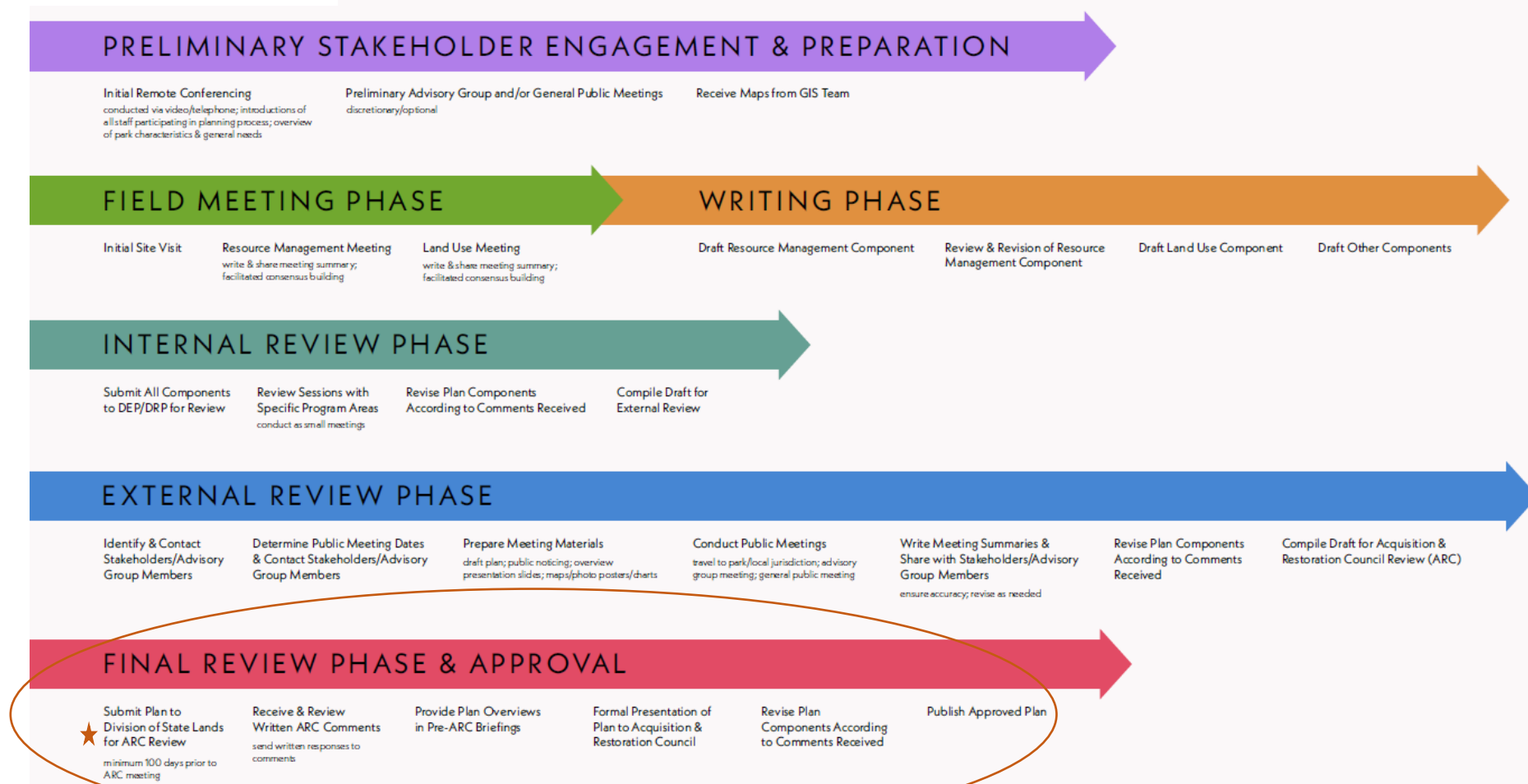
Opportunities for Ecosystem Recovery





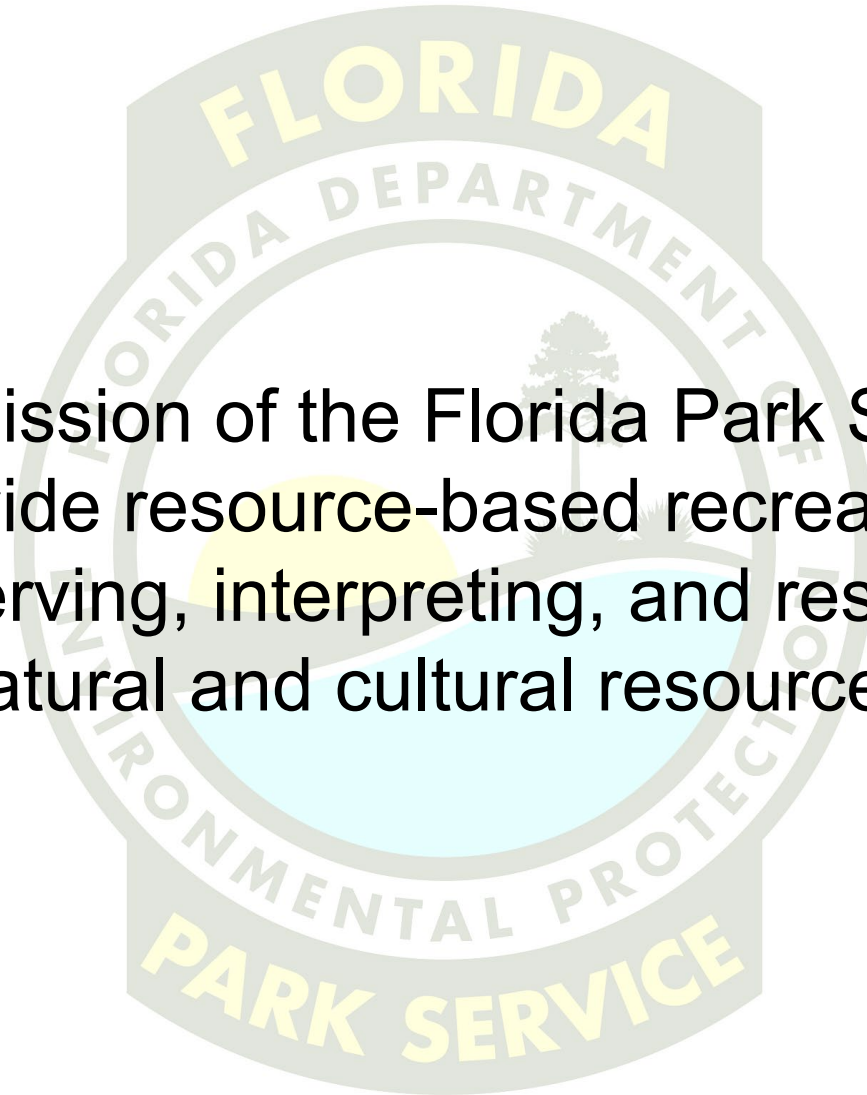
Next Steps in the Park Planning Process

- **Submit Plan to the Division of State Lands for ARC Review**
 - by early January
- **Formal Presentation of Plan to ARC**
 - April meeting
- **Management Plan Approval**
 - upper river mgmt. strategies effective for 2021 summer season





The mission of the Florida Park Service is to provide resource-based recreation while preserving, interpreting, and restoring natural and cultural resources.





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