Mike Roess Gold Head Branch State Park
Park Chapter

NORTH FLORIDA HIGHLANDS REGION

MIKE ROESS GOLD HEAD BRANCH STATE PARK

CLAY COUNTY, FLORIDA

0 1,000 2,000 Feet

N W E S

PARK FEATURES
- Park Boundary
- Structures
- Parking Lots
- Paved Park Road
- Florida National Scenic Trail
- Hiking Trails
- Stabilized Park Roads
- Unstabilized Park Roads
- Campsites

CAMP BLANDING
(Florida National Guard)

21

PARK ENTRANCE

Staff Residence

Entrance Station/ Park Office

Staff Residence

ROAD

TRAM

SANDHILL

SCRUB

Devil's Washbasin

Ravine Overlook

Kiosk

Ravine Trailhead

Ravine Bottom Observation Deck

Ridge Trail

Sheelar Lake

Sheelar Lake Trail

SCRUB

UPLAND HARDWOOD FOREST

SANDHILL

SANDHILL

Ridge Trail

Gold Head Branch

TO KEYSTONE HEIGHTS

Florida National Scenic Trail

Mining Lake

VULCAN MATERIALS CO. GOLDHEAD SAND PLANT

SANDHILL LOOP

Restroom

Well

Mill Site

TURKEY OAK LOOP

Restroom

BAYGALL

XERIC HAMMOCK

Loblolly Loop

Primitive Campsites

Pavilion

Pavilions

Pavilions

Pavilion

DEPRESSION MARSH

SEEPAGE SLOPE

Main Picnic Shelter/ Restroom

Overlook

Recreation Building

Pebble Lake

Little Lake Johnson

BASIN MARSH

Restroom

Cabins

Group Camp Restroom

Staff Residences

Boat Ramp

Laundry Shelter

LAKEVIEW LOOP

Staff Residence

Birdhouse

Big Lake Johnson

Sign Shop

Maintenance Shop

Staff Residence

Bathhouse

Florida Trail Buildings

WHITE SANDS RD

SANDHILL

CHRISTIAN CAMP RD

Florida National Scenic Trail

White Sands Lake

Gator Bone Lake

SURROUNDING LAND COVER
- Forests
- Wetlands
- Sandhill
- Agriculture
- Silviculture

352

214

Lake

Smith

Silver Sand Lake

Bull Pond

INTRODUCTION

LOCATION AND ACQUISITION HISTORY

Mike Roess Gold Head Branch State Park is located in Clay County (see Vicinity Map). Access to the park is from State Road 21. The Vicinity Map also reflects significant land and water resources existing near the park.

Mike Roess Gold Head Branch State Park was initially acquired Jan. 11, 1935, as one of the original eight Civilian Conservation Corps (CCC) parks in Florida. Subsequent acquisitions were funded by the Park Board, the Land Acquisition Trust Fund (LATF), CARL/P200. Currently, the park comprises 2,366.87 acres. The Board of Trustees of the Internal Improvement Trust Fund (Trustees) hold fee simple title to the park and on Sept. 3,2019, the Trustees renewed (Lease No. 2455) to the Division of Recreation and Parks (DRP) under a 50-year lease. The current lease will expire Sept. 3, 2069.

Mike Roess Gold Head Branch State Park is designated single-use to provide public outdoor recreation and conservation. There are no legislative or executive directives that constrain the use of this property (see Addendum 1). A legal description of the park property can be made available upon request to the Department of Environmental Protection.

SECONDARY AND INCOMPATIBLE USES

In accordance with 253.034(5) F.S., the potential of the park to accommodate secondary management purposes was analyzed. These secondary purposes were considered within the context of DRP's statutory responsibilities and resource values. This analysis considered the park's natural and cultural resources, management needs, aesthetic values, visitation and visitor experiences. It was determined that no secondary management purposes could be accommodated in a manner that would be compatible and not interfere with the primary purpose of resource-based outdoor recreation and conservation.

DRP has determined that uses such as water resource development projects, water supply projects, stormwater management projects, linear facilities and sustainable agriculture and forestry (other than those management activities specifically identified in this plan) would not be consistent with the management purposes of the park.

In accordance with 253.034(5) F.S., the potential for generating revenue to enhance management was also analyzed. Visitor fees and charges are the principal source of revenue generated by the park. It was determined that no additional revenue generating activities are appropriate during this planning cycle. Generating revenue from consumptive uses or from activities that are not expressly related to resource management and conservation is not under consideration.

PURPOSE AND SIGNIFICANCE OF THE PARK

Park Purpose

The purpose of Mike Roess Gold Head Branch State Park is to protect and interpret the natural communities indicative of the southern Trail Ridge and northern Hawthorne Lakes regions including steephead ravines, sandhill lakes and unspoiled uplands such as old-growth sandhill.

Park Significance

- Located at the southern extent of the Trail Ridge, the park protects the largest steephead ravine system in northeast Florida, cradled within an old-growth longleaf pine and wiregrass dominated sandhill.

- One of Florida's oldest state parks, Mike Roess Gold Head Branch State Park has a rich Civilian Conservation Corps (CCC) history evident in many of the park's structures, including the entrance station and cabins.

- The park's exemplary natural communities provide outstanding opportunities for resource-based recreation, including access into one of Florida's most prominent steephead ravines, sandhill lakes and old-growth longleaf pine forests.

Central Park Theme

Spring waters carve a lush green ravine through Mike Roess Gold Head Branch State Park, contrasting with golden grasses that shimmer beneath the ancient pines of Florida's disappearing sandhills.

Mike Roess Gold Head Branch State Park is classified as a state park in the DRP unit classification system. In management, a balance is sought between the goals of maintaining and enhancing natural conditions and providing various recreational opportunities. Natural resource management activities are aimed at management of natural systems. Development in the park is directed toward providing public access to and within the park and to providing recreational facilities, in a reasonable balance, that are both convenient and safe. Program emphasis is on interpretation of the park's natural, aesthetic and educational attributes.

OTHER DESIGNATIONS

The unit is not within an Area of Critical State Concern as defined in section 380.05; Florida Statutes and is not presently under study for such designation. The park is a component of the Florida Greenways and Trails System, administered by the Department's Office of Greenways and Trails.

All waters within the park have been designated as Outstanding Florida Waters, pursuant to Chapter 62-302, Florida Administrative Code. Surface waters in this park are also classified as waters by the Department. The park is not adjacent to an aquatic preserve as designated under the Florida Aquatic Preserve Act of 1975 (Section 258.35, Florida Statutes).

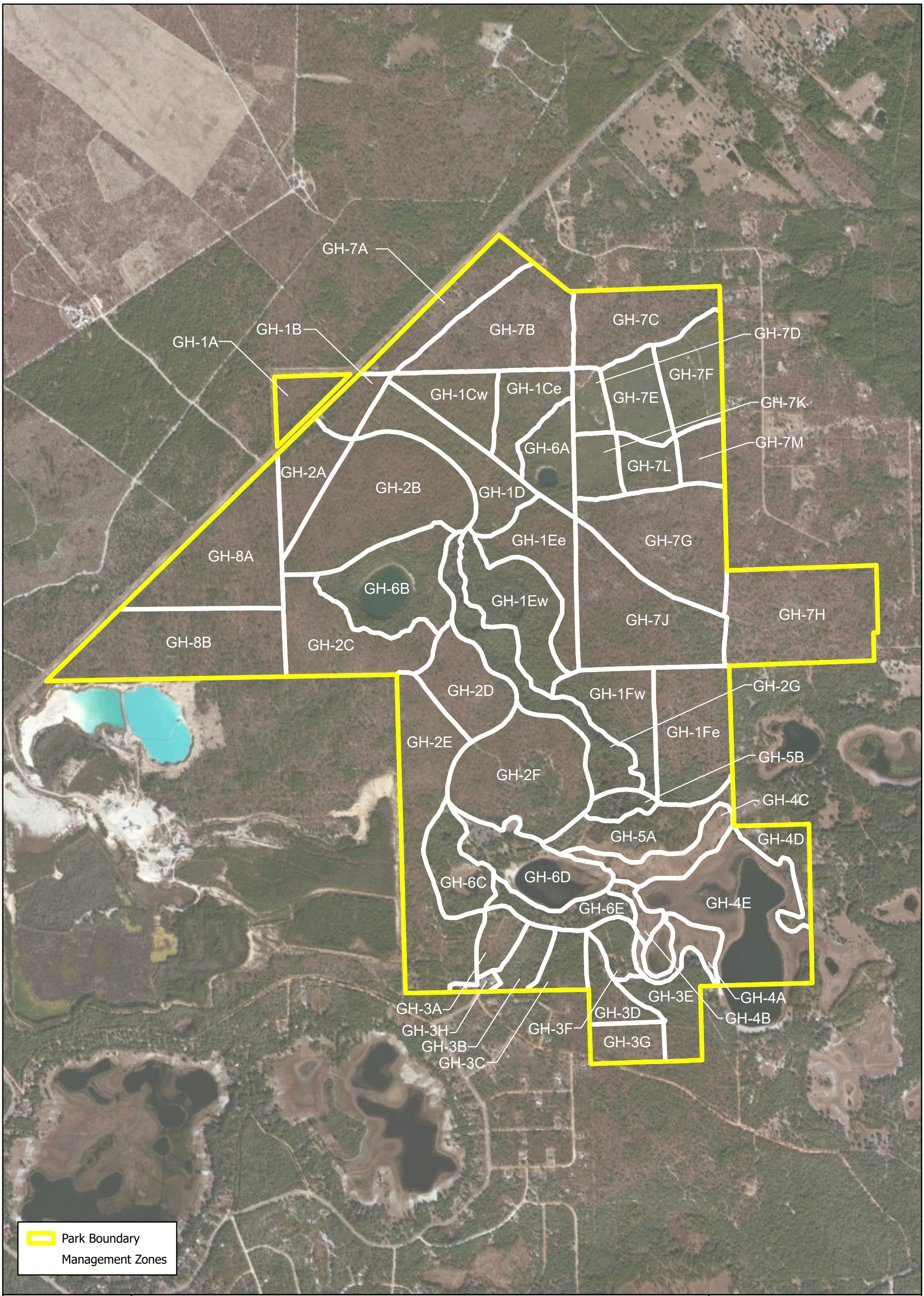
PARK ACCOMPLISHMENTS

- Over 2,000 acres of the park have been treated with prescribed fire in consecutive years.
- A new fire line has been established between the Vulcan Sand Plant and Gladman Property.
- A water quality monitoring program has been implemented for several of the park's lakes.
- Low water crossing infrastructure has been installed to improve access for resource management.
- The existing boardwalk within the ravine has been renovated with more durable composite decking.
- The park has hosted a wide array of professional meetings in support of resource management, interpretation, and other program areas germane to the DRP mission.

RESOURCE MANAGEMENT COMPONENT

Mike Roess Gold Head Branch State Park Management Zones			
Management Zones	**Acreage**	**Managed with Prescribed Fire**	**Contains Cultural Resources**
GH-1A	19.17	Y	N
GH-1B	18.15	Y	Y
GH-1Ce	35.68	Y	N
GH-1Cw	36.49	Y	N
GH-1D	55.22	Y	N
GH-1Ee	49.92	Y	N
GH-1Ew	59.85	Y	N
GH-1Fe	72.19	Y	Y
GH-1Fw	47.58	Y	Y
GH-2A	36.19	Y	Y
GH-2B	115.4	Y	Y
GH-2C	67.89	Y	N
GH-2D	45.73	Y	N
GH-2E	109.81	Y	Y
GH-2F	97.54	Y	Y
GH-2G	60.97	Y	Y
GH-3A	16.63	Y	Y
GH-3B	17.28	Y	Y
GH-3C	18.01	Y	N
GH-3D	21.49	Y	N
GH-3E	35.67	Y	Y
GH-3F	14.74	Y	N
GH-3G	21.07	Y	N
GH-3H	3.96	N	Y
GH-4A	17.4	Y	N
GH-4B	8.43	Y	Y
GH-4C	27.35	Y	Y
GH-4D	23.84	Y	N
GH-4E	116.24	Y	Y
GH-5A	45.94	Y	Y

Mike Roess Gold Head Branch State Park Management Zones			
Management Zones	**Acreage**	**Managed with Prescribed Fire**	**Contains Cultural Resources**
GH-5B	11.2	Y	N
GH-6A	31.49	Y	N
GH-6B	71.05	Y	N
GH-6C	34.22	Y	Y
GH-6D	53.19	Y	Y
GH-6E	24.53	Y	Y
GH-7A	41.63	Y	N
GH-7B	82.62	Y	N
GH-7C	60.33	Y	N
GH-7D	16.08	Y	N
GH-7E	34.73	Y	N
GH-7F	43.47	Y	N
GH-7G	92.03	Y	N
GH-7H	103.29	Y	N
GH-7J	97.43	Y	N
GH-7K	21.27	Y	N
GH-7L	21.72	Y	N
GH-7M	19.22	Y	N
GH-8A	90.52	Y	N
GH-8B	100.99	Y	N



MIKE ROESS GOLDHEAD BRANCH STATE PARK
Management Zones

N

0 0.25 0.5 Miles

This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

TOPOGRAPHY

Mike Roess Gold Head Branch State Park lies within the Northern Physiographic Zone of the state. This region of continuously high ground forms a broad upland that extends eastward to the Eastern Valley and westward into the Western Highlands of the panhandle.

The park straddles the boundary between the Northern Highlands and the Trail Ridge. The uplands north of Lake Johnson are located on the southeastern rim of the Trail Ridge, a relic barrier or spit dominated by excessively well-drained sandhill soils. Lake Johnson and areas to the south lie within the Northern Highlands, a region of sandhills and lakes at a slightly lower elevation (Weatherspoon et al 1989).

Locally, karstic processes influence the topography, as the rolling landscape is dotted with numerous sinkhole lakes of varying sizes, including three within Gold Head Branch State Park. Park elevations range from less than 85 feet above mean sea level (m.s.l.) to 240 feet m.s.l. The steephead ravine formed by Gold Head Branch is the most significant topographic feature of the park. The sandhill upland lake in the park, Lake Johnson, is separated into two distinct basins during periods of low water. Locally, the basins are named Little Lake Johnson, which lies wholly within the park, and Big Lake Johnson, which is partly within private ownership.

Some alteration of terrain occurred during development of the park. Dredging took place off the shore of Little Lake Johnson where the swimming area is now located, and sand was pumped from Pebble Lake to nourish the beach on Little Lake Johnson in the 1950s. In 2002, sand was replaced in the dredged holes in the bottom of Lake Johnson adjacent to the swimming area.

Various natural and artificial changes also occurred in the lower reaches of Gold Head Branch. According to early park base maps and reports (Malsberger 1938), the Civilian Conservation Corps (CCC) diverted the flow of the branch in 1937-38. Just prior to the diversion, the branch flowed due south along two courses. The eastern course ended at Big Lake Johnson, while the western course emptied into the upper end of a narrow lagoon on the north side of Little Lake Johnson. The CCC dug an east-west ditch to connect the two courses, effectively combining their flows into one channel that terminated at the lagoon. The CCC also constructed a low rock wall to create a waterfall at the upper end of the lagoon. In 1938, the CCC proposed to dredge a channel through the broad marsh that then separated Big and Little Lake Johnson (Malsberger 1938). That channel was apparently constructed to allow boats to pass from the park into the main portion of the lake.

SOILS

According to the U.S. Soil Conservation Service (Weatherspoon et al 1989), 13 soil types representing 23 percent of the soil types listed for Clay County are found at Mike Roess Gold Head Branch State Park (see Soils Map). Complete soils descriptions are contained in the Appendix.

Natural changes in topography have caused a shifting of the typical natural communities associated with some soil types. For example, enlargement of the ravine through erosive processes over geological time has caused the deep, excessively well drained sands normally found in the high, droughty uplands to relocate to lower, more mesic slopes. The Penney fine sand soil type that would typically be associated with the sandhill community is now covered by a slope forest. In addition, exclusion of fire in the seepage slope, a community often dominated by herbaceous plants, has allowed extensive invasion of the system by woody species and loblolly pines (*Pinus taeda*).

Past soil disturbances in the park include the removal of topsoil for fill and the construction of terraces, especially near Big Lake Johnson and Little Lake Johnson. One concern is that the removal of soil for terracing may have altered the composition of the natural communities adjacent to Lake Johnson, particularly the seepage slope and mesic flatwoods. In another area of disturbance, this one located above Sheeler Lake, a parking area was stabilized with clay during early development of the park. In recent years, the hard clay surface has channeled runoff down slope toward Sheeler Lake, contributing to erosion of slopes above the lake. Unrestricted foot traffic for many years has also destabilized the sandy soils. Details of the restoration of this area may be found in the Hydrology section below.

Although a certain level of soil erosion is naturally associated with steephead ravines, foot traffic can seriously exacerbate the situation. Unauthorized climbing of slopes has been a chronic problem near the head of the Gold Head Branch ravine. It appears that most of the climbing occurs from the base of the slope up to the rim of the ravine. Efforts discouraging climbing by brushing out paths and by using appropriate signs have met with some success and these efforts will be continued. Runoff from the ravine stairwell is also contributing to the erosion on the western slope of the ravine. Erosion has also occurred at a shoreline access point below the rental cabins on Little Lake Johnson. Management activities will follow generally accepted best management practices to prevent further soil erosion and conserve soil and water resources on site.

Legend

Elevation (Meters)

- ≤ 29
- 32
- 36
- 39
- 42
- 45
- 48
- 52
- 55
- 58
- 61
- 64
- 68
- 71
- 74

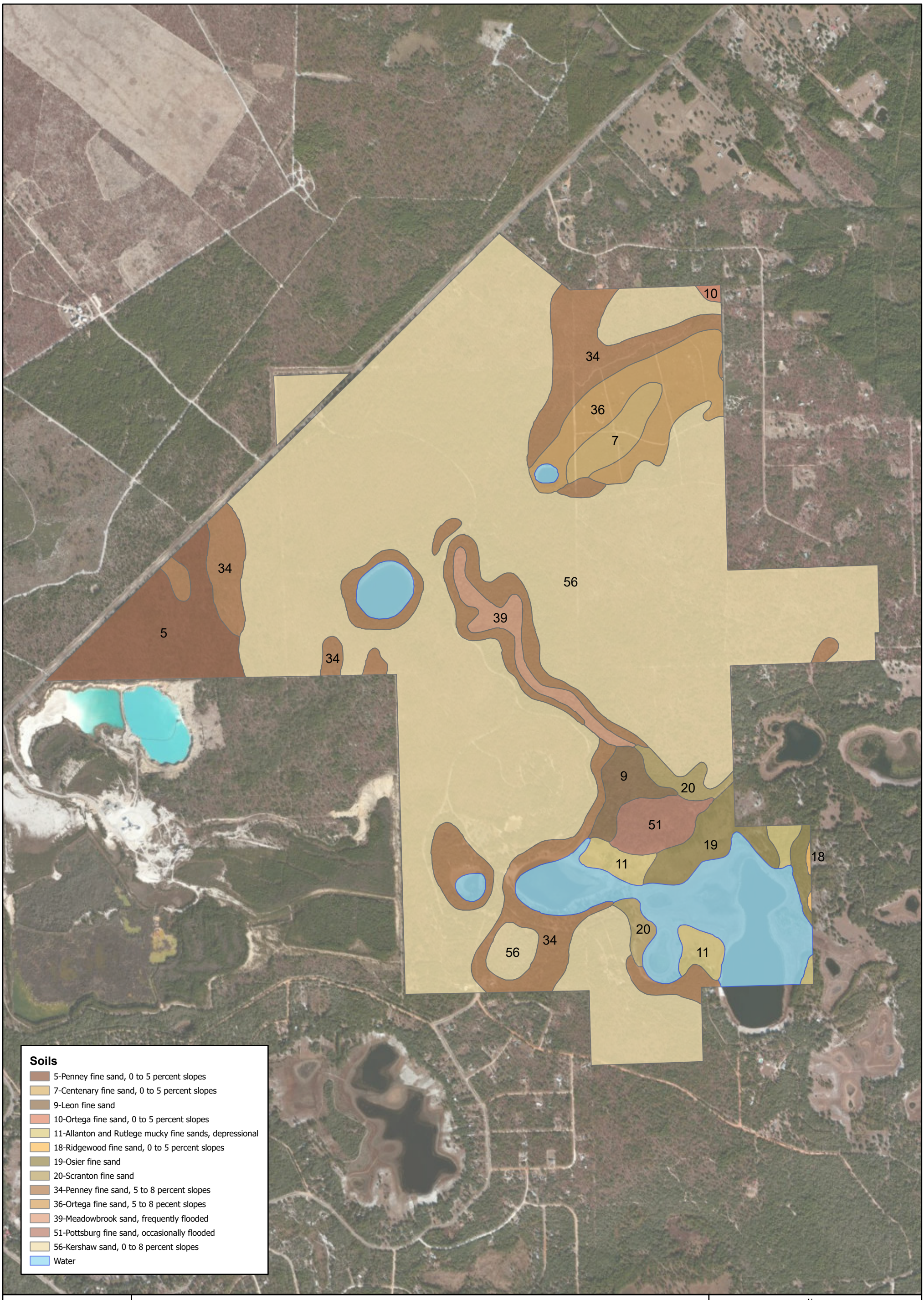
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

MIKE ROESS GOLD HEAD
BRANCH STATE PARK

0 1,000 2,000 4,000 Feet

Florida Department of Environmental Protection
Division of Recreation and Parks
Date of aerial; 2011

TOPOGRAPHIC MAP
(FROM LIDAR)



MIKE ROESS GOLDHEAD BRANCH STATE PARK
Soils

N

0 1,000 2,000 Feet

This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

HYDROLOGY

Mike Roess Gold Head Branch State Park is nestled within a region of karstic lakes in north central Florida. The park and its waterbodies play a distinct hydrologic role with the underlying Floridan aquifer system, Florida's primary freshwater source. The park's most prominent hydrological features are five lake waterbodies including Big Johnson and Little Johnson (once linked at the surface and often considered the same waterbody known as Lake Johnson), Sheeler, Devil's Washbasin (Deer) and Pebble. The park also includes two seepage streams, one of which is the park's namesake, Gold Head Branch. Devil's Washbasin was renamed Deer Lake during the CCC period. It appears that the more benign name of Deer Lake replaced the traditional one of Devil's Washbasin. All surface waters of the park are designated Outstanding Florida Waters and are classified as Class III waterbodies (62-302.400 Florida Administrative Code).

Gold Head Branch Waterbodies: Sinkhole Lakes and Seepage Streams

The water resources of Gold Head Branch lie within the Upper Etoniah Creek Basin (UECB) (Yobbi and Chappell 1979). Although the park itself provides no surface outflow to Etoniah Creek, the considerable groundwater recharge within the park likely contributes substantially to the subsurface flows supplying the creek. All five lake waterbodies at the park are classified as acid seepage lakes, also referred to as Upland Sandhill Lakes and fall within the Trail Ridge Lake Region (Force and Rich 1989; Griffith et al. 1997; St. Johns River Water Management District 2003; Canfield et al. 2020). These sandhill lakes generally have pH values ranging from 3.9 to 6.0, are very clear, relatively low in biological productivity, occur in areas of deep, well-drained, sandy soil and are generally nutrient-poor waterbodies. Sheeler, Devil's Washbasin and Pebble were geologically formed as sinkhole lakes. Surface water levels in these lakes are closely tied to and often reflect the height of groundwater in the uppermost water aquifer (i.e., surficial aquifer is the top portion of the Upper Floridan aquifer) (Miller 1986; Lee, 1996; Merritt, 2001). Sheeler Lake's surface water covers approximately 16.5 acres, whereas Devil's Washbasin has an open water area of about 3 acres. A fluctuating zone of emergent vegetation and submersed grasses typically surrounds both lakes and the shoreline littoral zone is narrow transitioning rapidly to deeper water. Lake depths at both Sheeler and Devil's Washbasin can range between 40-80 feet from surface and their obviously blue-colored waters are unmistakably clear with an average water clarity of nearly 20 feet (DRP District 2 files: LAKEWATCH 1991-2022). Sheeler Lake has been recognized for its outstanding qualities as one of Florida's pristine deep-water lakes (Escobar et.al. 2009). In addition, Sheeler is one of few known lakes in the state that approach 23,900 years in age (Watts and Stuiver 1980; Fastovich et.al. 2020).

A nearly continuous surface water level record exists from July 1945 to the present for Pebble Lake, which has a total open water area of 9 acres when the lake level equals 115 feet above mean sea level (MSL) (SJRWMD 1994a). Pebble is unusual in that it fluctuates dramatically, with records showing water level changes over a 38-foot range between 1948 and 2002. When measured in 1936 with a water level of 96.7 feet above MSL, Pebble Lake was 23 feet deep. Conversely, Sheeler and Devil's Washbasin do not experience such notable changes, perhaps due to their greater depth or to differences in underlying geology. When measured in 1936 with a water level of 154.7 feet above MSL, Sheeler Lake was 72 feet deep. At that time, Deer Lake was about 60 feet deep with a water level of 165.2 feet above MSL (USDI, NPS 1936b). The other two remaining lakes at the park, Big and Little Johnson, were geologically formed in a shallow upland sandhill depression but are highly influenced by a groundwater seepage stream.

There are two seepage streams present at the park: an unnamed ephemeral stream that flows intermittently down a short yet well-defined western channel into Pebble Lake and the much larger steep-sided ravine system called Gold Head Branch, which flows into Lake Johnson. The unnamed stream flowing into Pebble Lake is fed by overflow from an unusually located higher elevation depression marsh. There are also several small seepage inputs on the western shoreline of Sheeler Lake. There are as many as 10 seepage springs that usher groundwater seepage into the lake. Gold Head Branch seepage stream is a major geologic feature fed by the surficial aquifer and is considered a steephead ravine (Holt, et al., 2011, Enge 2005). Steephead ravines are rare in peninsular Florida, and the one at Gold Head Branch is near the southernmost range limit for this type of habitat. At its base and stream origin, Gold Head's steephead has several spring vents that usher groundwater into a seepage creek system between 5 and 10 feet wide . The elevation change of the ravine at the steephead origin is more than 50 feet.

Stream flow in Gold Head Branch has been continuous during recent history. There has never been a known period when it has ceased within the ravine. Downstream of the steephead origin, stream discharge taken at the historic mill site has ranged from 1.6 cubic feet per second (CFS) (43,200 gallons/hour) (SJRWMD Aug. 27, 1976) to 2.81 CFS (75,780 gallons/hour) (DRP District 2 files: July 19, 1995).

Gold Head Branch flows over a mile before it passes beneath an old wooden bridge on Primitive Camp Road where the stream breaks up into a series of braided channels and natural alluvial outflow, just above Big and Little Lake Johnson. Within the expansive alluvial outflow of the Gold Head Branch terminus, much of its western half is composed of saturated peaty soil that supports an abundance of marsh and bog vegetation. In the southern portion of this alluvial plain near Big Lake Johnson, the elevation drops several feet, forming an escarpment. At this point, much of the sheet flow enters small stream channels. There are also numerous seeps that appear at the base of this escarpment,flowing directly into Big Lake Johnson except under drought conditions.

As mentioned earlier, Big and Little Lake Johnson were historically considered to be one contiguous lakebed that received inflow from both rainfall and groundwater from Gold Head Branch. Lake Johnson, in its entirety, has a complex shoreline that encompasses several sub-basins, approximately two-thirds of which lie within the park (including all of Little Lake Johnson and much of Big Lake Johnson). The lake has a water surface area of 519 acres when the lake level is 100 feet above MSL (SJRWMD 1994). In 1936, water depth measured in the western portion of the lake (i.e., Little Lake Johnson) was 11.6 feet when the lake level was at 93.7 feet above MSL (USDI, NPS 1936b).

During the early years of park development from the 1930s through the 1950s, groups like the Civilian Conservation Corps and other park staff implemented several artificial changes to physically alter the natural drainage patterns between Gold Head Branch and Lake Johnson, including an east-to-west lake separation (DRP District 2 files).

In 1937-38, the CCC dug a ditch that captured the flow from one of the two main branches of Gold Head seepage stream and channelized a portion of its flow into an artificial lagoon on the northern edge of Little Lake Johnson (Malsberger 1938). Carlos Maxwell, who worked at Gold Head Branch in the 1940s, recalls that because of this diversion, mud and sediment periodically impacted the swimming area and therefore further alterations were necessary to again re-divert branch flow through a different channel to the east that was closer to the original and natural stream outflow (MacLaren 1989).

Aerial photography from August 1943 illustrates that Gold Head Branch was a significantly braided stream with a substantial alluvial delta including numerous creek inputs that entered both Big and Little Lake Johnson. Even though Little Lake Johnson appears partially separated from the main lake by a narrow sandy ridge, there were two narrow surface water channels (i.e., center and south of ridge) where a continuous water connection between lakes was still visible in the aerial. Nonetheless, at least one of these channels had been altered by the CCC around 1938 (Malsberger 1938). Lake water levels from 1945 to 1951 were at record heights (SJRWMD 1994b).

By 1953, after another period of record high water, the braided branch and alluvial outflow appear to have reestablished a more natural pattern of discharge across the broad marsh between the two lakes (Feb. 27, 1953 aerial photo).

In 1957, an 800-foot, L-shaped earthen berm (i.e., dam) was constructed across the natural narrow sandy ridge between the two lakes in an effort to completely separate them. The elevation of the berm separating the two lakes was at 96 feet (Vedder and Associates, Inc. 1996). Soil borings on the dam revealed depths of fill material that ranged from 6 to 30 inches (JEA 1999). Fill material consisted of sand, loam and soils that were partially, if not entirely, scraped from onsite. Also at this time, a shallow ditch was again dredged to capture a portion of the Gold Head Branch flow and divert it into Little Lake Johnson. The dam and the ditch essentially established the two bodies of water as individual entities. Before 1957, Big Lake Johnson and Little Lake Johnson were considered one body of water.

In 1968, the berm's central channel was deepened, and a water control structure (i.e., dam) with removable wooden boards was constructed between the lakes to control flow. A year later, the berm partially washed out, but it was immediately repaired to a higher elevation that remained reasonably stable for over 30 years. During that period, the two lakes experienced varying water elevations. At several locations throughout the berm, signs of erosion were evident. Except under extreme drought conditions, there was a continual flow of water through two well-defined channels from Little Lake Johnson to Big Lake Johnson. Water also usually flowed underneath and through portions of the northern half of the berm, mainly where sheet flow from Little Lake Johnson to Big Lake Johnson seeped through porous eroded openings in the berm.

In 2002, the dam and L-shaped berm were intentionally removed by DRP in an attempt to restore the natural hydrology of the stream and lake system. The fill material was carefully removed down to the natural grade based on the soil borings.

As of 2023, Gold Head Branch flows south onto an alluvial delta within some of the same braided channels seen in the 1953 aerial photo. One of the western channels is still captured by a remnant ditch that diverts a percentage of the flow southwestward, directly into Little Lake Johnson. The defined channel of the ditch is about 300 feet west of the former earthen berm. The flow not captured by the ditch continues through a braided system of channels that ultimately sheet flows into a marshy area east of the ditch and north of the "at-grade" sandy ridge between the two lakes.

Braided channels that were known to transmit surface waters in 1953 reopened in the late 1990s and flowed through a breach in the in the east-west portion of the former berm just south of the current tree line. This surface water flowed for approximately 100 feet south of the breach, in what was identified as the main channel in the 1953 aerial, before sinking into the surficial aquifer that feeds both lakes. Surface flow within the delta is highly variable, and the removal of the berm has allowed the braided channels to migrate in a more natural fashion. When flow rates in Gold Head Branch are normal to

above normal, the surface water can potentially sheet flow directly into Big Lake Johnson along the same path evident in a 1953 aerial photo. The extent of this sheet flow is contingent on local and regional rainfall and varies greatly from year to year.

Water levels in Lake Johnson have been recorded since 1945. Beginning in 1959, separate gage readings for Big Lake Johnson and Little Lake Johnson were established due to the physical separation of the two lakes. In 2003, the SJRWMD applied datum corrections to the U.S. Geological Survey (USGS) data records for Big Lake Johnson and adjusted the historical lake level data to North American Vertical Datum of 1988 (NAVD88).

Big Lake Johnson has generally maintained a lower elevation than Little Lake Johnson. In May 2009, Big Lake Johnson reached its lowest recorded stage of 80.8 feet NAVD in the 61-year period of record. This was 7.9 feet below the stage of Little Lake Johnson, whose stage was at 88.72 feet NAVD. For the first time in park history, Little Johnson Lake dried up completely from April to June 2012 during one of Florida's most recent prolonged droughts (DRP District 2 files). The staff gage bottomed out at 80.63 feet NAVD, and during this period there was only one small standing puddle of water at the western edge of the lakebed near the swimming area. Freshwater turtle die-offs occurred all throughout Lake Johnson as well as within several other waterbodies within the Keystone Heights area. All throughout the Trail Ridge Region, especially near Keystone Heights, waterbodies were severely impacted during this 2011 / 12 drought period (SJRWMD & SRWMD 2015).

Water Issues: Quality, Quantity, Watershed Alterations and Withdrawals

Complex interactions between surface waters and groundwater play a significant role in steering ecological processes of waterbodies within the Etoniah Creek watershed, especially within the area of southern Trail Ridge near Keystone Heights and including Gold Head Branch. In the Keystone Heights region there has been a consistent relationship between surface water levels and groundwater potentiometric levels at monitoring wells (Motz et al. 1992). Declines in the below surface potentiometric elevations of the surficial aquifer are often directly associated with decreased lake levels.

The park is located near the southwestern edge of the Trail Ridge region, just east of a major watershed divide between the St. Johns River Water Management District (SJRWMD) and Suwannee River Water Management District (SRWMD). The entire Keystone Heights area lies within a significant regional recharge zone (Sutherland et.al., 2021). Within this region, major issues of concern include water quality, quantity, watershed alterations and groundwater withdrawals.

Water Quality

Since 1991, DRP staff have been active participants in the Florida LAKEWATCH program (https://lakewatch.ifas.ufl.edu) and daily rainfall and lake levels are recorded by park staff and THE SJRWMD (DRP District 2 files). Monthly water samples are collected from all six of the park's waterbodies, including Sheeler, Devil's Washbasin, Pebble, Gold Head Branch, Big Lake Johnson and Little Lake Johnson. These samples are analyzed for a variety of nutrient lake health indicators including nitrogen, phosphorous, chlorophyll a (which is an indicator of high algae production) and water clarity. The Florida LAKEWATCH Program, one of the largest watershed monitoring programs in the nation, is sanctioned by Florida legislature (Section 1004.49, Florida Statutes) and is coordinated through the University of Florida's School of Forest, Fisheries and Geomatic Sciences.

According to gathered LAKEWATCH data over a 30-year period, the two waterbodies of the park in the best condition are Devil's Washbasin and Gold Head Branch, both having shown consistent water quality with no significant trends. Nonetheless, Devil's Washbasin has an increasing trend of high levels of algae productivity giving it a mesotrophic (intermediate nutrient levels) lake classification. All remaining waterbodies at the park have had a significant trend of increased nitrogen and phosphorous and decreased water clarity through time. Pebble Lake has dried completely several times over the past 30 years and is the only lake in the park classified as eutrophic, while Sheeler remains the only park lake with oligotrophic conditions (i.e., good water quality) despite its increased trends. Lake Johnson is and has long been classified as mesotrophic.

Water Quantity

Local precipitation (i.e., rainfall), the surficial aquifer and evapotranspiration rates govern the water budget for each of the aquatic systems within the park. Local rainfall and all surface waterbodies of the park can be a direct recharge to the below ground local surficial aquifer. In addition, all park waterbodies directly interact to exchange surface and groundwater in maintenance of stream flows and lake elevations (Anabelle and Motz 1996; Merritt 2001). The Upper Etoniah Creek Basin (UECB) waterbodies form a chain of decreasing elevation where seepage and sheetflow can occur from higher elevation lakes into lower ones (Anabelle and Motz 1996). Because the Keystone Heights region is situated on top of a potentiometric high (i.e., groundwater elevation) of the Upper Floridan aquifer and within a high recharge area, this area is extremely vulnerable to impacts from regional groundwater withdrawals (Sutherland et.al., 2021). The UECB is an important recharge source to the Upper Floridan aquifer (Merritt 2001).

Several groundwater monitoring wells are located within the park, including three separate aquifer wells (i.e., Lower Floridan, approximately 1,900 feet deep, intermediate and surficial) that were installed in 2007 near the shop on the southwestern park boundary (SJRWMD 2007). In 2012, Jacksonville Energy Authority (JEA) installed two additional surficial aquifer wells at the park as part of a monitoring condition of their consumptive use permit (CUP, Number 88271). An SJRWMD permit required an ecological and well monitoring network at nine UECB wetland sites throughout Clay and Putnam counties, including Gold Head Branch, to understand long-term regional changes in northeastern Florida (CH2MHill 2012). Groundwater well data is collected and analyzed by water managers to evaluate conditions, trends and potential issues locally within the Keystone Heights as well as regionally within the UECB watershed.

Watershed Alterations

Groundwater is pumped from the Upper Floridan aquifer in the UECB watershed for multiple uses (Motz et al., 1991). H owever, three of the largest groundwater users within the North Florida Regional Water Supply (NFRWS) Planning Area are public supply, industrial and agriculture (SJRWMD & SRWMD 2017). The NFRWS planning area is a partnership between the SJRWMD and SRWMD that resulted from cross boundary watershed issues within the Keystone Heights region (SRWMD 2010; SRWMD 2013; SRWMD 2014; SJRWMD and SRWMD 2015). More specifically, since the political (watershed) boundary between the SJRWMD and the SRWMD is situated along the southwestern edge of the Trail Ridge Region, many complicated discussions have taken place concerning minimum flows and levels (MFLs) within this region. Although factors that control water levels in the Upper Floridan aquifer are complex,

groundwater can be locally and regionally altered by both natural climate/weather fluctuations (i.e., drought, hurricanes, etc.) and large-scale groundwater withdrawals. In addition, high groundwater recharge areas can be extremely sensitive to watershed alterations such as mining activities and significant regional groundwater withdrawal centers (Metz and Lewelling 2009).

It is important to reflect on the many Florida examples in which excessive groundwater withdrawals have caused significant modification to lakes and springs throughout the state (Peek, 1951; Grubbs and Crandall 2007). Nonetheless, within the UECB watershed there are at least four known waterbodies (i.e., Lake Brooklyn, Lake Geneva, Lake Cowpen and Lake Grandin) whose minimum surface water levels have significantly declined below baseline of their required minimum lake level (MFL) such that additional regional consumptive use withdrawals would be harmful to them and other water resources of the Keystone Heights area (Southerland et al., 2021).

During two of the most recent prolonged droughts (i.e., 2000-01 and 2011-12) since the mid-1950s, both Brooklyn and Geneva were significantly impacted by rainfall deficits and regional groundwater pumping (Sutherland et al., 2021). As mentioned above, both Pebble and Little Lake Johnson have suffered equally significant ecological impacts, having completely dried up lakebeds at various times.

One of the significant groundwater users in the UECB watershed has been the mining industry. There are three active mine companies within in the UECB, including the Chemours (heavy metal minerals), Goldhead and Grandin plants (construction sand). Chemours is located within and on the western edge of the UECB. This location is integral because it is situated on the political boundary between the two water management districts. Of particular concern, the Goldhead plant is situated on the southwestern boundary immediately adjacent to the park. Goldhead sand mine plant has been in operation since 1958. The mine was historically permitted to withdraw 763 million gallons per year (MGY) from the Floridan aquifer. In 2003, the company renewed their CUP with a reduction to 37 MGY, with an emergency backup supply of 83 MGY (for a total CUP of 120 MGY) until 2013, and then 50.4 MGY (total CUP o 87.5 MGY) emergency backup from 2013 to 2023.

In the early 1970s, surface water levels at Lake Brooklyn and Lake Geneva began to show signs of a serious decline, and by 1990 a new “normal” lower lake stage appeared to have been reached (Sutherland et al., 2021). Public concern over declining well and lake levels in the Keystone Heights region was significant starting around 1989, prompting several scientific studies of the potential hydrological impacts to area waterbodies from mine alterations (Motz et al. 1992; Anabelle and Motz 1996). One of the significant mine alterations often not considered is the high rate of evapotranspiration in an open water mine pit (Lines et al., 2012). It is still unclear of the true effects of the mine industry on the surface water levels at the park.

In 1994, the SJRWMD considered and published its first ever MFLs for waterbodies that have been impacted by groundwater withdrawals (Hupalo et al., 1991). During that same year, the JRWMD developed MFL plans for eight lakes within the Keystone Heights region, including Brooklyn, Geneva, Johnson and Pebble (SJRWMD 1994). As discussed above, Brooklyn and Geneva are the only two lakes with recognized MFLs (Sutherland et al., 2021). DRP has requested for over 20 years, as part of an annual review of the SJRWMD priority list of MFL waterbodies, similar protections and regulations for all five of the park’s waterbodies (DRP District 2 files). Currently there are no MFLs for any of the park’s waterbodies, and this is concerning given the recent drying and ecological impacts at both Pebble and Lake Johnson.

Additional alterations within the park that are important to consider are detailed below.
During the CCC development of the park, drainage structures were installed that conveyed storm water from the parking lots above Little Lake Johnson through underground pipes to concrete aprons near the northwestern lake shoreline. In 2002, the main drainage structure adjacent to the lakeshore failed and subsequent stormwater events began to substantially erode a large gully into the steep slope on the northern edge of the lake. In 2003, a stormwater retrofit was constructed above the lake with retention pond swales to provide treatment for parking runoff. At least one smaller stormwater system remains from the CCC construction period.

Historically there has been some erosion on the slopes above Sheeler Lake and along its shoreline. Prior to 1984, recreation access to Sheeler was more extensive, allowing scuba diving, swimming and fishing activities. Lake access was from a small entrance and parking lot (20 cars) above the eastern shoreline. Clay fill (depth of 12-18 inches) was used for stabilizing this access point. After determining that this access point contributed significantly to erosion, stormwater runoff and water quality changes to Sheeler, DRP restored the area beginning in 1998. Sediment was removed, a new trail with appropriate switchbacks to the lake was constructed and the area was revegetated with native plants.

Objective A: Conduct an assessment of the park's hydrological restoration needs.

- Action1 - Continue to cooperate with various agencies in hydrological research and monitoring programs within the park.
- Action 2 - Continue to monitor permit requests and land-use/zoning changes in the region and offer comments as appropriate.
- Action 3 - Work closely with SJRWMD to ensure that MFLs established for the region are carefully monitored and that historic water levels are protected, including the park's waterbodies.
- Action4 - Continue to monitor surface, groundwater, rainfall and lake level data including participation with the Florida LAKEWATCH Program.
- Action 5 - Seek assistance from SJRWMD or DEP to establish a monitoring program to measure discharge/water level of Gold Head Branch.
- Action 6 - Continue to assess braided channels of Gold Head Branch outflow and changes within its alluvial delta.

Several management concerns at the park pertain to hydrology. The water that issues from the seepage springs in the ravine is local in origin. In fact, all the lakes in the park have local water sources. Both the volume and quality of water entering these systems could be altered if there are land-use changes on the properties north and east of the park. As stated previously, the natural aquatic systems in the park are primarily dependent upon the surficial aquifer for their water supply. Water seeps from the ground at various points along the potentiometric surface of the aquifer, feeding not only Gold Head Branch (surface flow) but also the sinkhole lakes (subsurface flow). Water moves from the park via subsurface drainage into the Upper Etoniah Creek Basin, which joins the St. Johns River. The historic flow patterns of Gold Head Branch outflow will be continually assessed.

With the cooperation of the SJRWMD, surface water levels in Lake Johnson and groundwater levels near the sand mine are currently being monitored. The SJRWMD is in the process of establishing minimum flows and levels (MFLs) for various water bodies within the SJRWMD. As funding permits, additional monitoring of Gold Head Branch resources will be initiated, including discharge and water level gaging.

DRP staff will assist with the Florida LAKEWATCH program to collect water samples from the park's waterbodies and document water quality trends.

Objective B: Address park facility water quality impacts on Lake Johnson and on hydrological regimes of the park.

- Action1 - Document current conditions and manage cabin visitor circulation and entry points to Little Lake Johnson.
- Action 2 - Develop a stormwater management plan for park facilities that may affect hydrology of the park's waterbodies.
- Action 3 - Continue to assess the need for culverts, low water crossings and stormwater treatment improvements.

Mitigation of the impacts of shoreline erosion on lakes within the park, particularly Little Lake Johnson, will be aggressively pursued. Stabilization of recreational access points will be a high priority. In addition, a stormwater management plan is recommended for park facilities that affect the hydrology of Lake Johnson. Culverts, low-water crossings and stormwater treatment improvements may be necessary.

NATURAL COMMUNITIES

Mesic Flatwoods

An area of mesic flatwoods is located in the upper portions of the Gold Head Branch outfall area, to the south and east of the baygall community. Although less disturbed than the baygall community, the mesic flatwoods have suffered from many years of fire suppression. When fire was reintroduced into this area north of the primitive camp road in the 1990s, it resulted in the deaths of many large slash pines (*Pinus elliottii*). This was probably due to the heavy buildup of duff around the bases of the pines during the many decades that fire was excluded from the area. The mesic flatwoods community grades into xeric hammock to the northeast, seepage slope to the south and baygall to the west. The lower reach of the seepage stream passes through part of the flatwoods. Although now relatively overgrown with shrubs due to lack of fire, the ecotone between the flatwoods and the stream was once probably a more open seepage slope community. Some areas within the branch outfall, prior to the large-scale anthropogenic disturbances, could at one time have had the characteristics of a wet flatwoods community. Such areas, and some portions of what once may have been mesic flatwoods, are for the present included within the baygall community designation.

The mesic flatwoods will require significant effort to restore a natural fire regime due to lack of periodic fires in much of this area. Firebreaks within and adjacent to the mesic flatwoods may need to be improved or widened. Fuels adjacent to the firebreaks may require mechanical treatment for an extra margin of safety where the live fuels are particularly heavy. Given the intensity of previous burns in the mesic flatwoods, future prescribed burns should be conducted under mild to moderate conditions with sufficient soil moisture to minimize involvement of accumulated duff. It may require several moderate prescribed fires to remove the duff accumulations and reduce the available fuels to more natural levels.

Sandhill

Sandhill is the most common natural community at Mike Roess Gold Head Branch State Park. Located on the southern end of the Trail Ridge, the sandhills north of Lake Johnson occur on very deep and well-drained sand deposits. Those south of Lake Johnson occur on the shallower sand deposits of the Northern Highlands.

Most of the sandhills in the older sections of the park are in excellent condition. The sandhills along the park drive east of the entrance are a Florida Natural Areas Inventory (FNAI) Reference Natural Community and are an exemplary example of sandhills. The park contains one of the few remaining examples of an old growth stand of longleaf pines. Large flat-topped longleaf pines are scattered within the north central portion of the park. Coring of the larger pines has shown that most of the largest trees are in excess of 250 years in age, with the oldest trees sampled exceeding 350 years (Johnson et al 2018). These old growth longleaf pines typically have red heart disease, and some pines bear cat-face scars from the turpentine industry. Such scars make the pines more susceptible to damage or death during prescribed fires and care must be taken to protect these ancient pines during prescribed burns.

The sandhills in the newer acquisitions to the north and east are in good condition but suffer from more recent timber removal and fire suppression. These areas lack sufficient adult longleaf pines, and supplemental plantings of seedlings occurred in zones GH-7A and 7B in 2022. Historical exclusion of fire, coupled with timber removal prior to state acquisition, has resulted in a shift in dominance in the community from longleaf pine to less fire-tolerant hardwoods such as turkey oak. Suppression of xeric-adapted oaks through prescribed burns that mimic natural fires is a preferred method of restoration, but mowing or chemical control of offsite species such as laurel oak may be necessary.

A small number of slash pines were planted a number of years ago along the park drive and in the picnic area. Since they are not indigenous to the sandhills, some of these pines have been removed. Likewise, the park has removed exotic turfgrasses from traffic islands and parking lot medians and planted native sandhill groundcover species.

In some areas, fire-intolerant species such as laurel and water oaks have invaded from adjacent communities as well. Several areas of sandhills at the southern end of the park were heavily invaded by fire-intolerant hardwoods due to previous disturbance and lack of adequate fire. This resulted in areas with a near complete canopy cover of off-site species. A long-term restoration project was initiated in 2019 with a biomass harvest targeting offsite hardwoods and smaller sand live oaks on about 60 acres in zones GH-1B, 2E, 2F, 3B, 3C, 3D, 3F, 5A and 6E. Limited areas of oaks were also removed from artificial fire shadows in several other zones. The harvested areas were prepared for groundcover seeding through mowing, raking and chemical control of the re-sprouting oaks. Wiregrass and other groundcover seeds were collected at the park in the fall of 2019 and planted using a Grasslander seeder in the fall of 2020. Longleaf pines were also planted in the restoration areas. The project was successful in establishing groundcover in most of the areas, although additional seeding of some spots may be needed, and additional control of the offsite hardwood sprouts will likely be necessary.

The sandhills adjacent to the steephead ravine have also been heavily invaded by fire-intolerant hardwoods due to a lack of intense fires over many decades. Due to the location of the park drive, these areas were isolated from the adjacent sandhills and did not receive fire as frequently as the remainder of the park. Steps are being taken to control hardwoods in these areas, and significant progress has been made increasing fire intensity and frequency in recent years.

The Gladman property, purchased in 2004, is a newer addition to the park. Located west of Sheeler Lake, it provides a broader ecological connection to Camp Blanding across State Road 21. Apparently, the property was once surveyed for potential acquisition and mining by the adjacent Vulcan (formerly Florida Rock) sand mine. Numerous east-west access roads were cut across the property, resulting in long straight areas that are devoid of groundcover.

Two areas of sandhills in the park were dominated by a closed canopy of planted or volunteer sand pines (*Pinus clausa*). One stand was located southeast of Sheeler Lake, and the other was on a more recently acquired property at the northern end of the park. These off-site sand pines were harvested in 2005. Removal of the sand pines released the suppressed sandhill groundcover species and allowed these areas to be burned safely. Groundcover seeds, primarily wiregrass, were collected in the fall of 2005 and were dispersed across the harvested areas in February 2008.

The southwest corner of the park was heavily disturbed during the CCC period as evident in the 1943 aerials. A long history of refuse dumping and a large borrow pit also impacted the sandhills in this area. Construction of a groundwater well also disturbed this site. The spoil recovered during the removal of the berm between Little and Big Lake Johnson was dumped at this location. Borrow activity in the past has enabled the spread of rose natalgrass (*Melinis repens*), a Florida Exotic Pest Plant Council (FLEPPC) Category I exotic species, to other parts of the park. Although remnant longleaf pines and patches of native herbaceous cover persist in this area, the sandhill community in this area is now in poor condition.

In general, the sandhills only require frequent prescribed fires, as many areas are at or close to maintenance condition. Protection of cat-faced pines and old growth pines during prescribed fires will remain a priority. However, several areas will require intensive management to recover the original character of the sandhills. Mechanical and chemical removal of off-site hardwoods will continue near Pebble Lake and Little Lake Johnson and at the southern end of the park.

All but a few of the linear road cuts on the Gladman addition have been abandoned and these areas will be restored naturally. If groundcovers fail to disperse into the open areas, efforts will be made to collect and disperse seed into those areas. In general, the addition is in good condition and mainly requires additional prescribed fires to improve the condition of the sandhills.

The disturbed sandhills in the southwest corner of the park will require some topographical restoration of soil mounds and spreading of brush piles. Care must be taken in this area since it is possible that unmapped cultural resources from the CCC period are located in this area. Restoration of groundcover species through direct seeding may also be necessary. Control of rose natalgrass in all affected areas of sandhills and adjacent developed areas will continue to be a priority for sandhill management.

Scrub

Scrub occurs in disjunct locations within the park. The largest example occurs in an elliptical basin that runs northeast from Devil's Washbasin. Surrounded by sandhill, this basin is probably the remains of an ancient lakebed. Another example of scrub is found in a band surrounding Sheeler Lake. Pebble Lake has a similar band of vegetation, but in this case it might be more appropriate to classify it as an example of xeric hammock that has evolved from fire-suppressed scrub. It is also likely that the scrub around Pebble Lake was cleared away from the lake during park development.

The scrub northeast of Devil's Washbasin shares many characteristics with scrubby flatwoods. The soils found within this basin are not typical of those associated with sand pine scrub in that they are probably less droughty and less well drained than the surrounding sandhills. These soil characteristics make the area physically more like scrubby flatwoods than a true scrub, although the appearance and species composition of the vegetation is very similar to that of true scrub, particularly along the rim of the basin where the sands are deeper. Sand pines are scattered throughout the area. Park staff planted some of these in 1973-74 (Younker 1973), while others apparently seeded in from offsite. Longer than normal fire return intervals in this area have allowed the persistence of these sand pines. A patch of vegetation dominated by fetterbush is located within the scrub at the lowest elevation. This part of the basin probably held water more recently in geological time and is closer to the water table than the surrounding scrub. The fetterbush patch is probably a remnant of the band of vegetation that typically occurs between scrub and a lakeshore. The lower edge of the scrub surrounding Sheeler Lake is also dominated by fetterbush.

Most of the scrub in the northeast corner of the park was privately owned until 1994 when a 150-acre parcel was purchased by the state from The Nature Conservancy. The Nature Conservancy had previously purchased the tract to prevent development of the site as a residential area. Firebreaks were installed within the scrub and surrounding sandhills to allow prescribed fire to be applied in a safe and controlled fashion. Sections of the scrub were also mowed to prepare fuels for subsequent prescribed fires. Fire was reintroduced to the scrub in 1998, and all of the zones have been burned at least once. The long-term goal is to be able to burn the scrub over a period of years to stagger the age of the rejuvenated scrub. Periodic fires at intervals of approximately seven to 15 years would be optimal to benefit the Florida scrub-jay (*Aphelocoma coerulescens*), although other species have differing requirements. Scrub-jays were extirpated from the park around 1990, but a single bird returned to the park in late 2019. The scrub zone around Sheeler Lake will continue to be burned with the surrounding sandhill, although it may not always ignite when the zone is burned.

Upland Hardwood Forest

The upland hardwood forest occurs on the sides of the steephead ravine associated with Gold Head Branch. The community remains in relatively good condition, despite some erosion and compaction resulting from foot traffic off the designated trails.

The Ridge Trail begins at the stairway near the head of the Gold Head Branch ravine and runs downstream, ascends the slope and skirts the upper edge of the upland hardwood forest, ending at the old mill site. Although the trail is, for the most part, well placed along natural terraces, several spur trails exist along the course of the trail. Some of these spurs are remnants of older routes that were abandoned when the trail was relocated or are newer paths used by park visitors to access the branch. Many of these side trails go up or down slope and increase erosion of the slopes due to foot traffic and stormwater runoff. Another erosion problem occurs near the ravine stairway where the drain system for the stairway failed in the past and allowed runoff to flow downslope over the surface of the slope.

There are multiple unauthorized side trails that run up or down slope from the official trail. These trails will continue to be blocked off or brushed in as necessary to discourage foot traffic on the slopes. Additional signage may be necessary to educate visitors about the damage caused by unauthorized foot trails. While some level of erosion is natural in a steephead ravine, particularly at the head of the ravine, efforts will continue to mitigate visitor impacts that unnaturally accelerate erosion within the upland hardwood forest.

Xeric Hammock

Xeric hammock occurs within the park in association with the ecotone between the Gold Head Branch ravine and the surrounding sandhills. Examples also occur in association with Lake Johnson and Pebble Lake. In most cases, xeric hammocks result from long-term fire suppression or exclusion. Much of the xeric hammock at the park appears to have developed naturally due to the fire shadow effects of the steephead ravine and the large sandhill upland lakes. Although fires from the sandhills may penetrate xeric hammock and consume fine fuels, only a catastrophic fire would convert a well-developed xeric hammock back to a sandhill.

Based on vegetation notes from early National Park Service plans drawn during the CCC era (U.S. Department of the Interior, National Park Service, 1936a), the xeric hammock associated with the ravine appeared to exist prior to the 1930s when fire suppression activities were increasing. The dominant plant species listed on the 1936 drawings include American holly and live oak.

The primitive camp is located in a section of xeric hammock just northeast of the seepage slope and east of the lower reaches of Gold Head Branch. The concentration of visitor use in this area has affected the xeric hammock to some extent, but the impacts are less than would have been expected in a sandhill natural community. As with the adjacent upland hardwood forest in the upper reaches of the ravine, the xeric hammock has been affected by spur trails that branch off from designated trails.

Maintenance of xeric hammocks typically requires minimal efforts other than protection from visitor impacts. Where side trails off the main trails exist, they will be blocked off or brushed in to prevent erosion on the slopes within the xeric hammock above the ravine. Prescribed fires in the sandhills will continue to be allowed to burn into the edges of the xeric hammocks to maintain the ecotones.

Basin Marsh

The basin marsh occurs around much of Lake Johnson. The extent of this community depends on lake levels. Over the past 50 years, the specific location of this community has changed often, and its size has fluctuated dramatically. As lake levels rise, the marsh areas become lake bottom and community

types located upslope, such as seepage slope, may convert to basin marsh. The reverse occurs as water levels recede. The conversion of one community type to another is dependent on hydroperiod. Beck (1949) documented the large-scale death of a pine stand on the seepage slope due to a high-water period that lasted more than a year.

Water levels in Lake Johnson peaked at about 103 feet above MSL in the summer of 1948 according to USGS lake level data. More recent water level readings for Little Lake Johnson are about 92 feet above MSL in contrast. According to Beck's observations, marsh species such as lily pads and marsh marigolds (*Bidens mitis*) occurred where previously a pine forest had stood.

Delineation of natural communities that vary with water levels is a static assessment of a dynamic system. The current natural community map is based on recent water levels that are significantly lower than those experienced in the past. Lower water levels in recent years and the absence of fire under early management have permitted trees, particularly loblolly pines, to invade part of this community. However, a brief high-water period during the late 1990s killed back many of the pines within the basin marsh. Prescribed fire has also been used to discourage the invasion of hardwoods and pines into the basin marsh. Past disturbances in the basin marsh include shallow fire plow scars, ditches and berms.

Hydrology is the driving force in the maintenance and restoration of the basin marsh community. Removal of topographic alterations between Little and Big Lake Johnson has restored a more natural hydrological condition to a significant part of the basin marsh. Regional groundwater levels that are beyond the control of park management will continue to exert a large influence on the condition and extent of the basin marsh. Park staff will continue to apply periodic prescribed fires to the basin marsh to control invasion of woody vegetation that otherwise would be controlled by high-water events.

Baygall

The baygall community occurs in the large, flat, forested area downstream of the mill site along Gold Head Branch. The ecotone between the upland hardwood forest and the seepage stream higher up the branch probably could also be classified as baygall. However, these areas are relatively narrow and difficult to map accurately. For the purposes of the natural community map, these areas are included within the upland hardwood forest.

Drawings from 1936 label the area downstream of the mill site as "heavy swamp hardwood growth" (USDI, NPS 1936a). In 1936, two branches of Gold Head Branch flowed through this area, one along each side of the flat expanse of baygall. Later, the western branch either dried up or was diverted. In the early 1980s, park staff reported a large area of subsidence in the northeastern corner of the baygall along the Gold Head Branch. This was likely due to a subterranean collapse of a portion of the streambed. Prescribed fires have also impacted this area by creeping through and burning peat deposits during dry periods. A large, disturbed site located in the western half of this area may have been the result of a peat fire, flooding or both. At this site, most of the overstory has died off, and the understory has become dominated by weedy vines. This area may have also been logged during a pine beetle eradication project and may have historically received outflow from the mill site raceway.

A baygall typically occurs at the base of a sandy slope and receives seepage from adjacent uplands. Topographically, the area below the mill site resembles a baygall. Historically, it probably was a baygall, but recent events such as the regionally lowered water table, changes in the surface flow of Gold Head Branch and peat fires have modified the floristic composition of portions of the area. Before a final definition of natural community boundaries in this area can be made, research on soil characteristics and additional investigation of the range and magnitude of previous impacts will be needed.

The baygall community will require additional field reconnaissance to delineate the boundaries and evaluate previous natural and anthropogenic disturbances. Further mapping of ditches associated with the mill site, as well as any topographic alterations by the CCC in the 1930s, may be needed to understand the hydrological changes to the baygall community. In most cases, restoration of native vegetation should proceed naturally as long as the natural hydrological regime is maintained. Additional research is needed to verify the hydrological conditions that may have existed historically. In the meantime, prescribed fires will be allowed to burn into the edges of the baygall from surrounding communities, and fires within the baygall area will be avoided to prevent ground fires in accumulated duff and peat deposits.

Depression Marsh

A small depression marsh lies northwest of Pebble Lake, perched on the edge of a slope. The overflow from this wetland feeds a seepage stream that runs between the depression marsh and Pebble Lake. The depression marsh is in fair condition. It has likely been impacted by erosion from upslope in the past, and the surrounding ecotone has become overgrown due to lack of fire.

Seepage Slope

The seepage slope community is located at the southern end of the Gold Head Branch ravine within the broad outfall region, primarily south of the primitive camp road. In the past, the seepage slope community likely also extended north of the primitive camp road as a narrow ecotone along the edges of the seepage stream within the mesic flatwoods. There is some evidence that hooded pitcher plants were once relatively common along the margins of the seepage stream in this area, as well as in the more expansive areas of seepage slope south of the primitive camp road (D. Stewart-Kent personal communication, A.Nail personal communication). This unusual system has experienced more damage than any other community in the park and is now considered to be in poor condition. A portion of this area may have been scraped to form the L-shaped berm near Lake Johnson. Topsoil was also historically removed from this area to be formed into terraces for erosion control in visitor-use areas around Little Lake Johnson. Several piles of soil remain adjacent to the primitive camp road. The total extent of the soil scraping in this area is not known at this time. As with the basin marsh down slope, the limits of the seepage slope community are determined by hydroperiod and by fire. Invading hardwoods and off-site pines such as loblolly pine have hidden many of the natural characteristics of the seepage slope.

Written comments on early drawings from the CCC era describe this area as heavy slash pine (USDI, NPS 1936a). Slash pines are more fire tolerant than the loblolly pines that invaded this community after the 1948 floods. Although the natural extent of slash pine cover within this area is still open to debate, the seepage slope probably had a relatively open understory, and any overstory pines were probably slash or longleaf rather than loblolly. Frequent fires, coupled with periodic high-water events, would have maintained the open aspect of the community.

Maintaining a natural hydrological regime and fire regime is essential for restoration of the seepage slope at the park. Periodic prescribed fires should continue to restore the natural aspect of the seepage slope by controlling hardwood invasion and encouraging herbaceous growth. The seepage slope grades into basin marsh and is usually burned along with the community. Restoration of the native groundcover species will be a continuing process. Previous direct seeding and planting of hooded pitcher plants will hopefully help reestablish that extirpated species.

Sandhill Upland Lake

Most of Lake Johnson (Big and Little Lake Johnson combined) lies within the confines of the park. However, the perimeter of the lake has changed tremendously in the past 60 years. The lake margin has receded as basin marsh areas have expanded in response to the relatively low lake levels of recent decades. The current natural community map boundaries are a reflection of the more recent, rather than historical, water levels. Both lakes receive surface flow from Gold Head Branch in addition to input from groundwater seepage and rainfall. Lake Johnson as a whole is considered to be in good condition.

Several natural constrictions in Lake Johnson cause sub-basins to be separated from the main part of the lake during low water periods. One such constriction was bermed in 1957, effectively creating two separate basins that are now referred to as Big Lake Johnson and Little Lake Johnson.

Regional groundwater levels that depend on local rainfall are probably the greatest influence on the sandhill upland lakes within the park. Unfortunately, regional groundwater levels are beyond the control of park management. Little Lake Johnson has been impacted by erosion from visitor access to the shorelines. Stabilization of the shorelines and elimination of duplicate access points has helped mitigate this problem, and will be continued, particularly downslope of the cabin area. Continuation of the LAKEWATCH Program in the sandhill upland lakes will be an important monitoring tool to detect declines or improvements in the condition of the lakes.

Sinkhole Lake

There are three sinkhole lakes within the park: Sheeler Lake, Pebble Lake and Devil's Washbasin. These lakes have been subjected to varying degrees of disturbance in the past. Foot traffic has caused slope and shoreline erosion around all of these water bodies. Some destruction of littoral and upland vegetation has occurred as well. Rainfall and runoff from adjacent areas have accelerated the erosion around these lakes.

Sheeler Lake was historically impacted by recreational use. As detailed in the *Hydrology* section above, the lake was closed to swimming in 1984 and restoration measures have since been undertaken. Devil's Washbasin has never suffered the same level of impact due to its remote location. Nevertheless, some bank erosion still has occurred. The shoreline and slopes of Pebble Lake were undoubtedly disturbed during the early development phases of the park. More recent impacts to the lake from foot traffic are more apparent. The lake was also degraded somewhat by a faulty septic system during the 1990s. An amphibian die-off that occurred in 2011 at Pebble Lake was investigated by the Florida Fish and Wildlive Conservation Commission's (FWC) Fish and Wildlife Research Institute. The die-off was most likely the result of a co-infection by a form of ranavirus and an alveolate parasite (Landsberg et al 2013). Strict measures were put in place to restrict access to Pebble Lake and to decontaminate any collecting equipment used on site.

All of the sinkhole lakes require monitoring and control of shoreline access by visitors to prevent erosion and associated declines in water quality. Sheeler Lake and Pebble Lake are more likely to have erosion issues due to the close proximity to the main visitor use areas. A combination of educational signage and natural or artificial barriers should be used to limit shoreline access while still allowing appreciation of the scenic vistas, particularly at Sheeler Lake. As with the sandhill upland lakes, the LAKEWATCH Program will be continued to monitor water quality parameters in the sinkhole lakes.

Seepage Stream

Two seepage stream systems occur within the park. Gold Head Branch flows down a large steephead ravine into the seepage slope and basin marsh areas on the northern edge of Lake Johnson. The other, an unnamed intermittent seepage stream, feeds Pebble Lake from a short ravine and depression marsh

located just northwest of Pebble Lake. Both systems are in good condition, although Gold Head Branch may experience siltation at times due to erosion along the sides of the ravine.

Before the initial acquisition of the park in the 1930s, a mill operated on Gold Head Branch upstream of the broad, flat expanse of baygall located north of the seepage slope above Lake Johnson. The mill site included a dam across the branch that impounded water upstream to form a mill pond. Natural flow of Gold Head Branch was apparently modified to such an extent that the branch followed two courses below the dam. Early drawings (USDI, NPS 1936a) depict the site of the actual mill as south of the dam, with the mill race diverting flow south past the mill and into a channel located along the western edge of the baygall. The spillway on the dam appears to have fed another channel that carried flow to the east and then south along the eastern edge of the baygall and through the mesic flatwoods. The lower reaches of Gold Head Branch naturally form a braided stream system within the seepage slope and basin marsh downstream. This broad flat delta formed over geologic time from the eroded sands of the ravine. The branch has historically followed many paths, both natural and artificial, within this delta.

Management of the seepage streams will primarily entail protection from excessive erosion. While some erosion is natural at the head of steephead ravines, excessive erosion caused by foot traffic within or along the banks of the seepage stream, or on the slopes above, can cause declines in water quality. The recent reconstruction of the boardwalk system at the head of the Gold Head Branch ravine will limit visitor access to the seepage stream and the slopes above it. Staff will continue monitoring water quality of the lower portion of the seepage stream as part of the LAKEWATCH Program.

Borrow Area

A large, steep-sided borrow pit is located in the southwest corner of the park. Several adjacent areas have been used for dumping of refuse and building materials, probably since the CCC era. Complete restoration of the borrow pit would require a large quantity of fill and may not be cost effective in comparison with other restoration priorities in the park. A re-contouring and partial filling of the pit may suffice to reduce the effects of the pit on the adjacent sandhills. An active, privately owned sand mine is adjacent to the western boundary of the park in this area, so the pit has little effect on habitat continuity. The disturbed sandhills with degraded groundcover to the north and east of the pit remain a priority for restoration.

Clearing

Adjacent to the borrow area in the southwest corner of the park is a disturbed clearing. This is also the location of groundwater monitoring wells maintained by the SJRWMD.

Spoil Area

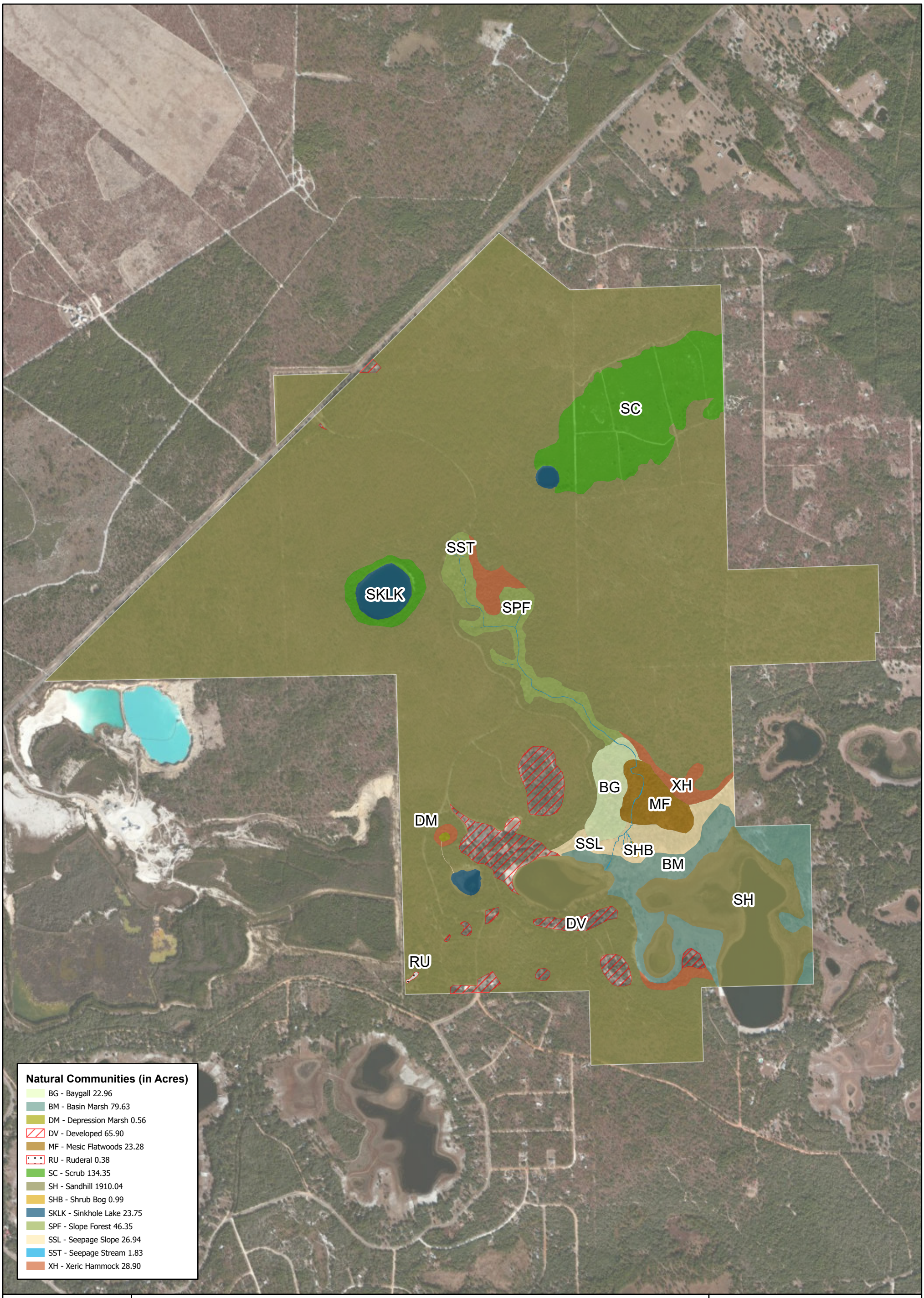
Several spoil piles are located adjacent to the borrow area.

Successional Hardwood Forest

Several areas with successional vegetation, including loblolly pines, are located along the eastern shoreline of Big Lake Johnson. Although these areas may have been flooded during high water events in the mid 1900s, they currently are succeeding toward an upland community type.

Developed

The developed areas include staff residences, maintenance buildings, cabins and recreational or service facilities.Staff will continue to control invasive plant species in developed areas of the park. Additional retrofitting of stormwater management may be needed in the main picnic area parking areas on the north side of Little Lake Johnson. Defensible space will be maintained around all structures in the sandhills and other areas that are maintained with prescribed fire or might be at risk from wildfires.



MIKE ROESS GOLDHEAD BRANCH STATE PARK
Natural Communities - Existing Conditions

N

0 1,000 2,000 Feet

This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

Objective A: Maintain 1800 acres within the optimum fire return interval.

- Action 1 - Develop/update annual prescribed fire plan.
- Action 2 - Conduct prescribed fire on 670-2,040 acres annually.

There are 2,051 acres of fire-type community at Mike Roess Gold Head Branch State Park. Nearly all the park's natural communities are fire-adapted or at least influenced by fire. The sandhills require periodic burning to maintain their natural diversity and prevent invasion by non-fire tolerant species. Likewise, the scrub, flatwoods and seepage slope areas require burning for long-term maintenance of the natural community. Even communities such as the upland hardwood forest and xeric hammock are affected by fire along ecotones with fire-adapted communities. The maintenance of natural ecotones between these communities is important for those plant and animal species that are adapted to fringe areas. The use of hard fire breaks, such as roads or disked lines, between community types is discouraged for this reason.

The park is divided into zones based on existing firebreaks. Pre-fire preparation is an important consideration when applying fire to areas that have had fire excluded for long periods. In long unburned sandhill areas, the buildup of leaf litter or duff beneath large longleaf pines can endanger those pines if fires burn during periods of low humidity or drought (Varner III et al. 2007). Raking duff away from the bases of these trees and burning during milder conditions with adequate duff moisture levels will minimize the danger of cambium damage from a smoldering subsurface fire. If necessary, smoldering duff fires should be extinguished around the bases of the larger longleaf pines after the fire front passes.

Even within the older areas of sandhill, caution must be taken when burning around mature longleaf pines. Many of the older longleaf pines within the park were turpentined before the creation of the park in the 1930s. Those pines are usually over 100 years in age, with many being much older. The cat-faces left by the turpentine industry greatly increase the risk of killing these older trees during prescribed burns due to gaps in the protective bark.

Before burning, underbrush and leaf litter should be removed from the bases of cat-faced longleaf pines where necessary. If located near firebreaks, cat-faced pines may be coated with foam immediately before initiating prescribed burns. Cat-faced and unscathed longleaf pines killed by fire along firebreaks present a hazard to staff and to the security of future prescribed burns. Therefore, every effort should be made to protect living longleaf pines along firebreaks during a fire. Likewise, existing longleaf pine snags should be protected from fire by raking around their bases and removing underbrush. Snags that ignite during a burn should be extinguished as soon as possible after the fire front passes to prevent the loss of the snag and to avert potential spotting problems later. Staff should inspect all longleaf snags and cat-faced trees as soon as possible after the fire front passes to extinguish any potentially damaging fires on the trees.

Preparation and planning for wildfires or escaped prescribed fires within the park should also be a component of the park's prescribed fire plan. Preferred fire suppression techniques and guidelines should be identified and discussed with the local Florida Forest Service staff prior to the need for fire suppression within the park. Sensitive resources such as wetlands, imperiled species and cultural sites should be identified and mapped, and that information should be conveyed to the Florida Forest Service prior to any suppression activities.

In developing prescribed fire plans for the fire-adapted communities, every effort should be made to mimic natural fire regimes in both timing and technique. In most natural sandhill fires, flank fires and head fires probably burned the majority of acres. Care should be taken during prescribed fires to avoid

creating the hot spots that occur when two fire lines rapidly converge. To minimize the intensity of the fire convergence, narrow strip-head fires, spot fires or flanking fires are preferred over a single backing fire that converges with a head fire.

Fire season and fire return intervals are both critical components of a fire regime. In most cases after initial fuel reduction burns have been completed during the nongrowing season, all sandhill zones should be burned during the natural lightning season, given staffing and weather constraints. The scrub should be burned during periods of lower humidity and lower live fuel moisture to ensure combustion of the shrub layer. The scrub zones east of Devil's Washbasin may require mowing to reduce fuel heights near the urban interface. The seepage slope community should ideally be burned in the lightning season, while the adjacent basin marsh normally will burn well only in the winter season. Burning of the basin marsh during winter may be required to prevent hardwood and loblolly pine invasion during periods of low water. Burning of basin marsh and seepage slope together in the non-lightning season is preferable to creating a firebreak between the areas just to allow burning of the seepage slope later during the lightning season.

The requirements of animal species, particularly imperiled species, should be considered when developing prescribed fire plans. The fire return interval for the scrub will target the vegetation stages preferred by the Florida scrub-jay, Florida mouse and gopher tortoise. However, certain endemic invertebrates, such as the Rosemary grasshopper, may require a longer fire return interval (Deyrup and Franz 1994). Scrub areas will be maintained as a mosaic of uneven-aged vegetation to maximize habitat, and, therefore, species diversity. The majority of wildlife species that are native to sandhills require relatively short fire-return intervals that maintain open vistas and promote longleaf pines and a diverse groundcover.

Based on the fire return intervals and acreage figures for the natural communities within the park, at least 670 acres will need to be burned each year to maintain the natural communities within their target fire return intervals. Not all zones may always be burned within the maximum recommended fire return intervals, while others may be burned more frequently. The number of acres within the target fire return interval should not be less than 1,800 acres, or approximately 80% of the total fire dependent acres within the park.

The Prescribed Fire Management Table contains a list of all fire-dependent natural communities found within the park, their associated acreage and optimal fire return interval, and the annual average target for acres to be burned.

Prescribed Fire Management		
Natural Community	**Acres**	**Optimal Fire Return Interval (Years)**
Sandhill	1768	1-3
Scrub	134	8-15
Basin Marsh	68	1-10
Seepage Slope	28	2-5
Mesic Flatwoods	23	2-3
Baygall	23	2-5
Successional Hardwood Forest	7	2-5
Annual Target Acreage	670 - 2040	

Objective B: Continue restoration of 80 acres of sandhill.

Several sandhill areas, particularly those south of the developed areas at the south end of the park, were heavily invaded by non-fire adapted hardwoods after disturbance and decades of fire exclusion. These areas underwent a biomass harvest to remove off-site hardwoods in 2019 to initiate restoration of a nature fire regime, to reestablish native groundcover species and to supplement the few remaining longleaf pines. Additional areas near Pebble and Sheeler Lakes had previous projects to reduce off-site hardwoods and sand pines. Hardwoods have also been targeted adjacent to the ravine system. All of these areas will continue to be monitored and off-site hardwoods will be treated mechanically or chemically as needed. Maintenance of the restored areas will require application of prescribed fire within the recommended fire return interval.

A small number of slash pines were planted a number of years ago along the park drive and in the picnic area. Since they are non-indigenous to the sandhills, some of these pines have been removed. These off-site slash pines may remain in the visitor use areas to provide shade and for aesthetic reasons until they can be replaced with longleaf pines. Planted off-site slash pines should be mapped and removed from natural sandhills.

Objective C: Protect resources from visitor impacts at the ravine, Devil's Washbasin and Sheeler and Pebble Lakes.

Management actions are needed to address the adverse impacts that visitors are causing at some of the sensitive areas of the park, including the ravine and the three sinkhole lakes, Sheeler Lake, Devil's Washbasin and Pebble Lake. Trail improvements should be designed and implemented to address soil compaction and erosion impacts to the ravine. Likewise, visitor management, educational programs and erosion control measures should be planned and implemented for the area surrounding the sinkhole lakes. A photopoint monitoring program is recommended to document and evaluate the success of these management actions.

IMPERILED SPECIES

Fire-adapted uplands across the state have been declining for the past century due to development pressures, fire suppression and forestry and agricultural practices. Consequently, many of the animal and plant species that are restricted to these community types are also declining. Mike Roess Gold Head Branch State Park preserves an excellent example of the sandhill natural community on the Trail Ridge and, with certain exceptions, maintains a nearly complete species assemblage. The park is well known for its populations of gopher tortoises (*Gopherus polyphemus*), gopher frogs (*Lithobates capito*), eastern indigo snakes (*Drymarchon couperi*) and southeastern kestrels (*Falco sparverius paulus*).

From 1977-1984, the Duval Audubon Society chapter managed a series of kestrel nest boxes at the park. Another nest box program was initiated in early 1990 by park and district staff to replace the original eight boxes. Due to the limited number of suitable, natural nest cavities in the park, artificial nest boxes were considered necessary for the local perpetuation of the southeastern kestrel. The kestrel boxes also provide cavities for screech owls (*Megascops asio*), great-crested flycatchers (*Myiarchus crinitus*), fox squirrels and flying squirrels (*Glaucomys volans*). As the number of natural cavities in existing snags gradually increases, the need for the program will be reevaluated. The kestrel nest box program was initially very successful in attracting nesting pairs. During 1990, over 25 fledglings were produced. Nearly all of the fledglings were color-banded and, in later years, patagial-tagged by Dr. John Smallwood of the University of Florida. Monitoring of the boxes during the breeding season was sporadic for several years since Dr. Smallwood was not available to band the fledglings. The park continues to maintain the boxes on an annual basis and cooperated with FWC as part of the Southeastern Kestrel Monitoring and Recovery Project (Miller 2008).

The gopher tortoise population at Mike Roess Gold Head Branch State Park has also been the subject of research, but results have not been nearly as encouraging. Studies by Joan Berish of the Florida Fish and Wildlife Conservation Commission and Dr. Mary Brown and Dr. Lori Wendland of the University of Florida College of Veterinary Medicine documented a very high incidence of exposure to *Mycoplasma agassizii*, the pathogen that is responsible for Upper Respiratory Tract Disease (URTD) in the gopher tortoise and the western desert tortoise (Berish 1997). Anecdotal evidence indicates that sites where tortoises have historically been released are more likely to have tortoises that have been exposed to the pathogen that causes URTD. Unfortunately, the park has been the recipient of many “dumped” tortoises that were released by a well-meaning public. The University of Florida used Gold Head Branch State Park as a site for a long-term monitoring study to track the fate of infected tortoises beginning in 2002. Exposure rates to *Mycoplasma agassizii* ranged from 62% to 33%. However, cultures taken from gopher tortoises in 2005 actually isolated a related organism, *Mycoplasma testudineum*, which has been associated with URTD at two other sites in northeast Florida. Additional studies are needed to determine the pathogenicity of this species.

Burrow surveys were conducted in 1990 and 2000 that showed a decrease in the number of burrows in the areas sampled within the park. It is likely that there was a die-off of gopher tortoises in the park during that period, which is reflected in the decrease in the number of burrows. Subsequent work done by the University of Florida documented an increase in the number of juvenile tortoises within their study sites in the park. In 2014, FWC funded a Line Transect Distance Sampling (LTDS) survey of the park by staff of the Jones Ecological Research Center (Smith and Howze 2016). The population of tortoises in the park was estimated to be 843 with a range of 591 to 1,201. The habitat suitability was classified as high quality. The tortoise size class distribution based on burrow widths was skewed toward medium-sized tortoises, with fewer large tortoises in comparison with other surveyed sites. This is consistent with a die-off of adult tortoises in the past.

Gopher tortoise burrow commensals such as the gopher frog have been documented within the park. The Florida mouse (*Podomys floridanus*) also occurs within the park and has been surveyed by FWC and by DRP staff. Large areas of suitable habitat exist within the park for these species. Gopher frogs are commonly found in gopher burrows within the park and are known to breed within the park. Smith et al (2021) found that 22% of gopher tortoise burrows in the park contained gopher frogs during LTDS sampling of gopher tortoises. An amphibian die-off that occurred in 2011 at Pebble Lake involving bullfrog, southern leopard frog and gopher frog tadpoles was investigated by FWC's Fish and Wildlife Research Institute. The die-off was most likely the result of a co-infection by a form of ranavirus and an alveolate parasite (Landsberg et al 2013). Due to the pathogenic nature of these disease organisms and the ease with which they can be transmitted to other water bodies, strict measures were put in place to restrict access to Pebble Lake and to decontaminate any collecting equipment used on site. Additional research by the University of Central Florida confirmed the presence of the alveolate parasite at Pebble Lake in subsequent years. FWC also investigated a die-off in Camp Blanding attributed to ranavirus.

Indigo snakes are sighted periodically in the park and have been documented as road kills. In 2022, FWC initiated a long-term population monitoring study of indigo snakes in the Trail Ridge Conservation Focus Area which includes Gold Head Branch State Park and the southern portion of Camp Blanding Joint Training Center.

Historically, red-cockaded woodpeckers (*Dryobates borealis*) nested within the park. Cavities within living longleaf pines may still be found in the park; however, most of these cavities have been enlarged by other species. The park continues to improve habitat quality for potential expansion of the red-cockaded woodpeckers from active colonies located in Camp Blanding. The park does not have sufficient sandhill acreage to meet the minimum number of potential colony sites needed for a formal translocation. Staff will continue to communicate with the U.S. Fish and Wildlife Service, FWC and the Southern Range Translocation Cooperative.

Another threatened species that was extirpated in the past from the park is the Florida scrub-jay. Once recorded in small numbers in the scrub northeast of Devil's Washbasin, it had not been seen in the park since at least 1990. In late 2019, a single scrub-jay was observed in the park by a visitor and confirmed by staff. The jay has remained on site until at least late 2022. After acquisition by the state in 1994, active management of the scrub with mowing and prescribed fire began in 1998 and 1999, when the three westernmost scrub zones were burned. It is hoped that burning of the scrub zones on a staggered schedule or using fire techniques to create a mosaic of burned and unburned areas will improve chances for successful re-establishment of a scrub-jay group. In the past, the park participated in a regional scrub-jay evaluation led by DRP staff that included field staff from the Florida Forest Service at Etoniah Creek State Forest and FWC and Florida National Guard staff from the Camp Blanding Military Reservation. The purpose of the evaluation was to discuss management of the scrub-jays in a regional context and to assess the condition of scrub-jay habitat on public lands in the region.

A pair of bald eagles (*Haliaeetus leucocephalus*) currently nests within the park. The currently active nest is located on the northwestern edge of Sheeler Lake. It is well-insulated from the park's recreational trails. The Sheeler Lake nest has been active for many years.

Say's spiketail dragonfly (*Cordulegaster sayi*) was formerly a federal candidate species and is currently tracked by FNAI as G3S3. Annual surveys for adults have been conducted since 2009 and confirmed the presence of a population within the park. Adult spiketails are known to use the sandhills on either side of the ravine as foraging habitat. Due to the short flight time of this species, adult surveys must be conducted during a relatively narrow window of time. The purple skimmer dragonfly (*Libellula jesseana*)

is also found within the park and monitored routinely. A number of other imperiled invertebrates are also found within the steephead ravine, including the elusive Florida scorpionfly (*Panorpa floridana*) which is only known from a handful of sites (Somma et al 2013).

Several listed plant species occur within the park. White and Judd (1985) conducted a survey of the flora of the Gold Head Branch ravine and documented that area of the park relatively well. However, the surrounding sandhills were not sampled as heavily. Some of the park's imperiled plant species occur within the sandhills, but not all have been located recently. Examples of showy dawnflower (*Stylisma abdita*) have been reconfirmed within the park. Several rare plant species, including hooded pitcher plants, were historically present in the seepage slope and bog natural communities. Perturbations, both natural and anthropogenic, have likely caused the extirpation of many species from these normally diverse communities. Johnson (2001) has summarized the anecdotal history of pitcher plants within the park and discusses the habitat disturbances that eliminated them.

Table 2 contains a list of all known imperiled species within the park and identifies their status as defined by various entities. It also identifies the types of management actions currently being taken by DRP staff and identifies the current level of monitoring effort. The codes used under the column headings for management actions and monitoring level are defined following the table. Explanations for federal and state status as well as FNAI global and state rank are provided in Addendum 6.

Imperiled Species Inventory						
Common and *Scientific* Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
PLANTS						
Curtiss' milkweed *Asclepias curtissii*			LE		1,2,7	Tier 1
Garberia *Garberia heterophylla*			LT		1,7	Tier 1
Trailing milkvine *Matelea pubiflora*			LE		1,2,7	Tier 1
Giant orchid *Orthochilus ecristatus*				G2G3,S2	1,6, 10	Tier 1
Hooded pitcherplant *Sarracenia minor*			LT		1,3,4	Tier 2

Imperiled Species Inventory						
Common and *Scientific* Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Buckthorn bully *Sideroxylon lycioides*			LE	G5,S2	1	Tier 1
Showy dawnflower *Stylisma abdita*			LE	G3,S3	1,2,7	Tier 2
Diverseleaf crownbeard *Verbesina heterophylla*			LE	G2,S2	1	Tier 1
INVERTEBRATES						
Eastern Meske's Skipper *Hesperia meskei straton*				G3G4T3, S2S3		
Purple skimmer *Libellula jesseana*		UR		G1G2,S1S2	4,10	Tier 1
Ordway melanoplus grasshopper *Melanoplus ordwayae*				G1G2, S1S2	1,7	Tier 1
Rasmussen's neotrichia caddisfly *Neotrichia rasmusseni*				G1,S1	4, 9	Tier 1
Daytona long-horned caddisfly *Oecetis daytona*				G3, S2S3	4,9	Tier 1
Porter's long-horn caddisfly *Oecetis porteri*				G3G4, S2S3	4,9	Tier 1
Short orthotrichian microcaddisfly *Orthotrichia curta*				G4, S2S3	4,9	Tier 1
Gold Head Branch caddisfly *Oxyethira chrysocara*				G1,S1	4,9	Tier 1

Imperiled Species Inventory						
Common and *Scientific* Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Florida cream and brown microcaddisfly *Oxyethira florida*				G2,S2	4,9	Tier 1
Florida scorpionfly *Panorpa floridana*				G1,S1	4,9	Tier 2
Skelley's june beetle *Phyllophaga skelleyi*				G2,S2	1	Tier 1
Alachua pleasing fungus beetle *Triplax alachuae*				G2G4, S2S4	1	Tier 1
AMPHIBIANS						
Gopher Frog *Lithobates capito*		UR		G2G3,S3	1,6,7	Tier 1
REPTILES						
American alligator *Alligator mississippiensis*	FT(S/A)	T(S/A)		G5,S4	4,10	Tier 1
Eastern indigo snake *Drymarchon couperi*	FT	T		G3, S2?	1,6,7	Tier 3
Gopher tortoise *Gopherus polyphemus*	ST	C		G3,S3	1,2,6,7,13	Tier 3
Florida pine snake *Pituophis melanoleucus mugitus*	ST	UR		G4,S3	1,7	Tier 1
BIRDS						
Florida Sandhill Crane *Antigone canadensis pratensis*	ST			G5T2,S2		
Florida Scrub-Jay *Aphelocoma coerulescens*	FT	T		G1G2,S1S2	1,7	Tier 2

Imperiled Species Inventory						
Common and *Scientific* Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Red-cockaded Woodpecker *Dryobates borealis*	FE	E, PT		G3,S2	1,6,7	Tier 1
Little Blue Heron *Egretta caerulea*	ST			G5,S4	4	Tier 1
Tricolored Heron *Egretta tricolor*	ST			G5,S4	4	Tier 1
Swallow-tailed Kite *Elanoides forficatus*				G5,S2		Tier 1
Peregrine Falcon *Falco peregrinus*				G4,S2		Tier 1
Southeastern American Kestrel *Falco sparverius paulus*	ST			G5T4, S3	1,5,6,7,13	Tier 3
Wood Stork *Mycteria americana*	FT	T		G4,S2	4	Tier 1
Roseate Spoonbill *Platalea ajaja*	ST			G5,S2		
Least Tern *Sterna antillarum*	ST			G4,S3		Tier 1

Management Actions:

1. Prescribed Fire.
2. Exotic Plant Removal.
3. Population Translocation/Augmentation/Restocking.
4. Hydrological Maintenance/Restoration.
5. Nest Boxes/Artificial Cavities.
6. Hardwood Removal.
7. Mechanical Treatment.
8. Predator Control.
9. Erosion Control.
10. Protection from visitor impacts (establish buffers)/law enforcement.
11. Decoys (shorebirds).
12. Vegetation planting.
13. Outreach and Education.
14. Other.

Monitoring Level:
Tier 1. Non-Targeted Observation/Documentation: includes documentation of species presence through casual/passive observation during routine park activities (i.e., not conducting species-specific searches). Documentation may be in the form of Wildlife Observation Forms or other district specific methods used to communicate observations.
Tier 2. Targeted Presence/Absence: includes monitoring methods/activities that are specifically intended to document presence/absence of a particular species or suite of species.
Tier 3.Population Estimate/Index: an approximation of the true population size or population index based on a widely accepted method of sampling.
Tier 4.Population Census: A complete count of an entire population with demographic analysis, including mortality, reproduction, emigration and immigration.
Tier 5. Other: may include habitat assessments for a particular species or suite of species or any other specific methods used as indicators to gather information about a particular species.

Objective A: Monitor and document seven selected imperiled animal species.

Speed limits within the park should be enforced to reduce the chance of hitting indigo snakes, gopher tortoises or other wildlife. Sightings of indigo snakes will be recorded on a wildlife observation form or similar data sheet, and staff will facilitate FWC research activities in the park monitoring indigo snakes.

Park staff will continue to observe the gopher tortoise population in the park for signs of disease or die-offs related to Upper Respiratory Tract Disease (URTD). Every effort should be made to prevent illegal drop-offs of gopher tortoises in the park. Interpretive materials will be made available to park staff and the public to educate them about the disease. The park will work with FWC to hopefully repeat the LTDS surveys at recommended intervals. Protection of the gopher tortoises and their burrows, along with prescribed burning, should suffice to maintain populations of burrow commensals such as Florida mice and gopher frogs. Staff will continue to coordinate with FWC and researchers investigating amphibian diseases within the park and will report any suspicious amphibian or reptile deaths.

Staff will continue to monitor for the presence of scrub-jays within the park. Since scrub-jays still exist in the region, it is possible that more will re-colonize the Gold Head scrub as fire management of the scrub continues.

The active bald eagle nest near Sheeler Lake will be protected from disturbance during the nesting season. At the current time, none of the park's service roads or trails are close enough to the nest to disturb the birds. Recreational use of the Sheeler Lake shoreline near the nest is expected to be minimal since the lake access trail is across the lake from the nest location.

DRP staff will continue to assess the population status of adult Say's spiketail and purple skimmer dragonflies within the park and will develop monitoring guidelines. DRP will continue to depend on partnerships with other agencies and academic institutions in the monitoring of the host of other imperiled invertebrate species that have been documented at the park by previous researchers.

Objective B: Monitor and document five selected imperiled plant species.

Protection of imperiled plant species within the ravine will require erosion control and increased vigilance to discourage visitors from climbing the slopes. Sandhill species will likely benefit from a prescribed burn program that mimics the natural fire regime. Some species such as Curtiss' milkweed (*Asclepias curtissii*) prefer recently disturbed areas such as roadsides and disked firebreaks. Staff will re-survey the Showy dawnflower population based on the known sites. In addition, staff will attempt to locate and map the Buckthorn bully (*Sideroxylon lycioides*) and Diverseleaf crownbeard (*Verbesina heterophylla*) that are listed by FNAI as S2 species.

Restoration of the natural topography, fire regime and hydrology of the seepage slope, bog and basin marsh communities should provide additional habitat for rare plant species historically associated with these areas, if they still exist in the vicinity. In the case of the hooded pitcher plant, it was recommended that a reintroduction be attempted using seed collected from outside the park (Johnson 2001). A large quantity of seed was collected from populations within Camp Blanding and was distributed in the seepage slope and bog communities in February 2008 subsequent to a prescribed fire. The population was also supplemented with plants transplanted from a donor site outside the park.

Objective C: Continue nest box program for Southeastern kestrels and other cavity nesting species.

The kestrel nest box program at the park should continue for the near future. Although many more snags have been created at the park in the last decade, adequate numbers of cavities may not yet have been created. Gold Head Branch may also serve as a kestrel reservoir for the surrounding areas. Reproduction within the park may exceed the carrying capacity for mated pairs within the park. In that situation, younger birds would likely disperse into the surrounding areas of marginal habitat and bolster other declining populations. The boxes should be cleaned of debris in January before the nesting season, and at least one follow-up visit will be necessary to determine occupancy. Monthly visits are not required unless banding of fledgling birds needs to be scheduled. DRP staff will continue to collaborate with FWC on the Southeastern Kestrel Monitoring and Recovery Project (Miller 2008).

District staff will also coordinate with park staff to monitor potential red-cockaded woodpecker (RCW) activities within the park. Cat-faced longleaf pines, which may be some of the older trees within the park, will be protected during prescribed burns. The protection of these potential RCW cavity trees will help increase the chances of attracting the birds to the park. Active colonies of RCWs exist on Camp Blanding due to an aggressive and successful reintroduction program, and it is hoped that the birds will naturally disperse into Gold Head Branch. Consideration may be given to the reintroduction of RCWs from expanding populations and the use of artificial cavity inserts if these are deemed necessary and permissible.

Staff will coordinate with the USFWS, FWC, the Southern Range Translocation Cooperative and Camp Blanding regarding the management of RCWs within the park and on a regional level.

Objective D: Restore scrub natural community to benefit imperiled scrub plant and animal species.

Continued coordination with the USFWS, FFS, FWC and Camp Blanding will also be necessary in implementing a regional plan for the management of the Florida scrub-jay. The park has installed firebreaks within the scrub, and prescribed fire within the scrub continues as a priority at the park. Zones will be burned to maximize structural diversity of the rejuvenated scrub vegetation. Where necessary, fuel height within the scrub will be reduced by mowing or other mechanical preparations. Unfortunately, the remaining scrub-jay group at Camp Blanding has been declining in recent years. Significant scrub habitat occurs at Etoniah Creek State Forest, and that may be the most likely location for re-establishment of a viable scrub-jay population in the region.

INVASIVE SPECIES

The park has several invasive plant species. The most serious invasive plant problem at the park is currently rose natal grass (*Melina repens*) (FLEPPC I). Because of its rapid seed production, it should be treated monthly. Mimosas (*Albizia julibrissin*) (FLEPPC I) and flamegold trees (*Koelreuteria elegans*) (FLEPPC II) have been removed from residence sites. Scattered camphor trees (*Cinnamomum camphora*) (FLEPPC I) and lantana (*Lantana camara*) (FLEPPC I) have also been recorded in the park. Japanese climbing fern (*Lygodium japonicum*) is present in scattered locations. Another invasive plant that is not on an FLEPPC list is centipede grass. It was originally planted on road shoulders for stabilization. Unfortunately, it invades intact sandhill, outcompetes native groundcover and changes the fine fuel structure and fire behavior. This species should be treated wherever it is creeping into the sandhill.

It is fortunate that the park has relatively few problems with invasive animals. Although feral hogs (*Sus scrofa*) are not known to occur in the park, nine-banded armadillos (*Dasypus novemcinctus*) are present. Armadillos not only impact native animal species that they feed upon but also destabilize slopes and cause erosion from their diggings. In addition, although alligators could potentially cause concern in the swimming area, the park does not have any significant nuisance animal species.

Invasive Plants Inventory			
Species Name ***Scientific Name*** **- Common Name**	**FLEPPC Category**	**Distribution**	**Zone ID**
Dactyloctenium aegyptium - Durban crowfootgrass	II	Scattered Dense Patches	GH-1B
Lantana camara - Lantana	I	Single Plant or Clump	GH-3H
Lonicera japonica - Japanese honeysuckle	I	Single Plant or Clump	GH-2G
Lygodium japonicum - Japanese climbing fern	I	No Invasive Plants Present	GH-2G
Lygodium japonicum - Japanese climbing fern	I	Single Plant or Clump	GH-2E, GH-3A
Lygodium japonicum - Japanese climbing fern	I	Scattered Plants or Clumps	GH-1Fw
Melinis repens - Natal grass	I	No Invasive Plants Present	GH-4D
Melinis repens - Natal grass	I	Single Plant or Clump	GH-1A, GH-1Ew, GH-2A, GH-2C, GH-2E, GH-3H, GH-6C, GH-7B, GH-7G, GH-7J, GH-7M
Melinis repens - Natal grass	I	Scattered Plants or Clumps	GH-1B, GH-1Ce, GH-1Ee, GH-1Fe, GH-2A, GH-2B, GH-2C, GH-2D, GH-2F, GH-3B, GH-3D, GH-3F, GH-6A, GH-6B, GH-6D, GH-7A, GH-7G, GH-7H, GH-7K, GH-8A, GH-8B

Invasive Plants Inventory			
Species Name ***Scientific Name* - Common Name**	**FLEPPC Category**	**Distribution**	**Zone ID**
Melinis repens - Natal grass	I	Scattered Dense Patches	GH-2E, GH-3A, GH-3C, GH-6D, GH-8A
Melinis repens - Natal grass	I	Linearly Scattered	GH-1A, GH-3G
Panicum repens - Torpedo grass	I	Scattered Dense Patches	GH-1Cw, GH-6C
Sapium sebiferum - Chinese tallow tree	I	Single Plant or Clump	GH-1Fw, GH-2E, GH-2F, GH-6E
Sapium sebiferum - Chinese tallow tree	I	Scattered Plants or Clumps	GH-3A, GH-6D
Sapium sebiferum - Chinese tallow tree	I	Dominant Cover	GH-4B
Solanum viarum - Tropical soda apple	I	Single Plant or Clump	GH-6D

Objective A: Annually treat 140 gross acres containing six infested acres of invasive plant species.

Create an annual treatment plan in NRTS, the statewide database. Rose natal grass should be a priority treatment species in the plan. An invasive plant removal plan is recommended that maps infested areas by burn zone and determines priorities for treatment. This will provide guidance for subsequent annual work plans. The number of acres of invasive plants treated per year is likely to vary widely depending on the status of current infestations and any new infestations that might arise during the life of this management plan. The plan should also include systematic treatment of centipede grass where it is invading the sandhill. Japanese climbing fern will continue to be treated promptly and repeatedly to ensure removal. Priority should be given to FLEPPC Category I and II species when treating invasive plant species in the park. Non-invasive, non-native plants that occur within the park will be removed whenever possible. However, ornamentals that are known to be non-invasive and occur in landscaping around residences may remain. Treated areas will be monitored and follow-up treatments implemented as needed.

Objective B: Scout every zone within the park at least twice within 10 years for new populations of invasive plants.

A plan and schedule for scouting and mapping invasives in every zone within the park at least twice within 10 years is recommended. Areas that have sources of particularly aggressive species or species that dramatically change ecosystem function may need to be scouted more frequently. Finding new populations of invasive plants before they become established will help prevent larger infestations. The focus should be on FLEPPC Category I and II species and centipede grass.

Objective C: Practice preventative measures to avoid accidental introduction or spreading of invasives within the park.

The park should implement and practice guidelines for clean sod, fill dirt, limerock, mowing, cleaning and inspecting equipment that enters the park. New infestations of invasives can be prevented by ensuring that park staff and contractors such as mowers and loggers clean their equipment before

entering the park and do not spread invasives by moving from a contaminated area within the park without cleaning their equipment.

Objective D: Implement control measures on three nuisance and invasive animal species in the park.

Control activities will focus on areas where armadillos are causing the most damage, including the Gold Head Branch ravine and the slopes surrounding the various lakes within the park. The park also occasionally must remove feral or stray cats (*Felis catus*) and dogs (*Canis familiaris*) from the park. These animals should be turned over to the county animal control facility.

CULTURAL RESOURCES

Mike Roess Gold Head Branch State Park was dedicated April 15, 1939, and is significant in the 20th-century history of Florida as being among the nine state parks acquired and developed in the 1930s in conjunction with the Civilian Conservation Corps (CCC). The design and construction of the park were directed by the National Park Service, Division of State Parks. Most of the park was designed and/or approved by landscape architect Emmet Hill, the Florida Park Service director in the 1950s. Construction of the park was handled by CCC Camp SP-5 that was located along the original south boundary of the park. Nineteen buildings of 23 original buildings constructed by the CCC still survive. These buildings included cabins, a bathhouse, picnic pavilion, a blacksmith forge, support structures and the park entrance. The current layout and road system generally follows the original park plan.

A study by Historic Property Associates in 1989 surveyed and documented the CCC structures. They recommended that resources located in Florida State Parks developed during the 1930s CCC era should be nominated to the National Register of Historic Places through a multiple property nomination. In the case of this park, its buildings retain the essential character and quality of the original CCC design. The park's CCC structures possess a high level of integrity as to location and construction. The original park limits and structures of the park are now a National Register Historic District, Gold Head Branch State Park District CL01654.

The Historic Property Associates report indicated that no additional survey work or documentation was needed for the buildings at the park. The only exception is that additional buildings have become 50 years of age since this survey was conducted. A concession building, campground and associated buildings and additional cabins were added during the 1950s that have been documented and added to the FMSF. The remaining 50-year-old buildings are isolated examples of the continued development of state parks. For this reason, these buildings are not considered eligible for listing in the National Register of Historic Places. In total the park has 49 historic structures that are 50 years old or older.

Additional resources located in the park include the Green Cove and Midlands Railroad linear resource (CL01529) and the site of a 19th-century grist mill located at the end of the park's ravine. This grist mill was partially reconstructed and later demolished. A Florida Master Site File (FMSF) form was created for the site, but very limited research on or evaluation of the structure has been conducted. The recent acquisition of the Gladman property contains a segment of the railroad bed and should be mapped and included in FMSF CL01529. There are eight total archaeological sites recorded in the FMSF. The Johnson Lake canoe site is a prehistoric canoe site that has not been evaluated for significance. The Gold Head Branch site is a prehistoric site containing no ceramics and has been determined as ineligible for the National Register. The area of the CCC work camp is also a cultural site (CL01336).

A predictive model was completed in 2012 and should be used to guide any future phase 1 survey (Collins, L. D. et al, 2012).

The park currently has several museum objects, archeological artifacts and archival materials in its possession, but none of them are organized as formal collections. These items include a small collection of original CCC tools which were used to construct the original park buildings, approximately 25 original CCC blueprints relative to the park's original construction, the remains of a dugout canoe discovered at Big Lake Johnson, a rebuilt section of the narrow-gauge railroad, historic photographs dating from the 1930s and a few newspaper articles.

The park's collections are exhibited or stored in several locations. The original CCC tools that were used to construct the original park buildings are in two areas. Some are on display in the recreation building and others are stored in the shop area. The park's original CCC blueprints are stored in a climate-controlled office. The remains of the dugout canoe are in the main shop area out of the weather. The rebuilt section of the narrow-gauge railroad is on display in the recreation building. Photos from the 1930s are either displayed inside the ranger station or kept in storage in climate-controlled buildings. While all these objects are sheltered and relatively secure, evaluations need to be made to determine the condition of the objects and if climate, humidity and pest control measures are adequate to assure their conservation.

The recorded cultural resources are generally in fair condition. Several, like the Bathhouse (14), receive little use or wear. Most of the buildings, like the pavilion and cabins, are generally well maintained. Recent renovations to the park manager's residence (1) place this building in good condition although the renovations included replacement of all siding and windows, which has substantially reduced its historic integrity. Since most of these buildings are used on a daily basis, there is a need for regular cyclical maintenance. The sloping area between the cabins and Lake Johnson is eroding and is in poor condition. The grist mill is in poor condition. The Ravine Stairway (8CL1335) is in poor but stable condition due to erosion. The Water Tower (8CL171) was in poor condition and was demolished.

All the buildings in the park are used for day-to-day operations and use of park visitors. No structures have been identified specifically for interpretation as historic buildings. Treatment for the grist mill site should focus on stabilization of the remains at the site. All other archaeological sites should receive preservation treatments, which are essentially monitoring and maintenance.

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
Entrance Walls 8CL153	Depression/ New Deal (1930-1940)	Structure	NR	Fair	RH
Ranger Station, Building 3 8CL154	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Implement Shed, Building 23 8CL155	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Park Maintenance Shop, Building 17 8CL156	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Blacksmith Forge (in Building 40) 8CL157	Depression/ New Deal (1930-1940)	Structure	NR	Fair	RH
Storage Shed, Building 40 8CL158	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Park Manager's Residence, Building 1 8CL159	Depression/ New Deal (1930-1940)	Building	NR	Good	RH
Park Manager's Garage, Building 2 8CL160	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Magnolia Cabin, Building 4 8CL161	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Cypress Cabin, Building 9 8CL162	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Dogwood Cabin, Building 10 8CL163	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Holly Cabin, Building 7 8CL164	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Cedar Cabin, Building 11 8CL165	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
Palm Cabin, Building 5 8CL166	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Pine Cabin, Building 12 8CL167	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Oak Cabin, Building 8 8CL168	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Bay Cabin, Building 6 8CL169	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Ranger Residence, Building 22 8CL170	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Water Tower 8CL171	Depression/ New Deal (1930-1940)	Structure	NR	Poor	NA
Overlook & Pavilion, Building 18 8CL172	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
McDonald Memorial Pavilion, Building 32 8CL173	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Flagpole 8CL174	Depression/ New Deal (1930-1940)	Structure	NR	Good	RH
Bathhouse/Combination, Building 14 8CL175	Depression/ New Deal (1930-1940)	Building	NR	Fair	RH
Picnic Tables 8CL715	Depression/ New Deal (1930-1940)	Structure	NE	Fair	RH
Pump House, Building 20 8CL1311	Depression/ New Deal (1930-1940)	Building	NE	Fair	RH
Maple Cottage, Building 25 8CL1312	Modern (Post 1950)	Building	NE	Fair	RH
Hickory Cottage, Building 26 8CL1313	Modern (Post 1950)	Building	NE	Fair	RH

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
Persimmon Cottage, Building 27 8CL1314	Modern (Post 1950)	Building	NE	Fair	RH
Walnut Cottage, Building 28 8CL1315	Modern (Post 1950)	Building	NE	Fair	RH
Sweetgum Cottage, Building 29 8CL1316	Modern (Post 1950)	Building	NE	Fair	RH
Recreation/Concession, Building 31 8CL1317	Modern (Post 1950)	Building	NE	Good	RH
Sign Shop, Building 45 8CL1318	Modern (Post 1950)	Building	NE	Fair	RH
Ranger Residence, Building 13 8CL1319	Modern (Post 1950)	Building	NE	Fair	RH
BBQ Shelter, Building 15 8CL1320	Modern (Post 1950)	Building	NE	Fair	RH
Pavilion, Building 16 8CL1321	Modern (Post 1950)	Building	NE	Fair	RH
Gonzales Home/Ranger Residence, Building 33 8CL1322	Modern (Post 1950)	Building	NE	Fair	RH
Gonzales Cottage 1, Building 35 8CL1323	Modern (Post 1950)	Building	NE	Fair	RH
Gonzales Cottage 2, Building 36 8CL1324	Modern (Post 1950)	Building	NE	Fair	RH
Gonzales Cottage 3, Building 37 8CL1325	Modern (Post 1950)	Building	NE	Fair	RH
Gonzales Cottage 4, Building 53 (shed) 8CL1326	Modern (Post 1950)	Building	NE	Fair	RH
Gonzales Water Tower 8CK1327	Modern (Post 1950)	Structure	NE	Fair	RH
Sandhill Restroom, Building 46 8CL1328	Modern (Post 1950)	Building	NE	Fair	RH

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
Turkey Oak Restroom, Building 47 8CL1329	Modern (Post 1950)	Building	NE	Fair	RH
Picnic Shelter, Building 48 8CL1330	Modern (Post 1950)	Building	NE	Fair	RH
Picnic Shelter, Building 49 8CL1331	Modern (Post 1950)	Building	NE	Fair	RH
Picnic Shelter, Building 50 8CL1332	Modern (Post 1950)	Building	NE	Fair	RH
Picnic Shelter, Building 51 8CL1333	Modern (Post 1950)	Building	NE	Fair	RH
Picnic Shelter, Building 52 8CL1334	Modern (Post 1950)	Building	NE	Fair	RH
Ravine Stairway 8CL1335	Depression/ New Deal (1930-1940)	Structure	NE	Poor	RH
Grist Mill Site 8CL673	Historic – Late 19th , Early 20th Century	Archeological Site	NE	Poor	P
Johnson Lake Canoe 8CL733	Prehistoric – Unspecified	Archeological Site	NE	Fair	P
Gold Head Branch 8CL784	Prehistoric: Ceramic	Archeological Site	NS	Fair	P
CCC Work Camp SP-5 CL01336	1900-Present; Depression and New Deal 1930-1940	Archeological Site	NE	Good	P
Hermit Site CL01527	1900-Present	Archeological Site	NE	Good	P
Ceramic Jug CL01528	1900-Present	Archeological Site	NE	Good	P
CL01529 Green Cove and Midland Railroad	1821-1899	Linear Resource	NE	Good	P

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
Little Lake Johnson Log Canoe CL01533	Prehistoric	Archeological Site	NE	Good	P
Zone 4D CL01556	Early Archaic	Archeological Site	NE	Good	P
Gold Head Branch State Park District CL01654	Florida's New Deal	Historical District	NR	Good	P

Objective A: Assess/evaluate 53 of 53 recorded cultural resources in the park.

While the CCC survey provided sufficient documentation for evaluation, there is a need for 19 historic structures reports that will review in detail the condition and changes to the original buildings. The report will also provide recommendations for needed repairs.

The park does not intend to do any archaeological assessments during this plan period. However, the park does recognize the need to assess/evaluate known archaeological sites during plan periods, and the need to prioritize preservation and stabilization projects identified by such assessments/evaluations.

Objective B: Compile reliable documentation for all recorded historic and archaeological resources.

A written Scope of Collections Statement needs to be developed to guide any acquisition or deaccession of collection items. An administrative history for the park will help interpret the history of the park. Oral histories of former park staff would help document the park's history.

Objective C: Bring 53 of 53 recorded cultural resources into good condition.

The park needs to develop a written preventative maintenance protocol and monitoring plan for cultural resources. The cyclical maintenance plan should be implemented to help guide the needed repairs for all buildings. The rehabilitation of the park's historic buildings should be implemented in the order of priority established from the historic structures reports and from the results of annual monitoring. The park does not intend to conduct any archaeological preservation or stabilization projects during this plan period. The FMSF should be updated if major changes to a resource occur.

LAND USE COMPONENT

VISITATION

The Civilian Conservation Corps (CCC) developed the first 600 acres of Mike Roess Gold Head Branch State Park during the 1930s as one of Florida's eight original state parks. The park's focal natural feature is the steephead ravine through which the Gold Head Branch seepage stream flows, eventually emptying into Lake Johnson. Located in Keystone Heights on the rolling sandhills of Florida's north-central ridge, the park boasts one of the few remaining examples of old-growth longleaf pine forest. Scrub, mesic flatwoods, xeric hammock and slope forest are among the park's upland natural communities, providing habitat for a variety of wildlife. The park is also home to several lakes including one of Florida's oldest, Sheeler Lake.

Visitors to the park can enjoy hiking and wildlife viewing along an extensive system of nature trails, including a 5-mile stretch of the Florida National Scenic Trail. Visitors can also swim or fish in Little Lake Johnson or spend the afternoon canoeing. A large picnic area with tables, grills, pavilions and a playground are available for visitors to enjoy.

Nestled under the trees are three campgrounds with water and electricity provided. Primitive campsites for small or large groups are available as are fully equipped lakefront vacation cabins, some of which were built by the CCC. As one of nine New Deal Era inspired parks in the state of Florida, Gold Head Branch is eligible for the National Historic Register.

Trends

Park attendance is highest during March and November, corresponding to the milder outdoor conditions of spring and fall. Attendance is lowest during the hot and humid summer months. Yearly events at the park include the Yesterday Festival, showcasing the history of the Keystone Heights, and tram rides through the park's sandhills. Other special events include presentations by historians and archaeologists as well as live performances. Stargazing events are held in March, and an old engine and tractor event is held each December.

EXISTING FACILITIES AND INFRASTRUCTURE

The entrance station's CCC-era stonework and ironwork are evident as visitors enter the park. The entrance station serves multiple uses such as daily entrance functions, overnight check-in, rentals, office space, retail and management functions. Access to the Florida National Scenic Trail (FNST) is at the park entrance as well. Visitors can hike nearly 5 miles of the trail within the park boundary.

The ravine overlook is situated alongside the main park drive. From this vantage point above the steephead, visitors can look down into the ravine system where the Gold Head Branch originates and flows through the property, eventually emptying into Big Lake Johnson. Just down the park drive from the ravine overlook is the parking area for the Ravine trailhead. A 72-stair descent allows visitors to view the steephead branch and its clear flowing waters. Within this ravine bottom, temperatures are much cooler, offering a reprieve to flora and fauna from the Florida heat. This trail meanders through the ravine down to the picnic area and to the lake.

Across the road from the Ravine trailhead, visitors can walk the short nature trail to Sheeler Lake. This lake is an ancient sandhill lake with captivating views and ample wildlife. The lake offers passive

recreation opportunities to visitors. In order to preserve its pristine character, it should be left to function at its current use levels and patterns of access.

The Sandhill campground loop is situated within the park's dominant natural community and contains 18 sites and a bathhouse. The individual campsites blend into the grassy understory beneath the canopy of longleaf pines. The Turkey Oak campground loop is nestled in the shade of the oak canopy and contains 19 tent sites and a bathhouse. This campground offers a more secluded experience for its visitors allowing more of a natural buffer between each site. The group camp is located between the picnic area and the cabin area. This group camp offers three sites, each accommodating up to 25 people per site. The area has a small restroom and an outdoor shower for its users. The Lakeview Campground is just west of Big Lake Johnson and provides 36 sites and a bathhouse.

The park's cabin area provides nine CCC-era cabins, five block cabins and two accessible cabins, all overlooking Little Lake Johnson. These cabins can be reserved by individuals or by groups utilizing the recreation hall for various trainings or events. The boat ramp is no longer usable due to reduced water levels and is currently providing an unauthorized access point to drive onto the exposed lake bottom. The road to the boat ramp does, however, provide a vista to view wildlife on the lake.

The day-use area contains a large picnic area and offers recreational amenities for visitors including a swimming area on Little Lake Johnson, a recreation hall for events, picnic shelters and pavilions, a playground and one bathhouse. The mill site trailhead is located off the loop road in the picnic area providing visitors an additional access point to the park's trail system.

The park's support area contains the park shop and the DRP sign shop. The shop complex is composed of several buildings and pole barns which range from tool and equipment storage to flammable storage. The sign shop comprises buildings for the manufacturing and stockpiling of signs, thus providing for the sign needs of DRP. Six ranger residences are dispersed within the park.

Facilities Inventory

Park Entrance	
Ranger Station (CCC Building)	1
Administrative Office	1
Storage unit	1
Equestrian Trailhead (mi)	7
Florida Scenic National Trail (mi)	4.5
Little Lake Johnson Day Use Area	
Parking Area	2
Recreation Hall	1
Swimming Area	1
Picnic Pavilions	2
Large Picnic Pavilion (CCC Structure)	2
Bathhouse (CCC Structure)	2
Limestone Picnic Tables	62
Playground	1
Ravine Overlook	

Observation Area	1
Unimproved parking area	1
Ravine Trailhead	
Fern Loop Trail (mi)	0.8
Ridge Trail (mi)	1
Sheeler Lake Trailhead	
Nature Trail (mi)	0.5
Unimproved parking area	1
Sandhill Camping Area	
Camping Sites	18
Bathhouse	1
Turkey Oak Camping Area	
Camping Sites	19
Bathhouse	1
Lakeview Camping Area	
Camping Sites	36
Bathhouse	1
Boat Ramp	1
Cabin Area	
Rustic Cabins – CCC	9
Block Cabins	5
ADA Cabins	2
Mill Site Trailhead	
Loblolly Loop Trail (mi)	0.5
Parking Area	1
Interpretive Kiosk	1
Support Area	
Shop Building	2
Storage Building	11
Sign Shop	1
CCC Building	3

CONCEPTUAL LAND USE PLAN

Detailed Conceptual Land Use Plan Objectives

The use areas at Mike Roess Gold Head Branch State Park listed below detail specific objectives and action items to be implemented within the 10-year planning cycle.

Comprehensive interpretive planning is recommended to determine the most effective way to connect visitors to the park's significance and relevant themes at the Lake Johnson Day use area and various trailheads. The type, design, quantity, and placement of interpretive elements to deepen understanding and improve orientation will be specified during this planning process. The following objectives provide additional details for consideration.

Park Entrance

Objective: Reconfigure entrance for better functionality.

Actions:

- *Review proposals and select an appropriate entrance reconfiguration scheme.*

The current entrance area configuration presents challenges for visitors and park staff. Issues include the ranger station being situated on the passenger side of the entrance road, stacking of cars out to and along State Road 21, narrow entry often leading to congestion, incompatible uses/services housed in the same building and inadequate office space for park administration. A redesign could improve flow and functionality. A proposal includes the addition of a small permanent or portable entrance booth for collecting day-use fees and to provide for check-in/out of overnight guests. The entrance booth would be placed far enough into the park to better provide for the stacking of incoming traffic. Some level of entrance road widening, along with roadside stabilization, would be required to accommodate the centered entrance booth and provide for temporary roadside RV parking during busier times when the booth is not in use and camper check-in/out is being handled at the ranger station. Other overnight guests would have the option to park in a stabilized parking area immediately north of the park entrance, as necessary, and walk to the entrance station via a delineated pedestrian crossing point during times when check-in/out services are being provided here.

Any reconfiguration must be consistent with the CCC-era landscape and architectural legacy. Careful consideration must be given to building materials and the arrangement of facilities typical of this historic time period.

Redevelopment of the greater entrance area would also include removing the existing adjunct building that is currently providing park administrative space. Reasons for removal include inadequate interior space, poor functionality and landscape aesthetics. The park administration would be relocated to a more suitable location in the main support area.

Ravine Overlook

Objective: Clarify visitor use.

Actions:

- *No longer allow parking near ravine overlook.*
- *Develop footpath from Devil's Washbasin trailhead to Overlook.*

The overlook area has been receding over time due to natural steephead migration. This issue will be monitored and evaluated to ensure that the overlook remains safe for visitors to view the ravine system. The area's interpretation could be improved with one small interpretive sign educating visitors about the formation of Florida's unique steephead ravines.

To ensure future stability of the ravine overlook, parking will no longer be permitted at this site. Instead, visitors will park just to the north at the Devil's Washbasin trailhead or just to the south at the Ravine Trailhead. A footpath will be created along the park drive to guide visitors to the ravine overlook from the Devil's Washbasin Trailhead.

Ravine Trailhead

Objective: Trailhead redevelopment

Actions:

- *Reconfigure parking area at the Ravine Trailhead*
- *Fully replace sidewalk from the parking area and overlook for ADA accessibility.*

From a small trailhead parking area off the main park drive, visitors can access the Ravine Trail by descending a set of concrete stairs. To improve the trailhead area, the existing connection from the parking lot to the top of the stairs will be replaced with an ADA accessible pathway either within the same footprint or realigned within the general use area. Attention to natural aesthetics and environmental sensitivities must include preservation of the viewshed through the forested surroundings and avoidance of downslope erosion due to stormwater runoff from the new hardened pathway. The failing platform at the top of the stairs will be fully replaced with an ADA accessible overlook. Continued maintenance, along with a structural assessment, is recommended for the concrete stairs with potential replacement if needed. Potential replacement involving the removal of the existing concrete stairs would likely entail the risk of major slope disturbance and corresponding erosion. Consideration may be given to stabilizing and utilizing the concrete structure as a base for a new overlaying stair structure as an alternative to removal. New materials should complement the stairs and boardwalk comprising the Fern Trail. Given the integrity of the slope habitat and its erodibility, any new alignment of the descending stairway is not recommended.

Cabin Area

Objective: Maintain all park cabins.

Actions:

- *Work with Division of Historical Resources to maintain all CCC era cabins.*

The park's dedicated cabin area contains 16 cabins. Some are original CCC-era cabins, while the remaining are more recent builds. General utilities and other non-historic categorized improvements and renovations are needed for all cabins. Regardless, all improvements to the CCC cabins should be planned in coordination with the Division of Historical Resources. All the parking areas for the cabins should be stabilized with pervious materials.

Big Lake Johnson Boat Ramp

Objective: Prevent unauthorized access to lake edge.

- *Remove existing boat ramp due to low water levels.*
- *Remove section of park road to create a cul-de-sac parking at terminus.*
- *Create a nature trail to the lake edge along with new interpretation.*

Due to current and future projected low lake levels at the park and surrounding areas, the Lake Johnson boat ramp is no longer in use. To prevent unauthorized vehicular access onto the exposed lakebed, the boat ramp will be removed, and its footprint will be allowed to revegetate. To provide pedestrian access to the lake edge for wildlife viewing and enjoyment of the natural vista, a proposal includes removing the entirety of the paved road from the last cabin to the boat ramp (approximately 300 feet). Removing this segment of road would restore seamless transition from sandhill to lake. A small cul-de-sac will be developed at the new road terminus near the last cabin to allow for parking. A single-track trail will be developed from the road terminus parking to the lake. One interpretive panel will be added along the trail highlighting the adjacent sandhill and sandhill lake natural communities, and ravine system.

Little Lake Johnson Day Use Area

Objective: Improve and replace facilities within Day Use Area.

Actions:

- *Improve wayfinding and interpretation.*
- *Construct a new larger recreational hall.*
- *Remove select stone picnic tables and add three small or large pavilions.*

The park's expansive day-use area features a 1970s recreation hall and many original CCC structures, including over 60 stone picnic tables, a bathhouse and one large picnic pavilion. The picnic day-use area may be an example of "over infrastructure." This day-use area was developed when lake water levels were higher and when the park historically had greater levels of use associated with swimming. There are now several structures that are infrequently used, and pavilions are mostly used for special events.

Proposals for this area include replacement of the recreation hall, replacement of the stone picnic tables with up to three pavilions and interpretive and wayfinding improvements. The recreation hall is to be fully replaced and expanded to a larger footprint to better accommodate and expand educational programs and resource-based training/workshops. Design should include a fully-equipped kitchen and an exterior-accessed public restroom to accommodate the needs of both recreation hall users and day-use visitors. In light of topography and associated erosion concerns, a more suitable location for the new structure may be some greater distance from the surrounding lakes. The new larger facility may also accommodate the rentals and concessions currently operating out of the ranger station at the park entrance.

Interpretative improvements in the Lake Johnson Day-Use Area will expand on the CCC history while improvements to wayfinding will provide better directions for visitors and highlight the nearby trail system.

Approximately 60 stone picnic tables at the day use area are a combination of CCC era construction and 28 roughhewn stone picnic tables that were built and placed in the park during the 1950s and 1960s to mimic the style of the original limestone CCC tables. The stone picnic tables are underutilized due to the lack of shade and comfort level. Proposals include removing the stone picnic tables that are not CCC era

and adding up to three small or medium sized picnic pavilions. Thorough identification should be done by park staff prior to any removal of the stone picnic tables to ensure none of the true CCC tables are removed. The original CCC era stone tables are to remain, and new interpretation will be developed on their history as the limestone used for their construction was from neighboring O'Leno State Park.

Although swimming as a recreational activity has diminished with trending lake levels, the swimming area should be maintained along with the associated CCC restroom. The architectural character of this historic building is noteworthy for its functionality and aesthetics, such that its preservation should be a priority.

Mill Site Trailhead

Objective: Improve linear facility.

Update interpretation at trailhead kiosk.

- *Create replica CCC era footbridge to replace existing metal footbridge.*

The Mill Site Trailhead is located off the main park drive with a small parking area that is recessed into the adjacent hill by CCC-era stonework. To mitigate erosion, a new boardwalk should be constructed, extending from the parking area to the metal bridge. The existing metal bridge is to be replaced with a replica CCC-era bridge consistent with the parkwide theme and history. Improved interpretation and wayfinding are needed at the trailhead and along the trail itself. Interpretation will focus on the history of the site and the various natural communities that can be found along the trail. A wayfinding map is needed at the trailhead, displaying the connection of the mill site loop to the other park trails.

Campgrounds – Sandhill, Turkey Oak, and Lakeview

Objective Improve facilities.

Actions:

- *Upgrade utilities at each campsite*
- *Realign campground loop at Lakeview Campground to allow for expansion of campsites.*
- *Relocate interpretive amphitheater at Lakeview Campground.*

There are three designated campgrounds within the park, each containing one bathhouse. The Sandhill Campground is for RVs while Turkey Oak is a tent-only campground. Both campground loops require repaving and upgrading of all the utilities within all sites.

The Lakeview Campground is located farther south near the western edge of Lake Johnson with one sewage dump station which also serves RV campers from Sandhill and Turkey Oak campgrounds. This campground needs utility upgrades along with the realignment of the campground loop road to allow for modest expansion of existing campsites.

A small interpretive amphitheater overlooks Big Lake Johnson. The small amphitheater is currently underutilized due to location and condition. Considerations include removing the amphitheater from this location and restoring the footprint with native vegetation. A similar low impact-design amphitheater-type facility could be constructed closer to the Lake Johnson Day-use area, where it will likely be more used.

Florida National Scenic Trail

Objective: Reroute Florida National Scenic Trail

Actions:

- *Reroute the Florida National Scenic Trail*

Approximately five miles of the Florida National Scenic Trail run through Gold Head Branch State Park. Currently, visitors outside the park boundary can enter the park along Christian Camp Road leading through the shop compound then exiting at the park entrance. This current route presents safety and security issues for park staff and visitors due to its proximity to the shop compound, which houses expensive equipment used for park operation.

To avoid user conflict, the Scenic Trail will be rerouted to enter the park at a more appropriate location off of Christan Camp Road along the southwestern boundary. This reroute will take visitors along the park's famous sandhills, passing natural features like Big Lake Johnson and the ravine. The trail will still exit the park near the entrance station along State Road 21.

Support Area

Objective: Improve or replace support facilities.

Actions:

- *Consolidate support structures.*
- *Continue historical preservation and maintenance of CCC buildings.*
- *Add one lumber shed and two pole barns.*
- *Replace Sign Shop Building*
- *Develop volunteer sites.*

The support complex occupies a large footprint toward the southern park boundary, including multiple buildings and storage sheds. Three of these buildings are from the CCC era. Reorganization and consolidation of this section of the support area is needed along with the addition of a lumber shed and two pole barns. Any major alterations to or removal of the CCC-era buildings will require adherence to historic preservation criteria or documentation, respectively.

Within the support area is the DRP sign production facility. This aging and largely adjunct structure need replacement either in situ or on a new footprint still within the greater support area. If relocated to a different site within the support area, the concrete foundation could serve as base for additional storage buildings or perhaps a new park administrative office.

A dedicated area for volunteer camping will be added within or near the support area with full utility connection and a bathhouse. Currently, volunteer sites are located within multiple areas of the park and consolidation of these sites will improve security for volunteers and staff, providing greater efficiency of operations and reducing development. There are three potential alternative locations for the volunteer camping areas. The first would become viable if the current sign shop facility is relocated to a different location within the greater support area. The former location could then be repurposed as a volunteer village. This site is particularly practical as electricity and water are already present. A second location is an existing disturbed area west of the current sign shop. This would be a more secluded and perhaps aesthetically pleasing site but would require extension of utilities and an expanded development footprint. Both options would be contingent on a cultural resources survey as part of the project planning. A third site would require the acquisition of a 13-acre optimum boundary parcel just south of the support area. This site would also require extension of utilities.

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Little Lake Johnson

Proposals
Park Trails
Park Road Paved
Florida National Scenic Trail
FL Scenic Trail Reroute
Camping Sites
Structures

1 Park Entrance - Reconfigure park entrance for better functionality and relocate administration building to support area.

2 Ravine Overlook - No longer permit parking at overlook, and develop footpath parallel to park drive starting near the parking area at Devil's Washbasin for guests to walk to overlook area. Develop new interpretation.

3 Ravine Trailhead - Develop ADA overlook and pathway from parking area. Continue needed maintenance on concrete stairs.

4 Mill Site Trailhead - Develop boardwalk or footpath from parking area to mitigate erosion issues. Replace metal bridge with a CCC replica footbridge. Update interpretation within kiosks

5 Sandhill and Turkey Oak Campground - Upgrade utilities at each site.

6 Lake Johnson Day Use Area - Replace recreation hall with a larger footprint, maintain all CCC structures, remove limestone pavilions. Add bathroom and new wayfinding and interpretive panels.

7 Big Lake Johnson Boat Ramp - Remove boat ramp as it is no longer in use and to prevent unauthorized access to lake edge. Develop nature trail from newly developed cul- du- sac, add interpretation to nature trail

8 Lakeview Campground - Realign the campground loop to allow for expansion of each campsites. Relocate the interpretive amphitheater to Lake Johnson Day Use Area.

9 Support Area - Construct new Sign Shop building and new administration building. Maintain the four CCC era buildings with coordination with the Division of Historical Resources. Create volunteer sites, add lumber sheds.

Mike Roess Gold Head Branch State Park

Conceptual Land Use Plan

0 1,250 2,500 Feet

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VISITOR USE MANAGEMENT

Objectives

Three use areas at Mike Roess Gold Head Branch State Park are identified as having specialized needs for visitor management.

Ravine Bottom

- Add signage to discourage unauthorized access into ravine waters.

Sheeler Lake

- Discourage use of unauthorized trails.

Big Lake Johnson Lakebed

- Discourage unauthorized driving onto lakebed.

Ravine Bottom

There are multiple spots where visitors have left the boardwalk and made their own paths, trampled vegetation and created unauthorized access to the seepage stream. To prevent visitors from further impacting the sensitive ravine system and causing sedimentation into the seepage stream, additional signage and enforcement are necessary.

Sheeler Lake

Some visitors are using an unauthorized trail around the lake, impacting native vegetation, distracting wildlife, contributing to erosion and sedimentation and generally detracting from the natural scenic value of this viewshed. To discourage this activity the trail should be brushed in. If the problem persists, the park should consider native plantings to help deter access.

Big Lake Johnson Lakebed

The receded water levels have encouraged some visitors to drive out onto the former lakebed from the now dry boat ramp. Driving beyond the former boat ramp is impacting vegetation and degrading the natural landscape. The relict boat ramp should be removed since it is inviting vehicular access to the dry lakebed. Non-essential management roads that inadvertently providing access to the exposed lakebed should be abandoned and allowed to revegetate. Any non-essential service roads that are inadvertently encouraging access onto the dry lakebed should be removed or rerouted. If unauthorized driving continues, barriers should be placed at appropriate locations.

OPTIMUM BOUNDARY

The park optimum boundary includes approximately 720 acres of adjacent lands that would protect additional sandhill and sandhill upland lakes. These lands support intact sandhill or are considered to have high restoration potential. Furthermore, they would buffer existing support facilities, improve the park's ability to apply prescribed fire and provide expanded opportunities for recreation. Although the parcels are not identified in current state land acquisition projects nor in the proposed Ocala National Forest to Osceola National Forest to Okeefenokee Swamp Greenway (O2O2O) advocated by several conservation groups, the addition does expand the area of habitat that should be protected, which is a goal of both land acquisition projects.

This project will also help complete the Florida National Scenic Trail, providing more recreational opportunities for the public. All optimum boundary parcels are close to a multiuse trail corridor. According to FWC, more than one quarter of this project includes seven or more focal species, and FNAI reports that more than half of the project is a habitat conservation priority for rare species. The project parcels would provide wildlife and recreational corridors to Mike Roess Gold Head Branch State Park.

Just southwest of the park is a 960-acre parcel that is commercially owned. The land contains a mix of disturbed land, open water pits and planted slash pines. Acquisition of this parcel of land will allow for a buffer from any future developments and adjacent roadways, expanding opportunities for natural community restoration/reconstruction.

Optimum Boundary (Proposed Additions)

Optimum Boundary (ARC-Approved)

Other Existing Conservation Lands

Existing Park Boundary

Mike Roess Gold Head Branch State Park

Optimum Boundary Map

0 2,000 4,000 Feet

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