

**CLIFFS OF THE NEUSE  
STATE PARK**

**GENERAL MANAGEMENT PLAN**

**February 16, 2005**

**North Carolina Department of Environment and Natural Resources**

**Division of Parks and Recreation**

# CLIFFS OF THE NEUSE STATE PARK GENERAL MANAGEMENT PLAN

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# INTRODUCTION

Planning is an essential element of effective and efficient park administration and management. The North Carolina General Assembly acknowledged its importance by passing state parks system legislation that includes planning requirements.

The 1987 State Parks Act (G.S.114-44.7 through 114-44.14) stipulates that a State Parks System Plan be prepared. The first plan was completed in December 1988. It evaluated the statewide significance of each park, identified duplications and deficiencies in the system, described the resources of the system, proposed solutions to problems, described anticipated trends, and recommended means and methods to accommodate trends. The most recent update of the Systemwide Plan was completed in December 2000.

The State Parks Act also requires each park to have an individual general management plan. The general management plans are required to:

*...include a statement of purpose for the park based upon its relationship to the System Plan and its classification. An analysis of the major resources and facilities on hand to achieve those purposes shall be completed along with a statement of management direction. The general management plan shall be revised as necessary to comply with the System Plan and to achieve the purpose of the [State Parks Act].*

The general management plan (GMP) is to be a comprehensive five-year plan of management for a park unit. A GMP's function is to:

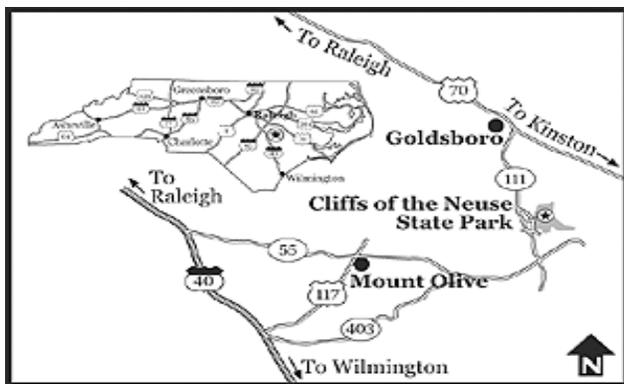
1. Describe park resources and facilities;
2. State the purpose and importance of each park unit;
3. Outline interpretive themes and propose locations for informational and interpretive facilities;
4. Analyze park and recreation demands and trends in the park's service area;
5. Summarize the primary laws guiding park operations;
6. Identify internal and external threats to park natural and cultural resources, and propose appropriate responses;
7. Identify and set priorities for capital improvement needs;
8. Analyze visitor services and propose efficient, effective, and appropriate means of responding to visitor needs; and
9. Review park operations and identify actions to support efficient and effective park administrative procedures.

The GMP for Cliffs of the Neuse State Park, developed with public involvement, is intended to serve these purposes.

# I. DESCRIPTION OF CLIFFS OF THE NEUSE STATE PARK

## LOCATION AND ACCESS

Cliffs of the Neuse State Park is located in Wayne County 13 miles south of Goldsboro off N.C. 111. The park lies near the western limit of North Carolina's coastal plain. The principal access roads to the region are Interstate 95, which runs north to south about 35 miles west of the park; Interstate 40, located approximately 23 miles west of the park; U.S. 117, running north to south, passes approximately ten miles west; and U.S. 70, the main east- west highway. North Carolina Highway 111 leads from U.S.70 to the park (Figure I-1).



The park's mailing address, telephone number and email address are:

Cliffs of the Neuse State Park  
345-A Park Entrance Road  
Seven Springs, NC 28578

(919) 778-6234

[cliffs.neuse@ncmail.net](mailto:cliffs.neuse@ncmail.net)

Figure I-1. Location Map for Cliffs of the Neuse State Park

## PARK LAND

Cliffs of the Neuse State Park is the only state park in Wayne County or in the surrounding six counties: Johnston, Wilson, Greene, Lenoir, Duplin and Sampson counties. Its 751 acres serves an area of North Carolina that is underserved by public outdoor recreation lands, and therefore the park serves an important role in meeting the area's outdoor recreation needs. Park acreage includes the 90-foot tall cliffs from which the park gets its name. The primary park feature, the cliffs extend for 600 yards and serve as a journal of the geological and biological history of the land. Layers of sand, clay, seashells, shale and gravel form the multicolored white, tan, yellow and brown cliff face (Figure I-2).

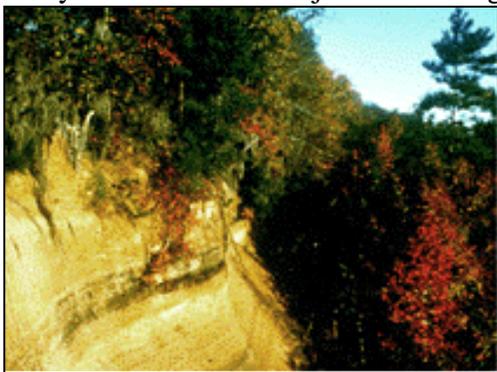
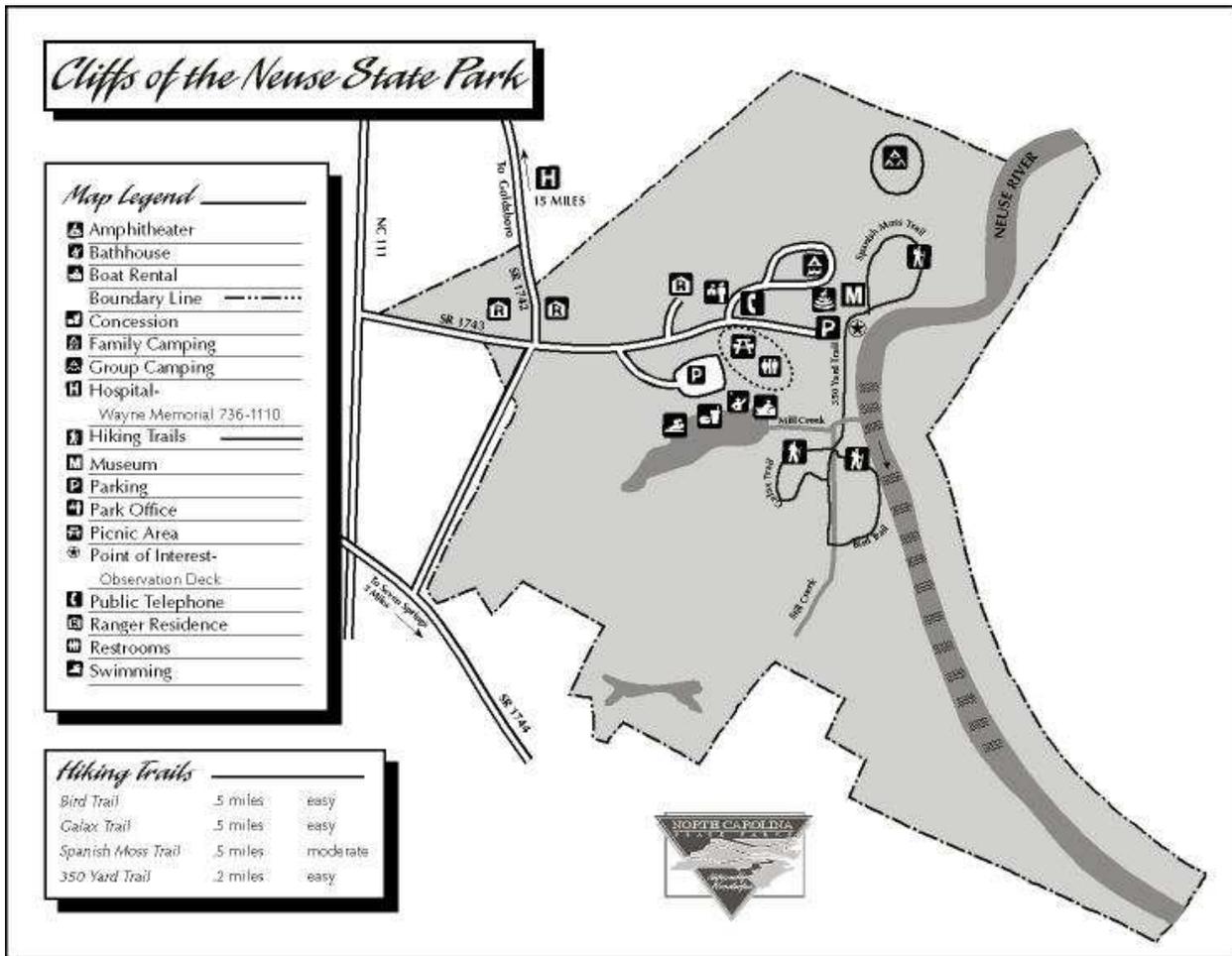


Figure I-2. Cliffs of the Neuse

The Neuse River, whose water's erosive action slowly carved the cliffs, winds its way through the park. A range of habitats contributes to the abundance and variety of flora in the park. River margins, flood plains, rolling uplands and ravines are home to an unusual mixture of trees, shrubs, and herbaceous plants. More than 420 species of plants have been recorded here.

## VISITOR FACILITIES

Cliffs of the Neuse State Park offers a variety of recreational opportunities, including picnicking, camping, swimming, boating, fishing, hiking and interpretive programs. The picnic area has 40 tables, grills, and a large picnic shelter. Nearby, an 11-acre lake has a sandy beach, diving platform, bathhouse and rowboats for rent. The Neuse River offers good fishing opportunities, and four short hiking trails allow exploration of the park. A small interpretive museum depicts the geology and natural history of the area. Thirty- five tent and trailer campsites, each with a picnic table and grill but no water or electrical hookups, are available for overnight visitors. Water is available at several locations in the camping area, and a washhouse with hot showers and electricity is centrally located. A primitive camping area has also been set aside for organized groups (Figure I-3).



**Figure I-3. Cliffs of the Neuse State Park**

## HISTORY OF THE PARK AREA

The Cliffs of the Neuse were formed when a fault in the earth's crust shifted millions of years ago. The Neuse River followed this fault line and, over time, cut its course through layers of sediment deposited by shallow seas that had earlier covered the coastal plain. A portion of the river took a bend against its bank and the water's erosive action slowly carved Cliffs of the Neuse, chiseling the 90- foot

high cliffs that extend for 600 yards. Layers of sand, clay, seashells, shale and gravel form the multicolored cliff face, a rainbow of white, tan, yellow and brown.

Much of the human history of the area centers on the river. The Tuscarora and Saponi Indian tribes once occupied much of the land between the Neuse and Pamlico rivers. What is now the park used to be a ceremonial ground and a gathering place for hunting expeditions, so chosen due to its proximity to a permanent watercourse and due to the high ground which provided protection from floods and offered a view of potential enemies. The river was used for travel into the surrounding wilderness. Indians farmed the sandy soil with crude stone axes, and the sandy soil was easier to farm and vegetation did not grow back as quickly as it would with rich, fertile soils.

The first surveyor in the Wayne County area was John Lawson, who recorded trading cabins and white traders in the area, generally considered Tuscarora Indian territory. Early European settlers are reported to have set up a trading center at Whitehall, the earliest English settlement in the area. Despite their likely presence, Wayne County records indicate that William Whitfield was the first permanent settler in the Whitehall community. After the Revolutionary War, a stagecoach line and river traffic promoted growth of the town. Agriculture became the primary employment, although there was a buggy factory, turpentine distillery, brick works and several warehouses in the town itself (State of North Carolina, 1977). The community of Whitehall was incorporated in 1855, and in 1881 reincorporated as White Hall, named for the plantation home of William Whitefield, who built here about 1741 (Powell, 1968).

A gateway to the Pamlico Sound and the Atlantic Ocean, the Neuse River also played a role in Civil War history. As part of an effort by the Confederate navy to challenge Union control of North Carolina's coastal waters, an ironclad ramming vessel, the CSS Neuse, was built at Whitehall (Powell, 1968), site of a Confederate shipyard. The ill-fated ship ran aground in the river and was destroyed to prevent its capture. The town itself was bombarded by Union cannons in December 1862, and the small town was virtually destroyed, never to be rebuilt or to reclaim its status as a trading center.

Wayne County residents sought to capitalize on the resort potential of natural springs along the river and early in the 20th century built two hotels in the Whitehall/ Seven Springs area, the Seven Springs Hotel and the Ninth Springs Hotel, both built by the Whitfield families (State of North Carolina, 1977). The Seven Springs resort operated from 1881 until 1944 (Powell, 1968). Whitehall became known for its mineral water cures. In an area of just a few square feet were seven springs, each said to produce water with a different chemical content. On summer weekends, visitors checked into local hotels to drink mineral water and to take riverboat excursions to the tall cliffs, a major attraction. A gallon of the water per day was prescribed for "whatever ails you."

The waters were also used for whiskey stills—locals explained that if the mineral water didn't cure people's ills, the corn whiskey would make them forget what ailed them to begin with! In fact, two federally operated liquor stills were located in the vicinity up until the early 1900s.

Whitehall development included several boat docks, a cotton gin, a supply store, a blacksmith, a boarding house, a doctor's office and several other businesses, but in the early 1920s, the community was damaged by fire and never fully recovered (State of North Carolina, 1977). As the state developed, road and rail transportation improved and river traffic became less important, and over

time only a few Whitehall businesses were rebuilt. In 1951, the town's name was changed to Seven Springs, although it had commonly been called that for many years (Powell, 1968).

### **Park Establishment**

Local landowner Lionel Weil proposed that the cliffs area along the Neuse River be preserved as a state park and in April, 1944 offered to donate land held by him under option (State of North Carolina, 1944). The tract he proposed was known as the "Cliffs of the Neuse" and consisted of 110 acres. Although the proposed site was too small for a state park, Weil, with the assistance of others, continued to pursue the establishment of a state park in the area.

In May of the following year, 291 acres of land that included the cliffs was transferred by Lionel Weil through the Wayne Foundation, along with 30 acres from the Davis family of Mount Olive, to the State of North Carolina to establish Cliffs of the Neuse State Park (State of North Carolina, 1977). In June of 1945, the Board of Conservation and Development accepted Cliffs of the Neuse as a state park (State of North Carolina, 1946), and in July the Board approved a park advisory committee. In February of 1954, the Wayne Foundation donated another 33.78 acres to expand the park, and in August 1957, Elizabeth Rosenthal of Goldsboro donated a ten-acre tract (State of North Carolina, 1977).

A shortage of materials and labor and a lack of personnel prevented facility construction and access road improvement in time for the summer of 1946. After a ten-month search, Raymond M. Sisk was employed as a Junior Park Ranger in April of 1946, and he became the park's first employee (State of North Carolina, 1946). In 1947, an appropriation of \$57,000 was made for initial development of the park to include an entrance road and parking areas, picnic area, hiking trails and support facilities. Through 1948, the park was open but undeveloped, with picnic tables, hiking and nature study available to the public (State of North Carolina, 1948). The \$57,000 was part of a larger \$500,000 appropriation, the first state park capital improvement appropriation ever made by the General Assembly (Division of Parks and Recreation, 1988). Between 1948 and 1950, the main roads for the park were graded and paved, the picnic shelter was built, and a camping area installed (State of North Carolina, 1977). With the completion of these public use facilities, interest in the park and visitation jumped considerably from 17,322 for all of 1948 to 41,542 for the first half of 1950 (State of North Carolina, 1950). By June of 1954, a museum building, cliff overlook area, dam and lake, and a bathhouse had been completed, and an additional 33.78 acres was donated for Cliffs of the Neuse through the Wayne Foundation. Park visitation approached 80,000 (State of North Carolina, 1954).

From 1915, when the General Assembly authorized the purchase of land for the establishment of Mount Mitchell, until well beyond 1945, when Cliffs of the Neuse State Park was established, the state relied upon transfers of federal surplus lands and the generosity of its public-minded citizens to establish new state parks. North Carolina's citizens are forever indebted to these generous individuals for their contributions that have led to preservation and public use of outstanding examples of the state's natural heritage.

An important new federal outdoor recreation grants program that Congress authorized in 1965, the Land and Water Conservation Fund (LWCF), provided up to a 50 percent match for acquisition and/or development of public outdoor recreation areas. The state immediately sought to use these

matching funds at Cliffs of the Neuse in order to leverage available state monies. In December of 1965, one of the first LWCF grants to North Carolina was awarded to assist in the acquisition of three parcels at Cliffs of the Neuse that totaled 56.14 acres. Acquisition of the land was needed to provide additional space to accommodate the increased number of people picnicking and camping, to buffer park facilities, and also to protect the lake's watershed. The area acquired was being used as hog pasture and further expansion of this use - which would have threatened the lake's water quality - was being considered. Soon after the first grant, a second LWCF grant to acquire an additional 74.67 acres was awarded (National Park Service).

Cliffs of the Neuse State Park receives some additional protection by virtue of receiving LWCF assistance. Lands acquired or developed with LWCF assistance may not be converted to other than public outdoor recreation use unless no other alternatives are available, and then only if replacement property of equal value and recreational usefulness is substituted.

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State of North Carolina. *Cliffs of the Neuse State Park Master Plan*. Department of Natural Resources and Community Development, Division of Parks and Recreation. December 1977.

## **II. PARK PURPOSES**

### **MISSION STATEMENT FOR THE STATE PARKS SYSTEM**

*The North Carolina state parks system exists for the enjoyment, education, health, and inspiration of all our citizens and visitors. The mission of the state parks system is to conserve and protect representative examples of the natural beauty, ecological features and recreation resources of statewide significance; to provide outdoor recreation opportunities in a safe and healthy environment; and to provide education opportunities that promote stewardship of the state's natural heritage.*

### **CLIFFS OF THE NEUSE STATE PARK PURPOSE STATEMENT**

In the years following the Civil War, local Wayne County residents seeking to capitalize on the resort potential of the nearby natural mineral springs built hotels in the Whitehall/Seven Springs area. These resort hotels also operated excursion boats that carried guests and tourists up the Neuse River to view the tall cliffs that overlooked the river at the site of the current park. In 1944, local resident Lionel Weil contacted the Superintendent of North Carolina State Parks to inquire about establishing a park on this land, locally known as the Cliffs of the Neuse. The following year, Cliffs of the Neuse State Park was established and the Board of Conservation and Development approved an Advisory Committee for the park. By 1957, the park had grown to 365 acres through donations of conservation-minded residents of the area, including Weil and the Wayne Foundation.

Cliffs of the Neuse State Park is located on one of a series of high cliffs that run northwest to southeast along the Neuse River. Geologic studies show that most of the sediment layers visible in the cliffs belong to the Black Creek formation, which was deposited during the late Cretaceous period over 65 million years ago. The cliffs were formed by the Neuse River, which gradually cut into the Black Creek formation by erosion. The cliffs are composed predominantly of layers of multicolored sands, sandy clays, small gravels, shale and seashells. Colors vary widely with white, tan, yellow and brown being the most common.

The scenic resources provided by the park focus on the cliffs along the Neuse River. During the mid-twentieth century, the scenic view of the multi-colored cliff face towering ninety feet over the river below was a major attraction for tourists to the area who ventured up the river. Nowadays, one can also approach the cliffs from above and look out over the river and riparian lands. A trail lined with oaks, dogwoods and other trees follows the cliff's edge and offers views of the river far below, views often cloaked in a veil of Spanish moss. Pine and hardwood forests and bottomlands provide varied scenic views and offer visitors opportunities to enjoy and appreciate natural settings.

The diverse environments of the park support a registered natural heritage area and seven natural communities that contribute to its biological resources, ranging from dry upland pinelands to wet bottomland hardwoods. The most unusual natural community is the Piedmont/Coastal Plain Acidic Cliff, which is perhaps the largest and best-developed example in the Coastal Plain. The dissected terrain found in the park provided protection from the natural fires that once swept the Coastal Plain, therefore allowing hardwood forest communities, more commonly found in the Piedmont, to persist. In addition, plant associations including galax, red oak and Virginia pine, more typical of mountain habitats farther west, are also found here. Animal life in the park includes the significantly rare Eastern Fox Squirrel (*Sciurus niger*) and the rare Red-cockaded Woodpecker (*Piscooides borealis*).

Recreational opportunities include swimming, diving, and beach activities centered on an 11-acre manmade lake nestled in a natural setting within the park. For those preferring to stay on top of the water, non-motorized boats are available at the boathouse. In addition, the banks of the Neuse River offer many opportunities to cast a line for various fish species. Picnicking, hiking and camping in the park all offer an opportunity to learn firsthand about the out-of-doors in general and also the natural treasures unique to this park.

Much of the archaeological history of the area centers on the river. The Tuscarora and Saponi tribes once occupied much of the land between the Neuse and Pamlico rivers. What is now the park was a ceremonial ground and a gathering place for hunting expeditions, so chosen due to its proximity to a permanent watercourse and the existence of high ground which provided protection from floods and a view of potential enemies. Early European settlers set up a trading center at Whitehall (now Seven Springs), the earliest English settlement in the area. After the Revolutionary War, a stagecoach line and river traffic promoted growth of the agricultural town. A gateway to the Pamlico Sound and the Atlantic Ocean, the Neuse River also played a role in Civil War history – the Confederate ironclad, the CSS Neuse, was built at Whitehall.

The Cliffs of the Neuse State Park exists to preserve the beauty of the cliffs along the river and to protect its unique collection of natural communities. The Division of Parks and Recreation is charged with preserving its geological, scenic, biological, recreational, and archaeological resources and providing park experiences that promote pride in and understanding of this natural heritage.

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### **III. SUMMARY OF INTERPRETIVE THEMES**

The 1987 State Parks Act defines the purposes of the state parks system. It establishes that:

*The state of North Carolina offers unique archaeological, geologic, biologic, scenic and recreation 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.*

It further provides that:

*Park lands are to be used by the people of this State and their visitors in order to promote understanding of and pride in the natural heritage of this State.*

One of the best methods of meeting these purposes is through environmental education. The definition of environmental education as set forth in *The North Carolina Environmental Education Plan* is given below.

*Environmental Education is an active process that increases awareness, knowledge and skills that result in understanding, commitment, informed decisions and constructive action to ensure stewardship of all interdependent parts of the earth's environment.*

Cliffs of the Neuse State Park protects unique geologic and biologic resources, yet these resources are subtle and not immediately apparent to the average park visitor. Using environmental education techniques, the park staff works to increase the visitors' awareness and appreciation of these resources, and ultimately to gain their commitment to preserve these resources for future generations. The Neuse River, which borders the park and shapes the cliffs that give the park its name, has been a political battleground for many years. Competing interest groups use the Neuse and disagree about how to manage the water quality in the Neuse River basin. Again, the park staff employs techniques from environmental education to present a balanced approach in educating students and other visitors about these and other environmental conservation issues.

Cliffs of the Neuse State Park has three primary themes and ten secondary themes. In priority order, the primary themes are the geologic history of the cliffs, diverse natural communities within the park, and water quality issues.

#### **PRIMARY INTERPRETIVE THEMES**

##### **The Cliffs: A Window into the Geologic Past**

The main feature of the park is the multi-layered cliffs along the banks of the Neuse River just north of Seven Springs. The steep, colorful cliffs are not only an important scenic resource, but they are also a valuable educational resource that provides visitors with a view back through

time. Most of the exposed cliff layers belong to the Black Creek Formation, which was deposited during the late Cretaceous period more than 65 million years ago. The cliffs present a challenge to park interpreters because they are fragile and difficult to view from overlooks in the park. Therefore, exhibits and creative programming techniques must be used to make the cliffs and their geologic history come alive for park visitors. Activities from the park's EELE help students learn how geologists and paleontologists use observations of landforms and fossils to create a picture of the local geography, climate and life forms of the Cretaceous period. The park museum provides models and dioramas that further illustrate this geologic age. Other park programs and museum exhibits demonstrate the geologic processes that formed the cliffs and continue to shape them today.

### **Diverse Natural Communities Representing Three Regions of the State**

The park supports a diversity of flora and fauna within seven natural communities. River margins, flood plains, rolling uplands and ravines are home to an unusual mixture of trees, shrubs and herbaceous plants. Within a relatively small area, visitors are able to see plants and animals typical of the three regions of the state: coast, piedmont and mountains. Programs and exhibits in this theme area help visitors appreciate the biodiversity within the park and encourage them to work with park staff to protect and preserve it. The herbarium collection now housed in the museum at the park needs updating to better illustrate this theme.

### **Aquatic Habitats in the Park and Water Quality Issues**

Currently, the park has at least four different types of aquatic habitats: the Neuse River and its floodplain, two small creeks, a manmade lake, and a wetland area that was formerly Crumpler Pond. If more acreage is acquired, the park may protect additional types of aquatic habitats, perhaps even one of the mineral springs for which the area is famous. These different habitats represent a valuable educational resource for school groups and others to study water quality and related environmental issues. The water quality problems within the Neuse River basin have been widely reported and are of interest to many park visitors. In the future, park-sponsored canoe trips down the river could incorporate water quality investigations and presentations of various aspects of water quality issues. Educating citizens about water quality is a priority within the Department of Environment and Natural Resources.

## **SECONDARY INTERPRETIVE THEMES**

Secondary themes for the park support and embellish the primary themes, and are listed below.

- History of the Seven Springs
- Civil War History Related to the Park
- Native American Use of the River
- Additional Cultural History Topics
- Water Safety
- Seasonal Wildlife Programs
- Seasonal Plant Programs

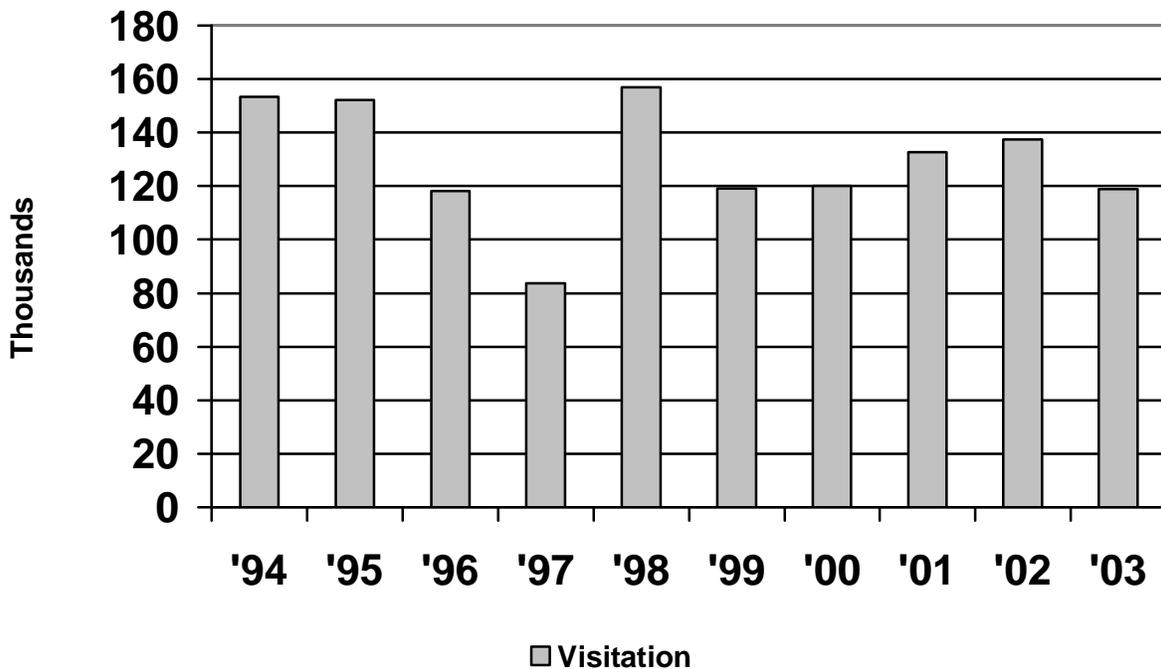
- Fossils and Prehistoric Life
- Boat/ Float trips on the Neuse River
- Current Environmental Issues

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# IV. PARK AND RECREATION DEMAND AND TRENDS

## ANNUAL VISITATION TRENDS

Cliffs of the Neuse State Park's annual visitation for the ten years from 1994 through 2003 is shown below in Figure IV-1. Visitation at Cliffs of the Neuse State Park is recorded by a vehicle traffic counter that is located just inside the park gate on the main entrance road to the park. During the summer, a per-vehicle multiplier of three persons is used during weekdays and four persons on weekends. During the fall, winter and spring, a per-vehicle multiplier of two persons is used for weekdays and three persons for weekends.



**Figure IV-1. Annual Visitation: 1994 - 2003**

Weather fluctuations and storm damage can and has had impacts on visitation at Cliffs of the Neuse State Park and at other state parks. Hurricane Fran caused damages that resulted in the park's closure from September 1996 through May 1997, so visitation for those years was down considerably. The park lake and swimming area was closed during the summer of 1997 due to the demolition of the old bathhouse and construction of the new one. With the swim area closed, visitation dropped. When the swimming area reopened and the hurricane damage was repaired, visitation rebounded in 1998.

## MONTHLY VISITATION TRENDS

Figure IV-2 shows the average monthly visitation for the four years ending in 2003. Cliffs of the Neuse State Park's monthly visitation increases in the spring as the weather warms, peaks in June and July, and then decreases each month through the end of the year. The monthly visitation pattern suggests using seasonal and peak load personnel to assist in months of higher visitation. Where possible, staff vacation and other leave should be scheduled at times other than the higher visitation months.

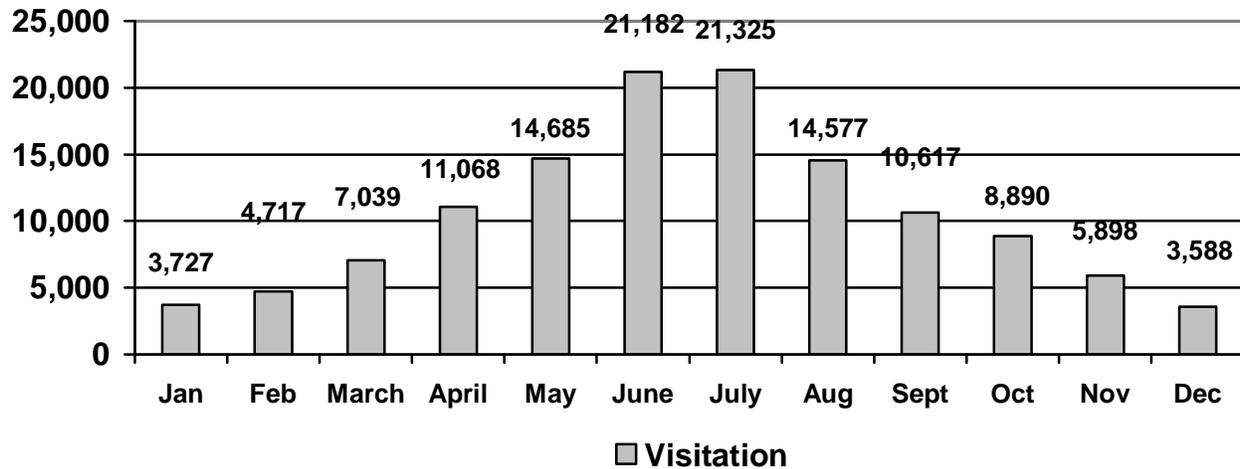


Figure IV-2. Average Monthly Visitation: 2000-2003

## VISITOR INFORMATION

In 1987 the United States Forest Service was contracted to conduct a Public Area Recreation Visitors Survey (PARVS) for the North Carolina State Parks System. The survey was designed to identify visitor socio-economic characteristics and economic contributions to the state's economy. Since Cliffs of the Neuse State Park was one of the eight parks involved in the survey, general information concerning state park visitors is particularly useful in assessing visitation trends at the park.

Why do people visit state park units? The convenient location was cited by 31 percent of the respondents; 25 percent thought other areas were too crowded; 21 percent liked the quality facilities; 8 percent wanted to try a new area; 7 percent enjoyed the scenic beauty; and 6 percent came to see the attraction.

More than one third of state park visitors come from within a 30-mile radius (37 percent), while 17 percent come from 30 to 60 miles away. Survey respondents indicated that the parks were their sole destination 86 percent of the time. While many visitors come from nearby, the average one-way distance traveled was 139 miles. Approximately 25 percent of state park visitors come from out of state. Visitors averaged 4.1 trips per year to North Carolina state parks.

Seventy-eight percent of those surveyed indicated that they were return visitors. The average number of return trips per year was six. Sixty-one percent of visitors statewide came with family members, 16 percent with friends, and 7 percent with both family and friends. Ten percent of visitors came alone. Visitors also came in small numbers in organized groups and multiple families.

PARVS data indicates that 16.8 percent of groups surveyed used more than one car, and that the average number of persons per car was 3.0. The average age of the park visitor was 38.2 years. The age distribution was as follows:

**Table IV-1. Percent of Visitors by Age Group**

<u>Under 6</u>	6-12	13-18	19-25	26-35	36-45	46-55	56-65	Over 65
6.7	11.6	10.6	12.5	20.1	16.9	0.9	7.3	4.4

Since over 18 percent of visitors are under the age of 13, a demand exists for children's programs and facilities. Approximately 12 percent of visitors are 56 and older. This older segment of the general population will be increasing, and as it does, demand for improved quality, accessibility, and safety should increase.

### **OUTDOOR RECREATION PARTICIPATION IN NORTH CAROLINA**

The five most popular outdoor recreation activities in North Carolina are walking for pleasure, driving for pleasure, viewing scenery, participating in beach activities, and visiting historical sites. Three out of every four households participated in walking for pleasure at least once in the past 12 months (Table IV-2). In addition to the five most popular activities, over fifty percent of the households responding to a 1989 survey participated at least once in the following activities: swimming (in lakes, rivers, or oceans), visiting natural areas, picnicking, attending sports events, visiting zoos, and freshwater fishing.

The North Carolina Outdoor Recreation Participation Survey was mailed to 3,100 randomly selected residents in the spring of 1989. Forty-five percent, or 1,399 people, returned completed surveys. Each person receiving the survey was asked to estimate the number of times that household members had participated in each of 43 activities. The survey results provide good insight into the current participation of North Carolinians in a wide range of outdoor recreation activities. The survey results also closely mirror those of the National Survey on Recreation and the Environment conducted in 1994-1995 and 2000.

**Table IV-2. Outdoor Recreation Activities Ranked by Popularity.**

RANK	ACTIVITY	PERCENTAGE OF HOUSEHOLDS PARTICIPATING
1.	Walking for Pleasure	75%
2.	Driving for Pleasure	72
3.	Viewing Scenery	71
4.	Beach Activities	69
5.	Visiting Historical Sites	62
6.	Swimming (in Lakes, Rivers, and Oceans)	54
7.	Visiting Natural Areas	53
8.	Picnicking	52
9.	Attending Sports Events	52
10.	Visiting Zoos	51
11.	Fishing - Freshwater	50
12.	Use of Open Areas	41
13.	Swimming (in Pools)	40
14.	Fishing - Saltwater	38
15.	Attending Outdoor Cultural Events	35
16.	Bicycling for Pleasure	32
17.	Other Winter Sports	31
18.	Camping, Tent or Vehicle	29
19.	Softball and Baseball	28
20.	Hunting	28
21.	Use of Play Equipment	28
22.	Power Boating	26
23.	Trail Hiking	26
24.	Jogging or Running	24
25.	Basketball	24
26.	Nature Study	22
27.	Golf	22
28.	Target Shooting	20
29.	Water Skiing	19
30.	Camping, Primitive	14
31.	Tennis	14
32.	Use Motorcycles, Dirt Bikes, ATVs	13
33.	Use Four Wheel Drive Vehicles	13
34.	Canoeing and Kayaking	13
35.	Horseback Riding	12
36.	Volleyball	12
37.	Downhill Skiing	12
38.	Football	11
39.	Soccer	7
40.	Sailboating	7
41.	Skateboarding	6
42.	Cross Country Skiing	2
43.	Windsurfing	1

## PRIORITIES OF PUBLIC OUTDOOR RECREATION FUNDING

The North Carolina Outdoor Recreation Survey asked residents a series of questions in order to identify and rank order future demand for various types of public outdoor recreation activities. Future demand was determined by asking them which activities they would have tried more often had adequate facilities been available. Respondents were then asked to rank these activities in order of importance. A scoring system was used assigning each activity a rating of high, moderate or low future demand based on the survey results.

In the second part of the analysis, the respondents' level of support for publicly funded outdoor recreation activities was determined by asking them to identify and rank those activities to which government should give highest priority when spending public money. The same scoring system used to analyze unmet demand was then applied to the survey results, with each activity receiving a high, moderate or low rating in public support for public funding.

In the final part of the needs analysis, the two ratings for each activity were combined to produce a score from one to nine that reflected both future demand and public funding priorities. The activities that ranked high in both future demand and support for public funding received the highest priority in the needs assessment. Support for public funding was given higher priority than expressed demand (Table IV-3).

**Table IV-3. Priorities for Future Outdoor Recreation Activities**

ACTIVITY	CODE	FUTURE DEMAND	SUPPORT FOR PUBLIC FUNDING
Walking for Pleasure	1	High	High
Camping, Tent or Vehicle	1	High	High
Picnicking	1	High	High
Beach Activities	1	High	High
Fishing - Freshwater	1	High	High
Attend Outdoor Cultural Events	1	High	High
Visiting Natural Areas	2	Moderate	High
Use of Play Equipment	2	Moderate	High
Visiting Zoos	2	Moderate	High
Visiting Historical Sites	2	Moderate	High
Bicycling for Pleasure	3	High	Moderate
Swimming (in Pools)	3	High	Moderate
Viewing Scenery	4	Moderate	Moderate
Hunting	4	Moderate	Moderate
Trail Hiking	4	Moderate	Moderate
Use of Open Areas	4	Moderate	Moderate
Target Shooting	4	Moderate	Moderate
Swimming (Lakes, Rivers, Ocean)	4	Moderate	Moderate
Fishing - Saltwater	4	Moderate	Moderate

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## **V. SUMMARY OF LAWS GUIDING PARK MANAGEMENT**

There are many federal and state statutes, state and federal executive orders, and administrative rules and policies that govern the operation of the state parks system. This chapter includes a brief discussion of the primary legal basis for the existence and operation of the state parks system. It also includes other legal issues of particular concern at Cliffs of the Neuse State Park.

### **STATE LEGAL MANDATES**

#### **North Carolina Constitution**

Article XIV, Section 5 of the North Carolina Constitution sets overall policy by broadly defining the conservation and protection of natural resources and the acquisition of such resources as a proper function of government. The amendment reads in part as follows:

*It shall be the policy of this State to conserve and protect its lands and waters for the benefit of all its citizenry, and to this end it shall be a proper function of the State of North Carolina and its political subdivision to acquire and preserve park, recreation, and scenic areas, to control and limit the pollution of our air and water, to control excessive noise, and in every other appropriate way to preserve as a part of the common heritage of this state its forests, wetlands, estuaries, beaches, historical sites, open land, and places of beauty.*

#### **State Parks Act**

The State Parks Act (G.S. 113-44.7 through 113-44.14) sets forth a mission statement for the state parks system. It states that the system functions to preserve and manage representative examples of significant biological, geological, scenic, archaeological, and recreational resources, and that park lands are to be used by the people of the state and their visitors and descendants in order to promote understanding of and pride in the state's natural heritage.

The State Parks Act also calls for development and periodic revisions of a system plan to achieve the mission and purpose of the state parks system in a reasonable, timely, and cost-efficient manner. The Act describes the System Plan components and requires that public participation be a component of plan development and revisions.

The State Parks Act also calls for the classification of park resources and development of general management plans (GMPs) for each park. GMPs are to include a statement of park purpose, an analysis of major resources and facilities, and a statement of management direction.

## **Powers and Duties of the Department of Environment and Natural Resources**

The Department is authorized to make investigations of the resources of the state and to take such measures as it may deem best suited to promote the conservation and development of such resources. In addition, the Department may care for state forests and parks and other recreational areas now owned, or to be acquired by, the state. (G.S. 113-8)

### **State Nature and Historic Preserve Dedication Act**

The State Nature and Historic Preserve Dedication Act (G.S. 143-260.6) was authorized by Article 14, Section 5 of the North Carolina Constitution. It seeks to ensure that lands and waters acquired and preserved for park, recreational, and scenic areas for the purpose of controlling and limiting the pollution of air and water, controlling excessive noise, and in every other appropriate way preserving as a part of the common heritage of the state, continue to be used for those purposes. The State Nature and Historic Preserve Act provides a strong legal tool for protecting lands from incompatible uses. The addition and removal of lands to and from the State Nature and Historic Preserve require a vote of three-fifths of the members of each house of the General Assembly. The State Nature and Historic Preserve Dedication Act protects all land and water within Cliffs of the Neuse State Park's boundaries as of May 6, 2003.

### **Nature Preserves Act**

The Nature Preserves Act (1985, G.S. 113A-164) prescribes methods by which nature preserves may be dedicated for the benefit of present and future citizens of North Carolina. It authorizes a Natural Heritage Program to provide assistance in the selection and nomination for registration or dedication of natural areas.

The state may accept the dedication of outstanding natural areas by gift, grant, or purchase of fee simple title or other interest in land. Lands dedicated are held in trust by the state and are managed and protected according to regulations. They may not be used for any purpose inconsistent with the provision of the Nature Preserves Act or disposed of by the state without a finding by the Governor and Council of State that the other use or disposition is in the best interest of the state.

As of May 2004, 375 acres along the river at Cliffs of the Neuse State Park is a registered natural heritage area.

### **North Carolina Environmental Policy Act of 1971**

Recognizing the profound influence that human activity has on the natural environment, the General Assembly passed the Environmental Policy Act "*to assure that an environment of high quality will be maintained for the health and well-being of all...*"

The Act declares that:

*It shall be the continuing policy of the State of North Carolina to conserve and protect its natural resources and to create and maintain conditions under which man and nature can exist in productive harmony. Further, it shall be the policy of the State to seek, for all its citizens safe, healthful, productive, and aesthetically pleasing surroundings; to attain the widest possible range of beneficial uses of the environment without degradation, risk to health or safety; and to preserve the important historic and cultural elements of our common inheritance. (G.S. 113A-3)*

### **Archaeological Resources Protection Act**

The Cliffs of the Neuse State Park area is known to have been occupied by American Indian tribes. The area also contains some cultural resources associated with early settlements. Unknown archaeological resources may also exist, both within the existing park boundaries and in nearby areas. Development of recreational facilities should avoid destruction of these resources.

A permit is required from the Department of Administration, in consultation with the Department of Cultural Resources, to excavate, remove, damage, or alter any archaeological resource on state lands. Archaeological resources are defined as the remains of past human life or activities that are at least 50 years old and are of archaeological interest (G.S. 70-10).

While there are other General Statutes that concern the state parks system and the environment, the above-described statutes, along with Article XIV, Section 5, of the North Carolina Constitution, largely define the purposes of the state parks system and serve to guide the operation of state park system units.

## **FEDERAL LAWS**

### **Land and Water Conservation Fund Act of 1965**

The federal Land and Water Conservation Fund Act (PL 88-578) offers protection and places restrictions on fund-assisted outdoor recreation areas. By virtue of receiving Land and Water Conservation Fund (LWCF) grant assistance, most of the state parks system, including Cliffs of the Neuse State Park, is subject to LWCF rules and regulations. Cliffs of the Neuse State Park has received two LWCF grants, both awarded in 1966. (Grants #37-00003 and 37-00034)

Property acquired or developed in whole or in part with LWCF assistance cannot be converted to other than public outdoor recreation use without federal approval. A conversion may take place only if approved by the Secretary of the Interior, and only then if replacement property of equal fair market value and reasonably equivalent usefulness and location is made. Park land acquired at Cliffs of the Neuse State Park since the last LWCF grant does not fall under LWCF regulations.

LWCF requirements include: programming, operating and maintaining areas in a manner that

encourages public participation; maintaining the property so it appears attractive and inviting to the public; maintaining property, facilities and equipment to provide for public safety; keeping facilities, roads, trails and other improvements in reasonable repair throughout their lifetime to prevent undue deterioration and encourage public use; keeping the park and facilities open for use at reasonable hours and times; and making future development meet LWCF rules and regulations. LWCF-assisted sites are periodically inspected by state and federal inspectors to ensure compliance with LWCF requirements.

### **The Americans With Disabilities Act**

Title II of the ADA prohibits discrimination against any "*qualified individual with a disability.*"

#### New Construction and Alterations

*Buildings that are constructed or altered by, on behalf of, or for the use of a public entity shall be designed, constructed, or altered to be readily accessible to and usable by individuals with disabilities.* (Section 35.151 of Title II)

#### Existing Facilities

*Structural changes in existing facilities are required only when there is no other feasible way to make the public entity's program accessible. ("Structural changes" include all physical changes to a facility [28 CFR Part 35, Section 35.150, Title II of the ADA Section-by-Section Analysis].)*

When alterations affect access to a primary function of a facility, the entity shall also make alterations to the path of travel to the area and bathrooms, public telephones, and drinking fountains serving the altered area.

#### Programs and Services

*....each service, program, or activity conducted by a public entity, when viewed in its entirety, be readily accessible to and usable by individuals with disabilities.*  
(Title II, Section 35.150)

This includes, but is not limited to, the provision of auxiliary aids and services, including services and devices for effective communication where necessary to afford persons with disabilities an equal opportunity to participate in and enjoy the benefits of a service, program, or activity conducted by a public entity.

#### Signs

A public entity must ensure that persons with impaired vision and hearing can obtain information regarding the location of accessible services, activities, and facilities. Signs must be provided at all

inaccessible entrances to each facility directing users to an accessible entrance or to a location where information can be obtained about accessible facilities. The international symbol for accessibility must be used at each accessible entrance to a facility. (Title II, Section 35.163)

### **Clean Water Act**

Cliffs of the Neuse State Park 's sensitive wetland areas receive protection from Section 404 of the federal Clean Water Act. The Act prohibits the discharge of dredge or fill materials into waters, including wetlands, without a permit from the U.S. Army Corps of Engineers. Activities in wetlands for which permits may be required include but are not limited to: placement of fill material; ditching activities; land clearing involving relocation of soil material; land leveling; most road construction; and dam construction (33 USC 1344). The Division will avoid undertaking construction located in wetlands unless there is no practical alternative and all practical measures are taken to minimize harm to the wetland.

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## **VI. NATURAL AND CULTURAL RESOURCE MANAGEMENT**

### **NATURAL RESOURCE MANAGEMENT POLICY**

The Division of Parks and Recreation's approach to natural resource management is directed by the North Carolina Constitution and the State Parks Act, both of which require the prudent management of natural resources. The constitution sets the overall policy by broadly defining the conservation and protection of natural resources and the acquisition of such resources as a proper function of government. The State Parks Act states that unique archaeological, geological, biological, scenic and recreational resources are a part of the heritage of the people that *"...should be preserved and managed by those people for their use and for the use of their visitors and descendants."*

The North Carolina state parks system plays an important role in maintaining, rehabilitating and perpetuating the state's natural heritage. The natural resources of the state parks system are: high quality, rare or representative examples of natural communities; native plants and animals; geological features and landforms; water resources; and the natural processes that affect these resources. The primary objective in natural resource management will be the protection of natural resources for their inherent integrity and for appropriate types of enjoyment while ensuring their availability for future generations.

It is the Division's policy that natural resources will be managed by allowing natural environments to evolve through natural processes with minimal human influence. Natural resource management will not attempt solely to preserve individual species or processes; rather, it will attempt to maintain all the components and processes of a park's naturally evolving ecosystems. When intervention is necessary, direct or secondary effects on park resources will be minimized to the greatest extent possible. Intervention of natural processes may occur:

1. To correct or compensate for the previous human disruption of natural processes;
2. To protect, restore or enhance rare species and natural communities;
3. To protect, restore or enhance significant archaeological resources;
4. To construct, maintain, improve or protect park facilities; and,
5. To prevent danger to human health or safety around park facilities.

All park facilities will be designed, constructed and maintained to avoid adverse impacts to high quality natural communities, rare plant and animal species, major archaeological sites and other significant natural and cultural resources.

## NATURAL AND CULTURAL RESOURCE MANAGEMENT ISSUES

Division of Parks and Recreation staff identifies natural and cultural resource management issues as a component of the general management plan process and groups them according to the categories shown below. Staff assigns a high, medium or low priority to each issue using the criteria described at the end of this section. The Division's Natural Resources Program is responsible for all actions unless otherwise noted.

Category	Subcategory	Project Description	Priority*
Animal Management	Inventory Deficiencies	Herp inventory (mainly reptiles) needs to be completed.	Medium
		Conduct inventory of waterdog population along the Neuse and other tributaries.	Medium
	Rare Species Management	Red-cockaded Woodpecker population needs to be inventoried and monitored.	Medium
Botanical Resource Management	Exotic Species Management	Based on the 2000 exotic species inventory, the park has very few exotic species. Recommend treating areas identified in the exotic species inventory to ensure species do not spread.	Medium
	Inventory Deficiencies	Natural community mapping is needed for the entire park.	Medium
		An updated species inventory is needed for the entire park.	Medium
	Rare Species Management	Monitor populations of new species identified in the rare species inventory.	Low
Infrastructure Management	Environmental Compliance for Planned Construction Projects	Review proposed location for the visitor center.	Medium
	Septic/Wastewater Management	Remove pit toilets from group camp area.	Medium
	Road Management	Widen existing roads or add sidewalks to allow visitors to walk along road shoulders.	Medium
Land Use Management	Buffer Zone to State Park Property	Continue to monitor for hunting encroachment near park boundaries.	Medium
	Fire Management	Implement current burn plan using CLNE staff or other East District Staff.	High
	Park Boundaries	Complete survey and boundary marking on all existing properties.	Medium
	Rights of Way	Resolve right-of-way issues related to group camp access.	High
	Trash and Debris Disposal	Clean out old park trash site behind maintenance area.	Medium

	Viewshed Management	Develop a viewshed management plan for the overlook area.	High
Visitor and Recreational Resource Management	Soil compaction	Monitor compaction and erosion in picnic area and family campground.	Medium
Water Resource Management	Riparian Buffer Zone Protection	Ensure enforcement and maintenance of all stream buffers associated with timber harvesting outside of the park.	Medium
	River bank erosion	Develop a management plan for the two cliff sections along the Neuse River.	High
	Water Pollution	Monitor roads and trails to ensure stream bank integrity is maintained.	Medium
		Continue to monitor and control algal levels in the swim lake.	Medium

\*Explanation of priority codes

**HIGH** If the resource management activity is not undertaken in the near future there is a distinct possibility that natural resources will be compromised. These issues should be addressed in the next five years.

**MEDIUM** Although there is a possibility that resources could be compromised, the priority is not as critical as the high priority projects.

**LOW** Projects with low priority have significantly less chance for compromise of the natural resources if the project is not undertaken in a timely fashion or the project may depend on completion of other projects.

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## **VII. PHYSICAL PLANT INVENTORY**

### **FACILITY INVENTORY AND INSPECTION PROGRAM**

Buildings and other structures in state parks are necessary to provide services to park visitors. These structures are essential for protecting public safety, health, and welfare while providing opportunities for outdoor recreation. They include infrastructure, such as roads, parking lots, trails, and systems for potable water, electrical distribution, and sewage treatment. They also include operational and recreational facilities, such as campgrounds, picnic areas, concession buildings, boardwalks, park offices, residences, pump houses, warehouses, barracks, maintenance shops, visitor centers, etc. These facilities must be properly maintained to provide for a safe, continuous, and quality park-use experience.

The structures within Cliffs of the Neuse State Park are generally in good condition, especially considering that most of the structures are from 40 to 50 years old. These structures sit in an environment that includes high levels of moisture and shade, conditions that serve to encourage termite activity and mold growth. Such conditions multiply the need for gutters and regular routine exterior maintenance, including keeping roofs free of pine straw and leaves. A list of the structures currently in use, a description of them, and their repair needs follows.

#### **Cliffs of the Neuse State Park Building Inventory**

- Personnel Barracks: Built in 1965. 1072 square foot (SF) concrete masonry structure. Poor/fair condition. A capital improvement renovation project exists that would bring the structure up to current health & safety standards.
- Pump House Building: Built in 1954. 716 SF concrete masonry structure. Fair condition. Pump has been removed. All water treatment equipment needs to be removed in order to convert the building to storage use.
- Work Shop: Built in 1950. 1300 SF concrete masonry structure. Poor/fair condition. Identified as part of the Maintenance Area Renovation Capital improvement project
- Equipment/Lumber Shed: Built in 1964. 1326 SF. Wood frame structure. Poor/fair condition. Identified as part of the Maintenance Area Renovation Capital improvement project.
- Supply/Storage/Garage Building: Built in 1965. 1621 SF concrete masonry structure. Fair condition. Identified as part of the Maintenance Area Renovation Capital improvement project.
- EADI Office: Built in 1998. 3108 SF Wood frame structure. Good condition. Termite damage recently noticed by Park Staff is undergoing treatment and repair. This building was designed so it could be converted to a park warehouse and storage building once the park visitor center is constructed and Eastern District Staff are relocated to the visitor center.

- CLNE Park Office: Built in 1964. 537 SF wood frame structure. Fair condition. Insufficient space for its current use, and it does not meet Americans with Disabilities Act (ADA) standards.
- Wood Shed: Built in 1993. 80 SF wood frame storage building. Fair condition.
- Campground Wash House/Toilets: Built in 1966. 966 SF concrete masonry structure. Poor condition. Not ADA compliant. Identified for replacement as part of the Tent and Trailer Campground Improvement Project.
- Museum: Built in 1953. 1425 SF masonry and wood framed structure. Fair condition but not ADA compliant. Building is experiencing some differential settlement. A capital improvement project to renovate the building for classroom space exists.
- Picnic Shelter: Built in 1950. 2491 SF. Open post and beam and masonry structure with two fireplaces and a storage room. Fair condition. Trail leading to shelter is not ADA compliant. Needs lighting.
- Swim Beach Bath House: Built in 1998. 2467 SF concrete masonry structure. Good Condition. Wooden steps from parking lot to Bath House are fair. Three sets of steps from the bathhouse to the swim beach are in poor condition.
- Boat House: 860 SF wood frame structure on concrete piles. Built in 1965. Poor condition. Not ADA compliant. Minor renovation to this facility is part of the Lake Safety capital improvement project now under design.
- Ranger I Residence: Built in 1965. 1169 SF wood frame structure. Fair condition. Park Staff has performed some repairs and improvements. Remaining improvements needed are included as part of an existing capital improvement project, Renovation of Three Ranger Residences.
- Garage/Storage Building: Built in 1965. 116 SF wood frame structure on concrete masonry foundation. Fair condition.
- Ranger III Residence: Built in 1952. 938 SF wood frame structure. Fair condition. Park Staff has performed some repairs and improvements. Remaining improvements are identified as part of the existing capital improvement project, Renovation of Three Ranger Residences.
- Smokehouse/Garage: Built in 1952. 126 SF enclosed area with 193 SF open area. Wood frame structure. Poor Condition. Park Superintendent wants to repair/restore the building for storage.
- Pack House/Storage: Built in 1965. 585 SF wood frame structure. Poor condition. Superintendent would like to repair/restore for storage.
- Pump House: Built in 1987. 27SF wood frame structure. No longer needed for well use. Located adjacent to the Crumpler House, it has received approval for demolition. The well will be sealed and the pump house demolished at the same time the Crumpler House is demolished.
- Old Superintendent's Residence: Built in 1959. 1253 SF. Fair condition. Park staff has performed some repairs and improvements. Remaining improvements are identified as part of an existing capital improvement project, Renovation of Three Ranger Residences.
- Storage Building: Built in 1965. 54 SF concrete masonry structure. Fair condition. Formerly used as pump house.

- New Superintendents Residence: Built in 2003. Good condition. 1702 SF Wood frame structure with a detached 660 SF carport with storage.
- Pit Toilets (2): Built in 1960. Two 18 SF wood-frame structures in poor condition. Located in the group camp area. Recently replaced with waterless toilets, both structures are currently scheduled for demolition.
- Group Camp Toilet: This Rom-Tech waterless, pump and haul toilet was installed in 2004 to replace two wood-frame pit toilets, described above, located in the group camp.
- Picnic Area Restroom: Constructed in 2004 and connected to an existing sewer system. New condition.

*(Note: Discrepancies exist regarding dates of construction of some buildings. Facility Inventory and Inspection Program (FIIP) dates have been used in this document. Dates of construction will be checked and revised if necessary during the next FIIP update.)*

## **ROAD AND UTILITY INVENTORY**

### **Background information**

The Institute for Transportation Research and Education (ITRE) conducted a road inventory for Cliff of Neuse State Park in March of 1990. ITRE inventoried the following:

- Paved Road Miles- 1.27 miles
- Unpaved Road Mileage- 0.26 miles
- Paved Parking lots- 18,357 sq. yards

There is also a gravel parking lot at the group camp area. There has been very little change to the park road and parking lot since ITRE conducted the inventory. A new parking area for the East District park office was completed in 1997.

### **Road and Parking Inventory**

#### Description

The road system is comprised of a main park road that is approximately 6/10 of a mile long. Feeder roads run off the main road and connect to the swimming and picnic area, and to the office, maintenance and camping area. All the two lane roads within the park are 19 to 20 feet wide; the camping loop has a width of 12 feet. The paved areas have an 8-inch stone base with asphalt depths ranging from 1-½ inches to three inches, since the roadway has been resurfaced on at least two occasions. The shoulder widths are approximately four feet. Drainage is handled through concrete catch basins that are located at low points along the roadways and parking lots. Most pipe culverts are concrete.

### Current Conditions

The road and parking lots were constructed in 1950s and were last resurfaced in 1996. They are in good condition. Drainage improvements to the road way and to the asphalt parking lots at the museum and swimming areas were made in 2000 and 2002. Striping was done in 2002. Culverts are in good condition.

### Repair Needs and Costs

There are several locations on the office road and a camping road where roots have cracked and damage the asphalt pavement. There are a couple of spots on the main road where tree roots appear to be cracking the asphalt. Removing the tree roots and repairing the damaged asphalt will cost approximately \$15,000. The lower parking lot in the swim/picnic area is in need of striping. The striping will cost \$1,000.

## **Sewer Systems**

### Description

Every building that discharges sewer has its own separate sewer system with a septic tank and nitrification drain lines. There currently are 13 systems in operation. One system will be abandoned later this year, and another at a later date. The current systems are as follows:

- Bathhouse and picnic area restroom system: the bathhouse and picnic area restroom each have a pump station approximately five feet square by eight feet deep. The tank capacity is 1175 gallons with a usable capacity of 587.5 gallons. Each pump station contains two two-horsepower grinder pumps that alternate and allow for switching in case one of the pumps fail. Both of these pump stations pump to a 3,000-gallon, in-ground septic tank. The system also has a 1,100-gallon dosing siphon tank with twin siphons, a distribution box and sixteen 90-foot drain lines in a drain field located near the picnic area's new restroom building.
- Museum system: a 3000-gallon septic tank and a distribution box with three 100-foot drain lines in the drain field.
- Tent/trailer campground sewer system: a 3000-gallon septic tank and a distribution box with twelve 180-foot drain lines in the drain field.
- East District office system: a 1000-gallon septic tank and a distribution box with two 80-foot drain lines located behind the East District office.
- Park office: a 1000-gallon septic tank and a distribution box with two 50-foot drain lines located in the woods beside the office.
- Personnel barracks: a 1000-gallon septic tank and distribution box with two 80-foot lines located in the woods behind the building.
- Maintenance/shop building: a 1000-gallon septic tank and a distribution box with one 25-foot drain line and one 75-foot line located behind the building.

- Ranger residence #1 (321 Park Entrance Road): a 1000-gallon septic tank and a distribution box with three 75-foot drain lines located in the woods in front of the house.
- Ranger residence #2 (460 Park Road): a 1000-gallon septic tank and distribution box with three 50-foot drain lines located in the back yard.
- Ranger residence # 3 (443 Park Road): a 1000-gallon septic tank and distribution box with two 60-foot drain lines located in the back yard.
- Superintendent's residence (430 Park Road): a 1000-gallon septic tank and distribution box with four 80-foot drain lines located in the back yard. The system was completed in 2003.
- Crumpler house: the septic tanks will be crushed and filled when this building is demolished. The demolition has been approved. The septic system has not been used for approximately 15 years.
- Group campground system: Installed in late 2004, the pump and haul system has two 500-gallon holding tanks which will be pumped out by a septic vendor as required. Demolition of the old existing pit privies will take place soon.

### Current Conditions

Overall, the sewer systems are in good shape. A capital improvement project completed in 1992 repaired the majority of the sewer systems within the park. All the tanks were pumped out at that time. In 1998, the bathhouse system was replaced with a new system. One pump station was installed 1998 and the other in 2004. None of the sewer systems require water quality permits.

### Repair Needs

The museum septic tank riser needs to be brought up to grade. The East District office and new superintendent's residence septic tanks need risers on them. There is a need for a sewer connection for a campground host site in the campground. All tanks need to be pumped out on a three to five year cycle. Water usage records are now being kept for the bathhouse and new toilet building. The pump station at the bathhouse and new toilet building needs to be maintained at least on a weekly basis. Septic tank filters need to be installed at the new bathhouse and campground systems.

The sewer systems are required to be operated by a licensed sub-surface operator, and some training is needed to meet this requirement. At present, the park does not have a licensed operator. A maintenance mechanic is familiar with the operation of the pump stations, and the park has qualified local vendors who will be contacted in the event of a failure.

### Repair Costs

Tank pumping: 10 tanks at \$200 per tank = \$2000

Riser installation: 3 risers at \$300 each = \$600

Install a sewer line for campground hosts: 100 feet at \$20.00 per foot = \$2000

Monthly sewer maintenance contracts: \$150 per month  
Remove Crumpler Pond sewer system: To be determined

## **Water System**

### Description

The park is supplied water by the Wayne County Public Water System. The water piping is class 200 PVC piping of varies sizes with valves at all service connections. There are approximately 3,650 feet of piping that runs from the main tie at the park gate to the service connections within the park. All major buildings have new piping that was replaced around 1989. In the early 1990s the park tied into the Wayne County Public Water System. The park gets up to 1.2 million gallons-a-year in return for leasing a well site to the county. The well is located at the front entrance to the park.

### Current Conditions

The main water lines are in good shape. The valves are in fair shape and need to be exercised on a routine schedule.

### Repair Needs

There are several interior feeder lines within the park that need to be replaced. A complete set of as-built drawings that show the correct waterline locations needs to be prepared. The metal 10,000-gallon water storage tank that is no longer used needs to be removed from the park, along with the water system treatment tanks and well at the park maintenance area. The well needs to be properly abandoned.

### Repair Costs

Water line replacement to the ranger residence and maintenance shop: 800 linear feet at \$10 per foot = \$8000.

Water tank removal of the 10,000-gallon storage tank: \$15,000.

Water treatment equipment removal and well abandonment: \$15,000

## **Electrical System**

### Description

Most of the park power is located underground and is supplied by Tri-County Electric Membership Corporation. Pad-mounted transformers are located at all major locations. A major upgrade of the overhead wires was completed in 1998.

### Current Conditions

Most of the electrical system was installed in the 1960s and is in fair shape. A major upgrade took place in 1998, and all primary overhead wiring is new.

### Repair Needs and Costs

A study is needed to determine the cost for replacing the power lines. The park prefers that the power company retain ownership of the underground power lines.

## **Telephone System**

### Description

The district office and park office phone system was upgraded in 1998. US Sprint provides a line for the fire and security system for the district office. BellSouth provides a line at the swim area. The telephone system is in good condition. No repairs are needed.

## **MAJOR CAPITAL IMPROVEMENT PROJECT PRIORITIES**

As a part of the general management plan process, proposed capital improvement projects at Cliffs of the Neuse State Park were carefully reviewed to determine if all projects were still needed and if changes to projects were desirable. In reviewing the proposed capital improvement projects, the general management plan evaluation team considered factors such as changes in environmental regulations, condition of facilities, natural heritage inventory, recreation demand, operational issues and needs, visitor safety considerations, State Parks Act mandates, and trends. Changes to the project scope were made to several of the proposed projects. One new project was proposed: the *Trail Improvement, Bridge, Drainage and Wayside Exhibits* project.

Once the existing projects were reviewed and project scopes revised where necessary, and the new project added, each project was then evaluated and ranked using the Division's Project Evaluation Program (PEP), thus creating a revised project priority list of capital improvement projects for Cliffs of the Neuse State Park, which is shown below. These projects were then combined with projects evaluated and ranked for other state park units, resulting in a priority list of capital improvement projects for the entire state parks system.

### **Revised Project Priority List**

<u>Rank</u>	<u>Project Title</u>	<u>*Score</u>	<u>Cost</u>
1	Visitor's center/district office	698	\$3,459,207
2	Renovation of 3 ranger residences	651	233,518
3	Trail improvement, bridge, drainage, wayside exhibits	646	266,976
4	Picnic area renovations	635	482,650

5	Tent & trailer campground improvements	605	651,866
6	Museum renovations/classroom	579	673,270
7	Vehicular storage shed	558	276,815
8	Maintenance area renovations	535	214,747
9	Barracks renovations	523	<u>192,906</u>
	Total:		\$6,451,955

*\*The score comes from the Division's Project Evaluation Program (PEP). The PEP uses an evaluation formula to rank projects that considers four factors: the objective of the project; the justification or urgency for funding; the estimated annual number of persons (visitors and/or employees) who are affected by the project; and the project's significance, ranging from local to national. The park superintendent, district superintendent, and division management evaluate projects. There are 15 objectives categorizing a project's purpose, and each project can have a primary and secondary objective.*

### **Capital Improvement Project Descriptions**

1. Visitor's Center/District Office: Build a new visitor's center facility with auditorium, exhibits, park and Eastern District office space, and convert the existing Eastern District office to a maintenance warehouse. The current office is not ADA compliant and does not meet standards. Utilities, signage, parking, and furniture and equipment are also included. The proposed visitor's center may be relocated to another site.
2. Renovation of Three Ranger Residences: The project scope was revised to delete the major electrical deficiencies that caused safety concerns: the work has been completed by the use of informal contracts. Some other minor work has also been undertaken by park staff and deleted from the project scope. The project will expand and renovate three residences to meet current health and safety standards.
3. Trail Improvements, Bridge, Drainage, Wayside Exhibits: This new project will construct a new trail to Crumpler Pond, repair the existing trails, design and construct a pedestrian bridge(s), reroute the parking lot drainage currently piped directly into the swim lake and create a sediment pond for the drainage water, and construct a roofed structure to house a 90-foot drilled core of the cliffs.
4. Picnic Area Renovations: Renovate the existing shelter, landscape to current health and safety standards, add electricity to shelter, and replace the tables and grills.
5. Tent and Trailer Campground Improvements: Improve the existing campsites by adding borders, tables and grills, add a sewer line for campground hosts, and replace the existing washhouse with a new facility, expected to cost \$300,000, that meets ADA requirements and better serves the public. The original project scope called for \$50,000 in renovations to the existing washhouse facility.

Because the existing washhouse is a concrete masonry unit structure, renovation to meet ADA guidelines would not be cost effective. A double vault Rom-Tech toilet (\$45,000) in the group campground was deleted from the project scope: it was recently constructed as a part of the contract to build a new restroom at the picnic area.

6. Museum Renovations/Classroom: Expand and renovate the museum building restrooms to meet current health and safety standards. After the proposed visitor's center is built, the museum will be converted to a classroom building, bathrooms renovated, and equipment and furniture added. If the visitor's center precedes this project, exhibits will be housed there and only limited exhibits will be needed for this facility.
7. Vehicular Storage Shed: A shed is needed to house trucks, materials, and equipment now exposed to the elements. Utilities, parking and equipment are also included.
8. Maintenance Area Improvements: Renovate existing maintenance buildings to current health and safety standards. Includes a roof on the pump house, a combustible storage building and repairs to the shop building.
9. Personnel Barracks: Expand the kitchen to add a lounge area and renovate the barracks to meet current health and safety standards. Staff disagreed on the merits of this project. Before it is funded, further study is needed to determine the demand for a barracks and the best use of this facility.

02/05

# VIII. OPERATIONS ISSUES

## INTRODUCTION

Division of Parks and Recreation staff identified the major park issues facing Cliffs of the Neuse State Park at the initiation of the general management plan process. The issues have been divided into three categories: natural resources (see Chapter VI), capital improvements (see Chapter VII) and operations. This chapter identifies park operations issues and makes recommendations for addressing them during the next five years.

Operations issues for Cliffs of the Neuse State Park that are of significant concern are:

1. Visitor's center
2. Park entrance
3. Lifeguard needs
4. Access to the group camping area
5. Picnic area renovation
6. Hiking trails and outdoor exhibits
7. Crumpler Pond
8. Campground renovations
9. Access road improvements
10. Swim area parking lot drainage

## VISITOR'S CENTER

### Background

A major concern is the need for a visitor's center for the park. While there is already a capital improvement project to construct a visitor's center at Cliffs of the Neuse State Park, construction of the visitor's center is still a very high priority need for the park.

Currently eight staff work out of a small office suitable for only three or four staff. There is inadequate space for park visitors to speak with park staff or staff to conduct business in private. Ranger staff needs additional space to conduct seasonal interviews, to meet with volunteers, and for the park superintendent to conduct confidential meetings and phone conversations. The current office building is clearly beyond its maximum capacity. There is little storage area for park files, and with the computer and other electronic equipment in use today, the electrical service is beyond its designed capacity.

The visitor's center is also badly needed to meet visitor needs. There is no adequate indoor facility in the park to conduct Environmental Education programs for the public. The lack of such a facility limits the number and types of interpretive programs that can be offered by the ranger staff. With a new visitor's center, the park could better serve school groups. A new visitor's center would also include needed exhibit space. The exhibits in the current museum have been in place for 25 years and are in need of

updating and replacement. The location of the current museum on the high ridge adjacent to the cliffs makes it necessary to close the building during storms due to the likelihood of lightning strikes.

### **Recommendations**

Construct a visitor's center to better serve the public and to provide adequate office space for park staff. Once a visitor's center is constructed that provides new exhibits, convert the existing museum building into a classroom.

## **PARK ENTRANCE**

### **Background**

The park entrance road (state road 1743) runs perpendicular from N.C. 111 into the park. Just outside the park gate, state road 1742 crosses the park entrance road. At the crossing, state road 1742 has stop signs from both directions that give the right-of-way to traffic on the park entrance road. At times, traffic speeds at this intersection are faster than they should be to remain safe. The park entrance road dips just inside the park gate, and it is difficult for traffic to turn from state road 1742 into the park with a clear line of sight. To date, park staff is unaware of any serious accidents that have occurred at the intersection.

### **Recommendations**

The park superintendent will consult with the N.C. Department of Transportation to determine what should be done to make the intersection safer. Signing the intersection for a four-way stop and a request to have the speed limit lowered to 45 miles-per-hour will be requested.

## **LIFEGUARD NEEDS**

### **Background**

Staff positions at Cliffs of the Neuse are generally adequate to meet the park needs at the present time, except that an additional 40-hour seasonal lifeguard is needed. The existing staffing levels for the swim area was established in the 1950s when the swim area was first opened. With the recent changes in safety requirements and the Swim Area Guidelines, the swim area has had to be closed many times in the past two or three years, primarily during the week.

### **Recommendations**

Hire an additional 40-hour seasonal lifeguard.

## **ACCESS TO THE GROUP CAMPING AREA**

### **Background**

The group camping area is located on the northern side of the park. Most of the access road to the group camp is located on private property. The park does not have a lease agreement for this use, but operates with the knowledge and consent of the cooperating landowner. Hiking in to the group camp across park property is possible, but is not very practicable.

Private property adjacent to the group camp is hunted, and these hunted lands come within 400 feet of the group camps. The small distance from these hunted lands to the group camps is insufficient buffer. The access road itself, which the park has been using for many years, has recently begun to be hunted by the landowner's family. This new hunting use has caused some controversy with the landowner of the access road, so in order to continue to use the access for park purposes, the group camps have been closed for the past two years during the fall hunting season. The fall season is one of the most popular times for camping.

### **Recommendations**

The park superintendent will contact the Division safety officer about the issue of hunting in close proximity to the group camps to obtain an assessment and recommendations, and then follow through on these. Land acquisition staff will contact the adjacent landowners and pursue land acquisition of the adjacent parcels in order to obtain permanent access and to provide additional land to buffer the group camp.

## **PICNIC AREA RENOVATION**

### **Background**

A project to provide for renovations to the picnic area is also on the current capital improvement list, however, additional consideration needs to be given to making the old shelter accessible to persons with disabilities. The large, old picnic shelter built in 1948, while in good condition, is located further from the parking lot than is desirable for easy access, and the access path drops down and then rises as it approaches the shelter. The shelter is also very dark, and additional lighting is needed for picnickers and for use of the shelter for interpretive programs. The shelter could be better used for interpretive programs and other uses if electrical outlets were installed. The area in front of the shelter is terraced with numerous rows of landscape timbers that are unsightly and that are a maintenance and safety problem. Construction of a new restroom facility, to be located closer to the parking lot, started in the spring of 2004. The new restroom will be accessible for persons with disabilities.

## **Recommendations**

Construct a path from the current parking lot to the shelter that meets accessibility standards. Improve lighting under the shelter by adding skylights on the backside of the roof or other means. Construct a vehicle road from the current parking lot to the old shelter and mark 2 or 3 handicapped parking spaces at the shelter for people with disabilities. The road would also be used to transport elderly citizens closer to the shelter and to serve emergency access and maintenance needs. Add electrical outlets. Remove the current terracing in front of the picnic shelter. Regrade and fill the area as needed, and construct a retaining wall in order to provide a larger, relatively flat and more useable area close to the shelter. Revise the existing capital improvement project scope to include these additional work items.

## **HIKING TRAILS AND OUTDOOR EXHIBITS**

### **Background**

The park has approximately 1.7 miles of trail, and all of the trails are old and in need of major renovation. Damage from hurricanes, floods and ice storms in recent years has added to the erosion damage that has taken place over many years. Some staff repair work has been done, but the total amount of work needed exceeds what staff has been able to accomplish. In addition, the park could use more trails. The existing length is insufficient for a park with camping and the other facilities that Cliffs of the Neuse offers. Some boardwalk design work has already been done. The park also needs more and better outdoor exhibits related to the cliffs, the seven natural communities and the aquatic habitats.

### **Recommendations**

Create a new capital improvement project to include the renovation of the existing park trails and to construct a new hiking trail that will lead to Crumpler Pond. The project will include pedestrian bridges and trailside exhibits for both the old trails and the new one. A covered shelter to house a core drilling of the cliff will be included because of the difficulty of viewing the main park feature from the park.

## **CRUMPLER POND**

### **Background**

Crumpler Pond is located on the south side of the park. Access is provided off State Road 1744 by crossing private property, granted by an informal agreement with the landowner. A permanent access from State Road 1744 is needed for park staff. The Crumpler Pond area currently contains a pond, much smaller than it used to be since the earthen dam broke. It may be desirable to repair the dam and restore the pond, or it may

be better to leave it as is for wetland habitat. The pond area could also make a good trail destination. An old house sits along the pond, but it is in very poor condition and has been approved for demolition.



**Figure VIII-1. Crumpler Pond**

### **Recommendations**

Acquire sufficient land to provide access to Crumpler Pond from State Road 1744. Some investigation is needed to determine what would be involved in rebuilding the dam and restoring the pond. The park superintendent will consult an engineer to obtain an estimate of what would be involved and cost estimates for the work. If costs are reasonable, a study group will be formed to recommend whether or not to repair the dam, looking at environmental concerns, costs, and environmental and recreational use of the area. A trail that connects the pond to other park facilities should be constructed.

## **CAMPGROUND RENOVATIONS**

### **Background**

The current shower and restroom facility at the tent and trailer campground does not meet accessibility standards. Some camping sites need to be made accessible as well. The dump station at the campground needs to be improved in order to meet health and safety codes.

### **Recommendations**

Renovation of the existing concrete masonry structure is not practicable, and it will be better to demolish the old structure and build a new one. Revise the existing tent and trailer campground capital improvement project to include a new washhouse and the accessibility needs. Construction staff will get the park superintendent information and contact persons to fix the problems at the dump station. Park staff will install a “non potable water” sign.

## **ACCESS ROAD IMPROVEMENTS**

### **Background**

The park's access roads are in very poor condition and are in need of repair. These roads provide vehicular access for resource management, maintenance, and emergencies. These dirt roads suffered significant damage with hurricanes and other storms in recent years. The access road to the swimming lake is especially important for emergency access.

### **Recommendations**

Park staff will undertake these needed road repairs with funding assistance to come from major maintenance funds.

## **SWIM AREA PARKING LOT DRAINAGE**

### **Background**

A portion of the swim area parking lot drains directly into the lake. The drainage should be corrected to protect water quality by installing new drainage pipe or by creating sediment ponds to catch the parking lot runoff.

### **Recommendations**

Construction staff will consult with a soils engineer and investigate the possibility of adding this work item to the currently ongoing Lake Area Safety Improvements project. If the work item cannot be added to the ongoing project, it will be included as a part of the newly created trail improvement project.

06/04

## **IX. LAND ACQUISITION**

The 90-foot high cliff along the west side of the Neuse River is the main feature of Cliffs of the Neuse State Park. The cliffs are fragile due to their composition. The preservation of this geological feature is a primary goal of the state park. Another goal of the park is to protect rare species and high quality examples of natural communities along the river. The North Carolina Natural Heritage Program has identified the park to be within a Significant Natural Heritage Area. The Cliffs of the Neuse Registered Natural Heritage Area has populations of several significant natural communities.

Several factors are considered in determining whether a piece of property should be included in an acquisition plan. These include: data from the Natural Heritage Program and the Division of Water Quality; the park's existing identified needs; and the Division staff's surveys of the properties. Threats to these properties can be development, logging, and sedimentation from upstream development as well as other forms of irreparable damage. Needs and threats are evaluated to determine what additional properties need to be added to the acquisition plan of the park.

### **CURRENT ACQUISITION STATUS**

Cliffs of the Neuse State Park contains 751 acres as of January 1, 2004. The primary focus of the park is the steep, colorful cliffs that are both an important scenic resource and a valuable educational resource. The diverse flora and fauna of the park area and the river ecosystems are also vital in the scheme of the park. Additional resource needs for the park should be addressed. The objectives for creating Cliffs of the Neuse State Park include the provision of appropriate public recreational use, the protection of the unique natural resources, buffering these resources and visitor activities, and protecting scenic views. With these objectives in mind, adjacent lands need to be looked at and assessed and a revised acquisition plan for the future protection needs of Cliffs of the Neuse State Park developed.

### **FUTURE ACQUISITION NEEDS**

Completion of the acquisition plan described in the *Cliffs of the Neuse State Park Master Plan*, completed in December 1977, requires the acquisition of an additional 112 acres. The high priority acquisitions include the protection of the view from the cliffs, protection of the Group Camping Area, buffer for the park entrance, protection of and permanent staff access to the primitive camping areas, and permanent access to the section of park on the east side of the river.

In addition to the remaining 112 acres identified for acquisition in the 1977 master plan, Division staff have recognized the need for expanding Cliffs of the Neuse State Park. Division staff recommend acquiring additional river corridor between the bridge crossings upstream and downstream of the park. Acquiring the river corridor would provide a 6 to 8 mile stretch of the river that would allow the park to add boating/canoeing to its recreational offerings and preserve the scenic view of the river

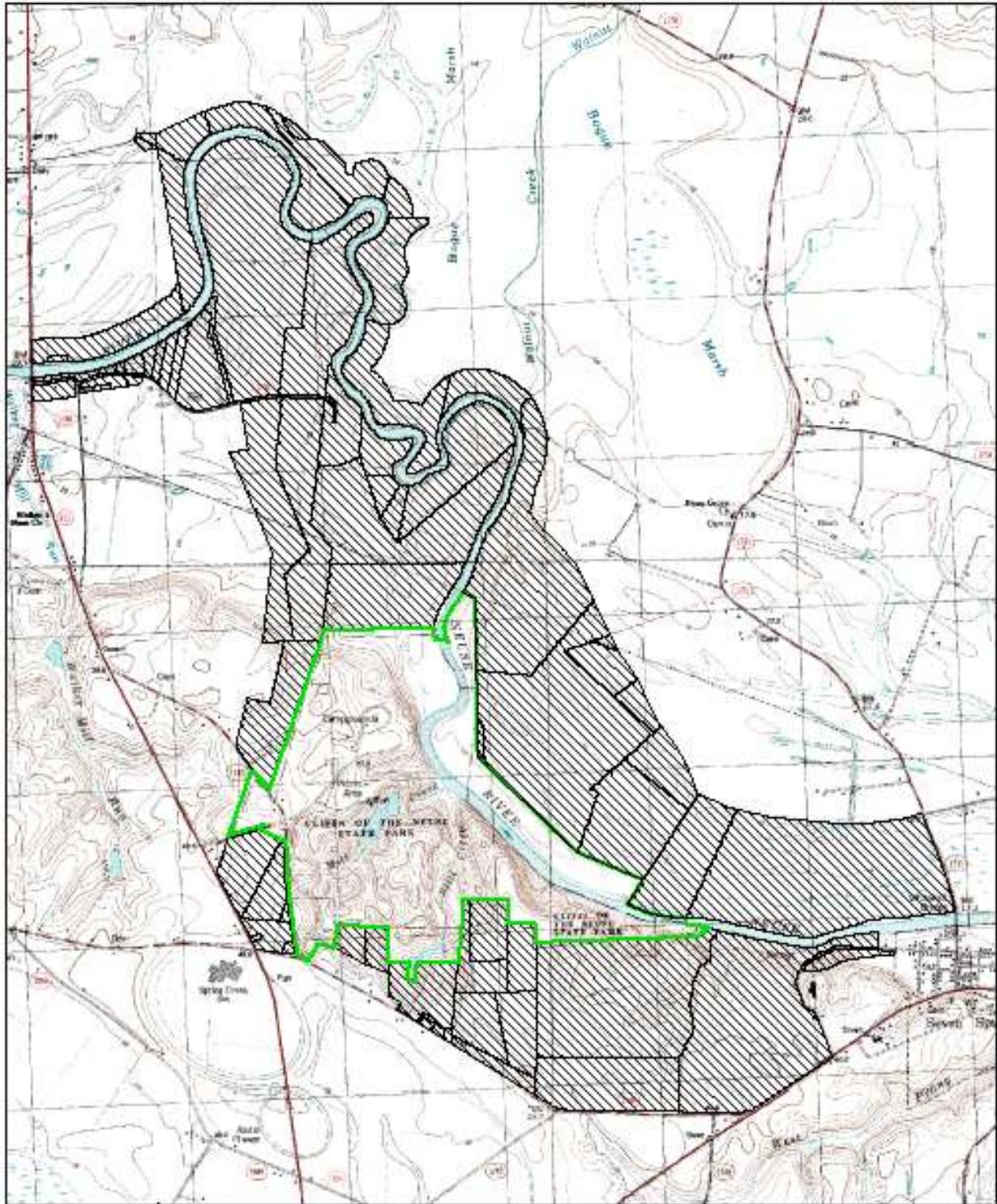
corridor. The purchase of the riparian corridor would also provide potential acreage for the future Mountains-to-Sea Trail.

The acquisition of land the between the park and the Town of Seven Springs was also recommended by park staff. This land would include the Seven Springs spring house as well as Night Springs. The springs are an important component of the area's cultural history.

#### **ACQUISITION SUMMARY TABLE**

Current size of the park (January 2004)	751 acres
Acreage needs per master plan	<u>112 acres</u>
Original planned size of the park	863 acres
Additions to master planned needs	<u>2,636 acres</u>
New total planned size of the park	3,499 acres

09/04



**Cliffs of the Neuse  
State Park**

**August 2004**

**Master Plan**  
 **State Park**  
 **Future Need**

1000 0 1000 Feet



**Division of Parks and Recreation**