Raven Rock State Park General Management Plan

North Carolina Department of Natural and Cultural Resources Division of Parks and Recreation

Piedmont Region September 2023 PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	Mission and Purpose 4
II.	History7
III.	Themes and Inventory 10
	Facilities12
	Trails21
IV.	Planning
	Land Protection Plans 29
	Project List 31

Appendix58

I. MISSION AND PURPOSE



GENERAL MANAGEMENT PLANS:

The 1987 State Parks Act (G.S.143B - 135.40) requires each park to have an individual General Management Plan. As required, these plans seek to identify an individual park's purpose as a unit within the larger parks system and provide an analysis of the parks major resources and facilities. The GMP also identifies current and future needs of the park and prioritizes a list of proposed projects intended to meet those identified needs. These plans are considered living documents, recognizing the various and dynamic factors which influence the planning process. Each park's GMP is scheduled to be revisited every five years, or sooner if needed, to reflect the direction and vision of the State Parks Division.

N.C. STATE PARKS MISSION:

The 1987 State Parks Act also defines the purpose of the state parks system. It establishes that: The State of North Carolina offers unique archaeological, geologic, biologic, scenic and recreational resources. These resources are part of the heritage of the people of this State. The heritage of a people should be preserved and managed by those people for their use and for the use of their visitors and descendants.



OUR MISSION

The North Carolina Division of Parks and Recreation exists to inspire all its citizens and visitors through conservation, recreation and education.

CONSERVATION

To conserve and protect representative examples of North Carolina's natural beauty, ecological features, recreational and cultural resources within the state parks system;

RECREATION

To provide and promote safe, healthy and enjoyable outdoor recreational opportunities throughout the state; and

EDUCATION

To provide educational opportunities that promote stewardship of the state's natural and cultural heritage.





I. MISSION AND PURPOSE

PARK OVERVIEW:

Raven Rock State park is located 31 miles from Raleigh Durham and 30 miles from Fayetteville in the Town of Lillington, Harnett County, North Carolina. This park has unique geological formations due to a major fall zone between the Piedmont and Coastal Plain.

The park uses include: family campground, equestrian, mountain bike and hiking trails, and day -use facilities.

The extensive acreage at Raven Rock State Park is suitable for day-use activities such as hiking and picnicking as well as camping and horseback riding. The Cape Fear River is an exceptional resource for water-based activities such as paddling and fishing. The Visitor Center focuses on interpretation and education programs. Conveniently located near the Research Triangle, Fayetteville, Fort Bragg and smaller surrounding communities, the park can be easily accessed by a large population seeking natural resource oriented and passive recreational opportunities.

PARK PURPOSE:

Raven Rock, a bluff extends out at a sharp angle along the Cape Fear River, has been a landmark to river travelers since before the Civil War. As land transportation improved, it became a popular regional destination for picnickers visiting the scenic river vistas and unusual rock formation. Local support for establishing a state park culminated in 1969 when the General Assembly authorized funding for Raven Rock State Park and preserved the natural and scenic land from a potential mining operation.





The Raven Rock bluff extends over the Cape Fear River

Due to the proximity to the Triangle region and urban centers of Raleigh and Fayetteville, if this park is developed with more facilities along the river, then Raven Rock could become a destination place. This park is located 40 miles south of William B. Umstead State Park with extensive day use facilities, visitor center, hiking, canoeing, and horse trails. In the future, Raven Rock will become an alternate satellite access to William B. Umstead State Park, Carvers Creek State Park and Jordan Lake State Recreational Area due to visitation and capacity issues.

Beech Bluff County Park, a 300 acre tract managed by Wake County, located in Willow Springs, will provide an alternate open space park facility with several parking lots, environmental education center, canopy walk and extensive trail loop system. This park, located 30 miles east of Raven Rock State Park, is scheduled to open in Spring 2024.



PARK PURPOSE: (CONTINUED)

The significant geological resources of the park occur primarily along the Cape Fear River, the dominant surface water feature. Raven Rock, the bluff for which the park is named, is exceptionally tall for the Piedmont, with an elevation of over 100 feet above the river. It is the highest bluff in the North Carolina fall zone – the area where the more resistant rocks of the Piedmont meet the sediments and softer rocks of the Coastal Plain. The rocks forming the bluffs are 570 million years old and were metamorphosed on at least two separate occasions between 450 and 300 million years ago. The river, through millions of years of erosion, has sculpted the numerous metamorphic rock faces seen in the park today. Rapids, a typical river feature in the fall zone, occur at Fish Traps and Lanier rapids.

The significant biological resources include three registered natural areas: Raven Rock State Park Natural Area, Avents Creek-Cape Fear River Floodplain Natural Area, and Granitic Flatrock Natural Area.

Significant scenic resources are found at the Raven Rock bluffs and along the waterways. Unusual rock formations of Raven Rock and wide river vistas have made it a landmark on the Cape Fear River for over a century. The Campbell Creek and Avents Creek areas are particularly scenic because the steep slopes that

surround them are more reminiscent of mountain terrains found in the foothills of the Western Piedmont.

The Cape Fear River is the focus of significant archaeological resources. Prehistoric resources include Pre-Columbian artifacts such as projectile points, evidence that the river was once the site of Native American activities. Before the development of effective land transportation routes, the Cape Fear River played a major role in the growth and development of North Carolina. The 1850's era Northington lock and dam site accommodated boat traffic through the fall zone rapids, and the Northington Ferry site served as the main transportation link between Raleigh and Fayetteville until the Lillington Bridge was built in the 1920's.



Avents Creek areas are scenic because the steep slopes are reminiscent of mountain terrains found in the foothills of the Western Piedmont.



I. MISSION AND PURPOSE CONTINUED



Unusual rock formations of Raven Rock and wide river vistas have made it a landmark on the Cape Fear River for over a century.

II. HISTORY

Raven Rock State Park sits along the fall zone, an area where the hard, resistant rocks of the foothills give way to the softer rocks and sediments of the coastal plain. The underlying rocks of the area were formed more than 400 million years ago by intense heat and pressure.

Through the ages, flowing waters and winds gradually eroded the land, carving and sculpting Raven Rock. This immense crystalline structure rises to 150 feet and stretches for more than a mile along the Cape Fear River. The rock was originally called Patterson's Rock for an early settler who found refuge there when his canoe capsized nearby. In 1854 its name was changed to Raven Rock, inspired by the sight of ravens that formerly roosted on rock ledges.

The Siouan and Tuscarora Indians hunted the area until European settlers arrived in the mid-1700's. The first settlers were primarily hunters and trappers who were searching for high country similar to their native country, Scotland. Later stores, mills and quarries were built. Many of the woodlands were farmed, and as the forests returned, much of the land was harvested for timber.

A road that stretched from Raleigh to Fayetteville crossed the Cape Fear River via the Northington Ferry and served as the area's major transportation route. Locks and dams were built along the river to facilitate navigation by boat, and Raven Rock became an important landmark for river pilots. After a hurricane destroyed the locks and dams in 1859, the structures were not replaced; railroad transportation eliminated the need for river travel. As new roads were built, the ferry was closed and Raven Rock became a popular recreation spot. The remnants of the Northington lock and dam can still be seen in the park.

In 1965, interest grew in preserving the area as a state park, and local citizens organized support for the project. In 1969, a bill establishing the park was passed in the General Assembly. More than 220 acres of land was purchased and an additional 170 acres was donated by Burlington Industries.



II. SIGNIFICANT AND SPECIES OF CONCERN

The significant biological resources include three registered natural areas: Raven Rock State Park Natural Area, Avents Creek-Cape Fear River Floodplain Natural Area, and Granitic Flat rock Natural Area. Successional communities derived from the combination of unique habitats and the interface of the Piedmont and Coastal Plain at the fall zone include maturing communities representative of the eastern Piedmont as well as a number of unusual natural communities. Unusual habitats include the bluffs, flat rocks and north-facing mesic areas with disjunct montane species. Pines and oak-hickory forest dominate the ridge tops, while mature beech and mixed hardwoods cover the slopes and floodplain. Remnant Piedmont longleaf pine trees and their associates are evidence of past forest types.

Buttercup phacelia (*Phacelia covillei*), Virginia spiderwort (*Tradescantia virginiana*) and eastern Isopyrum (*Enemion biternatum*) are representative of the many unusual plant species known in the park. One hundred eighty eight bird species, including the bald eagle, have been observed in the park. Fox squirrels (*Sciurus niger*), a declining species in North Carolina, are found in upland areas of the park. The park is well within the fox squirrel's historical range, but diminishing habitat has reduced the prime range in North Carolina to the public lands in the Sandhills.

NATURAL COMMUNITY TYPES

Raven Rock State Park Natural Area, Avents Creek-Cape Fear River Floodplain Natural Area, Granitic Flat Rock Natural Area.



Fox squirrel or (*Sciurus niger*), a declining species in North Carolina, are found in upland areas of the Raven Rock State Park.



II. HISTORY (CONTINUED)

The 7,190 -square- foot Visitor Center was constructed in 2010 to national green building standards. In 2020, The Moccasin Branch campground was constructed using North Carolina Connect Bond funding. The family campground has a shower house; six (6) camper cabins, and nine (9) RV sites (sites 11 to 18 and 22) offer full hook-ups with 50 amp, 30 amp, and a 20 amp outlet for all RV needs, as well as full water and sewer. Fifteen (15) additional tent sites (Sites 1 to 10; 19 to 21; and 23 to 24) provide a "drive-to" experience for primitive tent and trailer campers. These sites each have a tent pad that includes space for two large tents, along with a fire ring, a picnic table, and a lantern hook.

Raven Rock manages two (2) primitive back pack sites including: Family Wilderness and Canoe Camp. The Family wilderness primitive campsite includes 5 small sites with fire pit and bench. The canoe campsite includes 6 larger sites with a fire pit, bench and picnic table. The access is via back packing in or canoing in when the river levels are feasible.



The Moccasin Branch family campground provides a shower house, RV Sites and drive -to campsites



III. THEMES AND INVENTORY

THEMES:

The significant archaeological, geologic, scenic, recreational and biological resources of North Carolina should be represented in the State Park system. These resources, as cited in the State Parks Act, are divided into subcategories called resource "themes". There have been 108 themes identified that should be protected to preserve representative examples of unique resources. For this General Management Plan, only themes that are of moderate to high significance to *Raven Rock State Park* are shown.

THEME TYPE	ТНЕМЕ	RARO STATE PARK SIGNIFICANCE	STATE PARKS SYSTEM REPRESENTA- TION
Archaeological/Historic	Cemetery	High	Adequate
Archaeological/Historic	Recreation	High	Adequate
Archaeological/Historic	Rural - Domestic	High	Adequate
Archaeological/Prehistoric	Burial/ Cemetery	High	Moderate
Archaeological/ Prehistoric	Shelter/Cave	High	Adequate
Archaeological/ Prehistoric	Underwater	High	Adequate
Archaeological/Prehistoric	Campsite/Activity Area	High	Adequate
Biological	Granite flat rocks	Little	Adequate
Biological	Low Elevation Cliffs and Rock Out- crops	Moderate	Adequate
Biological	Piedmont and Coastal Plan Mesic Forests	High	Adequate
Biological	Piedmont and Coastal Plain Oak Forests	High	Adequate
Biological	Piedmont and Mountain Floodplains	Moderate	Adequate
Biological	Piedmont and Mountain Dry Conif- erous Forests	Little	Little
Biological	Upland Seepages and Spray Cliffs	Little	Moderate
Geological	Cliffs	High	Adequate
Geological	Dissected Uplands Faults, Joints, and Related Features	High	Adequate
Geological	Fluvial Depositional Features	High	Adequate
Geological	Gorges, Rapids, Waterfalls	High	Little
Geological	Intrusions	Little	Adequate

RAVEN ROCK STATE PARK AREA THEME TABLE



III. THEMES AND INVENTORY (CONTINUED)

THEME TYPE	ТНЕМЕ	STATE PARK SIGNIFICANCE	STATE PARKS SYSTEM REPRESENTATION
Scenic	Caves/Cliffs	High	Little
Scenic	Forests	Moderate	Adequate
Scenic	Rivers	High	Moderate
Scenic	Rock Outcrops	High	Little
Scenic	Scenic Vistas	High	Moderate

*See the System wide Plan for references to Theme and Inventory terms. Themes have both actual and "potential" future needs to be at a park.



The overlook along Raven Rock Loop Trail provides a destination for park visitors



Lanier rapids is a destination experience for park visitors.



The iconic Raven Rock is a point of interest and destination for the park visitors which is accessed by timber staircase with 135 feet vertical grade change.



Inventory:

Raven Rock State Park is a linear park that has several access areas along the resource: the *Cape Fear River*. This park currently has four main nodes: Visitor Center, Mountain Bike trail head, Family campground and Bridle trail system. The Visitor Center Day Use areas provide passive recreation activities; such as hiking and mountain bike trails and overlooks. In 2022, the annual visitation was 400,000, and was split 60%, 20% and 20%, respectively between the Visitor Center access, the Mountain Laurel Loop Bike Trails, west side of Avents Creek Access and east side of Avents Creek Access based on an upgraded counter system. Many visitors access the Cape Fear River from various paddle access areas including Avents Ferry Boat Ramp.

Ensuring that our facilities are of adequate size and numbers, and that they are good operable condition helps us to provide quality visitor experiences. The following section is an inventory of the park facilities and trails.

Facility Inventory:

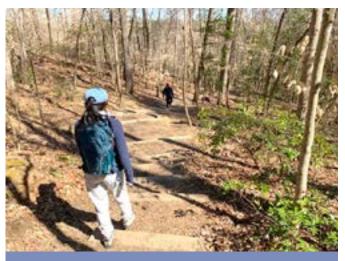
Raven Rock State Park was established in 1969 and much of the infrastructure was built in the 1970's. Due to the age of much of the infrastructure and heavy visitor use, numerous facilities and infrastructure systems are showing their age. The inventory chart explains the park staffs perceived condition of the structures. *See Exhibit A.*

Trails Inventory:

Raven Rock State Park provides hiking, equestrian, and mountain bike trails for a variety of challenges including:

- 13.50 miles of Mountain Bike trails;
- 8 miles at Equestrian Access on north side; and
- 32.50 miles of hiking trails near the Visitor Center or park headquarters.

However, due to extensive use by visitors, flooding, soil conditions, age, and unsustainable design, many of the trails need significant repairs.

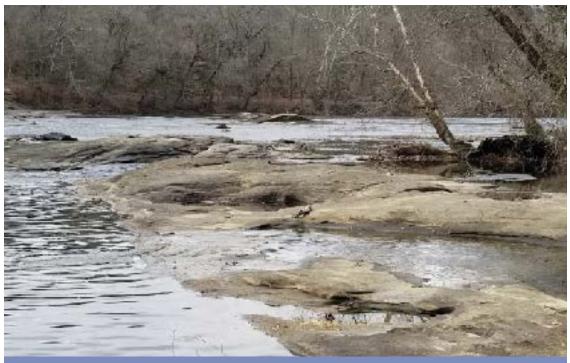


Wooden platform steps have been damaged by use and age.



Paddle Trails:

A 5 - river mile paddle trail starts at the Buckhorn Dam along the Cape Fear River and ends at the confluence of the Brunswick River. Boating access areas managed by Wildlife Resources Commission (WRC) include: Avents Ferry bridge (Highway 42) and Wildlife Road Ramp in Lillington. A majority of the river frontage is owned by private landowners.



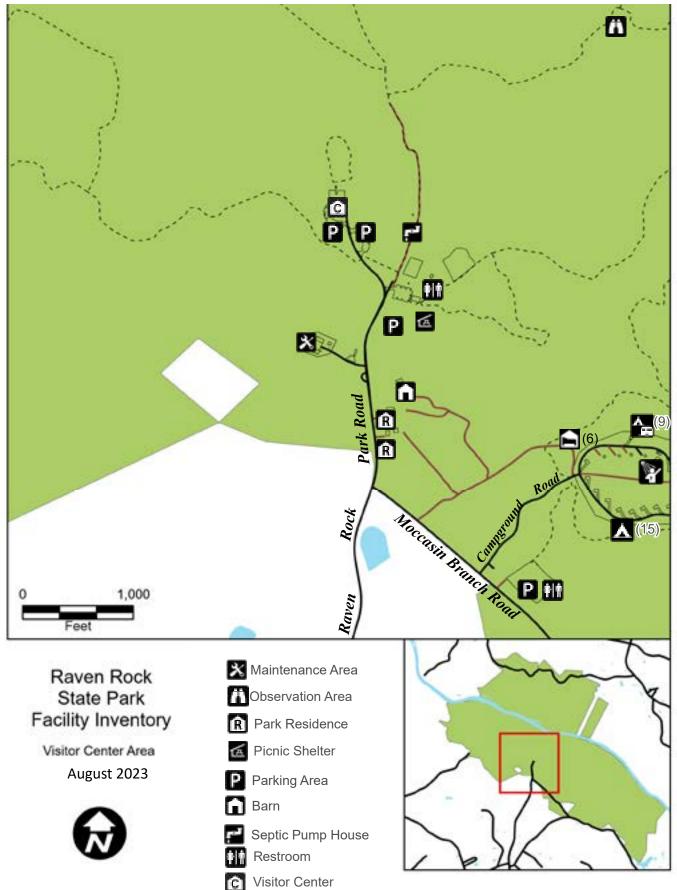
Northington Lock and Dam remains



The wooden staircase, that leads to the Cape Fear River, was severely damaged by Hurricane Florence in 2018

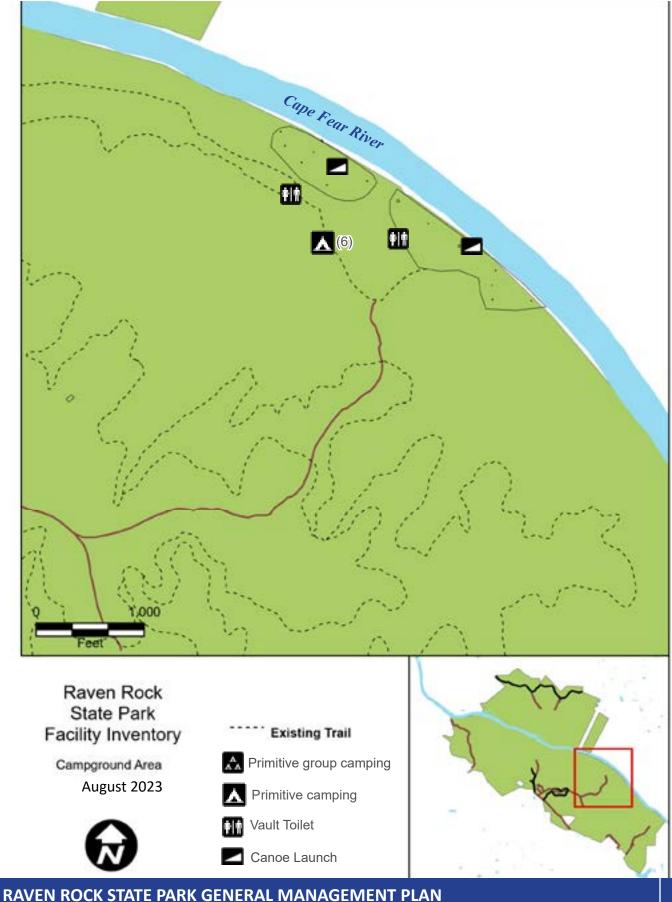


FACILITY INVENTORY - VISITOR CENTER



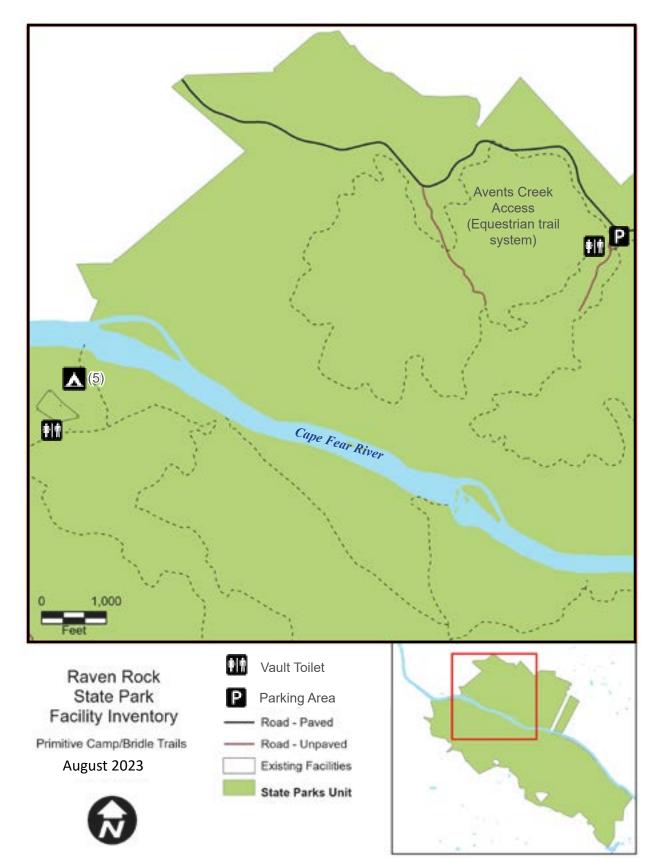


FACILITY INVENTORY - PRIMITIVE CAMPGROUND AREA



FACILITY INVENTORY - PRIMITIVE CAMP/ BRIDLE TRAILS







FACILITY INVENTORY - EXHIBIT A

				Park Area(If Applicable): RARO
Public Buildin	-			Date: 08/09/2022
	Unit	Total #	Condition	Repairs needed(If Applicable)
	Visitor Center	1	Fair	Remove geothermal system and replace with con ventional heating and air units
	Observation structure	1	Fair	Structure needs new handrails, install cap for drainage
	Day Use Restrooms	1	Poor	Built in 1986, septic field has to be pumped and hauled off frequently due to capacity issues. Majo maintenance project has been requested.
	Picnic Area	1	Good	
	Picnic Shelter	1	Good	
	Camper cabins	6	Good	
	Group Tent camping- Canoe camp	6 sites	Poor	Closed; demolish; damaged in Hurricane Floren built in floodplain, accessible by back backing in canoing in
	Camping- primitive- Family Wilder- ness	16	Fair	
	RV sites	9 sites	Good	
	RV- site- Accessible	1 site	Good	Site 22
	Non-electrical tent pads	15 sites	Good	
	Vault Toilet - North side	1	Good	
	Vault toilet- central	3	Poor	Damaged in hurricane. Needs to be removed/ab doned. Structure was installed in a floodplain zo
	Cemetery-North side - equestrian	1	Good	
Staff Buildings	5			
	Unit	Total #	Condition	Repairs needed(If Applicable)
	Park Residence- Raven Rock Road- white			Demolish structure built in 1920, This 102 year old structure is past the projected lifespan. The list includes: repair foundation, underpinning, replacing floor joist and other structural repairs, adding a bathroom, and upgrading plumbing, el trical, heating and air conditioning, and electrica improvements. The project also includes adding deck and a detached carport.



FACILITY INVENTORY - EXHIBIT A (CONTINUED)

	Barn behind park residence	1	Poor	Demolish, currently used for temporary storage
	Park Residence -Raven Rock Road	1	Good	Brick house
	Barn	1	Fair	Used for storage of equipment and supplies
·	Shed near Picnic shelter	1	Fair	Used for storage of equipment and supplies
	Maintenance shop	4	Fair	Add a vehicle lift
	Vehicle Storage Building	1	Good	
	Fuel Storage Building	1	Fair	
	Pump house at Day use area	1	Poor	Demolish. Unused structure.
Parking	Unit	Total #	Condition	Repairs needed(If Applicable)
	Maintenance area	5	Fair	
	Equestrian Parking lot at Avents Creek Access	35 spaces, 4 standard	Fair	
	Visitor Center parking lot Picnic area Parking lot/overflow	44 spaces	Fair Good	Turning radius are not adequate for RV's. Spaces are tight with large vehicles
	Shelter Parking lot	45 spaces 50 spaces	Good	
	Moccasin Branch - Field	40 spaces	Fair	Need to pave and have designated parking spaces. This area is the trail head for the mountain bike groups.
Roads	Unit	Total # spaces	Condition	Repairs needed (If Applicable)
	Raven Rock Park Road to Visitor Center	18,011	Fair	HVAC needs to be updated, replace waterless urinals with standard toilets, broken window



FACILITY INVENTORY - EXHIBIT A (CONTINUED)

	Unpaved roads	13,200 Lin Ft.	Poor	Narrow roadway, poor drainage, rocky soil con- ditions.
	Moccasin Branch - Trail head Driveway	+/1 500 Lin. Ft	Poor	Located in a floodplain
	Maintenance area access driveway	500 Lin.ft	Fair	Needs additional gravel
	Family Campground roadway	3000 Lin. Ft. (approx)	Good	Paved, 24 feet wide, adequate drainage
	Equestrian unpaved access drive at Avents Creek Access	300 Lin. Ft.	Poor	Needs additional gravel
Trail Structures	Unit	Total # spaces	Condition	Repairs needed (If Applicable)
	Trail- staircase - Raven Rock trail	135 steps	Poor	Damaged by Hurricane Florence, 40 year old structure, needs to be demolished
	American Beech trail- boardwalk	3	Fair	Approxamately 10 year old
	Campbell Creek trail -boardwalks	3	Poor	Demolish and re construct
	Mountain bike - Advanced- bridges Mountain Bike - Beginner trail -	3	Good	
	pedestrian bridges	7	Good	
	Equestrian trail- bridges, boardwalks, steps	4	Poor	Structures are over 25 years old, impacted by the weight and extensive use of horses.
	Equestrian - East Loop	1	Poor	Stream crossing has a steep approach. The crossing has a slick bedrock. Accidents occur frequently.

ADDITIONAL NOTES:

Raven Rock State Park was established in 1969 and a majority of the facilities are past their lifespan. Several structures need to be demolished and constructed to current design and construction standards. Hurricane events in the past 10 years as caused severe damage to timber structures.



FACILITY INVENTORY



Visitor Center was built in 2010 and provides space for staff, operations, restrooms, exhibit area and auditorium.



The day use shelter provides a rentable and gathering space for park users.



TRAIL ASSESSMENT

Often, the most popular and heavily used trails in our parks are the most impacted. A method was developed to take a simple survey of trail popularity and condition in each state park based on observations and information reported by the superintendent. Values were assigned for trail popularity and trail condition with a description provided for each value. Superintendents were requested to fill out the two values for each park trail. This resulted in a final "Trail Score" to determine the priority that should be assigned for maintenance, reroutes or redesign of each trail. The results from the survey generally support that the most popular trails have the most maintenance needs. Using this "Trail Score" to determine the priority of trail projects at a park will allow the Division to improve the visitor experience for the largest number of trail users.

Status	Description
1	Good condition/some routine trail maintenance required
2	Moderate trail maintenance required
3	Heavy erosion in places and/or unsustainable grades.
4	Trail closed due to erosion, damage, or other reasons. Make comments on closure reason.
Popularity	Description
4	Single most popular trail in the park w/ most visitors hiking this trail
3	Very popular trail with heavy usage in the park
2	Moderate usage by park visitors but other trails in the same park are more popular
1	Very little traffic overall or compared to other trails in the same park



TRAIL ASSESSMENT (CONTINUED)

TRAIL NAME	USE	SUR- FACE	WIDTH	Blaze	Status	Popu- larity	Priority Score	Comments
American Beech	Hike	Native	2	White	1	2	3	Interpretive
Trail				Circle				
Beginner Bike Trail	Hike, Bike	Native	4					
Bike Parking Lot Connector	Hike Bike	Native	2					
Campbell Creek Loop Trail	Hike	Native	2	Blue Circle	2	3	5	
East Loop Bridle Trail	Hike, Eques- trian	Native	2	White Circle	1	2	3	
Fish Traps Trail	Hike	Native	2	Blue Triangle	3	3	6	
Cottonwood Trail	Hike	Native	0	Orange Triangle	4	1	5	
Lanier Trail	Hike	Native	2	Orange Triangle	3	3	6	
Little Creek Loop Trail	Hike	Native	2	Blue Hexagon	1	2	3	



TRAIL ASSESSMENT (CONTINUED)

TRAIL NAME	USE	SUR- FACE	WIDTH	Blaze	Status	Popu- larity	Priority Score	Comments
Longleaf Loop Trail	Hike	Native	2	Red Hexagon	1	2	3	
Mountain Laurel Beginner Loop	Hike, Bike	Native	2	White Square	1	1	5	
Mountain Laurel Intermediate Loop	Hike, Bike	Native	2	Blue Square	1	1	5	
Mountain Laurel Advanced Loop	Hike, Bike	Native	2	Red Square	1	1	5	
Northington Ferry Trail	Hike	Native	2	Orange Triangle	2	1	3	
Raven Rock Loop Trail	Hike	Native	2	Orange Circle	2	4	6	
West Loop Bridle Trail	Hike, Eques- trian	Native	4	Red Circle	3	2	5	



TRAIL INVENTORY

<u>American Beech Trail (Kids TRACK Trail)</u>: This 0.5 mile easy hiking trails starts at the right of the picnic shelter at the day use parking lot. The point of interest include: headwaters of Little Creek.

<u>Bridle Trail - East Loop:</u> This 4 mile loop equestrian trail starts at the Avents Creek access on the north side of the Cape Fear River.

<u>Bridle Trail - West Loop</u>: This 4 mile loop equestrian trail starts at the Avents Creek access on the north side of the Cape River off River Road. The point of interest includes Jumping Fish Falls.

<u>Campground Trail:</u> This 0.5 mile trail connects Moccasin Branch Campground to the park headquarters of Raven Rock State Park.

<u>Campbell Creek Loop Trail</u>: This 4.5 mile long moderate hiking trail starts at the visitor center. The trail meanders along Campbell Creek, primitive family wilderness camping area, access to Lanier Trail, and Cape Fear River.

<u>Fish Traps Trail</u>: This 0.6 mile long, easy one-way hiking trail starts at the Raven Rock Loop Trail on the opposite side of the Day Use picnic shelter. The connector trail is 0.50 miles long and Fish Traps Trail begins after the intersection that continues right towards the overlook with views of the Cape Fear River.

Lanier Trail: This 0.2 mile long easy hiking trail starts at Campbell Creek Loop Trail.

<u>Little Creek Loop Trail</u>: This 1.5 mile long easy loop hiking trail is located off the Raven Rock loop trail as you approach Raven Rock. The trail head is located along the Raven Rock Loop Trail at either creekside or ridge line. The trail follows alongside Little Creek and the Cape Fear River.

<u>Longleaf Loop Trail</u>: This 0.2 mile accessible easy educational trail provides an opportunity for interpretation of natural resource management techniques. The trail head is located behind the visitor center.

<u>Mountain Laurel Loop Trail - Advanced:</u> This 4.3 mile long advanced loop mountain bike trail starts off the beginner loop system. This provides opportunity for challenges and technical features.

<u>Mountain Laurel Loop Trail - Beginner</u>: This 6.6 mile long beginner loop mountain bike trail starts at the Moccasin Branch Road bike trail head or field. The park user rides through numerous bridges, pines and mixed hardwoods.

<u>Mountain Laurel Loop Trail - Intermediate</u>: This 2.6 mile long intermediate mountain bike trail starts off the beginner loop system. This route provides riders a challenging experience as they near Fish Creek. This section is narrower and offers technical features.



TRAIL INVENTORY (CONTINUED)

<u>Northington Ferry Trail</u>: This 0.9 mile long easy hiking trail starts at the Raven Rock Loop trail. Trailhead parking is located at the day use picnic shelter. The connector trail is 0.50 mile long and intersects with the trail. The Northington Ferry Trail is named after the Northingtons, a prominent family that operated a local general store and river ferry system.

<u>Raven Rock Loop Trail:</u> This 2.6 mile long easy loop trail begins at the day use picnic shelter. The point of interests are the iconic Raven Rock along the Cape Fear River and scenic overlook. A timber staircase with 135 steps provides access to the river section.



The Bridle Trail - East loop is found along Avents Creek access on the north side of the Cape Fear River.



Raven Rock Loop Trail is the signature trail located within close proximity to the park headquarters.

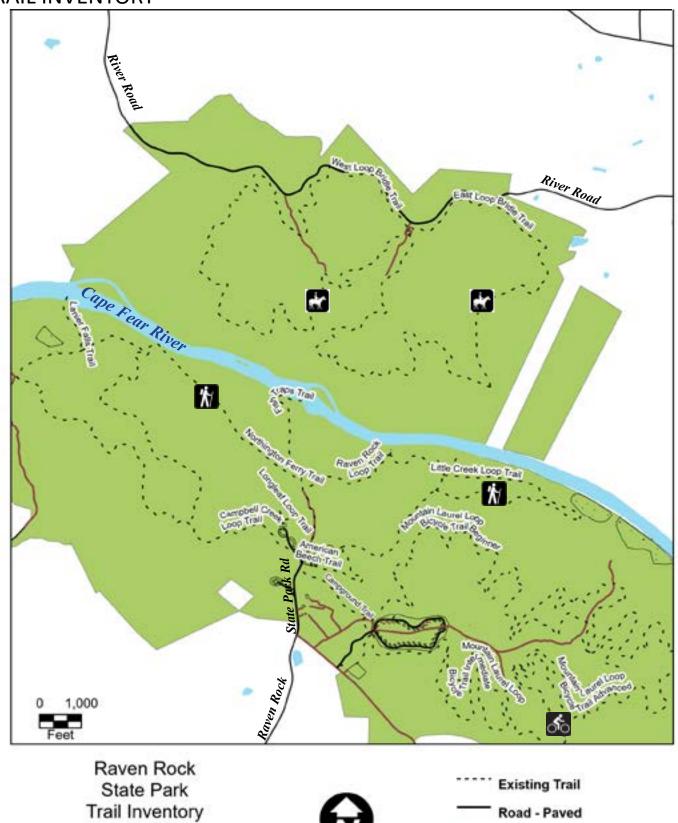
TRAIL INVENTORY (CONTINUED)



TRAIL INVENTORY	HIKING	EQUES- TRIAN	MTN. BIKE
American Beech Trail	0.5		
Bridle Trail -Easy Loop	4.0	4.0	
Bridle Trail - West Loop	4.0	4.0	
Campground Trail	0.5		
Campbell Creek Loop Trail	4.5		
Cottonwood Trail	0.4		
Fish Traps Trail	0.6		
Lanier Trail	0.2		
Little Creek Loop Trail	1.5		
Longleaf Loop Trail	0.2		
Mountain Laurel Loop Trail - Advanced	4.3		4.3
Mountain Laurel Loop Trail - Beginner	6.6		6.6
Mountain Laurel Loop Trail - Intermediate	2.6		2.6
Northington Ferry Trail	0.9		
Raven Rock Loop Trail	2.6		
TOTAL TRAILS (Miles)	33.00	8.0	13.5
PADDLE TRAIL- Along Park managed land	<u>5 miles</u>		

TRAIL INVENTORY





August 2023

Observation

Trail



IV. PLANNING



View of the Cape Fear River from overlook along Raven Rock Loop Trail



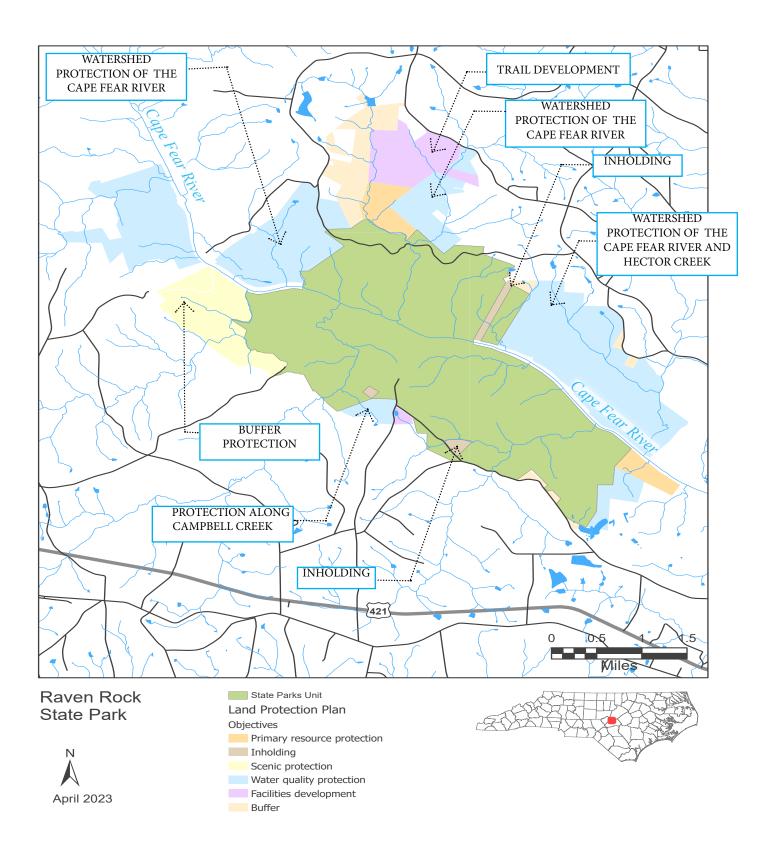
Tree roots along the tributary buffers, have been impacted by park users

LAND PROTECTION FOR STATE PARKS:

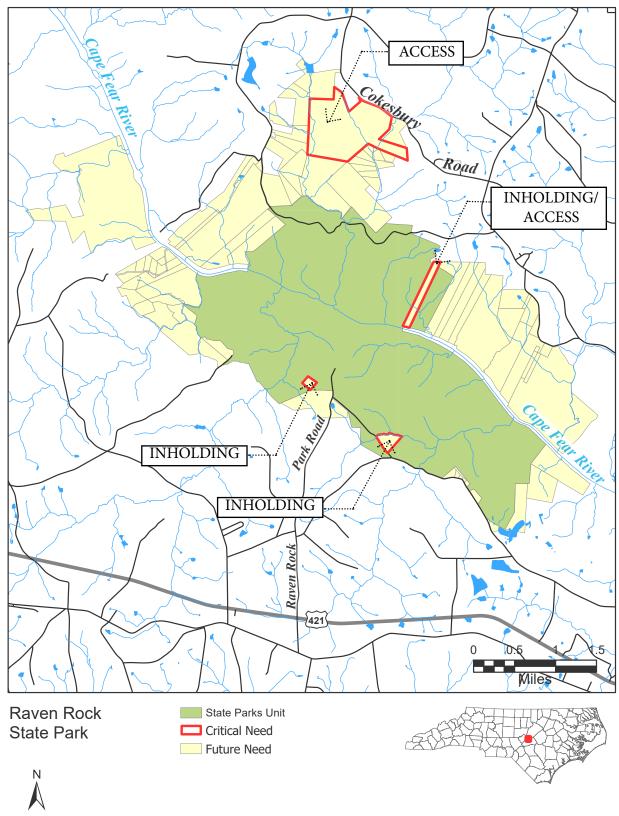
To achieve the highest level of connectivity between park properties already owned by the State of North Carolina, further acquisition of land is expected to take place. Additional land will ensure the maximum protection of natural resources, scenic preservation, outdoor recreation, and public access. Each park has several tracts of land that have been distinguished as a future need or a critical need for the park. The following map shows Land Acquisition needs for Raven Rock State Park.



LAND PROTECTION PLAN





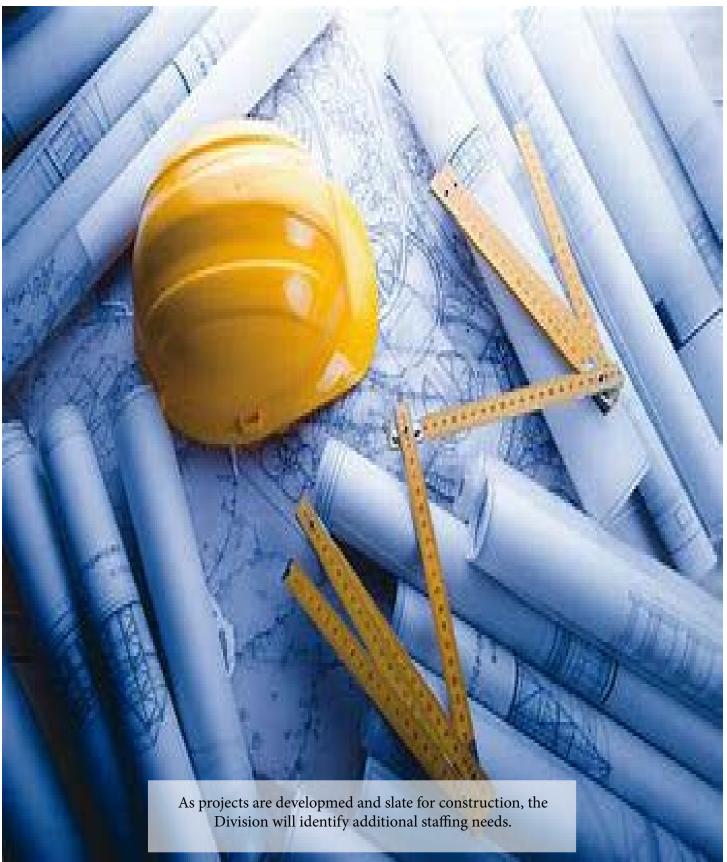


April 2023



PROJECT LIST







PROJECT LIST

PROJECT #	PROJECT TITLE	** CONCEPTUAL COST
1	Staircase improvements	\$1,887,420
2	Trail Improvements - Park wide	\$ 537,500
3	Day Use Restroom Replacement	\$ 774,400
4	Proposed Park Residence at Moccasin Branch Road	\$ 772,500
5	Proposed Trail head at Moccasin Branch Road	\$ 655,000
6	Proposed Check in Station at Moccasin Branch Campground	\$ 730,800
7	Upgrade tent sites at Moccasin Branch Family Campground	\$ 743,600
8	Miscellaneous Maintenance Projects (Storm water repairs, demolition, vault toilet repairs and installation of split rail fence along park roadway)	\$ 281,500
9	L- Park Residence at Avents Creek Access	\$ 887,600
10	Maintenance Area Improvements	\$ 1,444,800
11	Proposed Equipment Storage Building and Barracks	\$ 3,272,200
12	L - Proposed Park Residence	\$ 850,000
13	Visitor Center Improvements	\$ 237,500
	TOTAL	\$ 12,635,200
	FUTURE PROJECTS ALSO NEEDED	
14	L- Cokesbury Access Trail Development	\$ 1,489,600
	TOTAL FUTURE PROJECTS	\$1,489,600
TOTAL GMP a	nd Future Projects	\$ 14,124,800
	nated project cost does not include contingencies, design fee, nor esca	



GMP PROJECT DESCRIPTIONS

Disclaimer note: Proposed projects must be submitted to the Natural Resources staff for Environmental Review.

1. Staircase improvements

The 40- year old timber staircase was severely damaged in Hurricane Florence in September 2018. On average, 1-2 rescues occur per week due to aging infrastructure, narrow staircase and safety issues.

Scope of work includes:

· Division Internal Project Review and Approval

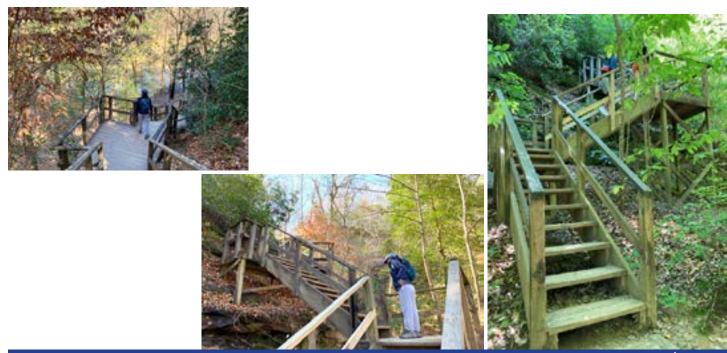
form (PRAF) should be used;

- Assessment of structure;
- Demolish timber staircase;
- Site preparation, staging of construction supplies;
- Erosion control measures;
- Installation of steel footings;
- 135 staircase treads;
- Handrails;
- 2 landings (minimum 5 feet x 5 feet;
- Site inspection.



The Raven Rock is a point of interest for park visitors.

Bryophyes and some plant species with a State status of special concern, significantly rare, or higher are associated with the rock faces along the Cape Fear River in Raven Rock State Park, but are not documented well. A thorought survey would be recommended within the proposed impacts of the project. There are state listed threatened, significantly rare, and special concern freshwater bivalves and fish associated with the Cape Fear River that could be impacted if sedimentation issues occur.





GMP PROJECT DESCRIPTIONS (CONTINUED)

2. Trail Improvements

Campbell Creek Trail Improvements

The Campbell Creek Trail needs to be rerouted along the Creek side. Approximately 8 footbridges need to be constructed with either timber construction or prefabricated construction methods. Over 2 miles of trails need to be re-routed to standard sustainable construction practices. Park staff will coordinate with the Trails Specialist for permitting, design and construction.

Fish Trap Trail Improvements

The Fish Trap trail needs new timber platform steps with granite screenings or stone steps to provide a sustainable trail corridor. The exposed tree roots are a safety hazard. Park staff will install granite screenings to protect the critical root zones, erosion control measures, selective tree clearing and fine grading.

Park staff will coordinate with the trails specialist for funding, environmental permitting, design and construction.

Raven Rock Loop Trail Improvements

The Raven Rock Loop Trail needs additional granite screenings, fine grading, and selective tree clearing to provide a sustainable trail corridor.

Scope of work includes:

- Division Internal Project Review and Approval form (PRAF) should be used;
- Install granite screenings on top of exposed tree roots;
- Selective tree clearing;
- Re routes of connector section to the iconic Raven Rock;
- Several footbridge repairs or replacements;
- Install a prefabricated concrete cap on top of the overlook to provide adequate drainage.

Park staff will coordinate with the trails specialist for funding, environmental permitting, design and construction.



Overlook improvements



Tree roots along the Fish Traps Trail have been impacted by extensive use from park users.



GMP PROJECT DESCRIPTIONS (CONTINUED)

2. Trail Improvements (continued)

East Loop Equestrian Stream Crossing

The stream crossing along the east loop equestrian trail is a safety hazard and located in a dedicated Nature Preserve (DNP). Park staff have been notified of horses slipping and riders falling due to slippery bedrock and a steep approach. Trail and natural resources staff will provide recommendations.





GMP PROJECT DESCRIPTIONS (CONTINUED)

3. Day Use Restroom Replacement

The existing restroom at the Day Use area will be removed and replaced to current, accessible building practices. The structure is over 40 years old and the septic field is not adequately sized for park usage.

Scope of work includes:

- Removal of restroom structure;
- Tree clearing;
- Construct Restroom building (Minimum 800 square feet);
- Electrical hookups;
- Waterline extension and hook up;
- · Concrete sidewalk connections; and
- Septic field inspection, repairs and expansion.



The day use restroom is over 40 years old and does not provide adequate stalls for the park visitor. The septic system needs to be renovated and expanded.



GMP PROJECT DESCRIPTIONS (CONTINUED) 4. Proposed Park Residence at Moccasin Branch Road

An additional park residence is needed for emergency response for the Moccasin Branch Campground on established park managed land. The response distance from the park headquarters is less than is 1 mile. The residence will reuse the existing building pad and utilities.

Scope of work includes:

- Proposed 2,000 square feet park residence that complements the aesthetic park setting;
- Construction of a detached carport or garage;
- Proposed 16' wide gravel driveway (1,000 Linear Feet);
- Septic field inspection and repairs to existing system;
- Electricity extension and hook up; and
- Well/well house, inspection and improvements.



The proposed park residence will re-use the existing building pad and connect to septic field



A proposed park residence will blend in with the architectural style of the Raven Rock State Park



5. Proposed Trail head at Moccasin Branch Road

Currently, the mountain bike user groups park in a field along Moccasin Branch Road. Park staff needs designated parking spaces in order to manage capacity issues.

Scope of work includes:

- Minimum of 48 space (including 4 accessible spaces);
- Accessible signage;
- 25 feet wide gravel road (260 Linear feet.);
- Split rail fencing (325 Linear feet);
- Concrete sidewalk to exiting vault toilet;
- Kiosk sign;
- Wash down station; and
- Extend the waterline from Moccasin Branch Family Campground.



The proposed trail head will be located in an established field



The proposed trail head will be similar to the William B. Umstead State Park at Reedy Creek access area in Raleigh, North Carolina



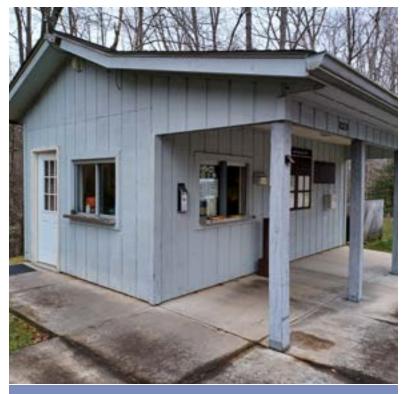
6. Proposed Check in Station at Moccasin Branch Campground

A climate-controlled structure is needed at the entrance of the Moccasin Branch family campground for operations and safety. The existing infrastructure, including foundational pavement and electricity can be used from a former construction trailer site. Operationally, the building would function similar to the State Recreational Areas -type parks and Stone Mountain State Park - family campground. Prior to pre-design level planning, park and construction administration staff will determine the cost benefit of prefabricated structures compared to standard lumber built construction methods.

A small firewood storage building (8 feet x 12 feet) will be constructed behind the station. This will provide staff the ability to sell campground supplies and keep the firewood dry and seasoned. Additional seasonal staff will be needed to manage the facility and access area.

Scope of work includes:

- Firewood storage building (Minimum 8 feet x 12 feet);
- Proposed check-in station with unisex restroom facility (530 square feet);
- Waterline extension from Moccasin Branch Campground (Approx. 1,000 linear feet);
- Internet for reservation system check-ins;
- Gate;
- Mini- split air conditioning system;
- Electrical hook up and extension (500 linear feet).



The proposed check in Station will be similar to the existing contact station at Stone Mountain State Park campground



The fire storage will provide covered storage for park staff and campers



7. Upgrade tent sites at Moccasin Branch Family Campground

The upgrade of 15 tent sites at the Moccasin Branch Family Campground to full hook up will provide additional overflow at peak times.

Scope of work includes:

• Fifteen (15) tent sites need to be upgraded to full hook up (including electrical, water, and septic). Sites include: campsite # 1-10; 19, 20, 21, 23, and 24;

- Construct an electrical line hookups and extension (1,000 linear feet);
- Construct a waterline connection and Extension (1,000 linear feet);
- Construct a sewer line expansion connection.



If the park upgrades the campsites to tent and trailer sites, then this will serve as overflow for campers.

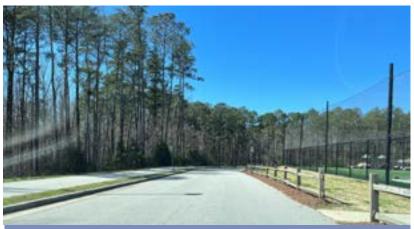


8. Miscellaneous Maintenance Projects (Storm water repairs, demolition, vault toilet repairs and installation of split rail fence along park roadway)

Several structures or infrastructure systems are outdated and need to be either removed or replaced.

Scope of work includes:

- The Division (DPR) Internal Project Review and Approval form (PRAF);
- Remove and reinstall 3 culverts to provide adequate, size, material, cover and outlet elevation along Long Leaf trail and backside of day use picnic shelter;
- Install well and well-house system at Avents Creek trail head access for equestrian users;
- Remove group camping vault toilets;
- Replace roof, door, paint and hardware to existing single vault toilet at Family Wilderness Group camp;
- Replace roof, door, paint and hardware to single vault toilet at Canoe Camp;
- Install a barrier, such as a 1000 linear feet split rail fence, in order to provide a barrier to control road shoulder and improve emergency vehicle access in gaps along Raven Rock State Park Road;



A split rail fence at Apex Nature Park prevents park users from parking on the road shoulder



Drainage pipe does not have adequate cover. The impacts from pedestrian traffic will damage the pipe



Trails need to be constructed flush at transition area from concrete to gravel



8. L- Park residence at Avents Creek Access

Park staff needs to be stationed on the north side of the Cape Fear River within the Avents Creek Access area in order to adequately respond to emergencies at the equestrian parking lot and trail system. The response time from the Visitor Center (park headquarters) to the north side is 20 minutes.

Scope of work includes:

- Construction of a 2,000-square foot park residence;
- Construction of a detached carport or garage;
- Septic field;
- Well and well house unit and;
- Electric line extensions.

A suitable park residence may be purchased in lieu of this proposed construction as a part of the land acquisition program. Property and existing residences bordering Avents Creek access area is identified in the land protection plan.



A proposed park residence will blend in with the architectural style of the Raven Rock State Park



9. Maintenance Area Improvements

The division needs to protect valuable equipment from rain, and extreme temperatures. A proposed equipment storage building (6 vehicles) will provide space for trail construction equipment and natural resources vehicles. The installation of a vehicle lift in the existing maintenance building will assist park for staff to perform routine maintenance on vehicles.

Scope of work:

• Remove and relocate existing chain link fence (190 linear feet) and install new 6' high chain link fence (10 linear feet);

- Install 25' wide gravel driveway (185 linear feet);
- Construct Equipment Storage Building (6 Vehicles) on 6" reinforced concrete pad;
- Install a minimum 1,000 gallon Fuel Pump with counter and indicator system;
- Install vehicle lift inside the existing Maintenance Building, if feasible.



The existing maintenance area needs to provide additional covered space for additional vehicles



Proposed equipment storage building will provide additional space for supplies and equipment for park staff. The building will be similar to the facility at Weymouth Woods State Natural Area in Southern Pines, N.C.



10. Proposed Equipment Storage Building and Barracks

The Division will construct a 7 -bay equipment storage building to store vehicles for prescribed burning operations and park maintenance. One bay will be enclosed and the remaining 6 bays will be open.

The natural resources crew needs additional space to hold prescribed burning equipment. A minimum 1,000 sq ft. secured building will store chemicals, materials and supplies.

A proposed 2,000 Square feet park residence will be constructed for natural resources staff for a mini mum of 4 crew or greater. An architectural assessment report will determine the feasibility of renovation or new construction methods based on short term and long range needs, cost benefit analysis of electrical, septic field, water source, structural, plumbing and architecture.

At time of project scoping, staff will review the needed for additional multi -purpose office space and park housing needs for daily tasks, storage of uniform equipment, and secured space. The infrastructure, capacity, soils conditions, slope and build-able area will determine the size and feasibility.

Scope of work includes:

- Division Internal Project Review and Approval Form (PRAF) should be used;
- Demolish barn;

• Demolish or renovate park residence based on cost benefit analysis and recommendations from the consultant;

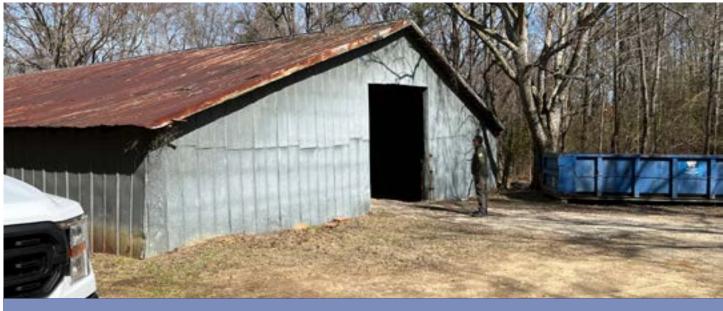
- Demolish tobacco barn;
- Demolish tin barn;
- Proposed Equipment Storage Building (7 Bay) -open structure;
- Install a 6 feet high chain link fence and gate (460 linear feet) around the perimeter;
- Install a concrete pad under foundation of building;
- Proposed storage building (1,000 square feet) for natural resources staff;
- Proposed 2,000 square feet barracks (Minimum 4 bedrooms) for park housing.



The park residence is over 90 years old and has exceeded the expected lifespan



GMP PROJECT DESCRIPTIONS (CONTINUED) 10. Proposed Equipment Storage Building and Barracks (Continued)



The tin barn needs to be demolished due to age and condition.



A proposed equipment storage building will provide additional storage area for supplies and equipment for the natural resources staff similar to the structure at Jacob Fork access at South Mountains State Park. The structure will have an open back and one bay enclosed.



11. L - Proposed Park Residence

An additional minimum 2,000 square feet park residence will be constructed for park operations, staff retention, and emergency response purposes. The location will be within close proximity to the park headquarters to serve the Moccasin Branch Campground, day use facilities, and primitive campsites.

Scope of work includes:

- Proposed 2,000 square feet park residence
- Construction of a detached carport or garage;
- Minimum 16' wide gravel driveway;
- Infrastructure including: electrical, phone service, well and well house assembly, and septic field.

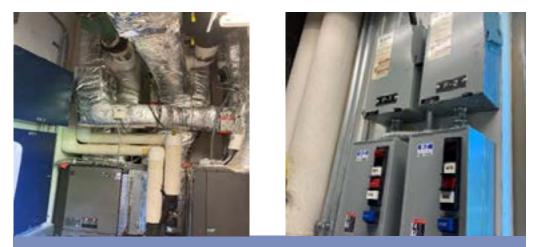
12. Visitor Center Improvements

The Visitor Center was constructed in 2010. However, the geothermal air conditioning system has a specialized maintenance contracts with expensive repairs. Raven Rock has spent over \$40,000 in software and equipment repairs over 12 years.

Due to costly repairs, the Division needs to perform a cost-benefit assessment for either a complete system replacement or upgrading the computer system.

Scope of work includes:

- Cost benefit assessment of air conditioning system;
- Removal of existing air conditioning system;
- Site preparation and installation of concrete pad;
- Replace geothermal air conditioning system with a conventional system;



Geothermal Air conditioning system is over 12 years old and needs assessment.



GMP PROJECT DESCRIPTIONS (CONTINUED) Future Projects (also needed)

13. L- Cokesbury Access Trail Development

The Cokesbury Access Trailhead will help alleviate the trail system on the south side and provide an alternate trail system on the north side of the park. This land dependent project will separate the horse users from the hiking groups.

The feasibility of park operations including a contact station, and equipment storage building for storage of natural resources operations will be determined based on build able area and capacity. The location and number of proposed park residences will be determined by operational staff that will serve both the Avents Creek and Cokesbury Access areas.

Park staff will work with environmental permitting and natural resources staff prior to design and construction.

Scope of work includes:

- Division Internal Project Review and Approval Form (PRAF) should be used;
- Prefabricated double vault toilet based on capacity needs;
- Minimum 2 miles of loop trails (adjusted based on actual field conditions);
- Trail head: Establishment of a trail head with a minimum of 25 spaces, a concrete sidewalk, and 2 accessible signs. The expansion area for future needs will also be considered;
- Selective tree clearing to prepare the area for the proposed amenities;
- 20' wide roadway improvements (2,000 linear feet) to improve access;
- Main entrance sign;
- Well/well house assembly to provide a water sources for the area;
- Implementation of a radio repeater system for emergency services;
- Overlook (based on field conditions and topography).

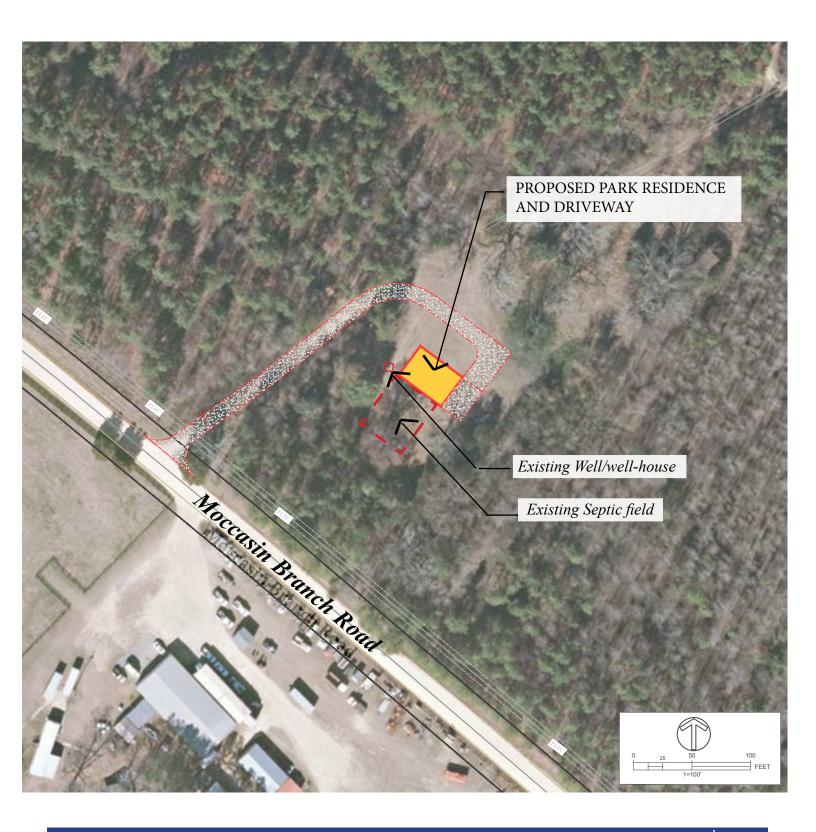


PROJECT CONCEPT PLANS GMP PROJECT #2 -DAY USE RESTROOM REPLACEMENT



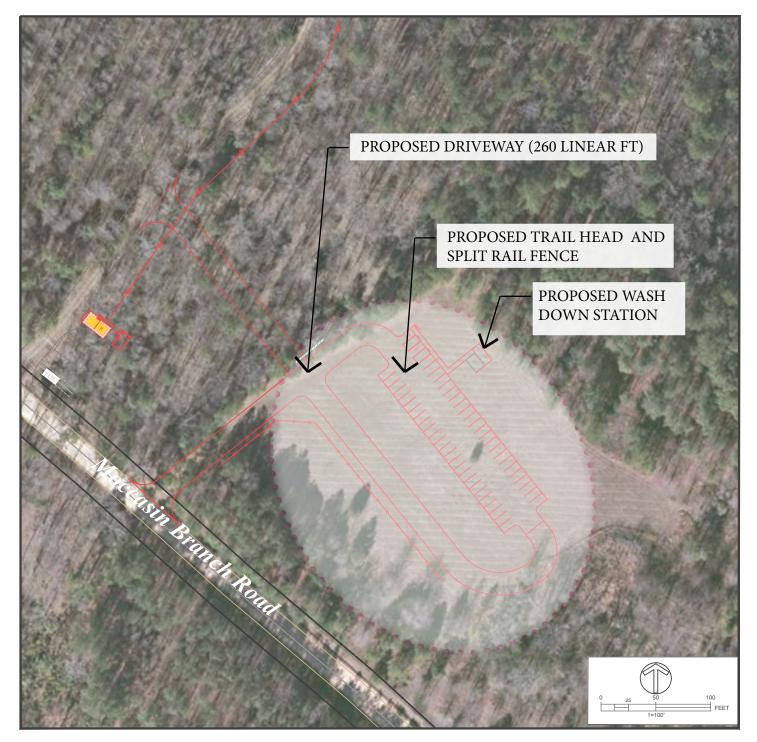


PROJECT CONCEPT PLANS GMP PROJECT #3- PROPOSED PARK RESIDENCE AT MOCCASIN BRANCH ROAD





PROJECT CONCEPT PLANS GMP PROJECT #4 -PROPOSED TRAILHEAD AT MOCCASIN BRANCH ROAD





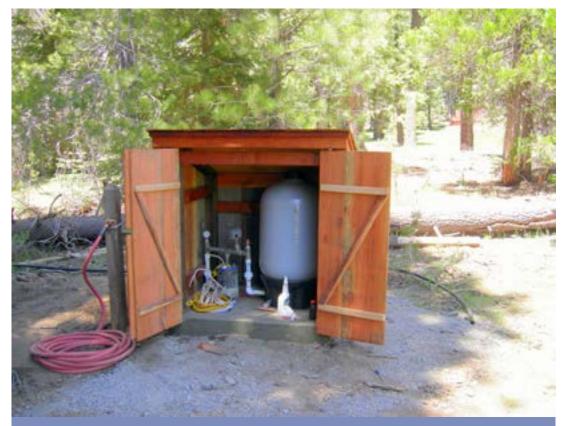
PROJECT CONCEPT PLANS

GMP PROJECT #5- PROPOSED CHECKIN STATION AT MOCCASIN BRANCH CAMPGROUND





PROJECT CONCEPT PLANS GMP PROJECT #7- MISCELLANEOUS MAINTENANCE PROJECTS



Install a well/well house close to the Avents Creek Trail head



Harden the stream crossing along Avents Creek access area



Proposed water spigot on impact pad



PROJECT CONCEPT PLANS GMP PROJECT #9- MAINTENANCE AREA IMPROVEMENTS



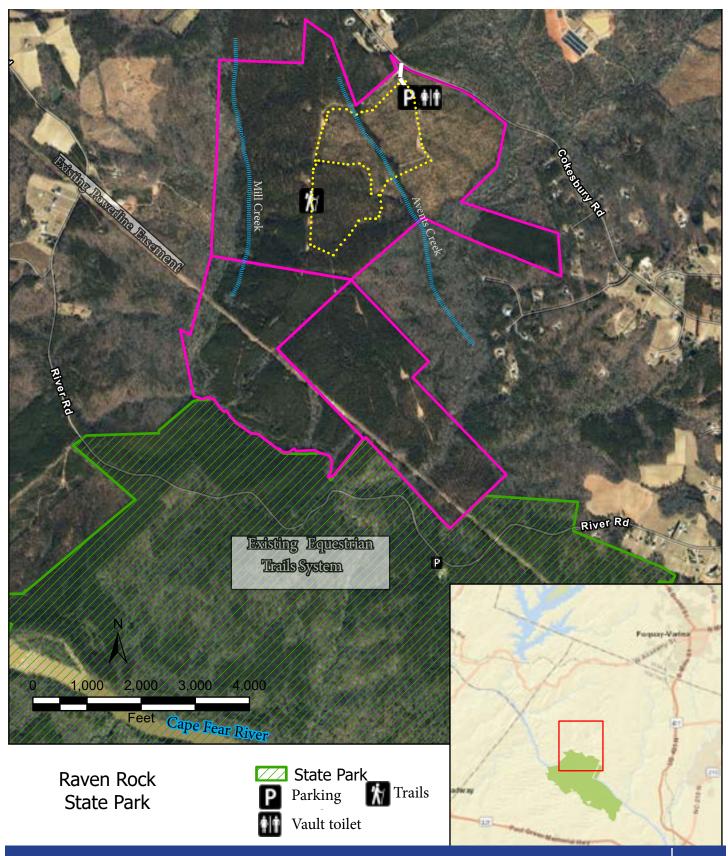


PROJECT CONCEPT PLANS GMP PROJECT #10- PROPOSED EQUIPMENT STORAGE BUILDING AND BARRACKS





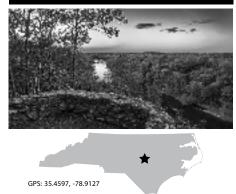
PROJECT CONCEPT PLANS GMP PROJECT #13- COKESBURY ACCESS TRAIL DEVELOPMENT





PARK INFORMATION (FOR REFERENCE)

RAVEN ROCK State Park



Directions: Raven Rock State Park is located in Harnett County, 9 miles west of Lillington and 20 miles east of Sanford. Turn off U.S. 421 and follow Raven Rock Road for 3 miles to the park entrance.

Park Information

Park Hours:

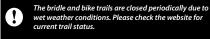
Please visit the N.C. State Parks website or contact the park office for the most current information about seasonal hours, activities, alerts, camping fees, programs, rules and weather.

Contact Information: Raven Rock State Park

3009 Raven Rock Rd., Lillington, NC 27546 910-893-4888 ■ raven.rock@ncparks.gov

N.C. Division of Parks and Recreation Dept. of Natural and Cultural Resources 1615 Mail Service Center, Raleigh, NC 27699

919-707-9300 • www.ncparks.gov



MAKE A RESERVATION www.ncparks.gov = 1-877-722-6762

Activities

Camping: The park offers backpack and paddle-in campsites. All supplies, including water, must be packed in to the sites. Paddlers, please call the park office for additional information.

Moccasin Branch Campground: Located off Moccasin Branch Rd., just before reaching the main park entrance visitor center, this campground offers 15 campsites for tents and trailers and nine sites for RVs with full hook-ups available. Each site has a tent pad, table, fire ring, grill and a lantern hook. Drinking water and a bathhouse with hot showers and trash and recycling bins are located nearby. Firewood is available for purchase. Visitors should report first to their campsite when they arrive. Staff will come around to campsites check visitors in.

Camper Cabins: The park has six camper cabins located in the Moccasin Branch campground. These camper cabins sleep six with two rooms, one with a queen bed and one with two sets of bunk beds. Campers must bring their own linens and pillows. Each cabin has electrical outlets and a heating and air-conditioning unit. Outside there is a tent pad, picnic table, charcoal grill and fire ring. There are no restrooms inside camper cabins — campers must use the nearby bathhouse and water spigots. Cabin 3 is wheelchair accessible. Smoking, cooking, and open flames are not permitted inside any of the cabins. Pets, except for service animals, are not allowed inside cabins. Each cabin has parking space for two vehicles only.

Picnicking: Towering trees provide shade in the wooded picnic area. A picnic shelter is available for reservation and is otherwise available on a first-come_first-served basis. Drinking water, restrooms and drink machines are located nearby. Some picnic facilities are ADA accessible.

Trails: Raven Rock offers over 30 miles of trails. Explore on foot, by bike or on horseback.

Raven Rock Loop Trail, a 2.6-mile loop, travels through a hardwood forest to the park's centerpiece, Raven Rock. A stone balcony just off the trail overlooks the river.

The Mountain Laurel Loop Trail starts at the Moccasin Branch Road access. This bike trail system includes beginner, intermediate and advanced options to accommodate riders of all experience levels. This scenic trail offers winding turns and gentle slopes. Mountain laurel is abundant along the trail as it travels across the north facing slopes.

Other trails offer access to fishing and idyllic scenery. Land adjoining park bridle trails is private property as noted on posted signs — do not trespass. Horses and bikes must stay on designated horse or bike trails. All visitors with horses must be able to provide proof of a negative equine infectious anemia (Coggins) test.

Paddling: Negotiate the rapids of Lanier Falls and the Fish Traps on a portion of the Cape Fear River Trail. The paddling trail winds for 56 miles along the Cape Fear River from an access point at the U.S. 1 Bridge over Deep River. Contact park staff for information about the nearest access points. There is no boat launch in the park.

Fishing: Game fish in park waters include largemouth bass, warmouth, bluegill, catfish, and redear and green sunfish. Other interesting species are longnose gar, American eel, chub, shiner, darter and pirate perch. A valid N.C. Fishing License is required and N.C. Wildlife Resources Commission regulations are enforced. Nature's Classroom: Rangers hold scheduled educational and interpretive programs about Raven Rock State Park. Contact the park office to arrange a special exploration of the park for your group or class. Educational materials about the park have been developed for grades 5 to 8 and are correlated to North Carolina's competency-based curriculum. The Raven Rock program introduces students to the geologic processes along the fall zone.

Rules and Regulations

 The removal of any plant, animal, rock or artifact is prohibited.

- All state parks are wildlife preserves. Hunting and trapping are not permitted.
- Fireworks are prohibited.
- Help maintain a clean environment for others by throwing trash in proper receptacles. State law requires aluminum cans and plastic bottles be placed in recycling containers.
- Pets must be on an attended leash no longer than 6 feet.
 All boating and fishing regulations of the N.C. Wildlife Resources Commission are enforced in the park.
- Firearms and other weapons are prohibited except that those with a proper permit may possess a concealed handgun in permitted areas and under the requirements of N.C. G.S. 14-415.11. All firearms and weapons are prohibited in visitor centers and park offices.
- N.C. motor vehicle and traffic laws apply in the park. Speed limit is 15 mph.
- Camping is allowed only in designated areas and with a permit.
- Fires are permitted only in designated areas
- Climbing or rappelling on rock outcrops is prohibited.

For Your Safety

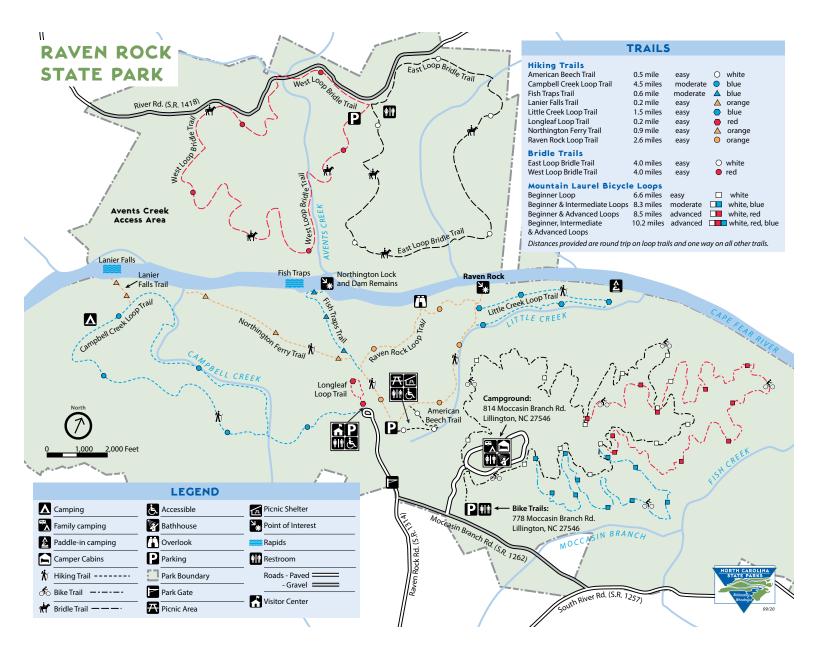
- At times, the Cape Fear River may be dangerous for paddling. Before embarking on a paddle trip, check with park staff for the current river level. Paddling is not recommended if the water level is above 3.5 feet at the Lillington Gauging Station.
- Wear a life vest when paddling.
- Stay on designated hiking trails to avoid steep drop-offs and slick areas along the river.
- Venomous snakes, ticks and poisonous plants may be found along park trails. Exercise caution.



15,000 copies of this public document were printed at a cost of \$1,275.24 or \$0.09 each. 01/22

HORTH CAROLINA STATE RANKS

PARK MAP







Significant and Species of Concern

Scientific Name	Common Name	major-	family	id	cntSpp	residence	seo-
		Group					track
Dryobates borealis	Red-cockaded Woodpecker	BIRD	PICIDAE	10343	1		E
Certhia americana	Brown Creeper	BIRD	CERTHII- DAE	29625	18	Non-reproduc- ing	SC
Setophaga cerulea	Cerulean Warbler	BIRD	PARULI- DAE	10025	7		SC
Vermivora chrys- optera	Golden-winged Warbler	BIRD	PARULI- DAE	34944	3	Non-reproduc- ing	SC
Pooecetes gramineus	Vesper Sparrow	BIRD	PASSEREL- LIDAE	10370	1	Non-reproducing	SC
Tyto alba	Barn Owl	BIRD	TYTONI- DAE	30305	1	Unknown	SC
Elliptio folliculata	Pod Lance	MOL- LUSK	UNIONI- DAE	10064	1	Suspected	SC
Elliptio roanoken- sis	Roanoke Slabshell	MOL- LUSK	UNIONI- DAE	10065	1		SC
Lanius ludovi- cianus	Loggerhead Shrike	BIRD	LANII- DAE	10192	4		SC, W2
Enemion biterna- tum	Eastern Isopyrum	VAS- CULAR PLANT	RANUN- CULACE- AE	10069	16	Reproducing	SC-V
Accipiter striatus	Sharp-shinned Hawk	BIRD	ACCIPIT- RIDAE	9867	17	Reproducing	SR
Circus hudsonius	Northern Harrier	BIRD	ACCIPIT- RIDAE	9995	13	Non-reproduc- ing	SR
Elanoides forficatus	Swallow-tailed Kite	BIRD	ACCIPIT- RIDAE	275938	1	Non-reproduc- ing	SR
Nyctanassa violacea	Yellow-crowned Night-heron	BIRD	ARDEI- DAE	10289	1		SR
Coccyzus erythrop- thalmus	Black-billed Cuck- oo	BIRD	CUCULI- DAE	29660	1		SR
Falco sparverius	American Kestrel	BIRD	FALCO- NIDAE	10103	6	Unknown	SR
Riparia riparia	Bank Swallow	BIRD	HIRUND- INIDAE	30182	4		SR
Dolichonyx ory- zivorus	Bobolink	BIRD	ICTERI- DAE	89897	1	Unknown	SR
Setophaga coronata	Yellow-rumped Warbler	BIRD	PARULI- DAE	10029	33	Non-reproduc- ing	SR



Significant and Species of Concern (Continued)

Scientific Name	Common Name	major-	family	id	cntSpp	residence	seo-
		Group					track
Setophaga magnolia	Magnolia Warbler	BIRD	PARULI- DAE	10035	8	Non-reproduc- ing	SR
Vermivora cyanop- tera	Blue-winged War- bler	BIRD	PARULI- DAE	30328	5	Non-reproduc- ing	SR
Passerculus sand- wichensis	Savannah Sparrow	BIRD	PASSEREL- LIDAE	10324	3	Non-reproduc- ing	SR
Sphyrapicus varius	Yellow-bellied Sapsucker	BIRD	PICIDAE	34828	26	Non-reproduc- ing	SR
Catharus guttatus	Hermit Thrush	BIRD	TURDI- DAE	9974	41	Non-reproduc- ing	SR
Catharus ustulatus	Swainson's Thrush	BIRD	TURDI- DAE	9975	13	Non-reproduc- ing	SR
Vireo gilvus	Warbling Vireo	BIRD	VIREONI- DAE	10563	1	Non-reproduc- ing	SR
Gomphurus septi- ma	Septima's Clubtail	INSECT	GOMPHI- DAE	62421	7	Reproducing	SR
Hesperia metea	Cobweb Skipper	INSECT	HESPERII- DAE	10150	8	Reproducing	SR
Diplectrona me- taqui	a net-spinning caddisfly	INSECT	HYDRO- PSYCHI- DAE	121230	1		SR
Pontia protodice	Checkered White	INSECT	PIERIDAE	10369	2	Suspected	SR
Villosa delumbis	Eastern Creekshell	MOL- LUSK	UNIONI- DAE	10556	1		SR
Mesomphix pilsbryi	Striate Button	MOL- LUSK	ZONITI- DAE	240162	1		SR
Ophisaurus atten- uatus	Eastern Slender Glass Lizard	REP- TILE	ANGUI- DAE	10296	7	Suspected	SR
Lejeunea glau- cescens var. acrog- yna	a liverwort	LIVER- WORT	LE- JEUNEACE- AE	29906	2	Unknown	SR-L
Fontinalis sphagni- folia	Fontinalis	MOSS	FONTIN- ALACEAE	255890	1		SR-O
Corallorhiza wiste- riana	Spring Coralroot	VAS- CULAR PLANT	ORCHIDA- CEAE	10016	6	Reproducing	SR-O
Quercus bicolor	Swamp White Oak	VAS- CULAR PLANT	FAGACEAE	238852	1		W1
RAVEN ROCK	STATE PARK GENI	ERAL MA	NAGEMENT	PLAN			60

Significant and Species of Concern (Continued)



Scientific Name	Common Name	major- Group	family	id	cnt Spp	residence	seo- track
Lindbergia brachyp- tera	Lindberg's Ma- ple-moss	MOSS	LESKEACEAE	255804	1		SR-P
Fothergilla major	Large Witch-alder	VASCULAR PLANT	HAMAMELI- DACEAE	71861	1	Reproducing	SR-T
Phacelia covillei	Buttercup Phacelia, Buttercup Scorpi- on-weed	VASCULAR PLANT	HYDRO- PHYLLACEAE	30062	12	Reproducing	SR-T
Haliaeetus leucoceph- alus	Bald Eagle	BIRD	ACCIPITRI- DAE	10125	74	Unknown	Т
Villosa constricta	Notched Rainbow	MOLLUSK	UNIONIDAE	10555	1		Т
Cardamine douglassii	Douglass's Bitter- cress	VASCULAR PLANT	BRASSICACE- AE	9961	10	Reproducing	Т
Tradescantia virgin- iana	Virginia Spiderwort	VASCULAR PLANT	COMMELIN- ACEAE	30293	6	Reproducing	Т
Trifolium reflexum	Buffalo Clover	VASCULAR PLANT	FABACEAE	30297	1		Т
Chaetura pelagica	Chimney Swift	BIRD	APODIDAE	9990	16	Reproducing	W1
Nycticorax nycticorax	Black-crowned Night-heron	BIRD	ARDEIDAE	30012	2	Unknown	W1
Antrostomus carolin- ensis	Chuck-will's-widow	BIRD	CAPRIMULG- IDAE	9955	26	Reproducing	W1
Antrostomus vo- ciferus	Eastern whip-poor- will	BIRD	CAPRIMULG- IDAE	9956	29	Reproducing	W1
Chordeiles minor	Common Night- hawk	BIRD	CAPRIMULG- IDAE	29640	2	Non-reproduc- ing	W1
Euphagus carolinus	Rusty Blackbird	BIRD	ICTERIDAE	73423	2	Non-reproduc- ing	W1
Bryhnia novae-an- gliae	New England Bryh- nia Moss	MOSS	BRACHYTH- ECIACEAE	255840	2		W1
Clemmys guttata	Spotted Turtle	REPTILE	EMYDIDAE	29652	3	Suspected	W1
Quercus bicolor	Swamp White Oak	VASCULAR PLANT	FAGACEAE	238852	1		W1



Scientific Name	Common Name	major-	family	id	cnt	resi-	seo-
		Group			Spp	dence	track
Comptonia peregrina	Sweet Fern	VASCULAR PLANT	MYRICACE- AE	10012	1	Repro- ducing	W1
Corallorhiza odontorhiza	Autumn Coral-root	VASCULAR PLANT	ORCHIDA- CEAE	10015	1	Repro- ducing	W1
Ptelea trifoliata	Wafer-ash	VASCULAR PLANT	RUTACEAE	62431	1	Repro- ducing	W1
Ammodramus savan- narum	Grasshopper Sparrow	BIRD	PASSERELLI- DAE	29485	8	Repro- ducing	W1,W5
Corvus corax	Common Raven	BIRD	CORVIDAE	279370	5		W2
Podilymbus podiceps	Pied-billed Grebe	BIRD	PODICIPE- DIDAE	30102	2	Non-re- produc- ing	W2
Eudocimus albus	White Ibis	BIRD	THRESKIOR- NITHIDAE	34882	3	Non-re- produc- ing	W2
Empidonax minimus	Least Flycatcher	BIRD	TYRANNI- DAE	10066	1	Non-re- produc- ing	W2
Amblyscirtes carolina	Carolina Roadside-skip- per	INSECT	HESPERII- DAE	9887	6	Repro- ducing	W2
Hesperia leonardus	Leonard's Skipper	INSECT	HESPERII- DAE	29842	6	Repro- ducing	W2
Megathymus yuccae	Yucca Giant-skipper	INSECT	HESPERII- DAE	10252	2	Repro- ducing	W2
Sciurus niger	Eastern Fox Squirrel	MAMMAL	SCIURIDAE	10419	88	Repro- ducing	W2
Regulus satrapa	Golden-crowned Kinglet	BIRD	REGULIDAE	34933	47	Non-re- produc- ing	W2,W5
Sitta canadensis	Red-breasted Nuthatch	BIRD	SITTIDAE	10477	45	Non-re- produc- ing	W2,W5
Troglodytes hiemalis	Winter Wren	BIRD	TROGLO- DYTIDAE	166195	27	Non-re- produc- ing	W2,W5
Elliptio congaraea	Carolina Slabshell	MOLLUSK	UNIONIDAE	10063	1		W2,W5
Lophodytes cucullatus	Hooded Merganser	BIRD	ANATIDAE	29949	3	Non-re- produc- ing	W3
Spinus pinus	Pine Siskin	BIRD	FRINGILLI- DAE	9963	16	non-re- produc- ing	W3



Scientific Name	Common Name	majorGroup	family	id	cnt Spp	residence	seo- track
Geothlypis phil- adelphia	Mourning Warbler	BIRD	PARULI- DAE	30024	1	Non-reproduc- ing	W3
Heliomata inf- ulata	Rare Spring Moth	INSECT	GEOMET- RIDAE	10140	2		W3
Thorybes con- fusis	Confused Cloudy- wing	INSECT	HESPERII- DAE	30282	2	Suspected	W3
Callosamia se- curifera	Sweetbay Silkmoth	INSECT	SATURNII- DAE	64835	1	Reproducing	W3
Xolotrema car- oliniense	Blunt Wedge	MOLLUSK	POLYGYRI- DAE	240168	1		W3
Justicia ameri- cana	Common Water-wil- low	VASCULAR PLANT	ACANTHA- CEAE	10185	4	Unknown	W6
Toxicodendron vernix	Poison Sumac	VASCULAR PLANT	ANACAR- DIACEAE	30290	1	Reproducing	W6
Asplenium montanum	Mountain Spleenwort	VASCULAR PLANT	ASPLENIA- CEAE	56858	1	Suspected	W6
Cardamine bul- bosa	Bulbous Bitter-cress	VASCULAR PLANT	BRASSICA- CEAE	39392	1	Reproducing	W6
Brasenia schre- beri	Watershield	VASCULAR PLANT	CABOMBA- CEAE	90166	1	Reproducing	W6
Hypericum vir- ginicum	Common Marsh St. John's-wort	VASCULAR PLANT	CLUSIACE- AE	54846	2		W6
Rhynchospora chalarocephala	Loose-head Beakrush	VASCULAR PLANT	CYPERA- CEAE	30180	1		W6
Rhynchospora gracilenta	Slender Beak Rush	VASCULAR PLANT	CYPERA- CEAE	54627	1	Reproducing	W6
Rhododendron catawbiense	Catawba Rhododen- dron	VASCULAR PLANT	ERICACE- AE	30175	6	Reproducing	W6
Lachnocaulon anceps	Bog-buttons	VASCULAR PLANT	ERIOCAU- LACEAE	53116	2	Reproducing	W6
Dicentra cucul- laria	Dutchman's Breeches	VASCULAR PLANT	FUMARIA- CEAE	29718	10	Reproducing	W6
Bartonia virgi- nica	Virginia Bartonia, Yellow Screwstem	VASCULAR PLANT	GENTI- ANACEAE	53114	3	Reproducing	W6
Pycnanthemum flexuosum	Narrow-leaf Moun- tain-mint	VASCULAR PLANT	LAMIACE- AE	30139	2	Reproducing	W6
Magnolia trip- etala	Umbrella Magnolia	VASCULAR PLANT	MAGNOLI- ACEAE	29962	2	Reproducing	W6
Magnolia virgin- iana	Northern Sweet Bay	VASCULAR PLANT	MAGNOLI- ACEAE	10249	5	Reproducing	W6



Scientific	Common Name	majorGroup	family	id	cnt	residence	seo-
Name					Spp		track
Morella car- oliniensis	Evergreen Bayberry	VASCULAR PLANT	MYRICA- CEAE	72228	2	Reproducing	W6
Clematis virgin- iana	Virginia Virgin-bower	VASCULAR PLANT	RANUN- CULACEAE	29651	1	Reproducing	W6
Ranunculus hispidus	Hispid Buttercup	VASCULAR PLANT	RANUN- CULACEAE	30167	2		W6
Smilax laurifolia	Laurel-leaf Greenbrier	VASCULAR PLANT	SMILACA- CEAE	30237	2	Reproducing	W6
Pellia appalachi- ana	a liverwort	LIVERWORT	PELLIACE- AE	218156	1		W7
Plagiochila undata	a liverwort	LIVERWORT	PLA- GIOCHILA- CEAE	218267	1		W7
Hygroamblyste- gium fluviatile	Streamside Hygroam- blystegium Moss	MOSS	AMBLYSTE- GIACEAE	218298	1		W7
Philonotis mar- chica	a philonotis moss	MOSS	BARTRA- MIACEAE	218143	1		W7
Anacamptodon splachnoides	Knot-Hole Moss	MOSS	FABRONIA- CEAE	255846	1		W7
Fissidens adian- thoides	a fissidens moss	MOSS	FISSIDEN- TACEAE	255874	2		W7
Fissidens elegans	a moss	MOSS	FISSIDENTA- CEAE	124432	5		W7
Fontinalis sulli- vantii	Sullivant's Fontinalis Moss	MOSS	FONTINAL- ACEAE	218199	1		W7
Atrichum cylin- dricum	Cylindrical Atrichum Moss	MOSS	POLY- TRICHACE- AE	255827	1		W7
Juncus longii	Long's Rush	VASCULAR PLANT	JUNCACEAE	54830	1	Reproducing	W7
Parietaria pensyl- vanica	Pennsylvania Pellitory	VASCULAR PLANT	URTICACE- AE	30045	4	Reproducing	W7
Viola brittoniana	Northern Coastal Violet	VASCULAR PLANT	VIOLACEAE	30338	4	Reproducing	W7



LEGEND:

Conservation Code	North Carolina Status
SR	Significantly Rare
SR-G	Game Animal
SR-L	Limited (endemic or near endemic to NC and adjacent states)
SR-T	Throughout (Rare throughout its entire range)
SR-D	Disjunct
SR-P	Peripheral
SR-O	Other
W1 (Animals)	Population in Decline
W1 (Plants)	Rare but Relatively Secure
W2 (Animals)	Rare but Relatively Secure
W2 (Plants)	Rare but Questionable Taxonomy
W3 (Animals)	Poorly Known in NC
W3 (Plants)	Rare but Questionable Documentation
W4 (Animals)	Rare but Questionable Documentation
W4 (Plants)	Rare but Possibly Not Native (not included in this document)
W5 (Animals)	Habitat Threatened
W5 (Plants)	Rare because of Severe Decline to Population or Habitat
W6 (Animals)	Rare but Believed Not Native (not included in this document)
W6 (Plants)	Regionally Rare
W7 (Plants)	Poorly Known in NC

THIS PAGE INTENTIONALLY LEFT BLANK

