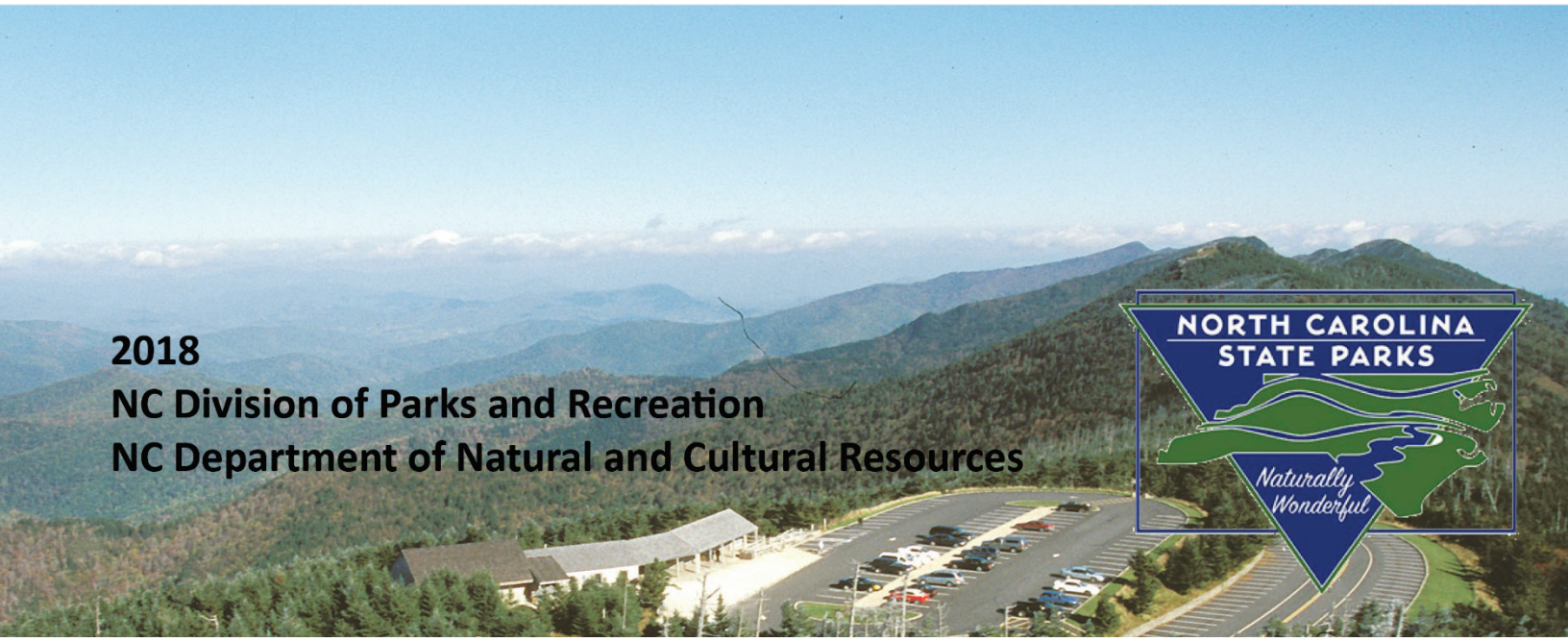
System Wide Plan for North Carolina State Parks



2018

NC Division of Parks and Recreation

NC Department of Natural and Cultural Resources

NORTH CAROLINA STATE PARKS

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Division of Parks and Recreation

NC Department of Natural and Cultural Resources

Governor Roy Cooper

Secretary Susi H. Hamilton

To the Citizens of North Carolina:

It is my pleasure to present the 2018 update for the North Carolina state parks system's Systemwide Plan. This plan is a five-year guidance document that provides a record of recent activities and accomplishments and offers strategic direction for the future of North Carolina's state parks.

In 2016, North Carolina state parks celebrated its 100th anniversary with events at parks throughout the system. In addition, North Carolina voters overwhelmingly approved a $2 billion Connect NC Bond referendum on March 15, 2016 by a 2-to-1 margin. The bond package included $75 million for 45 state parks projects across the state. The parks system continues to grow and improve to provide North Carolina residents access to the natural beauties of this state. North Carolinians and visitors to our state have a deep commitment, passion and support for our park system as demonstrated by the record-breaking 19.4 million visitors in 2017. These visitors came to take in the natural beauty, participate in various outdoor recreational activities and learn more about the diversity of the state's abundant natural resources. Visitors participating in the programs offered at the parks leave with a better understanding of nature and its benefits on society.

This document creates a vision and plan for meeting the needs of current visitors and those of the next generation of park users. The state parks system would not be what it is without the active participation, support, advocacy, and advice of park visitors, legislators, local governments, land trusts, friend's groups, businesses, scientists, educators, environmentalists, and many other wonderful partners.

Many improvements to the park system have been made, and they continue with new and improved camping facilities and visitor centers being built at many of our parks. North Carolinians and visitors to our park system look to us to set an example for natural resource protection, low-impact recreation and outdoor education. The dedicated state park staff are working to promote and integrate a "Park's Educational Program for Elementary Students" so every upper elementary school student in North Carolina can have a meaningful experience in a state park.

Naturalist David Polis is quoted "Must we always teach our children with books? Let them look at the mountains and the stars up above. Let them look at the beauty of the waters and the trees and flowers on earth. They will then begin to think, and to think is the beginning of a real education." With children being raised in digital generation, creating and expanding opportunities for our children to experience the outdoors is vitally important. Through this experience, their interest in preserving the natural wonders of this state will become ingrained into their lives at an early age and remain as they mature into adulthood. An outdoor experience in one of North Carolinas state parks can be a life-changing experience, especially for our children. The Division of Parks and Recreation has the obligation and opportunity to create that experience.

The agency continually strives to provide quality facilities, conserve our most special places and educate visitors about what makes this state great. We are committed to providing the best possible visitor experience and education to increase fiscal efficiency and to be a valuable partner in economic development efforts systemwide.

We invite you to visit and enjoy your extraordinary state park system and experience the resources we are diligently working to preserve, protect and make available for the enjoyment of our visitors.

Sincerely,

Dwayne Patterson

Dwayne Patterson, Director

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EXECUTIVE SUMMARY

The years from 2015 through 2017 brought about several challenges and opportunities for the Division of Parks and Recreation (DPR). After a slowing in park growth in the prior five years the park system has recovered, and visitation is at an all-time high with over 19 million visitors in 2017. Growth and capital development has seen an increase with additional funding to the Parks and Recreation Trust Fund and a $75 million allocation from the NC Connect Bond funds. From 2009 through 2015, one new unit was established, and 19,937 acres were added to the state parks system. In a shorter time-span over 7,800 acres have been added to the park system and 3 new natural areas and one new state trail have been authorized.

Like many states, North Carolina is continuing to rebound from the past economic downturn. Long term goals for the state parks system remain the same, yet the system's strategic directions have responded to the challenges currently facing the state park system. DPR continues to implement many improvements to efficiency and has contributed in significant ways to supporting job growth and economic development in North Carolina. As funding for land acquisition and capital improvements has been re-established, the demand for low impact outdoor recreation and outdoor educational opportunities is higher than ever. This is especially apparent in the record breaking 2017 visitation number of over 19 million to the park system. There still remains much to do, with identified future land acquisition needs of more than $310 million and future facility construction and maintenance needs of more than $420 million.

- The park system now totals 79 units with 232,108 acres (as of December 31, 2017) and an annual visitation of over 19 million visitors in 2017.
- Three new State Natural Areas were authorized by the NC General Assembly in 2017. These are Bobs Creek in McDowell County, Warwick Mill Bay in Robeson County and Salmon Creek in Bertie County.
- Several projects enhancing the visitor experience were undertaken during the past 3 years. A few of these include, but are not limited to, major repairs and renovations at Fort Macon, a new accessible picnic shelter at Hanging Rock, major improvement at Chimney Rock and Improvements to campground at Jordan Lake State Parks.

The system's statutory mandate is to protect representative examples of the state's significant archaeological, geological, scenic, recreational, and biological resources. These resources have been categorized into 108 themes in order to track how well the system is accomplishing this mandate.

- During the timeframe for this plan, representation of these themes in the state parks system has improved.
- One of these are now listed as adequately represented. Despite the recent gains several themes continue to be under-represented.

Major trends that will affect public recreation in North Carolina include projections for continued population growth and land development. North Carolina continues to experience significant in-migration, and average life expectancy is increasing. In addition to population growth, outdoor recreation demand has also been fueled by increased participation. These trends underscore the importance of conserving land and water resources, providing additional recreational opportunities in appropriate places, and developing environmental education facilities and programs to enhance appreciation for the state's natural heritage and to support efforts to promote public health.

To be able to continue to grow our programs additional staffing is required for newly acquired land, new facility development and newly authorized units so that DPR can continue to create a visitor experience which will keep visitors returning to the state park system. By continuing the increase in visitation, we can continue to support economic development in the state.

STRATEGIC GOALS

As North Carolina state parks system continues to grow, we have set a course to meet the increasing demands for protection of natural and scenic resources and low impact outdoor recreation. The recent additional funding available for state park land acquisition and facility development has helped DPR address some system needs to ensure a positive visitor experience. Public support for open space protection and new park units remains high. There is a continuing need to protect important natural resources and to provide outdoor recreation opportunities. It will also be important for the state parks system to continue to improve in other ways. To accomplish these goals eight strategic directions were identified:

1. **Continue Expansion of The State Parks System**

   Despite past economic challenges, the state parks system continues to grow and improve. With the authorization of the NC Connect Bond funds land acquisition and facility development has increased again. Public support for open space protection and new park units remains high (Chapter 4). North Carolina continues to be an attractive place for development, and strong population growth is anticipated in the coming decades. There is a continuing need to protect important natural resources and to provide outdoor recreation opportunities. There will be continued emphasis on careful planning and evaluation of statewide priorities to ensure the best use of funding. As the state parks system moves into the future strategic planning efforts will be implemented to meet the demands of outdoor recreation and natural resource protection.

2. **Provide the Best Possible Visitor Experience**

   DPR can improve the quality of the park visitor's experience by better coordinating all aspects of the operation to focus on connecting visitors to the state's unique natural resources in a purposeful, planned manner. The visitor experience has two components. The internal experience is the visitor's perspective, which is created by a combination of feelings, sensations and prior experiences. This is unique to every visitor. The external component consists of the many separate pieces outside the visitor – the road conditions in the park, the cleanliness of the campgrounds, the clarity and readability of park signs, and the friendliness of park staff are just a few examples. Integrating all these pieces is the key to providing great visitor experiences.

3. **Increase Efficiency**

   The recent growth of the state parks system, increased visitation, and high public interest in Division services has placed great demands on DPR's resources and capabilities. DPR operates and maintains state park units open to the public 364 days per year (all park units are closed on Christmas Day), including law enforcement, public safety, education, natural resource protection, and visitor services. In addition, much work remains to be done to acquire, plan, staff, and develop newly established park units. It will be essential to increase DPR's organizational effectiveness, and to foster efficient use of funds and resources available to the division.

4. **Support Local Economic Development**

The state's rural areas have been increasingly turning to ecotourism for economic growth and stability. The state parks are important regional attractions that can form the cornerstone of these local efforts. In addition, DPR can support local economic development by participating in local and regional tourism initiatives, by coordinating multi-jurisdictional recreation planning, by offering grants for local park and trail projects, and by providing environmental education opportunities for schools and universities.

The division will look for innovative ways to support local economic development, while adhering to the mission and long-term goals of the state parks system, keeping public costs reasonable, and avoiding competition with the private sector.

5. **Support State and Local Health and Wellness and other Initiatives through expanded marketing efforts**

Studies show the average American boy or girl spends just four to seven minutes in unstructured outdoor play each day, and more than seven hours each day in front of an electronic screen. This lack of outdoor activity has profoundly impacted the wellness of our children. Childhood obesity rates have more than doubled in the last 20 years; the United States has become the largest consumer of ADHD medications in the world; and pediatric prescriptions for antidepressants have risen precipitously. The Division will develop partnerships with public and private health organizations to explore ways to use the state parks to encourage physical activity and healthy lifestyles.

6. **Improve Natural and Cultural Resource Stewardship**

The ecosystems and cultural features protected by the state parks system often represent the highest quality examples of the state's natural landscape and cultural heritage. In many cases, these ecosystems and cultural features are also among the most threatened. The Division of Parks and Recreation is responsible for the protection of the natural and cultural resources within the state parks system. The primary objective of the Division's natural resource management initiatives is to correct or compensate for the disruption of natural processes caused by human activities. These initiatives include the reintroduction of natural fire regimes, restoration of natural communities, and removal of exotic invasive species. The primary goal of cultural resource management is to protect and preserve historically significant features.

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CHAPTER ONE:
ACCOMPLISHMENTS

ESTABLISHING NEW UNITS

As North Carolina's population continues to grow, so does the demand for recreational opportunities, as well as this growth development pressures in areas of ecological and conservation concern. The NC Division of parks and Recreation (DPR) is committed to preserving the state's natural, cultural and recreation resources through the strategic acquisition of lands.

The North Carolina parks system has grown consistently for decades and has continued to do so from 2015 to 2017. During this timeframe, over 7,900 acres has been added to the parks system. In 2017, three new natural areas were approved by the North Carolina General Assembly, Bob's Creek (3,500 +), Salmon Creek (994) and Warwick Mill Bay State Natural Areas (976), which when purchased will add 5,470 acres to the system.

LAND PROTECTION

A total of 7,908 acres have been added to the state parks system from 2015 through December 31, 2017. The majority of these acquisitions have expanded our state parks, while there has been more modest, yet significant expansions, to state natural areas and state rivers as well. (Tables 1.1 through 1.6)

Table 1.1 – State Recreation Area Land Acquisition 2015-2017

State Recreation areas	2015 Acres	2017 Acres	Acres Added
FALLS LAKE	5,035	5,035	0
FORT FISHER	287	287	0
JORDAN LAKE	4,558	4,558	0
KERR LAKE	3,376	3,376	0
Total State Recreation Areas	***13,256***	***13,256***	***0***

Table 1.2 – State Lakes Land Acquisition 2015-2017

State Lakes	2015 Acres	2017 Acres	Acres Added
BAY TREE	1,418	1,418	0
JONES	224	224	0
PHELPS	16,600	16,600	0
WACCAMAW	8,938	8,938	0
SALTERS	315	315	0
SINGLETARY	572	572	0
WHITE	1,068	1,068	0
Total State Lakes	***29,135***	***29,135***	***0***

Table 1.3 - State Parks System Land Acquisition 2015 – 2017

State Parks	2015 Acres	2017 Acres	Acres Added
BAY TREE*	609	0	0
CAROLINA BEACH	420	420	0
CARVERS CREEK	4,332	4,455	123
CHIMNEY ROCK	6,270	6,899	629
CLIFFS OF THE NEUSE	892	1,026	134
CROWDERS MOUNTAIN	5,126	5,210	84
DISMAL SWAMP	14,432	14,432	0
ELK KNOB	3,672	4,157	485
ENO RIVER	4,197	4,198	1
FORT MACON	424	424	0
GOOSE CREEK	1,672	1,672	0
GORGES	7,709	7,709	0
GRANDFATHER MOUNTAIN	2,644	2,687	43
HAMMOCKS BEACH	1,155	1,611	456
HANGING ROCK	7,869	7,899	30
HAW RIVER	1,379	1,429	50
JOCKEYS RIDGE	426	426	0
JONES LAKE	1,669	1,669	0
LAKE JAMES	3,515	3,685	170
LAKE NORMAN	1,923	1,926	3
LAKE WACCAMAW	2,201	2,398	197
LUMBER RIVER	11,259	12,309	1050
MAYO RIVER	2,187	2,509	322
MEDOC MOUNTAIN	3,893	3,893	0
MERCHANTS MILLPOND	3,447	3,519	72
MORROW MOUNTAIN	4,496	4,501	5
MOUNT MITCHELL	1,996	1,996	0
NEW RIVER	2,878	3,015	137
PETTIGREW	5,830	5,945	115
PILOT MOUNTAIN	3,663	3,872	209
RAVEN ROCK	4,694	4,810	116
SINGLETARY LAKE	649	649	0
SOUTH MOUNTAINS	18,627	20,634	2007
STONE MOUNTAIN	14,351	14,351	0
WILLIAM B. UMSTEAD	5,592	5,592	0
Total State Parks	***156,098***	***161,926***	***6,438***

** NC General Assembly redesignated Bay Tree State Park to a Natural Area in 2017*

Table 1.4 – State Natural Area Land Acquisition 2015-2017

State Natural Area	2015 Acres	2017 Acres	Acres Added
BALDHEAD ISLAND (3)	1,260	1,260	0
BAY TREE*	0	609	609
BEAR PAW	384	384	0
BEECH CREEK BOG	120	295	175
BOB'S CREEK	0	0	0
BULLHEAD MOUNTAIN	365	442	77
BUSHY LAKE	6,343	6,396	53
CHOWAN SWAMP	6,066	6,066	0
HEMLOCK BLUFFS	97	97	0
LEA ISLAND	25	25	0
LOWER HAW RIVER	1,025	1,025	0
MASONBORO ISLAND	106	106	0
MITCHELL MILL	93	93	0
MOUNT JEFFERSON	975	1,123	148
OCCONEECHEE MTN.	190	206	16
PINEOLA BOG	91	91	0
RUN HILL	123	123	0
SALMON CREEK	0	0	0
SANDY RUN SAVANNAS	2,538	3,133	595
SUGAR MOUNTAIN BOG	102	102	0
THEODORE ROOSEVELT	265	265	0
WARWICK MILL BAY	0	0	0
WEYMOUTH WOODS	915	915	0
YELLOW MOUNTAIN	3,111	3,518	407
Total State Natural Areas	***24,194***	***26,274***	***2,080***

** NC General Assembly redesignated Bay Tree State Park to a Natural Area in 2017*

Table 1.5 – State Rivers Length of River 2015-2017

State Rivers	2015 Length (miles)	2017 Length (miles)
Horsepasture	0	4.5
Linville	0	13.0
Lumber	0	102.0
New	0	26.5
Total State Rivers	***0***	***146.0***

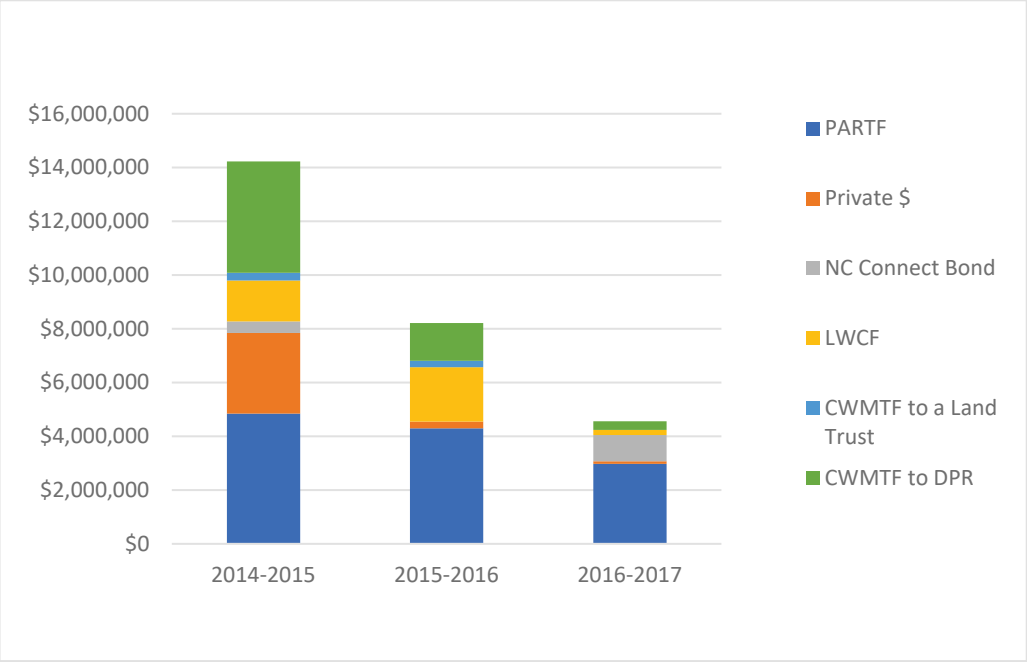
Table 1.6 – State Trails Size and Designated Length 2015-2017

State Trails	2015 Acres	2017 Acres	Planned Length (miles)	2015 Designated Length (miles)	2017 Designated Length (miles)
Deep River	1,274	1,274	90	0	0
Fonta Flora	0	0	100	0	18.7
French Broad River	0	0	117	117	117
Hickory Nut Gorge*	0	0	50	NA	0
Mountains-to-Sea	691	778	1400	611.8	668.5
Yadkin River	0	0	130	130	130
Total State Trails	***1965***	***2,052***	***1,887***	***806***	**934**

*Hickory Nut Gorge Trail was Authorized in 2017

There are many funding sources that are used to procure state park lands from willing sellers. These include PARTF - Parks and Recreation Trust Fund, Private funding, North Carolina Bond Funding – Connect Bond, LWCF -Land and Water Conservation Fund and CWMTF - Clean Water Management Trust Fund. As can be seen in Figure 1.1, PARTF is the most consistent funding source for purchasing property.

Figure 1.1 - North Carolina State Parks Land Acquisition Funding Sources



ATTENDANCE

Following a continuing trend, attendance at North Carolina state parks continues to grow. As can be seen in Table 1.7 attendance has grown an average of 3 percent a year since 2007 11% since 2015.

Table 1.7 - North Carolina State Parks Attendance

Year	Visitation
2007	13,487,740
2008	12,486,818
2009	14,251,310
2010	14,189,403
2011	14,255,859
2012	14,198,796
2013	14,172,661
2014	15,561,295
2015	17,251,862
2016	18,762,600
2017	19,390,801

PARTNERSHIPS IN CONSERVATION ACROSS NORTH CAROLINA

Partnerships between the state parks system and conservation organizations across North Carolina have been invaluable in the effort to protect some of the state's most valuable natural resources. Partnerships are based on a shared goal of protecting these outstanding resources for future generations. Conservation organizations, such as local land trusts, play an important role in the process by helping identify significant resources, contacting land owners and moving quickly to acquire properties on a short deadline if needed. Without these partnerships, the conservation of significant areas would be more difficult, if not impossible. Notable partnerships include:

- Audubon North Carolina and the DPR has been working on land acquisition and conservation management for Lea Island in Pender County and Warwick Mill Bay in Robeson County. Warwick Mill Bay 976 acres successfully closed.
- The Nature Conservancy has continued to partner with DPR to obtain additional properties at Carvers Creek State Park.
- The Blue Ridge Conservancy is working on several projects to expand Grandfather Mountain State Park.
- The Conservation Fund and Foothills Conservancy of North Carolina donated 989 acres to South Mountains State Park in December 2017.
- The Conservation Fund and Foothills Conservancy of North Carolina are working to establish a new state natural area - Bob's Creek State Natural Area in southeastern McDowell County. They are also looking for additional lands at South Mountains State Park.
- The Conservation Fund and DPR are working to expand Mount Mitchell State Park by 2,600 acres.

- The North Carolina Coastal Land Trust and the DPR are partnering to protect a new state natural area- Salmon Creek in Bertie County.
- DPR worked in partnership with the Blue Ridge Conservancy, the NC Wildlife Resources Commission biologists, The Conservation Fund and the US Fish and Wildlife Service Endangered Species Grant Program to successfully protect roosting and breeding sites near Beech Creek Bog in Watauga County for the endangered Virginia Big Eared Bat.
- DPR continues to be an active partner with the North Carolina Sandhills Conservation Partnership, which is geared to the preservation, restoration, and conservation of unique sandhills ecosystem and species such as the red cockaded woodpecker.
- DPR continues to work closely with the Southern Appalachian Highlands Conservancy on a number of projects at Yellow Mountain State Natural Area. These projects will total over 2,000 acres, including land to connect the state natural area with the Pisgah National Forest, and in the future a hiking trail connection to the Appalachian Trail.

CAPITAL IMPROVEMENTS

Appropriations and Parks and Recreation Trust Fund monies totaling approximately $20 million were spent at state parks from July 2014 to July 2017 for construction of new facilities, major improvements to existing facilities, and maintenance. Twenty major capital improvement projects were completed as well as numerous smaller projects. These projects included construction of campgrounds, restrooms and other support facilities.

Assisting in these improvements was the approval of the ConnectNC Bond package. The ConnectNC bond package include $75 million for 45 state parks across the state.

The bond projects, which have been assembled to support each part of the state parks system's mission, will enhance the visitor experience by:

- Offering newer and more diverse recreational experiences, such as expanded and upgraded campsites, picnic areas, cabins, day-use areas and facilities;
- Providing new and expended visitor centers, classrooms, auditoriums, exhibits and other learning venues and experiences, and;
- Acquiring lands to protect key natural resources for conservation and public use.

Building Green

The state parks system promotes planning and construction practices of infrastructure and buildings that are environmentally responsible and healthy places to live, work and enjoy.

Sustainable and green buildings typically require additional design services and features that are not included in traditional construction. In most cases, the additional costs are recovered through energy savings and other factors. While multiple types of environmentally sound, innovative building technology may be considered, DPR is particularly interested in technologies that address:

Ecological site design:

- On-site erosion control, water purification/ pollution reduction, and stormwater management.

Transportation:

- Promoting bicycle, pedestrian and transit use where possible.

Waste reduction:

- Building reuse, job site recycling and efficient use of materials.
- On-site management of sewage and organic wastes, such as gray water systems and biological wastewater treatment.
- Energy efficiency in areas such as thermal envelopes, space and water heating, lighting, controls, and appliances.

Renewable energy:

- Water efficiency, both domestic and irrigation, including rainwater harvesting for irrigation and toilet flushing.

Materials and resources:

- Durable building envelopes and long-lived materials or assemblies, recycled-content materials, safer, less toxic materials, innovative application of natural materials.
- Indoor environmental quality, pollution reduction, worker and occupant safety, air cleaning, humidity control, and thermal comfort.

Operations and maintenance:

- Monitoring energy, water, waste, air quality, and transportation use along with resource-efficient operation practices.

PARK OPERATIONS

Gold Medal

The North Carolina state parks system has been named a national finalist in the past decade for the National Gold Medal Award for Excellence in Parks and Recreation. The National Gold Medal Award, which is administered by the American Academy for Park and Recreation Administration in partnership with the National Recreation and Parks Association (NRPA), is the most prestigious award a park and recreation agency can receive and recognizes service excellence.

The Gold Medal Award honors communities and states throughout the United States that demonstrate excellence in long-range planning, resource management, and agency recognition. Each agency is judged on its ability to address the needs of those it serves through the collective energies of citizens, staff, and elected officials.

Judges for the American Academy for Park and Recreation Administration considered criteria including the quality of long-range planning, the response to population and economic trends, the extent of public support, the quality of natural resource protection and the types of services to special population groups.

NRPA is an organization dedicated to educating professionals and the public on the essential nature of parks and recreation. Through learning opportunities, research, and communications initiatives, it strives to generate public support to advance the development of best practices and resources that help make parks and recreation indispensable elements of American communities.

First Day Hikes offered at every North Carolina State Park Jan. 1

First Day Hikes are now offered in every North Carolina state park and state recreation area January 1st, giving everyone an opportunity to exercise and celebrate nature as a New Year's Day tradition. On New Year's Day 2017, 2,049 hikers in North Carolina joined rangers and volunteers to walk a combined 4,952 miles along trails in the state parks and state recreation areas.

CONCESSIONS GROWTH

Recently, North Carolina state parks has seen a steady increase in revenues from gift shop sales. Prior to 2010, only a handful of parks offered merchandise available for the public to purchase, such as Mount Mitchell, Hanging Rock and Carolina Beach. In recent years, visitor centers at Cliffs of the Neuse, Raven Rock and Gorges State Parks have all been built to include designated retail areas. In addition, state parks merchandise can be purchased through the website at www.ncparkstore.com

Table 1.8 - Concession Revenues

Fiscal Year	Revenues
2009/10	$ 468,482
2010/11	$ 591,172
2011/12	$ 665,040
2012/13	$ 706,811
2013/14	$ 785,167
2014/15	$ 847,188
2015/16	$ 1,040,459
2016/17	$ 833,298

With a new focus on providing goods and merchandise to improve the customer experience and expand revenue opportunities, DPR has made a conscious effort to convert available space from visitor center lobbies into small retail areas and include concession space in all new visitor centers. Examples can be found at Kerr Lake, Dismal Swamp, Merchant's Millpond, Medoc Mountain, Goose Creek, Haw River, Stone Mountain, New River, Elk Knob, South Mountains, and Jones Lake. Closures due to facility repairs impacted concessions revenues in fiscal year 2016/17.

Sales have been brisk and comments from the public have been favorable. DPR emphasizes selling items that are educational, geared toward the souvenir seeker, camping necessities and that provide a memorable experience to our visitors.

Merchant's Millpond State Park

Gorges State Park

OPERATING CONTRACTS

DRP has a variety of contracts and lease agreements in place to run specific facilities, provide recreational opportunities and experiences and for equipment rentals. The contracts are issued through a bid process, which includes a request for proposals (RFPs) for prospective operators.

These contracts include four marina operations at Jordan Lake, Falls Lake and Kerr Lake state recreation areas, the elevator and associated facility management at Chimney Rock State Park, kayak/paddleboard rentals at Carolina Beach and Hammocks Beach State Parks, the hang gliding school at Jockey's Ridge State Park, beach equipment rental at Fort Fisher State Recreation Area and the bookstore at Fort Macon State Park. DPR receives a percentage of the gross revenues generated through each of these operations.

The Central Reservation System (CRS) was re-bid in 2017, and a new contract was awarded to Aspira in March 2018.

The new contract includes system expansion to other park units and operations, utilization of new technology as it becomes available, specific financial information security measures and other reporting measures. Like the previous contract, this turnkey centralized reservation system is funded solely through the fees collected for those who rent the campsites, shelters, cabins and other facilities.

DPR has also added new kayak/canoe concession agreements at Carolina Beach State Park and Hammocks Beach State Park. A power boat rental concession is also being negotiated at the Carolina Beach Marina.

Volunteers

The average value of volunteer time in North Carolina was estimated at $23.41/hr in 2017 by the *Independent Sector*, a nationally known provider that studies charitable impacts. Volunteers contributed about 62,298 hours in 2016/2017 to state parks. That equates to a value of $1,458,396 in volunteer hours**.** Volunteers serve North Carolina state parks in a number of functions including oyster shell bagging, constructing picnic tables, working special events, tree planting, trail work and repairing bridges. Some familiar organizations are behind our volunteers such as AmeriCorps, Big Sweep, Boy/Girl Scouts, Eagle Scouts, the military, local universities, colleges and school systems. Each volunteer receives a hand-written thank you note and those that volunteer significant hours are awarded DPR gifts.

Table 1.9 - Volunteer Hours

Year	Volunteer Hours
2013/14	69,851
2014/15	57,210
2015/16	62,135
2016/17	62,398

NATURAL AND CULTURAL RESOURCE PROTECTION

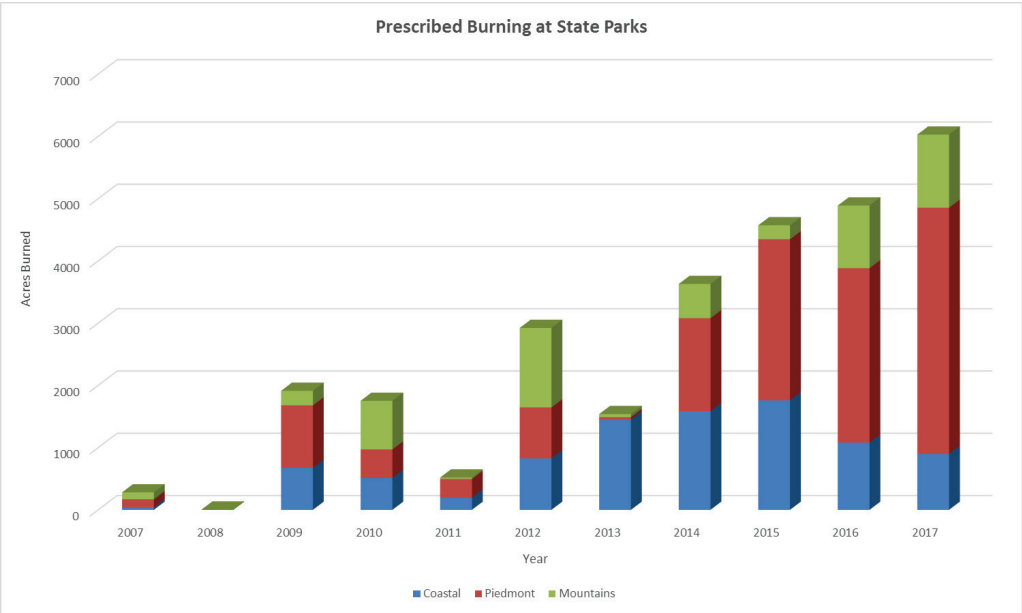
DPR is responsible for the protection of the natural and cultural resources within the state parks system. DPR's Natural Resources Program provides field staff, planning staff and construction staff with technical expertise on issues such as resource stewardship, scientific research, environmental review and compliance, and landscape planning.

This responsibility pervades all DPR's activities, from field operations and interpretive programming to the planning and construction of park facilities. The protection of these resources is mandated by the North Carolina Constitution and the State Parks Act and is directed by DPR's Natural Resource Management Policy.

Fire

- The prescribed fire program has grown rapidly over the last few years. For much of park history DPR burned only around 500 acres per year when over 10,000 acres was necessary. In response, DPR created a position of ecological burn coordinator, hired a burn crew, greatly expanded equipment capacity and revised fire management guidelines. The results have been significant. Fire has been initiated and plans developed for 30 parks with fire at 23 parks and natural areas (Figure 1.2). In 2017, 6,029 acres at 23 state parks were burned.
- There have been 190 prescribed fires totaling 17,528 acres between 2014 and 2017.
- Initiating fire programs on parks with no recent fire history is important. Since 2014 fire has been introduced to Hammocks Beach, Bay Tree, New River, Kerr Lake, Gorges, Occoneechee Mountain, and Jockeys Ridge.
- Fire is a cooperative endeavor. DPR works with numerous partners to attain our goals. Over the last few years we have cooperatively burned with the National Park Service, U.S Forest Service, N.C. Wildlife Resources Commission and Forest Service, and The Nature Conservancy. The N.C. Forest Service has assisted us to burn at 14 state parks.

Figure 1.2 - Prescribed Burning at State Parks 2007 -2017



- About 30 staff are trained every year as basic fire fighters to prepare them for wildfires on their parks and to participate on prescribed fires. There have been 48 wildfires reported on state parks since 2014.

Invasive Species

- Invasive species has emerged as a major threat to the health of our park's natural systems. DPR created the position of invasive species coordinator to head up control efforts. Major initiatives underway include the development of a treatment tracking process, centralized ordering of chemicals to assure proper treatment and efficient purchasing, and a database to record and store all information.
- Training of park staff is an ongoing process to keep everyone up to date on methodologies and permit requirements. Approximately 55 park staff are licensed pesticide applicators.
- Recent innovations in the program include and Invasive treatment calendar that is supplied to the parks allowing them access to the data on optimal treatment times, an invasive species prescription template so that treatments can be reviewed and an invasive treatment record process.
- Major species under management on state parks are kudzu, bamboo, phragmites, wisteria, privet, tree of heaven, hydrilla, lespedeza, Japanese stiltgrass and Japanese knotweed. Significant research on treatment techniques for microstegium are ongoing at Mitchell's Mill SNA.
- Terrestrial exotic plant control plans for high priority projects were initiated or continue on 25 state park units. DPR recently starting using domestic goats for kudzu control at Crowders Mountain and Lake James State Parks to great effect.
- Aquatic weed control, especially hydrilla, is a growing threat throughout North Carolina. In addition to the major effort at Lake Waccamaw to control hydrilla, a multi-agency effort began on the Eno River with cooperation between at least 13 different groups and governments to control hydrilla in the river. The effort has been successful and will continue over the next few years.

Restoration

- Restoration of forests and streams has become a major focus of natural resources. DPR manages significant areas where previous owners had converted lands to plantations or altered streams for agriculture. Water issues outside our boundaries often affect the flows coming on to state parks. A number of forest and stream restoration projects were initiated or continue throughout the system including:
    - Pine plantation removal and hardwood forest restoration at Raven Rock State Park. This project is being prepared for its first fire after the thinning.
    - Stone Mountain State Park: A major stream restoration was completed on the East Prong Roaring River.
    - Dismal Swamp State Park. The hydrologic restoration on 1,200 acres was completed including vegetation and water level monitoring.
    - Lake Waccamaw forest restoration in longleaf pine and pocosin habitats.
    - Lake James forest shortleaf/hardwood forest restoration.

    - Longleaf pine restoration at Goose Creek.
    - Projects are also underway at Deep River, Sandy Run Savannahs, Carvers Creek, and Lake Waccamaw.
- A natural communities GIS data set was created allowing for mapping of different habitat types within parks thus facilitating fire and other types of natural areas management.

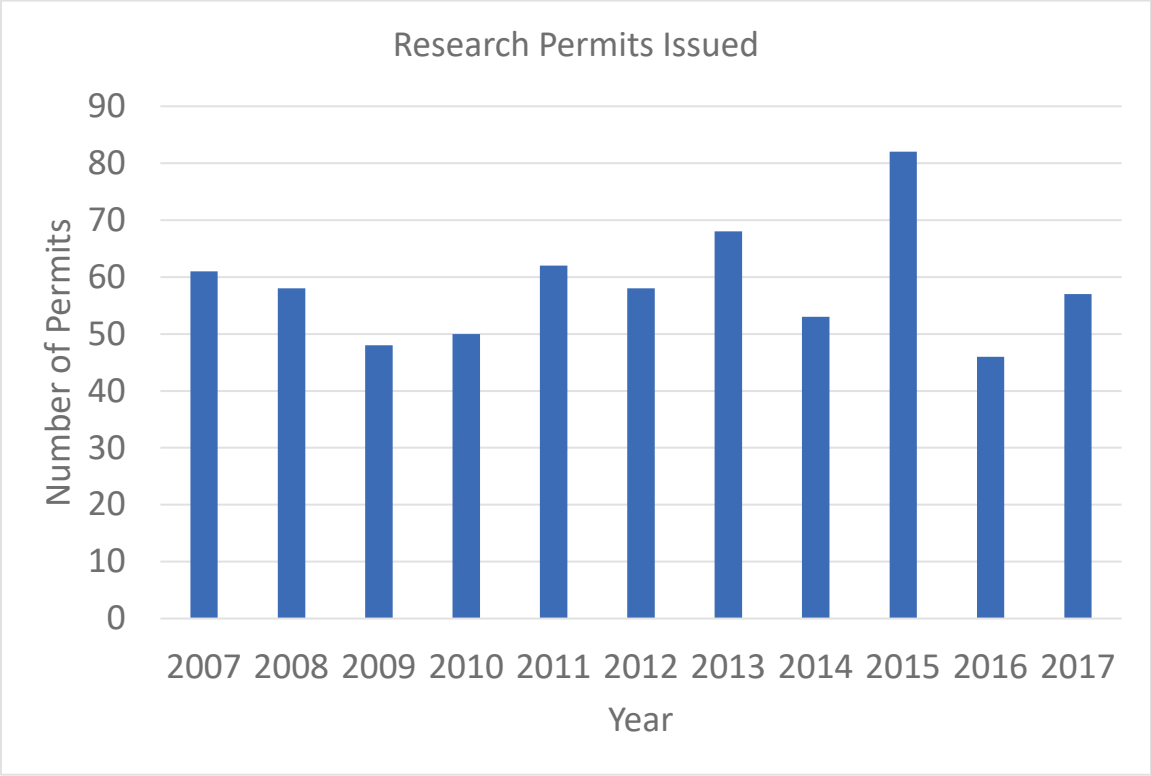
Natural Resource Inventory and Monitoring

- The Natural Resource Inventory Database (NRID) has been ongoing since 2003. NRID is a place to record natural resource data from multiple park sources. It now has 255,000 entries including over 28,000 photos. Recently, the database has been enhanced so that photographs are now vetted by experts from the NC Biodiversity Project.
- Deer herd health checks have become a standard feature throughout the system with seven state parks participating so far. This allows NC Wildlife Resources Commission to have a better state-wide understanding deer health
- A Geographic Information System (GIS) dataset was created to facilitate environmental compliance and park planning. The GIS dataset contains overlays for rare species, natural heritage areas, registered natural areas and park facilities (roads, park buildings, trails, etc.).
- The Natural Resources Program conducted intensive park surveys across the system for amphibians, birds, crustaceans, insects, mammals (focusing on bats), myriapods, plants, reptiles, spiders, and terrestrial and aquatic mollusks.
- Monitoring projects in state parks expanded to include numerous species. Examples are:
    - Eastern hellbender and common mudpuppy surveys at New River State Park
    - Green salamander population monitoring at Gorges and Chimney Rock State Parks
    - Wehrle's salamander population monitoring at Bullhead Mountain State Natural Area and Hanging Rock State Park
    - Rafinesque's big-eared bat, southeastern Myotis roost tree, and Virginia least trillium monitoring at Merchants Millpond State Park
    - Rafinesque's big-eared bat roost monitoring at Lumber River, Singletary Lake, and South Mountains State Parks
    - Red-cockaded woodpecker monitoring at Carvers Creek, Jones Lake, Singletary Lake State Parks, and Weymouth Woods State Natural Area.
    - Golden sedge, Cooley's meadowrue, and Venus flytrap monitoring at Sandy Run Savannas State Natural Area
- To date, DPR has organized 10 24-hour bio-blitzes, at Weymouth Woods Historic Nature Preserve, and Lake Waccamaw, Lake James, Goose Creek, Stone Mountain, Haw River, Mount Mitchell, Pilot Mountain and Carolina Beach State Parks, as well as a combined event covering the bay lakes of Bay Tree Lake, Jones Lake, and Singletary Lake State Parks. These events have brought together experts from a variety of fields to help add to the overall natural history of the parks."

Research

- DPR issued 990 scientific research and collecting permits from 2000 to Dec 17, 2017. These research projects covered a wide range of natural science topics, including: intensive bog vegetation surveys; citizen-science monitoring of Eastern Painted Buntings at coastal parks; fossil excavation at Lake Waccamaw; and hydrologic restoration work at Lake Phelps.

Figure 1.3 - Research Permits Issued 2007 - 2017



Natural and Cultural Resources Inventories

- Park lands were included in 15 county natural heritage surveys. The Natural Heritage Trust Fund provided partial funding for these projects, which verified old records and documented new occurrences of rare species and high quality natural communities.

INTERPRETATION AND EDUCATION

DPR offers a wide range of educational opportunities and resources. The Interpretation and Education (I&E) program focuses on special events at parks, interpretive programs at parks including guided hikes, canoe excursions and campground programs, professional development for rangers and teachers, visitor center exhibits and museums, science and cultural history field trips for students and special youth programs.

Interpretation and Education Professional Development

- New rangers attend a four-day Basic Interpretive Training course where they gain skills needed to develop best-practice interpretation and education programs. Beginning in 2018, all rangers

and educators will become Certified Interpretive Guides through the National Association for Interpretation.

- The Advanced Interpretive Training is a series of one-day workshops for park staff and other educators to enhance their skills as park educators. Workshops include Interpretation and Environmental Education for Young Children, Astronomy Interpretation, Interpretive Writing for Exhibits and Fire Ecology.
- Several division staff are certified by the American Canoe Association as instructors in kayak, canoe and Stand Up Paddleboard. Park staff leading paddling excursion for park visitors attend a one-day workshop taught by these certified instructors.

Science Education and Cultural History Field Trips

- Each park offers field trip experiences that are correlated with the North Carolina Department of Public Instruction's Essential Standards.
- The Junior Ranger activity guide offers outdoor activities for teachers and parents that are correlated with teaching standards.
- Most parks have their own unique curriculum guide, known as the Environmental Education Learning Experience, which has both park-based and classroom-based activities.
- Since 2007, DPR has operated a residential program at Haw River State Park. Over 5,000 students and adults participate in the Environmental Education Program at Haw River State Park. School groups are immersed in outdoor learning while spending up to four nights in the park cabins and lodge rooms.

Self-guided Interpretive Trails

- Forty TRACK Trails across the state offer self-guided brochures and trailhead signs geared towards children. This program is a partnership with Kids In Parks of the Blue Ridge Parkway Foundation and maintains long-term engagement with families to support healthy living and nature appreciation.

Exhibits and Museums

- The state parks system operates 27 exhibit halls and museums across the state.
- Every operated unit of the state park system maintains outdoor interpretive exhibits and informational signs to enhance the experience of visitors.

Interpretation & Education Program Participants

- As can be seen in Table 1-9, school program participation varies from year to year and is on a fairly flat trend, but all program participation is trending upwards. The relatively flat trend line can be attributed to lack of additional staff at the parks to interpret and educate the continually increasing visitation numbers.

Table 1.10 – Interpretation & Education Program Participation

Year	School Program Participation	All Program Participation
2009	145,998	267,015
2010	160,384	309,240
2011	149,157	334,013
2012	152,566	385,485
2013	152,991	414,087
2014	146,602	354,912
2015	142,082	429,318
2016	132,464	357,045
2017	131,035	320,798

PLANNING

New master plans have been completed or are nearing completion for newly acquired land at Hammocks Beach and Hanging Rock State Parks.

- In 2015, the state acquired 290 acres of property adjacent to the visitor center mainland of Hammocks Beach State Park. The master plan for Hammocks Beach, completed in August 2017, proposes numerous new program features which will support a variety of recreational and educational activities at the park.
- In 2014, two new parcels totaling 770 acres were transferred Hanging Rock State Park. The newly completed expansion master plan outlines long-term development of facilities at these historic properties which will support mixed recreational use while protecting the integrity of the parks numerous resources.

STATE TRAILS PROGRAM

The mission of the State Trails Program is "*to promote sustainable trail planning; to conserve our natural resources; insure the responsible use of public funds; and to facilitate low infrastructure economic development opportunities across the state.*" The mission is codified in the North Carolina General Statutes as GS 143B-135.90, Short title, "North Carolina Trails System Act." (1973, c. 670, s. 1; 2015-241, ss 14.30(f), (m).). The term "Trails" is an inclusive term that includes hiking trails, bicycling trails, equestrian trails, paddle trails, off-highway vehicle trails, and multi-use greenways.

The State Trails Program consists of a program manager, three (3) regional trails specialists, a state trails planner and a grants manager.

The State Trails Program mission is accomplished by providing the following services:

- Conducting and coordinating trail planning efforts across the state to promote interagency trail planning and to establish sustainable trails and/or sustainable trail segments.

- Providing consultation and technical assistance in trail planning, trail design, contract management, as well as training and education for the development of sustainable trails
- Grants Management: The State Trails Program administers the Federal Recreational Trails Program (RTP) and has historically administered the Adopt-A-Trail funding which has been suspended due to lack of funding. The State Trails Program is responsible for coordinating the RTP grants program with DPR, Department of Environment and Natural Resources and the Federal Highway Administration. The federal allocation for RTP is currently averaging $1.5 million per year.

Trail Planning - North Carolina's State Trails

Mountains to Sea State Trail

The Mountains-To-Sea State Trail (MST) was authorized by the General Assembly as a new unit of the state parks system in 2000. It was first envisioned more than three decades ago to cross the state from the Great Smoky Mountains in the west to Jockey's Ridge State Park on the Outer Banks. Since that time, over 659 miles have been designated, with 126 miles designated since 2010. In 2017, the General Assembly authorized a major addition to the MST, the Coastal Crescent Trail Route. This addition will roughly follow the Cape Fear River through the southern coastal plain, bringing the length of the MST to approximately 1,400 miles when it is completed.

In 2015, DPR adopted a master plan for the MST. The plan will advance the planning, construction and management of the MST by partners and future partners. Other goals include, but are not limited to: consolidation of previous planning efforts; definition and prioritization of sub-section plans and partners; development of statewide standards and guidelines; establishment of best management practices for the planning, construction, management and promotion of the MST; and the engagement of agencies, non-profit organizations and volunteers in this planning process.

Fonta Flora State Trail

A new state trail, the Fonta Flora State Trail, was authorized by the General Assembly in 2015. It is planned to connect Morganton to Asheville, circling Lake James on the way. Initial planning for this effort was undertaken in 2014 by Burke County and was focused on the Lake James loop. Since then, Burke County and DPR have partnered to update the 2014 Lake James Loop Master Plan. There has been active collaboration between DPR, Burke County, Marion, Morganton, Black Mountain, US Forest Service, Foothills Land Conservancy and Buncombe County for planning and trail development. Since the 2015 authorization, over 15 miles of trail have been constructed and designated. Several parcels of property have been purchased using Connect NC Bond funds to further the development of the trail especially in the sections around Lake James and between Old Fort and Black Mountain.

Deep River State Trail

The Deep River State Trail was established in 2007. Unlike the other state trails, this trail will incorporate both a land-based trail and a blueway (water based trail, e.g. river). The towns along the Deep River have a history of textile manufacturing and being connected by a once-active railroad. Planning for the trail has been completed in Randolph County, but is still needed in Chatham and Lee counties. No sections have been designated yet.

Hickory Nut Gorge State Trail

Another new state trail, the Hickory Nut Gorge State Trail was authorized by the General Assembly in 2017. While formal planning is ongoing, preliminary plans have the trail connecting Chimney Rock State Park, Lake Lure and Bearwallow Mountain. There has also been some interest in extending the trail to connect to South Mountains State Park. DPR will partner with Conserving Carolinas Land Conservancy and Foothills Land Conservancy to embark upon formal planning for this state trail.

Yadkin River State Trail and French Broad River State Trails

Planning is complete for the other two state trails—Yadkin River State Trail and French Broad River State Trail, which are both paddle trails (blueway). Ongoing maintenance and management of paddle accesses is essential. In the future, several additional access points on the Yadkin River may need to be planned. DPR will partner with the counties and municipalities for that planning.

Consultation and Technical Assistance

State Trails Program staff provide professional level consulting and technical assistance in the areas of sustainable trail planning, sustainable trail design, and contract management. Upon request, the staff also provide training and education to agencies and volunteers.

The State Trails Program provides professional level trail design, and contract management services to state parks. Professional design services traditionally account for approximately 30 percent of a standard trail contract. With staff providing these services, parks can convert that savings into the building of more trail.

The State Trails Program staff supports local communities, non-profit organizations and regional councils, in planning, promoting and designing sustainable trails. Recent examples include:

- Assisting with the Fonta Flora State Trail Master Plan in Burke County
- Advising the Conservation Fund on a system of equestrian trails in Hoke County
- Consulting with a local nonprofit organization in Halifax County on the development of a walking trail to support their Healthy Eating/Active Living initiative

Grants Management

Federal Recreational Trails Program Grants

The State Trails Program administers the Federal Recreational Trails Grant Program (RTP). The RTP in North Carolina is enabled by the Federal legislation, Fixing America's Surface Transportation (FAST) Act which reauthorized the RTP Program for fiscal years 2016 and 2020. RTP funding comes from the Federal Highways Administration (FHWA) through the N.C. Department of Transportation and is administered by the State Trails Program within the N.C. Division of Parks and Recreation. Since 1993, RTP funding in North Carolina has been used to provide recreational opportunities for hikers, equestrians, bicyclists, paddlers, and off-highway vehicle (OHV) users.

Supporting data from 1999 to 2017 indicates our state has received approximately $55,09,144 in requests for funding. From those requests, the state has awarded $30,617,385 to sustainable RTP trail projects statewide. These RTP funds, in combination with in-kind services and matching funds, total $62,197,495 that have been applied to trail and greenway projects for the citizens of North Carolina.

In 2016, the state awarded 21 RTP grant awards totaling $1.77 million and leveraged $2.4 million in matching funds to provide economic development and recreational resources to 16 North Carolina Counties.

In 2017, the State Trails Program received 75 applications requesting $6.3 million in funding for the $1.5 available. The state awarded 26 projects in 17 counties within North Carolina.

State Adopt-A-Trail Grant Program

The State Trails Program also administered the State's Adopt-A-Trail Grant Program (AAT), a grant program authorized in 1987 to provide funding to agencies and organizations to plan, develop, build and manage trails. This funding was instrumental in boosting low infrastructure economic development at the local level. This funding was also an asset in leveraging funding for larger grants. Total funding for the AAT program was $108,000 annually with grants being awarded through 2012. Funding for the AAT grant program was suspended in 2013 due to state budget shortfalls.

IMPROVING CUSTOMER SERVICE, COMMUNICATIONS AND OUTREACH

Working to ensure a high quality and enjoyable outdoor experience for the state parks system's 19 million annual visitors is a top priority for DPR. From 2015 through 2017, DPR initiated a variety of outreach and customer service efforts to improve visitor experience and agency efficiency and effectiveness.

Centralized Reservation System

The Central Reservation System (CRS) was re-bid in 2017, and a new contract was awarded to Aspira in March 2018.

The new contract includes system expansion to other park units and operations, utilization of new technology as it becomes available, specific financial information security measures and other reporting measures. Like the previous contract, this turnkey centralized reservation system is funded solely through the fees collected for those who rent the campsites, shelters, cabins and other facilities.

Advance reservations are not required for a campsite or picnic shelter at a state park if the facility is available, and at many parks, some campsites will be set aside for walk-in registration. Reservations for most facilities can be made up to 11 months ahead. A $2.50 surcharge per night's stay or per reservation supports the system. The state of North Carolina did not make any out-of-pocket expenditures for system development.

The state-of-the-art system helps the state parks and its rangers manage ever-growing visitation and provide valuable insight into visitor preferences and demographics. Data collected and available through the system show the average length of camping stay in North Carolina state parks is 2.76 days. Demographic information, visitor-use patterns and other critical information gathered through the system provide the agency with vital facts and figures that enhance planning and operations.

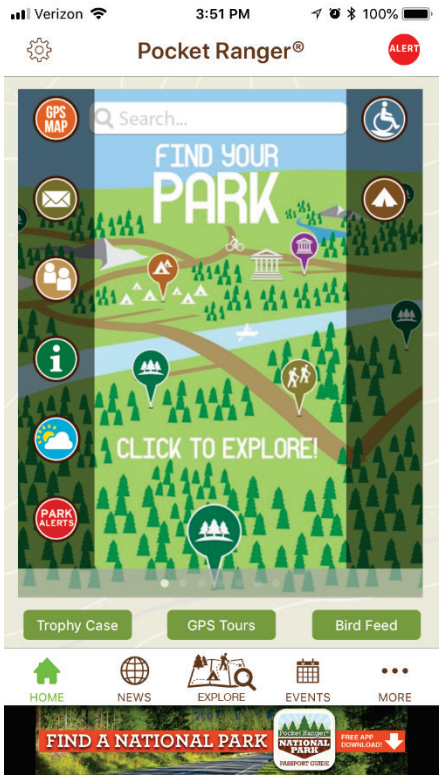
This system has increased the state parks system's exposure and led to increased visitation and revenues, which increases the opportunity to reach more citizens with the message of environmental stewardship. Visitor contact information obtained through the system provides the state park system the ability to web market facilities and services which was not available prior to launching the central reservation system. Visitors also now have the peace of mind to know, unlike before, that a campsite is available and reserved for their use upon arrival. Under previous practices, campsites and facilities were only available on a first-come, first-served basis at most parks.

North Carolina State Parks Mobile Application

The free Pocket Ranger mobile application for North Carolina's state parks, developed for smartphones by ParksByNature Network, has been ranked among the top 100 free navigation applications by Apple's iTunes.

The mobile application, or app, was introduced in May 2011 by the N.C. Division of Parks and Recreation in partnership with Friends of State Parks and ParksByNature Network. The app was among the first such comprehensive mobile applications for state parks systems created by New York-based ParksByNature.

The downloadable application for iPhone and Android smartphones allows visitors to plan trips and explore state parks with details readily at hand about park locations, trails, facilities, reservations, events and special news alerts. It also allows GPS-aided, state-of-the-art navigation of state parks, storage of detailed topographic maps and enhanced interactive features for social media. An "alert" feature supplies GPS coordinates to designated contacts in case of emergencies.



Website and Publications

DPR currently prints multiple different types of publications that are suited to each individual park's needs. The main three are a color brochure, a tear off map pad and a folded map.

In an effort to lower costs, the folded map was created. It combines the features that staff and visitors like about each, such as being folded down to pocket size and a color map. The folded map is inexpensive to produce and suitable for day-to-day visitor use for locating restrooms, trailheads as well as learning more about the park.

Carolina Beach State Park

1010 State Park Road, PO Box 475
Carolina Beach, NC 28428

910-458-8206
910-458-7770 Marina

carolina.beach@ncparks.gov

GPS: 34.0471, -77.9072

Activities

Education and Events: Rangers hold regularly scheduled educational and interpretive programs about the park. Contact the park office to arrange a special exploration of the park for your group or class. Educational materials about Carolina Beach State Park have been developed for grades 3-8 and are correlated to North Carolina's competency-based curriculum. The Carolina Beach program introduces students to basic plant biology focusing on carnivorous plants.

Visitor Center: In addition to the multiple educational programs offered, the park's visitor center features environmental education exhibits that focus on the diversity of the 13 different plant communities found within Carolina Beach State Park.

Camping: Family campsites (two accessible) are equipped with a picnic table and grill. Drinking water and restrooms with showers are nearby. The park gate is locked daily at posted closing hours. Campers cannot leave the park by vehicle after closing or before 8 a.m. except in an emergency. Two camping areas for **organized groups** are available by advance reservation only. These areas include picnic tables, grills and pit toilets. Water and shower facilities are not available. This area is accessible by foot only.

Picnicking: The picnic area is located near the banks of Snow's Cut, between the campground and marina. Under the shade of large oak trees, tables and grills supply all the necessities for dining. A wheelchair accessible site is also available. Water, restrooms and parking are conveniently located nearby.

Trails: Six miles of trails wind through a variety of distinct habitats at Carolina Beach State Park. Relatively flat and easy to walk, the trails offer an opportunity to observe the diversity of plant and animal life in the park. Bikes and horses are not allowed on the park trails.

Boating: A 54-slip marina with two public boat ramps is located at the junction of Snow's Cut and the Cape Fear River. Fuel, snacks, and fishing and camping supplies are available at the marina store. Restrooms and a laundry room are also available. Showers are provided for boat slip renters. Please contact marina staff for fees.

Fishing: Fish from the river bank, the wheelchair accessible fishing deck or launch your boat at the marina. Flounder, spot, sheepshead and speckled trout are waiting. A North Carolina Coastal Recreational Fishing License is required to fish in the park.

Swimming is prohibited throughout the park due to dangerous currents and sharp drop-offs existing near the shores.

Location

Carolina Beach State Park is located in New Hanover County along Dow Road, 10 miles south of Wilmington off N.C. 421.

Park Hours

North Carolina State Parks are open every day, with the exception of Christmas Day. Park hours vary with the seasons.

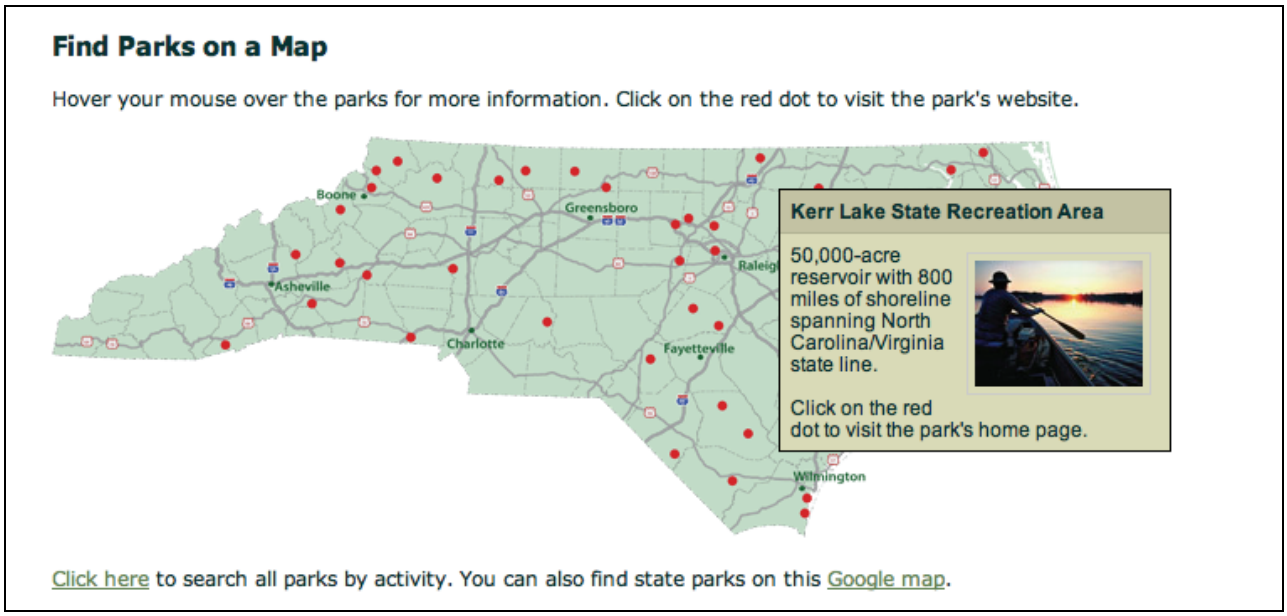
Please visit the North Carolina State Park website or contact the park office for the most current information about seasonal hours, activities, alerts, camping fees, programs, rules and weather.

www.ncparks.gov

Make a reservation online at ncparks.gov or call 1-877-722-6762.

NORTH CAROLINA STATE PARKS
Naturally Wonderful

The web site also includes created "Find A Park" Map feature with a clickable map of the state. When visitors hover over a park, they see a description of the park and a link to the park's home page.



The website now includes embedded Google maps, so visitors can customize their driving directions to the park. Created photo slideshows for each park, featuring scenic, activities, visitors, and volunteering have been added. Google Analytics were installed on the website to better track visitor usage.

DPR's Facebook, Twitter and Instagram pages, have continued to grow. It is a great way to disseminate information to the public in a quick and efficient manner.

Visitor Programs

Several programs have been implemented since the systemwide update to encourage visitors to the states parks. These include the 100 Mile Challenge, Passport Program and the Centennial Celebration that was put on to celebrate North Carolina State Parks 100th anniversary.

The **100 Mile Challenge** challenges residents and visitors to join a new health and wellness program encouraging them to complete 100 miles of hiking, walking, running, bicycling, paddling, skating, rolling their wheelchairs or riding their horses within the state.

Users keep track of their mileage as they progress toward 100 miles and earn digital badges along the way for exploring state parks and reaching milestones.

The 100 Mile Challenge is a coordinated in partnership with the Blue Cross Shield Hike NC! Program, which provides guided hikes in North Carolina State Parks.

The **Passport Program** which challenges residents and visitors to visit as many North Carolina state parks as you can by using your PASSPORT as a guide. Users can collect stamps, earn prizes and make "naturally wonderful" memories.

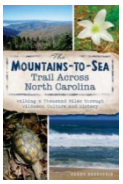
The **Centennial Celebration** was a celebration of the creation of the state park system in NC with the authorization of the first state park Mount Mitchell in 1916. North Carolina State Parks created the celebration to provide every North Carolinian and guests the opportunity to join the fun by hosting video premieres, creating long-lasting partnerships, holding celebration events and introducing new programs.

STATE PARK ON-LINE RETAIL STORE

The DPR web store has grown considerably in recent years and now offers over 400 products ranging from t-shirts and coffee mugs to hats and yearly passes. New products are added seasonally with the most popular item being hiking medallions. With the addition of more advertising through social media our Facebook page offers a "webstore Wednesday" ad of selected products. Another benefit is the ability of our warehouse to send products out via mail within 24 hours of purchase in most cases. The webstore continues to operate with an annual profit margin of over 40 percent.

Table 1.11 - Web Store Sales

Fiscal Year	Web Sales
2012/13	$ 2,271
2013/14	$ 3,695
2014/15	$ 6,019
2015/16	$ 13,281
2016/17	$ 26,701



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CHAPTER TWO

STATE OF THE SYSTEM

SYSTEM UNITS

As of December 31, 2017, the North Carolina state parks system consists of 79 units, 41 of which are operated for the visiting public with on-site staff and regular gate hours. The remaining units are managed in one of the following ways: as part of an operated park, as a satellite unit, or through cooperative and partnership agreements. For example, Lake Phelps is managed as part of Pettigrew State Park. Run Hill State Natural Area is a satellite of Jockeys Ridge State Park. Hemlock Bluffs State Natural Area is leased to the town of Cary in a cooperative agreement, and the Mountains-to-Sea State Trail is an example of a partnership with other agencies and organizations.

Table 2.1 - Size of the State Park System

SIZE OF THE NORTH CAROLINA			
STATE PARKS SYSTEM			
As of December 31, 2017			
Unit Type	**Units**	**Size (Acres)**	**Length(Miles)**
State Parks	34	161,926	
State Recreation Areas	4	13,256	
State Natural Areas	24	26,274	
State Lakes	7	29,135	
State Rivers	4	0	146
State Trails	6	2,052	1887
TOTAL	**79**	**232,643**	**2033**
Land Area		203,508	
Water Area (State Lakes)		29,135	
Easements		961	
TOTAL		**233,604**	

Figure 2.1 – North Carolina State Parks System

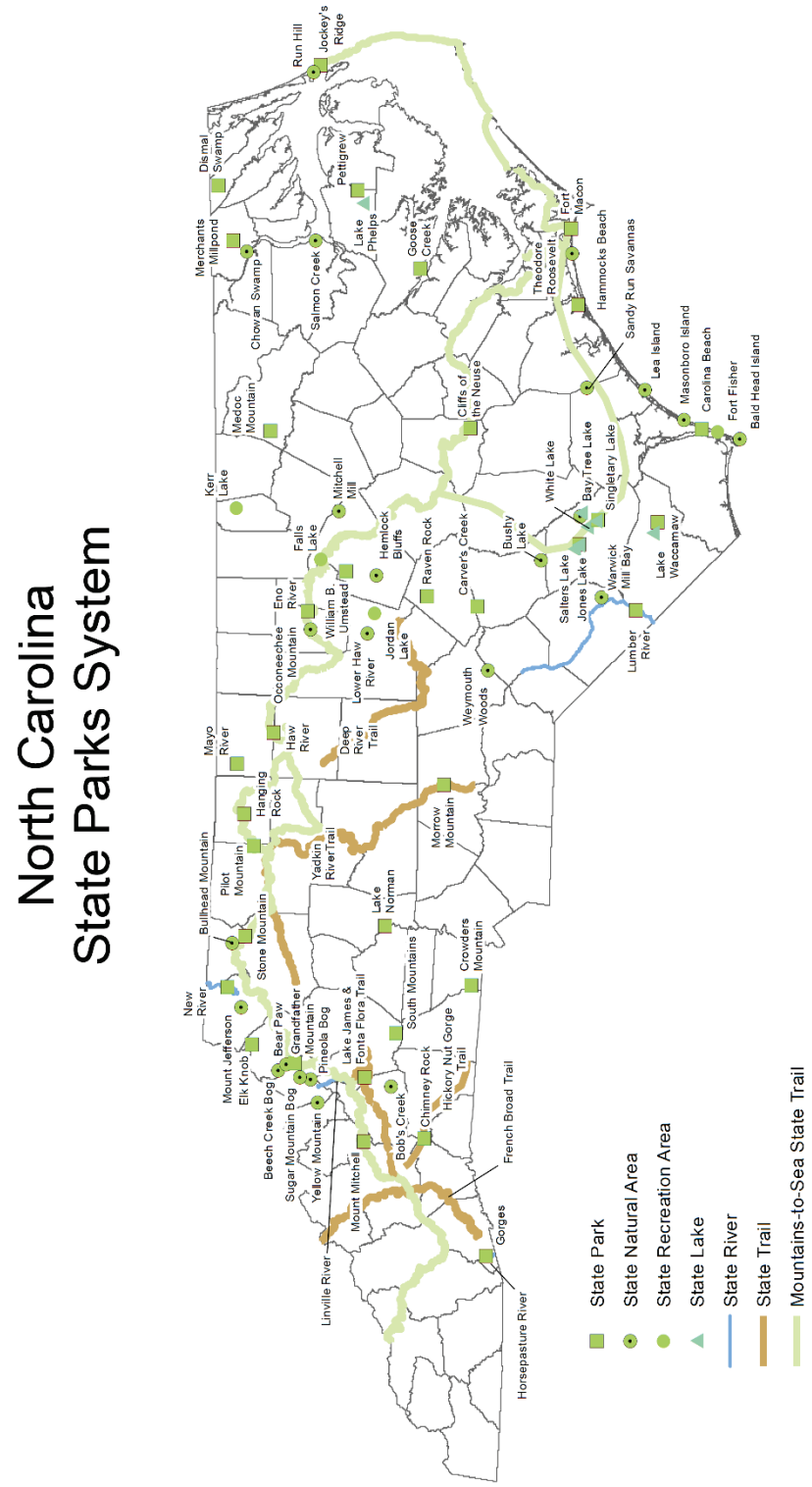


Table 2.2 - State Parks System Units with Acreages (as of December31, 2017)

State Parks	Size (acres)
CAROLINA BEACH	420
CARVERS CREEK	4,455
CHIMNEY ROCK	6,899
CLIFFS OF THE NEUSE	1,026
CROWDERS MOUNTAIN	5,210
DISMAL SWAMP	14,432
ELK KNOB	4,157
ENO RIVER	4,198
FORT MACON	424
GOOSE CREEK	1,672
GORGES	7,709
GRANDFATHER MOUNTAIN	2,687
HAMMOCKS BEACH	1,611
HANGING ROCK	7,899
HAW RIVER	1,429
JOCKEYS RIDGE	426
JONES LAKE	1,669
LAKE JAMES	3,685
LAKE NORMAN	1,926
LAKE WACCAMAW	2,398
LUMBER RIVER	12,309
MAYO RIVER	2,509
MEDOC MOUNTAIN	3,893
MERCHANTS MILLPOND	3,519
MORROW MOUNTAIN	4,501
MOUNT MITCHELL	1,996
NEW RIVER	3,015
PETTIGREW	5,945
PILOT MOUNTAIN	3,872
RAVEN ROCK	4,810
SINGLETARY LAKE	649
SOUTH MOUNTAINS	20,634
STONE MOUNTAIN	14,351
WILLIAM B. UMSTEAD	5,592
Total: 34	161,926

State Recreation Area	Size (acres)
FALLS LAKE	5,035
FORT FISHER	287
JORDAN LAKE	4,558
KERR LAKE	3,376
Total: 4	**13,256**
BALDHEAD ISLAND (3)	1,260
BAY TREE	609
BEAR PAW	384
BEECH CREEK BOG	295
BOB'S CREEK	0
BULLHEAD MOUNTAIN	442
BUSHY LAKE	6,396
CHOWAN SWAMP	6,066
HEMLOCK BLUFFS	97
LEA ISLAND	25
LOWER HAW RIVER	1,025
MASONBORO ISLAND	106
MITCHELL MILL	93
MOUNT JEFFERSON	1,123
OCCONEECHEE MTN.	206
PINEOLA BOG	91
RUN HILL	123
SALMON CREEK	0
SANDY RUN SAVANNAS	3,133
SUGAR MOUNTAIN BOG	102
THEODORE ROOSEVELT	265
WARWICK MILL BAY	0
WEYMOUTH WOODS	915
YELLOW MOUNTAIN	3,518
Total: 24	**26,274**

State Lakes (water area only)	Size (acres)
BAY TREE	1,418
JONES	224
PHELPS	16,600
WACCAMAW	8,938
SALTERS	315
SINGLETARY	572
WHITE	1,068
Total: 7	**29,135**

State Rivers	Size (acres)	Length (miles)
Horsepasture	0	4.5
Linville	0	13
Lumber	0	102
New	0	26.5
Total: 4	**0**	**146**

State Trails	Size (acres)	Planned Length (miles)	Designated Length (miles)
Deep River	1,274	90	0
Fonta Flora	0	100	18.7
French Broad River	0	117	117
Hickory Nut Gorge	0	50	0
Mountains-to-Sea	778	1400	668.5
Yadkin River	0	130	130
Total: 6	**2,052**	**1887**	**934**

TYPES OF UNITS

The State Parks Act of 1987 lists six types of units included in the North Carolina State Parks System: State Parks, State Natural Areas, State Recreation Areas, State Trails, State Rivers, and State Lakes.

- **State Park** - North Carolina's first State Park was established at Mount Mitchell in 1916 to protect the summit of the highest mountain in the eastern U.S. There are currently 34 State Parks in the system. Generally, State Parks are expected to possess both significant natural resource values and significant recreational values. State Parks are expected to accommodate the development of facilities but may vary in the extent of development depending upon what can be provided without damage to the scenic or natural features. Facilities are planned and constructed to keep disturbance of natural resources to a minimum and to leave a large portion of each park undisturbed and free from improvements and structures, except for trails.
- **State Natural Area** - State Natural Areas were established as a separate type of system unit in 1963 with the adoption of separate principles for management. The first State Natural Area was created that same year. There are currently 24 State Natural Areas. The purpose of State Natural Areas is focused on preserving and protecting areas of scientific, aesthetic, or ecological value. Facilities are limited to those needed for interpretation, protection, and minimum maintenance. Generally, recreational and public use facilities such as camping, swimming, picnicking and the like are not provided in State Natural Areas.
- **State Recreation Area** - State Recreation Areas are sites where the primary purpose is outdoor recreation, rather than preservation. More intensive development of facilities is provided than in State Parks. Protection and enjoyment of the natural resources are still important, and the sites are expected to contain scenic and attractive natural features. Development is planned and constructed to keep a "reasonable amount" of each area undisturbed and free from improvements and structures. The first State Recreation Area was added to the system in 1971, and principles to guide the development and operation of State Recreation Areas were adopted in 1974. There are currently four State Recreation Areas.
- **State Trail** - The North Carolina Trails System Act was passed in 1973 to help provide for the state's outdoor recreation needs and to promote public access to natural and scenic areas. The act prescribed methods for establishing a statewide system of scenic trails, recreation trails, and connecting or side trails. The Trails System includes "State Trails", which are designated and managed as units of the state parks system, and "designated trails", which are regional connector trails managed by other governmental agencies or organizations. At present there are six State Trails.
- **State River** - The Natural and Scenic Rivers System was created by the 1971 General Assembly to preserve and protect certain free flowing rivers, their water quality and their adjacent lands for the benefit of present and future generations. The Natural and Scenic Rivers Act established criteria and methods for inclusion of components to the system. Components of the Natural and Scenic Rivers System are State Rivers and are also units of the state parks system. Currently there are four State Rivers.

- **State Lake** - Chapter 165 of the Laws of 1929 specified that "all lakes now belonging to the State having an area of 50 acres or more" should be "administered as provided for other recreational areas now owned by the State." This allowed the then-Department of Conservation and Development to assume management authority for seven Coastal Plain lakes that became units of the state parks system known as State Lakes. Most of these are administratively included as part of an adjoining State Park, but one of the lakes (White Lake) has no public ownership on its shoreline.

VISITATION

Total visitor attendance for 2017 was 19,390,801. Visitation fluctuates from year to year based on weather conditions, facility closures, and the state of the economy, but the trend over time is for increasing visitation (Figure (2.2).

Park units with the highest attendance have been the state recreation areas located on reservoirs (Kerr Lake State Recreation Area, Jordan Lake State Recreation Area, and Falls Lake State Recreation Area) as well as coastal parks and recreation areas located in popular vacation destinations (Jockey's Ridge State Park, Fort Macon State Park and Fort Fisher State Recreation Area). These six park units accounted for over 6 million visits (Table 2. 3). Other parks that have seen a large increase in visitation are those in close proximity to densely populated areas of the state, such as the Raleigh / Durham and Charlottesville areas. These parks include Eno River State Park, William B. Umstead State Park and Crowders Mountain State Park.

Figure 2.2 – Visitation to North Carolina State Parks

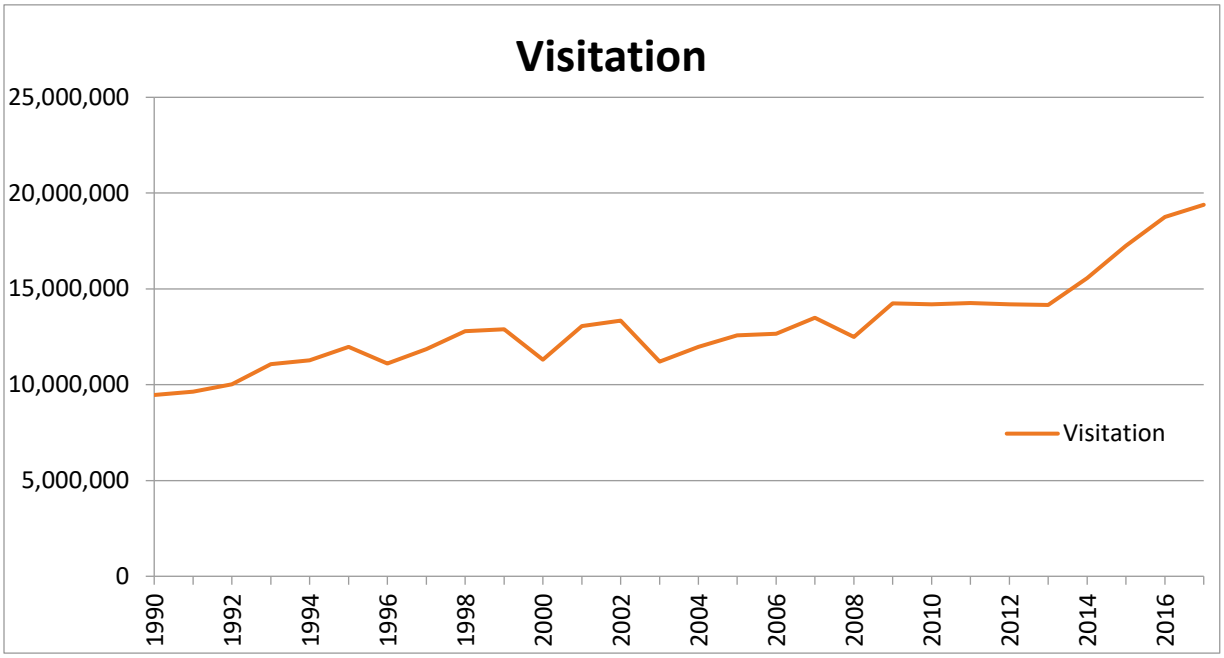


Table 2.3 - State Park Visitation by Park Unit 2017

North Carolina State Parks System Unit	Total Visits 2017
Carolina Beach State Park	797,375
Carvers Creek State Park	67,642
Chimney Rock State Park	253,715
Cliffs of the Neuse State Park	260,820
Crowders Mountain State Park	888,039
Dismal Swamp State Park	137,820
Elk Knob State Natural Area	44,825
Eno River State Park	640,172
Falls Lake State Recreation Area	1,033,861
Fort Fisher State Recreation Area	792,584
Fort Macon State Park	1,543,772
Goose Creek State Park	299,100
Gorges State Park	196,556
Grandfather Mountain State Park	87,648
Hammocks Beach State Park	175,195
Haw River State Park	65,187
Hanging Rock State Park	672,611
Jones Lake State Park	154,721
Jordan Lake State Recreation Area	1,485,956
Jockey's Ridge State Park	1,560,254
Kerr Lake State Recreation Area	1,120,837
Lake James State Park	586,215
Lake Norman State Park	962,576
Lake Waccamaw State Park	134,334
Lumber River State Park	72,731
Mayo River State Park	56,783
Merchants Millpond State Park	240,196
Medoc Mountain State Park	150,397
Mount Jefferson State Natural Area	131,498
Mount Mitchell State Park	375,471
Morrow Mountain State Park	500,869
New River State Park	253,718
Occoneechee Mountain State Natural Area	168,927
Pettigrew State Park	69,453
Pilot Mountain State Park	801,954
Raven Rock State Park	236,258
Singletary Lake State Park	25,531
South Mountains State Park	296,773
Stone Mountain State Park	440,217
Weymouth Woods State Natural Area	69,380
William B. Umstead State Park	1,538,830
System Total	**19,390,801**

VISITOR FACILITIES

In July 2017, the state parks system contained numerous facilities to enhance the visitor experience. This figure does not include bridges, walkways, pavement, trails, or other structures.

Table 2.4 - Summary of Visitor Facilities in the North Carolina State Parks System

FACILITY	TOTAL	FACILITY	TOTAL
Amphitheater	24	Interpretive Building	8
Auditorium	16	Laboratory	1
Bathhouse	18	Lodge	8
Boat Dock	70	Meeting Room	14
Boat Ramp	41	Museum	2
Boathouse	6	Museum/Exhibit Hall	24
Cabin - Group	68	Park Office	21
Cabin - Improved	20	Picnic Area	63
Campsite - Electric Hookups	511	Picnic Shelter	121
Campsite - Equestrian	20	Pier	8
Campsite - No Hookups	1319	Play Area	3
Campsite - Water & Electric	755	Play Area w/Equipment	26
Canoe Launch Point	23	Pool	2
Canoe Rental Building	1	Primitive Campsite – Boat In	30
Classroom	19	Primitive Campsite - Drive To	26
Community Building	8	Primitive Campsite - Hike In	71
Concession	11	Primitive Campsite - Paddle To	31
Dining Hall	7	Primitive Campsite - Walk In	133
Disc Golf Hole	9	Restaurant	3
District Office	1	Shelter	9
Entrance Station	24	Showerhouse	74
Environmental Ed. Center	6	Swimming Area - Freshwater	18
Fishing Pier	24	Swimming Area - Ocean or Sound	5
Group Campsite - Drive To	62	Toilet Building	113
Group Campsite - Hike In	9	Toilet Building - Flush	13
Group Campsite - Walk In	28	Toilet Building - Non-Flush	76
Group Campsite - Paddle In	9	Visitor Center	26
Historic Building	70	Water Tank	6
Information Station	6		

FUTURE NEEDS

Park master plans and general management plans have identified future needs for land acquisition and facility development in each park. Table 2.5 shows new construction and renovation needs and Table 2.6 shows identified land acquisition needs for each park. Parks that are noted with an "*" have current General Management Plans (GMP's) which plan for the next 5 years of facility development.

Table 2.5 - Construction and Repair Needs at Existing Parks (- Denotes Current GMP)*

Park Name	New Construction	Repair & Renovation	Total Cost
Baytree Lake*	$200,000	$0	$200,000
Carolina Beach*	$1,200,000	$953,000	$2,153,000
Carvers Creek	$30,375,000	$4,778,000	$35,153,000
Chimney Rock	$35,333,000	$1,200,000	$36,533,000
Cliffs of The Neuse*	$767,000	$223,000	$990,000
Crowder's Mountain*	$5,469,000	$3,390,000	$8,859,000
Deep River Trail	$1,708,000	$0	$1,708,000
Dismal Swamp*	$1,100,000	$1,140,000	$2,240,000
Eno River*	$5,954,000	$460,000	$6,414,000
Falls Lake*	$7,395,000	$5,301,000	$12,696,000
Fort Fisher*	$850,000	$400,000	$1,250,000
Fort Macon*	$632,000	$275,000	$907,000
Goose Creek*	$2,100,000	$660,000	$2,760,000
Gorges*	$6,500,000	$0	$6,500,000
Hammocks Beach	$10,740,000	$1,832,809	$12,572,809
Hanging Rock	$25,120,000	$222,753	$25,342,753
Haw River	$25,983,975	$100,304	$26,084,279
Jockey's Ridge*	$1,207,000	$1,747,000	$2,954,000
Jones Lake*	$653,000	$934,000	$1,587,000
Jordan Lake*	$493,000	$17,600,000	$18,093,000
Kerr Lake	$17,062,815	$16,849,315	$33,912,130
Lake James*	$11,963,000	$433,000	$12,396,000
Lake Norman	$2,308,823	$5,681,995	$7,990,818
Lake Waccamaw	$7,691,291	$0	$7,691,291
Lower Haw River	$271,309	$0	$271,309
Lumber River	$18,864,640	$0	$18,864,640
Medoc Mountain*	$8,789,000	$15,000	$8,804,000
Merchants Mill Pond*	$376,000	$2,183,000	$2,559,000
Mitchell's Mill	$247,853	$0	$247,853
Morrow Mountain	$10,225,255	$2,453,224	$12,678,479
Mount Mitchell*	$600,000	$4,670,000	$5,270,000
Mount Jefferson	$2,560,397	$0	$2,560,397
New River*	$4,150,000	$0	$4,150,000
Occoneechee Mountain*	$688,000	$0	$688,000
Pettigrew*	$3,295,000	$1,055,000	$4,350,000

Park Name	New Construction	Repair & Renovation	Total Cost
Pilot Mountain*	$6,356,000	$1,642,000	$7,998,000
Raven Rock*	$2,590,000	$173,000	$2,763,000
Singletary Lake	$2,291,484	$0	$2,291,484
South Mountain	$54,516,726	$0	$54,516,726
Stone Mountain*	$3,034,000	$5,928,000	$8,962,000
Weymouth Woods*	$1,336,000	$1,654,000	$2,990,000
William B. Umstead*	$4,134,000	$9,087,000	$13,221,000
GRAND TOTAL:	**$327,131,568**	**$93,041,400**	**$420,172,968**

Table 2.6 - State Parks System Land Acquisition Needs

NORTH CAROLINA STATE PARKS SYSTEM LAND ACQUISITON NEEDS						
as of July 1, 2017						
Unit	Planned Acres	Current Acres	Critical Acres	Important Acres	Total Future Needs	
					Acres	Est. Cost
Bald Head Island	1,280	1,260	0	20	20	$200,000
Bay Tree	1,455	609	766	80	846	$1,200,000
Bear Paw	826	384	0	442	442	$1,200,000
Beech Creek Bog	777	120	176	481	657	$3,250,000
Bob's Creek	6,100	0	3,750	2,350	6,100	$8,800,000
Bullhead Mountain	1,246	442	186	618	804	$3,460,000
Bushy Lake	7,832	6,343	774	715	1,489	$3,100,000
Carolina Beach	562	420	143	0	143	$5,000,000
Carvers Creek	8,316	4,347	268	3,701	3,969	$20,000,000
Chimney Rock	11,407	6,892	857	3,658	4,515	$17,500,000
Chowan Swamp	6,066	6,066	0	0	0	$0
Cliffs of the Neuse	3,506	1,097	402	2,007	2,409	$1,860,000
Crowders Mountain	5,942	5,210	347	386	732	$5,900,000
Deep River	2,319	1,274	74	971	1,045	$5,000,000
Dismal Swamp	14,963	14,432	354	177	531	$500,000
Elk Knob	12,131	4,077	1,484	6,570	8,054	$10,600,000
Eno River	6,406	4,204	1,393	809	2,202	$19,000,000
Falls Lake	5,042	5,035	0	7	7	$300,000
Fort Fisher	289	287	0	2	2	$300,000
Fort Macon	582	424	0	158	158	$1,000,000
Goose Creek	2,518	1,672	236	611	847	$750,000
Gorges	9,431	7,709	462	1,261	1,722	$5,000,000
Grandfather Mountain	4,651	3,436	458	756	1,215	$3,300,000
Hammocks Beach	1,842	1,611	0	231	231	$7,000,000
Hanging Rock	14,948	7,899	2,742	4,307	7,049	$9,500,000
Haw River	7,220	1,429	1,779	4,012	5,791	$19,000,000
Hemlock Bluffs	97	97	0	0	0	$0
Jockeys Ridge	430	426	0	4	4	$700,000
Jones Lake	1,734	1,669	0	65	65	$100,000

Unit	Planned Acres	Current Acres	Critical Acres	Important Acres	Total Future Needs	
Jordan Lake	4,558	4,558	0	0	0	$0
Kerr Lake	3,537	3,376	0	161	161	$2,000,000
Lake James	6,007	3,685	540	1,783	2,322	$4,350,000
Lake Norman	2,039	1,937	28	74	102	$1,275,000
Lake Waccamaw	6,504	2,398	2,158	1,948	4,106	$6,000,000
Lea Island	117	25	0	92	92	$1,000,000
Lower Haw River	3,487	1,025	150	2,312	2,462	$7,300,000
Lumber River	22,125	12,309	1,419	8,398	9,816	$9,200,000
Masonboro Island	106	106	0	0	0	$0
Mayo River	7,260	2,509	838	3,913	4,751	$7,000,000
Medoc Mountain	6,813	3,893	945	1,975	2,920	$10,000,000
Merchants Millpond	8,380	3,519	1,613	3,249	4,861	$4,350,000
Mitchell Mill	149	93	0	56	56	$450,000
Morrow Mountain	7,169	4,501	1,582	1,086	2,668	$3,500,000
Mountains-to-Sea Trail	2,755	778	0	1,977	1,977	$0
Mount Jefferson	2,252	1,123	335	795	1,129	$8,200,000
Mount Mitchell	7,979	1,996	5,318	666	5,983	$23,000,000
New River	6,891	2,929	788	3,174	3,962	$19,000,000
Occoneechee Mtn	273	190	19	64	83	$1,500,000
Pettigrew	10,892	5,945	103	4,844	4,947	$7,000,000
Pilot Mountain	6,465	3,872	564	2,030	2,593	$7,500,000
Pineola Bog	191	91	7	93	100	$1,500,000
Raven Rock	8,151	4,810	78	3,263	3,341	$7,400,000
Run Hill	123	123	0	0	0	$0
Salmon Creek	1,293	0	994	299	1,293	$4,500,000
Sandy Run Savannas	9,391	3,133	0	6,258	6,258	$3,250,000
Singletary Lake	823	649	0	174	174	$0
South Mountains	21,412	19,830	466	1,116	1,582	$1,650,000
Stone Mountain	18,600	14,351	375	3,874	4,249	$1,300,000
Sugar Mountain Bog	333	102	0	231	231	$2,600,000
Theodore Roosevelt	265	265	0	0	0	$0
Warwick Mill Bay	1,021	0	996	25	1,021	$1,362,000
Weymouth Woods	1,573	915	232	426	658	$3,500,000
William B. Umstead	5,990	5,599	340	51	391	$3,000,000
Yellow Mountain	12,489	3,468	6,964	2,057	9,021	$4,600,000
Totals	**337,331**	**202,974**	**43,503**	**90,863**	**134,359**	**$310,807,000**

CHAPTER THREE

RESOURCE EVALUATION

As stated in the North Carolina Division of Parks and Recreation (DPR) mission, the significant archaeological, geologic, scenic, recreational and biological resources of North Carolina should be represented in a comprehensive state parks system. These resources have been categorized into 108 themes. Continued progress has been made in the last five years to improve the representation of these themes in the state parks system. Continual progress is being made to increase theme representation within the state park system with the ongoing land acquisition program. However, despite the recent gains several themes continue to be under-represented.

This chapter contains an evaluation of the archaeological, geologic, scenic, and biological resources in the state parks system and identifies themes inadequately protected by the system. Expansion of the state parks system to provide additional protection to these inadequately represented themes is a high priority. The provision of recreational resources will be addressed through the planning process for individual units of the state parks system. This site-specific analysis is needed to mesh the system's mission of preserving unique natural resources and providing public recreation. Public preferences for outdoor recreation activities are presented in Chapter Four.

EVALUATION

To fulfill these mandates for the first Systemwide Plan, five committees were formed to analyze the unique resource categories cited in the Act. Committees were composed of academic and state experts and representatives of relevant citizen groups. They were charged with fulfilling the following objectives:

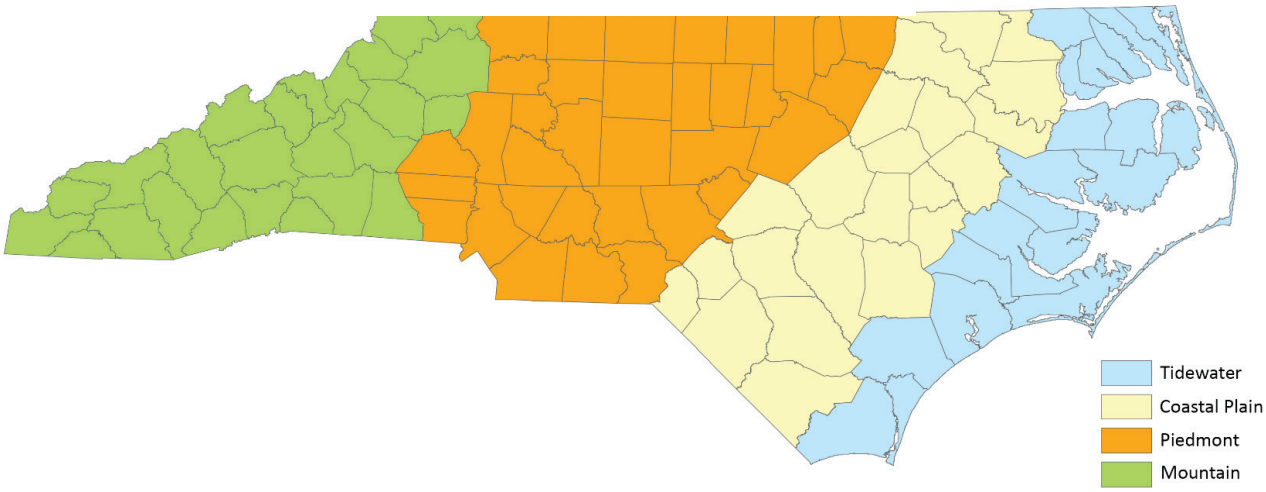
1. Define resource themes within each of the five resource categories;
2. Determine the significance of themes within geographic regions;
3. Identify representation of themes within state parks system units;
4. Evaluate the representation of themes within geographic regions; and
5. Rank the amount of protection that park units provide for significant biological, geological, scenic and archeological resources.

Biological, geological, scenic and recreational resources were reevaluated by DPR of Parks and Recreation (DPR) for this plan update. The archaeological resources have not been reevaluated since the original plan because there are no "very high" protection needs. The evaluation of biological and geological resources has been revised in consultation with the Natural Heritage Program and the NC Geological Survey.

Definition of Resource Themes - Within each resource category cited in the State Parks Act (archeological, geological, scenic, recreational and biological) are subcategories called resource "themes". The committees identified 108 themes that should be protected in order to preserve representative examples of unique biological, geological, scenic, and archeological resources in a comprehensive state parks system (Table 3.1). Definitions of themes are included in Appendix D.

Significance of Themes Within Regions - After identifying resource themes, the committees rated their significance within four natural regions: Tidewater, Coastal Plain, Piedmont, and Mountain. The committees determined the level of significance of each theme in each region and rated the level of significance as “high”, “moderate”, “low”, or “none” based on the quality, quantity and diversity of the theme in the region. For themes that did not exist in a region, no rating is assigned. The significance of themes within regions is found in the columns labeled "Significance" in Tables 3.2 through 3.5.

Figure 3.1 - Natural regions of North Carolina.



Representation of Themes in Parks Within Geographic Regions - The next step in the process is to determine whether resource themes are adequately represented in the state parks system within each region. The adequacy of the protection within the regions is rated as either “adequate”, “moderate”, “little”, or “none”. Themes that do not exist in a region were not labeled. Judgments were based upon the quality, quantity and diversity of the theme being protected. Committee results and staff updates from the additional acreage added in the state park system are listed in columns labeled "Representation" in Tables 3.2 through 3.5.

Duplications and Deficiencies in the State Parks System - Deficiencies in the North Carolina state parks system exist where there is inadequate representation of unique archeological, geological, scenic, recreational, and biological themes (Tables 3.2 through 3.5). An indication of deficiencies and duplications can be derived by examining the representation and significance of themes defined by the resource committees.

Role of the One NC Naturally Conservation Planning Tool- DPR has committed to participating in the Department’s Conservation Planning Tool (CPT). The CPT provides a framework for land conservation and sustainable growth across the state by identifying the resources required for a healthy environment. The primary assessment used by DPR is the Biodiversity and Wildlife Habitat Assessment. This assessment contains summaries of much of the information already used by DPR as well as additional information. Although the CPT does not contain enough detail in its assessments to fully evaluate a potential new park unit, it is very useful for estimating the scope of a unit and potential connections to other conservation priorities.

Figure 3.2 - Chimney Rock State Park area – overlay of the Conservation Planning Tool: Biodiversity and Wildlife Habitat Assessment

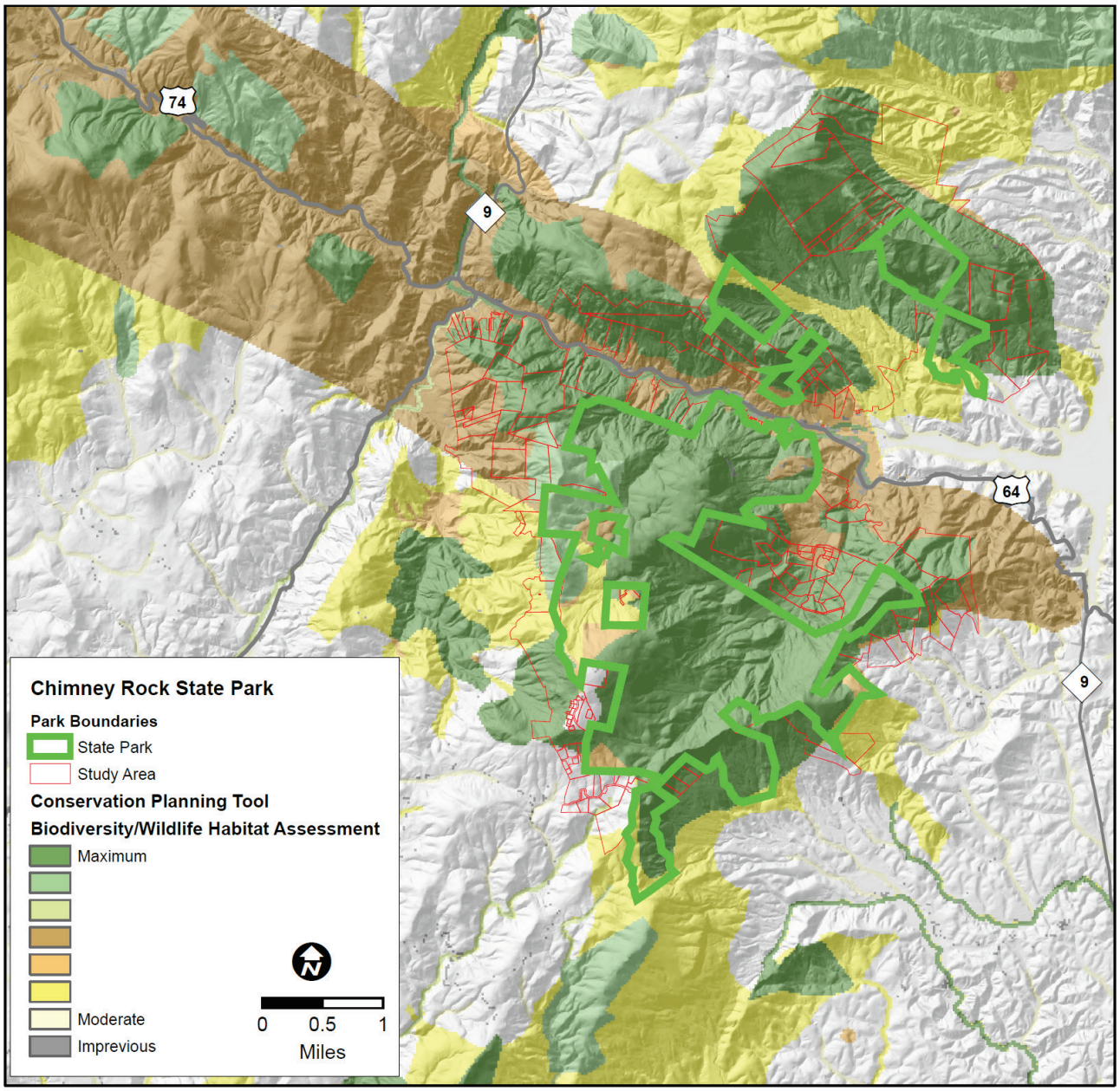


Table 3.1. - Themes Identified by Resource Evaluation Committees

BIOLOGICAL	GEOLOGICAL	ARCHEOLOGICAL	SCENIC
Spruce-Fir Forests	Barrier Islands and Shoreline	*PREHISTORIC*	Scenic Vistas
Grass and Heath Balds	Estuaries	Village	Reservoirs/Lakes
Northern Hardwood Forests	Continental Shelf	Campsite/ Activity Area	Waterfalls
Mountain Cove Forests	Relict Coastal Features	Shell Midden	Rivers
Piedmont and Coastal Plain	Carolina Bays	Burial/Cemetery	Whitewater Streams
Mesic Forests	Fluvial Depositional Features	Quarry/Soapstone	Forests
Piedmont and Mountain Dry	Peatlands and Interstream	Quarry/Other	Meadows and
Coniferous Woodlands	Wetlands	Shelter/Cave	Grasslands
Montane Oak Forests	Natural Lakes and Ponds	Rock Art	Swamps
Piedmont and Coastal Plain	Caves, Sinks, and Springs	Trail/Path	Pocosins
Oak Forests	Dissected Uplands	Underwater	Marshes
High Elevation Rock Outcrops	Inselbergs (Monadnocks)	Other	Gorges
Low Elevation Cliffs and Rock Outcrops	Cliffs		Rock Outcrops
Coastal Plain Marl Outcrops	Exfoliation Outcrops	*HISTORIC*	Islands
Granitic Flatrocks	Gorges, Rapids, Waterfalls	Recreation	Caves and Cliffs
Mafic Glades and Barrens	Mass Wasting Features	Public Works	Bays and Estuaries
Maritime Grasslands	Faults, Joints, and Related	Public/Civic/Religious	Seashores
Maritime Upland Forests	Features	Commercial	Scenic Highways
Dry Longleaf	Folds and Related Features	Urban/Domestic	
Pine Communities	Intrusions	Rural/Domestic	
Blackwater Coastal Plain	Volcanic Features	Cemetery	
Floodplains	Metamorphic Features	Industrial	
Brownwater Coastal Plain	Sedimentary Features	Mills	
Floodplains	Fossils	Transportation	
Piedmont and Mountain	Unusual Rock Types	Military	
Floodplains		Underwater	
Riverine Aquatic Communities		Other	
Mountain Bogs and Fens			
Upland Seepages and		*STANDING STRUCTURE*	
Spray Cliffs		Recreation	
Piedmont Upland Pools		Public Works	
and Depressions		Public/Civic/Religious	
Coastal Plain Nonalluvial		Commercial	
Mineral Wetlands		Urban/Domestic	
Peatland Pocosins		Rural/Domestic	
Streamhead Pocosins		Cemetery	
Wet Pine Savannas		Industrial	
Coastal Plain Depression		Mills	
Communities		Transportation	
Natural Lake Communities		Military	
Maritime Wetland Forests		Other	
Freshwater Tidal Wetlands			
Estuarine Communities			

ARCHEOLOGICAL THEME REPRESENTATION

Five archeological themes have high protection needs: prehistoric village (Coastal Plain, Piedmont), prehistoric burial/cemetery (all regions), standing structure mills (Mountain), historic industrial (Piedmont, Mountain) and historic commercial (Piedmont, Mountain). The most duplicated themes include prehistoric campsite/activity areas, historic rural-domestic, and standing structure rural-domestic.

Archeological themes as defined by the archeological committee are relatively well covered by the state parks system. This is not to say they are well preserved or interpreted, but simply that most archeological themes exist, or are likely to exist, within the state parks system. Expansion needs to protect significant archeological themes are identified by bold capital letters in Table 3.2. The committee recommended that the state should take action to preserve inadequately protected themes before establishing new units to represent themes that are already well represented and protected within the state parks system.

Archeological surveys have been conducted in portions of 19 units of the state parks system as part of the capital development construction process. Prior to ground-disturbing activities (e.g., road construction, capital improvements), archeological surveys are often required to identify and evaluate any cultural resources that may be adversely affected. Such a piecemeal approach to identifying archeological values within state parks has resulted in an uncoordinated and inadequate inventory. The archeological committee also made the following recommendations:

1. The state parks system should consider conducting cultural resource surveys and evaluations in-house. Doing so would considerably speed up the planning process, facilitate compliance with regulatory requirements, and aid in the development of interpretive programming. It is recommended that DPR employ two professional archaeologists (master's degree or better) and one laboratory technician to manage the cultural resource program. In addition, an architectural historian should be hired under contract to conduct a comprehensive inventory and evaluation of all standing structures in the parks.

2. It is recommended that DPR continue training staff in the overall principles and procedures of cultural resource management. Proposed program topics include:
    a. current state cultural resource protection laws (e.g., the Archeological Resources Protection Act, the Unmarked Human Burial and Human Skeletal Remains Act);
    b. the general prehistory and history of North Carolina;
    c. identification and treatment of cultural materials;
    d. proper approaches to recording and interpreting cultural resources in general; and
    e. cultural resource preservation and management procedures.
3. DPR should employ one or more trained individuals to compile and synthesize the extant cultural resource information available within DPR and the Division of Archives and History.

Table 3.2. - Statewide Significance of Archeological Themes and Their Representation in the State Parks System

THEMES	REGIONS							
	TIDEWATER		COASTAL PLAIN		PIEDMONT		MOUNTAIN	
	Significance	Representation	Signifi-cance	Representa-tion	Sig-nifi-cance	Representa-tion	Signifi-cance	Representation
PREHISTORIC ARCHEOLOGICAL: Village	High	Adequate	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	High	Adequate
Campsite/Activity Area	High	Adequate	High	Adequate	High	Adequate	High	Adequate
Shell Midden	High	Adequate						
Burial/Cemetery	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**
Quarry—Soapstone			None	Little	None	Little	High	Moderate
Quarry—Other			None	Little	High	Adequate	High	Moderate
Shelter/Cave			High	Adequate	High	Adequate	High	Adequate
Rock Art			None	Little	High	Moderate	High	Moderate
Trail/Path	None	Little	None	Little	High	Adequate	High	Moderate
Underwater	High	Adequate	High	Adequate	High	Adequate	High	Moderate
Other	None	Little	None	Little	None	Little	None	Little
HISTORIC ARCHEOLOGICAL: Recreation	High	Adequate	High	Adequate	High	Adequate	High	Adequate
Public Works	High	Adequate	High	Adequate	High	Adequate	High	Moderate
Public/Civic/Religious	High	Adequate	High	Adequate	High	Adequate	High	Adequate
Commercial	High	Adequate	High	Adequate	High	Moderate	High	Moderate
Urban—Domestic	None	Little	High	Adequate	None	Little	None	Little
Rural—Domestic	High	Adequate	High	Adequate	High	Adequate	High	Adequate
Cemetery	High	Adequate	High	Adequate	High	Adequate	High	Adequate
Industrial	High	Adequate	High	Adequate	**HIGH**	**LITTLE**	**HIGH**	**LITTLE**
Mills	High	Adequate	High	Adequate	High	Adequate	None	Little

Table 3.2. - Statewide Significance of Archeological Themes and Their Representation in the State Parks System (continued)

THEMES	REGIONS							
	TIDEWATER		COASTAL		PIEDMONT		MOUNTAIN	
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation
Transportation	High	Adequate	High	Adequate	High	Moderate	High	Moderate
Military	High	Adequate	High	Adequate				
Underwater	High	Adequate	High	Adequate	High	Moderate		
Other			None	Little				
STANDING STRUCTURES: Recreation			High	Adequate	High	Adequate	High	Adequate
Public Works			High	Adequate	High	Adequate	High	Moderate
Public/Civic/Religious			High	Adequate			High	Adequate
Commercial			High	Adequate			High	Moderate
Urban—Domestic			High	Adequate				
Rural—Domestic			High	Adequate	High	Adequate	High	Adequate
Cemetery			High	Adequate	High	Moderate	High	Moderate
Industrial			High	Adequate			High	Moderate
Mills	High	Adequate	High	Adequate	High	Adequate	**HIGH**	**MODERATE**
Transportation			High	Adequate	High	Moderate	High	Moderate
Military	High	Adequate	High	Adequate				

Notes: Very high expansion needs are shaded. High Expansion needs are shown in BOLD CAPITAL letters. No entry means theme is not applicable.

GEOLOGICAL THEME REPRESENTATION

Twelve geological themes were rated as having very high expansion needs in at least one region. Four of these twelve themes had very high expansion needs in more than one region, making a total of 17 theme-region combinations rated as having very high expansion needs. These 17 very high expansion needs are highlighted in Table 3.3 by bold type and shading. Very high expansion needs are those that have high significance in a region and have little or no representation in the state parks system.

Five geological themes and theme-region combinations have high expansion needs. High expansion needs are these that have high significance in a region and have moderate but not adequate representation in the state parks system. They are indicated in Table 3.3 by bold type but have no shading.

Fossils, caves/sinks/springs, and unusual rock types have little coverage across all regions. On the other hand, barrier islands, Carolina bays, exfoliation outcrops, intrusions, and metamorphic features have adequate representation. The Piedmont offers the most protection to geological themes within the state parks system, whereas the Tidewater offers the least. Additional surveys of geological resources in the System should be conducted in partnership with the North Carolina Geological Survey.

Table 3.3. - Statewide Significance of Geological Themes and Their Representation in the State Parks System

THEMES	REGIONS							
	TIDEWATER		COASTAL PLAIN		PIEDMONT		MOUNTAIN	
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation
Barrier Islands and Shorelines	High	Adequate	None		None		None	
Estuaries	High	Adequate	Little	None	None		None	
Continental Shelf	**HIGH**	**NONE**	None		None		None	
Relict Coastal Features	**HIGH**	**LITTLE**	**HIGH**	**NONE**	None		None	
Carolina Bays	High	Adequate	High	Adequate	None		None	
Fluvial Depositional Features	High	Adequate	High	Adequate	High	Adequate	**HIGH**	**LITTLE**
Peatlands and Interstream Wetlands	High	Adequate	High	Adequate	None		None	
Natural Lakes and Ponds	High	Adequate	High	Adequate	None		None	
Caves, Sinks, and Springs	High	Adequate	**HIGH**	**NONE**	**HIGH**	**LITTLE**	**HIGH**	**MODERATE**
Dissected Uplands	Little	None	High	Adequate	High	Adequate	High	Adequate
Inselbergs (Monadnocks)	None		Little	None	High	Adequate	High	Adequate
Cliffs	**HIGH**	**NONE**	High	Adequate	High	Adequate	High	Adequate
Exfoliation Outcrops	None		None		High	Adequate	High	Adequate
Gorges, Rapids, and Waterfalls	None		**HIGH**	**LITTLE**	High	Adequate	High	Adequate
Mass Wasting Features	None		**HIGH**	**NONE**	High	Adequate	**HIGH**	**MODERATE**
Faults, Joints, and Related Features	None		Little	None	High	Adequate	**HIGH**	**MODERATE**
Folds and Related Features	None		Little	None	High	Adequate	**HIGH**	**LITTLE**
Intrusions	None		Little	Adequate	High	Adequate	High	Adequate
Volcanic Features	None		Little	None	High	Adequate	**HIGH**	**NONE**
Metamorphic Features	None		High	Adequate	High	Adequate	High	Adequate
Sedimentary Features	High	Adequate	High	Adequate	**HIGH**	**MODERATE**	**HIGH**	**NONE**
Fossils	**HIGH**	**NONE**	**HIGH**	**LITTLE**	**HIGH**	**NONE**	Little	None
Unusual Rock Types	**HIGH**	**NONE**	High	Adequate	**HIGH**	**MODERATE**	**HIGH**	**LITTLE**

Notes: Very high expansion needs are shaded. High Expansion needs are shown in BOLD CAPITAL letters. No entry means theme is not applicable.

SCENIC THEME REPRESENTATION

Eight scenic themes are rated as having very high expansion needs (Table 3.4: very high expansion needs are shaded; high expansion needs are shown in bold capital letters). These include: meadows/grasslands (Tidewater, Coastal Plain, Piedmont), waterfalls (Piedmont), rivers (Tidewater), islands (Tidewater, Piedmont), rock outcrops (Coastal Plain), caves/cliffs (Coastal Plain, Piedmont, Mountain) and bays/estuaries (Tidewater).

All scenic themes had some representation in the state parks system, although significant scenic highways had no representation within the Tidewater and Coastal Plain regions. Across all regions, approximately half the scenic themes are represented in state parks. Additional units in the Piedmont region are proposed to serve a rapidly expanding population and in the Mountain region to preserve significant resources.

Table 3.4. - Statewide Significance of Scenic Themes and Their Representation in the State Parks System

THEMES	REGIONS							
	TIDEWATER		COASTAL PLAIN		PIEDMONT		MOUNTAIN	
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation
Scenic Vistas	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**
Reservoirs/Lakes	**HIGH**	**MODERATE**	High	Adequate	High	Adequate	**HIGH**	**MODERATE**
Waterfalls					**HIGH**	**LITTLE**	High	Adequate
Rivers	**HIGH**	**LITTLE**	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**
White Water Streams					**HIGH**	**MODERATE**	**HIGH**	**MODERATE**
Forests	**HIGH**	**MODERATE**	High	Adequate	High	Adequate	High	Adequate
Meadows/Grasslands	**HIGH**	**LITTLE**	**HIGH**	**LITTLE**	**HIGH**	**LITTLE**	**HIGH**	**MODERATE**
Swamps	High	Adequate	High	Adequate				
Pocosins	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**				
Marshes	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**				
Gorges							**HIGH**	**MODERATE**
Rock Outcrops			**HIGH**	**LITTLE**	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**
Islands	**HIGH**	**MODERATE**			**HIGH**	**LITTLE**		
Caves/Cliffs	**HIGH**	**NONE**	**HIGH**	**LITTLE**	**HIGH**	**LITTLE**	High	Adequate
Scenic Highways	**HIGH**	**NONE**	**HIGH**	**NONE**	**HIGH**	**LITTLE**	**HIGH**	**LITTLE**
Bays/Estuaries	**HIGH**	**LITTLE**						
Seashores	**HIGH**	**MODERATE**						

Notes: Very high expansion needs are shaded. High Expansion needs are shown in BOLD CAPITAL letters. No entry means theme is not applicable.

BIOLOGICAL THEME REPRESENTATION

Over 116 natural community types have been identified and described in North Carolina (Schafale and Weakley, 1990). These have been grouped into 32 biological themes based on similarities in environment and vegetation. Each of the themes is fully described in the Natural Heritage Program Biennial Protection Plan (Division of Parks and Recreation, 1993).

As land within North Carolina is altered for agriculture, forestry, industry, and residential development, one of the consequences is a reduction of natural diversity in the landscape. Undisturbed natural communities in North Carolina are very diverse, varying in geology, soil type, topography, moisture, flora, and fauna. It is the purpose of the state parks system to protect representative examples of the state's natural diversity for the benefit and enjoyment of all the citizens. At present, the state parks system includes representative examples of many of the state's biological themes. However, many themes are not adequately represented. Expansion of the state parks system for protection of biological diversity should focus on the themes which are not yet adequately represented.

Eight biological themes are rated as having very high expansion needs (Table 3.5; very high expansion needs are shaded; high expansion needs are shown in bold capital letters). These include:

1. grass and heath balds (Mountain)
2. low elevation cliffs and outcrops (Tidewater)
3. coastal plain marl outcrops (Tidewater)
4. mafic glades and barrens (Piedmont and Mountain)
5. riverine aquatic communities (Tidewater and Piedmont)
6. piedmont upland pools and depressions (Piedmont)
7. streamhead pocosins (Coastal Plain)
8. coastal plain depression communities (Tidewater and Coastal Plain).

Table 3.5. - Statewide Significance of Biological Themes and Their Representation in the State Parks System

Themes	Regions							
	Tidewater		Coastal		Piedmont		Mountain	
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation
Spruce-Fir Forests							**HIGH**	**MODERATE**
Grass and Heath Balds							**HIGH**	**LITTLE**
Northern Hardwood Forests							**HIGH**	**Adequate**
Mountain Cove Forests							**HIGH**	**Adequate**
Piedmont and Coastal Plain Mesic Forests	**HIGH**	**MODERATE**	High	Adequate	High	Adequate	Little	None
Piedmont and Mtn Dry Coniferous Woodlands					Moderate	Moderate	HIGH	Adequate
Montane Oak Forests					Moderate	Adequate	HIGH	Adequate
Piedmont and Coastal Plain Oak Forests	**MODERATE**	**LITTLE**	High	Adequate	**HIGH**	**Adequate**	Little	Little
High Elevation Rock Outcrops							**HIGH**	**MODERATE**
Low Elevation Cliffs and Rock Outcrops	**HIGH**	**NONE**	Moderate	Adequate	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**
Coastal Plain Marl Outcrops	**HIGH**	**NONE**	**MODERATE**	**NONE**				
Granitic Flatrocks					**HIGH**	**MODERATE**		
Mafic Glades and Barrens					**HIGH**	**NONE**	**HIGH**	**NONE**
Maritime Grasslands	High	Adequate						
Maritime Upland Forests	**HIGH**	**MODERATE**						
Dry Longleaf Pine Communities	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	**MODERATE**	**NONE**		
Blackwater Coastal Plain Floodplains	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	Little	None		
Brownwater Coastal Plain Floodplains	Little	None	**HIGH**	**MODERATE**				
Piedmont and Mountain Floodplains			Moderate	Adequate	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**
Riverine Aquatic Communities	**HIGH**	**LITTLE**	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**
Mountain Bogs and Fens							**HIGH**	**MODERATE**
Upland Seepages and Spray Cliffs					MODERATE	MODERATE	**HIGH**	**MODERATE**

Themes	Regions							
	Tidewater		Coastal		Piedmont		Mountain	
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation
Piedmont Upland Pools and Depressions					**HIGH**	**MODERATE**	Little	None
Coastal Plain Nonalluvial Mineral Wetlands	**HIGH**	**MODERATE**	**MODERATE**	**LITTLE**				
Peatland Pocosins	**HIGH**	**MODERATE**	High	Adequate				
Streamhead Pocosins	Little	Little	**HIGH**	**LITTLE**				
Wet Pine Savannas	**HIGH**	**MODERATE**	**HIGH**	**MODERATE**	MODERATE	NONE		
Coastal Plain Depression Communities	**HIGH**	**MODERATE**	**HIGH**	**LITTLE**				
Natural Lake Communities	**HIGH**	**MODERATE**	High	Adequate				
Maritime Wetland Forests	**HIGH**	**MODERATE**						
Freshwater Tidal Wetlands	**HIGH**	**MODERATE**						
Estuarine Communities	High	Adequate						

Notes: Very high expansion needs are shaded. High Expansion needs are shown in BOLD CAPITAL letters. No entry means theme is not applicable.

CHAPTER 4

TRENDS AFFECTING OUTDOOR RECREATION IN THE STATE PARKS SYSTEM

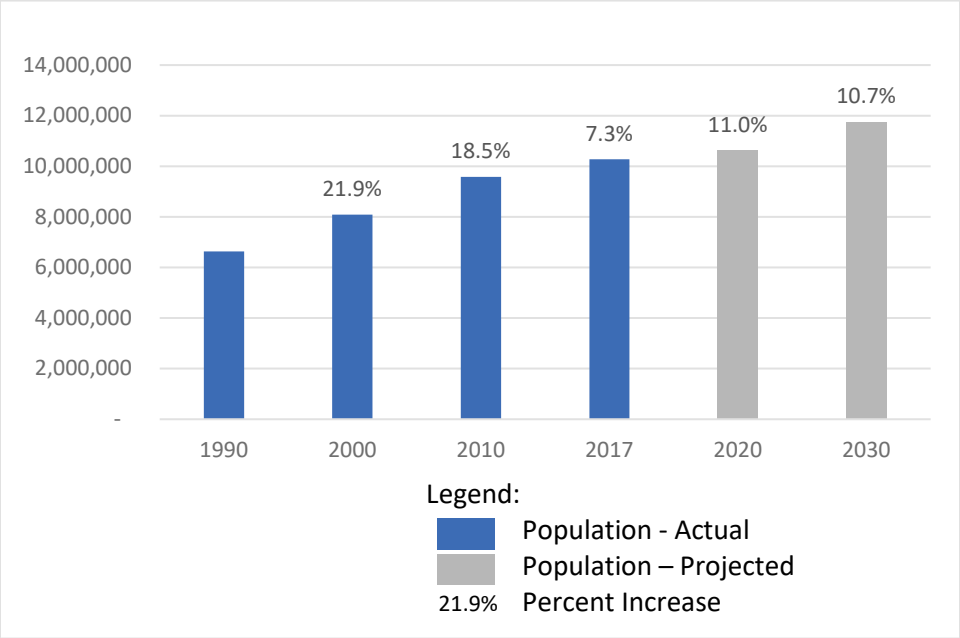
North Carolina's population and landscape are always changing. The state parks system is part of the natural landscape and offers places where people love to recreate outdoors. As the state's population grows and people's preferences for enjoying the state parks change, it's important to consider the impacts these changes will have on the state parks system. The mission of the state parks system remains a constant. How to best accomplish the mission is an ongoing challenge. This chapter highlights important trends affecting state parks and provides recommendations for how to address the impacts.

POPULATION GROWTH

From 1990-2000, the state's population grew 21.3 percent and totaled over 8 million people. The growth rate reflects the significant in-migration of people who are relocating to North Carolina. In fact, two-thirds of the growth rate is because of people moving to the state.

This trend has continued with growth rates of 18 percent and 11 percent for the first two decades, respectively. By 2020, the state's population will have grown to nearly 10.6 million, up from 6.6 million in 1990 (Figure 4-1). This increase of nearly 4.5 million people represents a total increase of 60 percent over 30 years. By contrast, it took 80 years, 1910 to 1990, to add 4.5 million people to the state's population.

Figure 4.1 - North Carolina's Population Increase 1990-2030



Higher population growth is occurring throughout the state. One third of the growth in North Carolina's population this decade is the two largest counties; Mecklenburg and Wake counties. It is worth noting that the fastest growing counties are not the largest counties in the state. Growth is starting to flow into

less populated counties with less development. The growth in the top 10 counties, nearly 750,000 people, has accounted for about two-thirds of the population increase in the state from 2010-2020. In contrast, significant portions of the state have declining population. Thirty-three of the state's 100 counties are projected to have fewer residents or have had no population growth.

Table 4.1 - Top Ten Counties by Population Increase 2010-2020

County	2010 Population	2020 Population Projection	Population Increase	Percent Increase
Brunswick	107,431	141,520	34,089	32%
Chatham	63,504	79,480	15,976	25%
Johnston	168,904	210,948	42,044	25%
Pender	52,195	64,933	12,738	24%
Mecklenburg	919,637	1,143,547	223,910	24%
Wake	901,037	1,116,912	215,875	24%
Hoke	46,880	57,978	11,098	24%
Cabarrus	178,112	217,409	39,297	22%
Harnett	114,707	137,501	22,794	20%
Union	201,350	240,933	39,583	20%
Currituck	23,547	28,118	4,571	19%
Durham	270,055	320,173	50,118	19%
New Hanover	202,688	238,232	35,544	18%
Watauga	51,079	59,703	8,624	17%

North Carolina's population has been and will continue to be among the fastest growing in the United States. In the year 2017, North Carolina ranked 9th in total population in the nation. By 2020, North Carolina is projected by the US Census Bureau to stay the ninth most populous state in the nation. Much of the population growth in the state is because of in-migration, people who relocate to North Carolina from another state.

Table 4.2 - Most Populous States in the US: 2010, 2020 and 2030

	2017	2020	2030
Rank	**State**	**State**	**State**
1	California	California	California
2	Texas	Texas	Texas
3	Florida	Florida	Florida
4	New York	New York	New York
5	Pennsylvania	Pennsylvania	Pennsylvania
6	Illinois	Illinois	Illinois
7	Ohio	Ohio	Georgia
8	Georgia	Georgia	Ohio
9	North Carolina	North Carolina	North Carolina
10	Michigan	Michigan	Michigan

Another measure of the changing landscape is population density, people per square mile, which is increasing across the state. In 2010, North Carolina will have about 195 residents per square mile. In 2016 that density had increased to 209 residents per square mile. During the next 20 years, the population density for the state will increase to 255 per square mile (Figure 4-2).

Much of the growth will be concentrated in the Piedmont Crescent; from the Charlotte metropolitan area through the Triad area of Forsyth and Guildford counties and through the Triangle area containing Orange, Durham, Wake and Johnston counties. The maps on the following page show that the increased growth radiates from these counties as people move to adjacent areas. As population densities increase, land that was previously natural, rural or agricultural is converted to commercial or residential uses.

Figure 4.2 - Population Densities by County 2010 - 2030

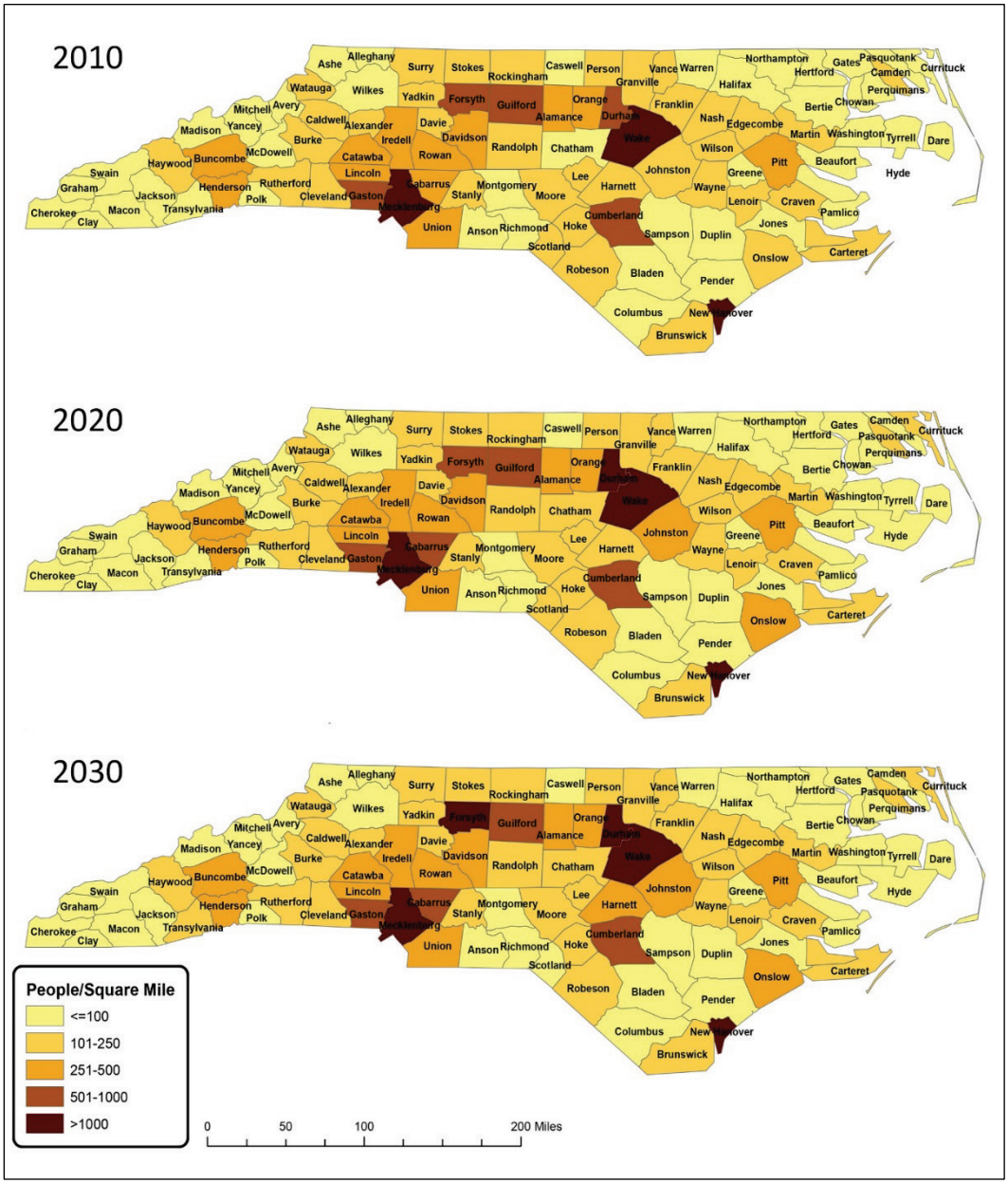
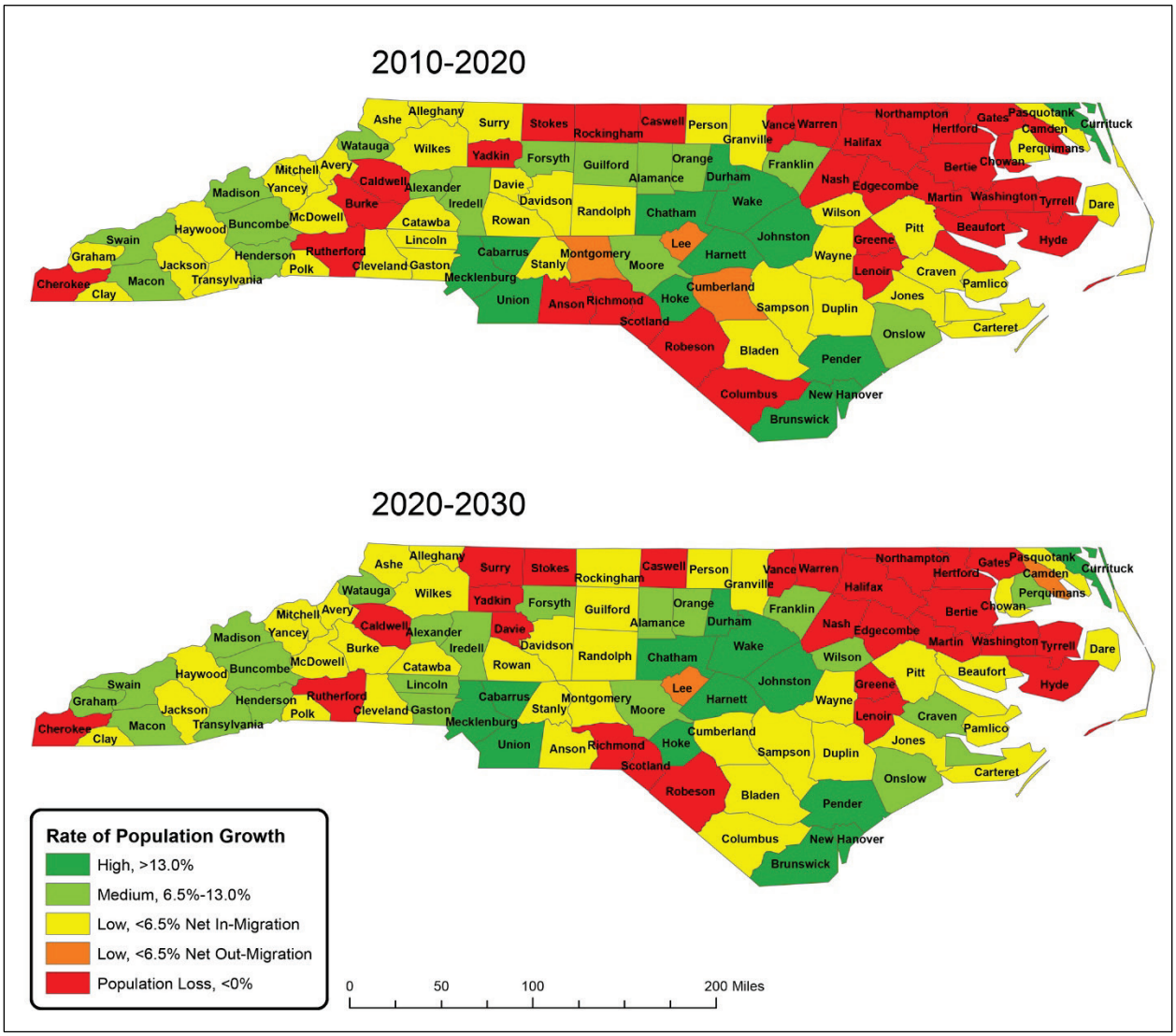


Figure 4.3 - Rate of Population Growth by County 2010 – 2030



As can be seen from Figure 4.3 the rate of population growth varies around the state. With several areas showing continued and higher growth and other showing low or a loss of population. This can guide DPR to look at additional units or facilities at existing units to help meet this growth, as well as provide economic opportunities in locations where counties are experiencing a population loss.

LONGER, HEALTHIER LIVES

The North Carolina population is aging as Baby Boomers born between 1946 and 1964 continue to retire, birth rates have slowed and average life expectancy increase. The median age in the state rose from 26.5 in 1970 to 38.7 in 2016. By the year 2030, the median age is projected to rise to 40.4 years.

People are living longer (Table 4-4). Improved living conditions, medical discoveries, advances in healthcare and knowledge about the effects of lifestyle have all contributed to the longer lives. Questions about how long-life spans can be extended through discoveries of biological research are being debated,

but the trend of increased life expectancy is projected to continue. Lifestyle choices, including participating in recreation and exercise, can affect an individual's life span.

Table 4.3 - Life Expectancy at Birth, 1900-2016

	1900	**1920**	**1940**	**1960**	**1980**	**2000**	**2016**
Average	49.2	56.4	63.6	69.9	73.9	75.4	78.6
Men	47.9	49.9	57.7	65.5	70.1	71.8	76.7
Women	50.7	57.4	65.9	73.2	77.6	78.8	81.1

Source: Centers for Disease Control and Prevention

While the elderly participate in outdoor recreation less frequently than younger persons, they participate more frequently than in past years. An increasing interest in physical fitness and improved health has led to more participation. When higher participation rates are coupled with large increases in the over-65 age group, the elderly will demand services to a much greater degree than they do now.

Increased demand can therefore be expected for activities that have high participation by older Americans. These include walking, sightseeing, attending family gatherings, visiting a beach or waterside, picnicking, visiting a historic site or nature center and bird watching. Older Americans also participate in a wide variety of other outdoor recreation activities including wildlife viewing, attending concerts, nature study, fishing, swimming, motor boating, biking and golf.

In contrast, the N.C. State Center for Health Statistics found that more than two thirds of adults are overweight or obese as well as an estimated 30% of children ages 10 – 17. The chronic conditions related to obesity, such as high blood pressure, diabetes and heart disease could have much greater public health impacts in the future as overweight children get older and increase the number of overweight adults. All of these illnesses shorten lifespans and limit a person's ability to participate in outdoor recreation.

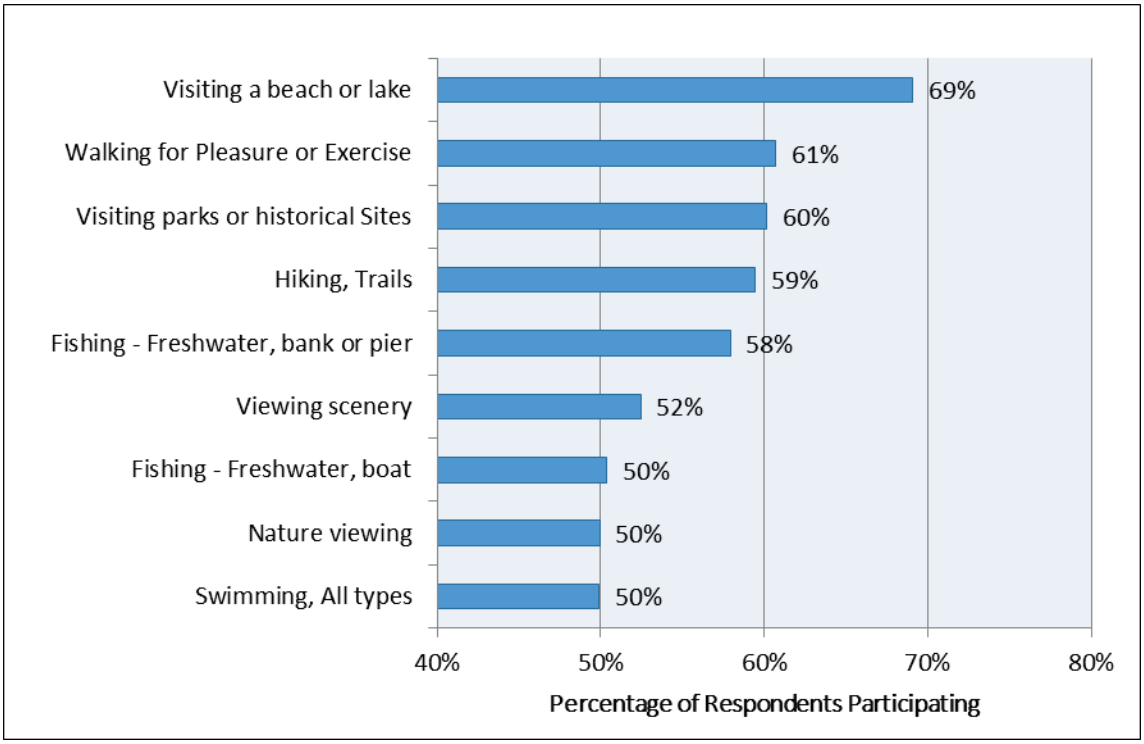
PREFERENCES FOR OUTDOOR RECREATION ACTIVITIES

In 2014, the North Carolina Division of Parks and Recreation conducted a public survey to evaluate demand for, participation in, and perceptions of outdoor recreation. The survey was conducted online using Survey Monkey and was distributed via multiple statewide channels. In total, the study yielded over 17,000 responses.

Questions from the survey broadly address areas such as outdoor recreation participation, satisfaction with statewide outdoor recreation opportunities, motivation for participation, and barriers to participation.

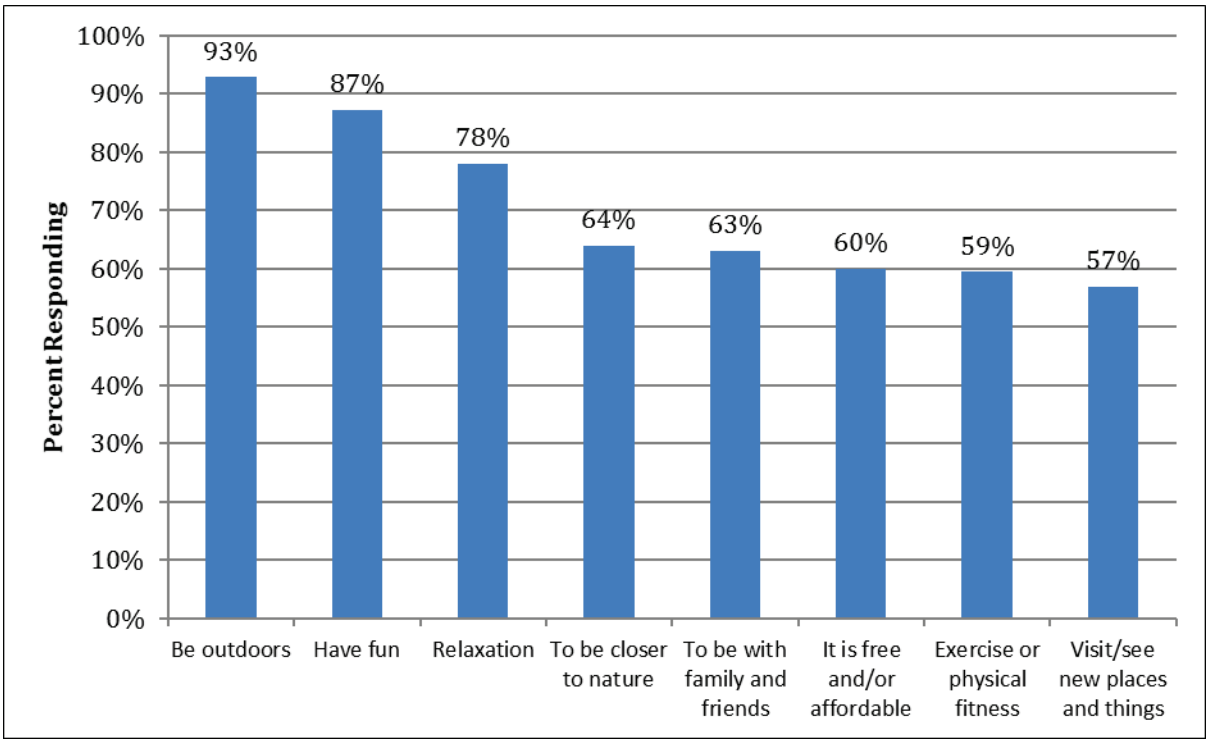
In order to understand trends and popularity among outdoor recreation activities, respondents were asked to identify the activities they or household members participate in or have participated in over the past five years. The most popular activity was visiting a beach or lake, with 69 percent participating. Walking for pleasure or exercise and visiting parks or historic sites are activities for 61 and 60 percent of respondents respectively. Over half of all respondents participate in hiking on trails and freshwater fishing (Figure 4.3). Other activities that have at least half of respondents participating are viewing scenery, fishing from a boat, nature viewing and swimming.

Figure 4.4 - Most popular outdoor recreation activities



Respondents were asked to describe their motivations for participating in outdoor recreation activities. The most popular answers were, being outdoors, followed by having fun and relaxing. Respondents also wanted to be closer to nature and spend time with family and friends. (Figure 4.4)

Figure 4.5 - Why North Carolinians Recreate Outdoors



Respondents were also asked how many times they visited local, state, and federal parks. For state parks, most people indicated that they visited between three and five times in the past year (28 percent). The next most popular answers were one to two visits and more than eight visits. (Figure 4.5). The reasons that state parks enjoy wide popularity are reflected in the things survey respondents seek in participating in outdoor recreation. State parks provide many if not all of these experiences – opportunities to be outdoors, be closer to nature, enjoy time with family and friends. Many state parks also provide opportunities for exercise and adventure in a setting that is free or affordable.

In many cases, another factor in the number of times a person visits a state park is proximity. Earlier surveys of state park visitors have shown that many people who choose to visit are within 30 miles. Parks that are closer to home are more affordable to visit in terms for time and effort as well as money.

North Carolina residents are generally satisfied with the parks available to them. That's important because over 90 percent of those surveyed responded that local and state parks are extremely important to them. The highest levels of satisfaction are with efforts to provide outdoor recreation and environmental education. About 80 percent of respondents were either satisfied or somewhat satisfied with these efforts. In contrast, about 70 percent of respondents are satisfied or somewhat satisfied with efforts to acquire and manage public land. (Figure 4.6)

Figure 4.6 - Average Visits to State Parks Per Year

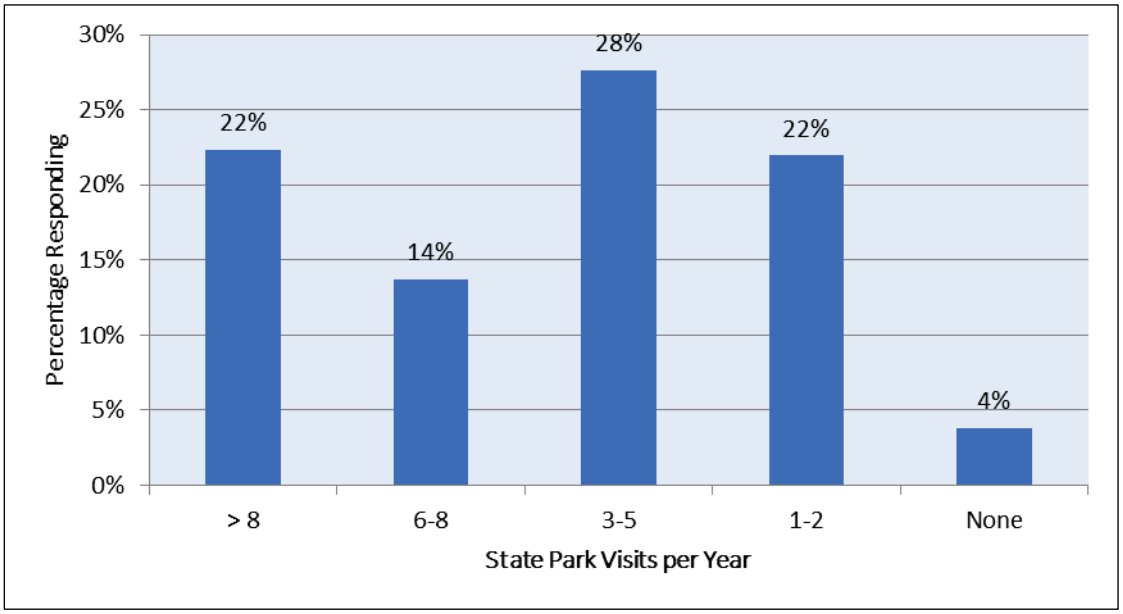
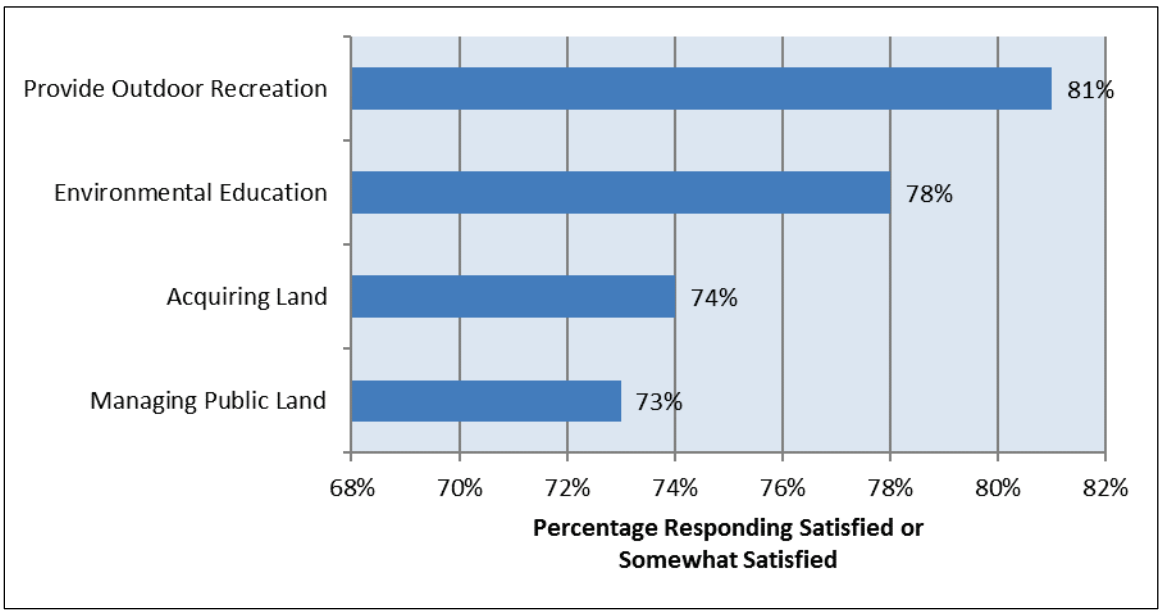


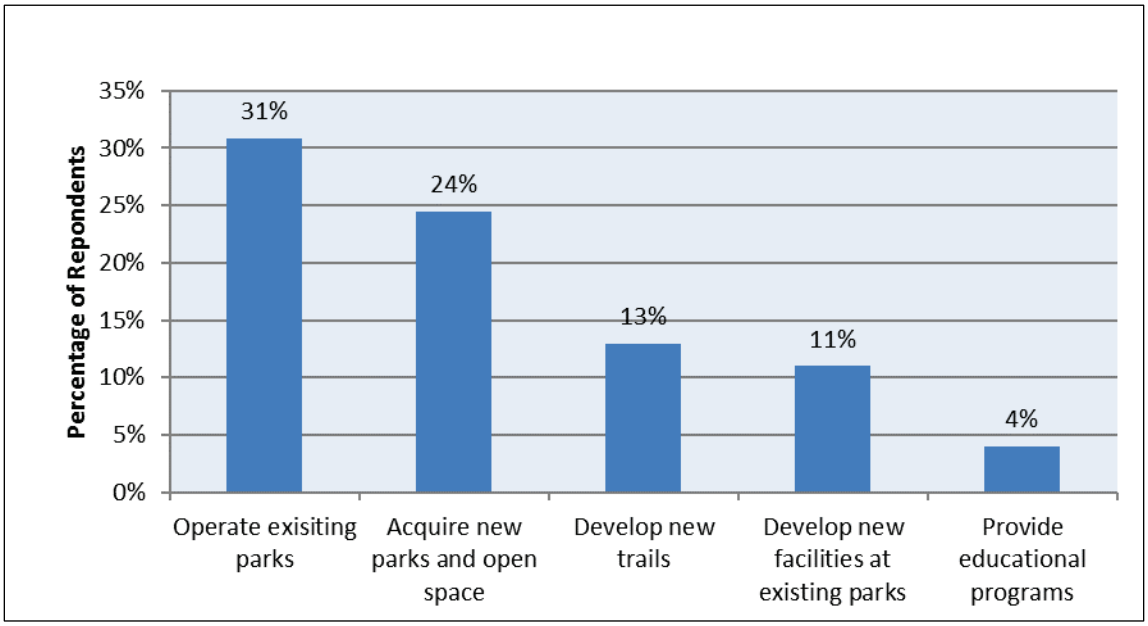
Figure 4.7 - Satisfaction with Park Management



Priorities for Park Management

What are public priorities for parks in North Carolina? Survey respondents were asked to identify their priorities for several management objectives. The most popular top priority was "operate existing parks" (31 percent of respondents), followed closely by "acquire new parks and open space". Other priorities are to develop new trails, the top priority of 13 percent of respondents and to develop new facilities at existing parks. (Figure 4.7)

Figure 4.8 - Public Priorities for park management



Recreational Resource Needs in State Parks

During 2008, the Division of Parks and Recreation (DPR) conducted a survey to gain feedback on what types of recreational facilities are desirable in state parks as well as a review and ranking of statements regarding the state park system. In addition to press releases, Friends of State Parks groups, outdoor recreation groups, land conservation partners, and various park supporters were encouraged to take the survey online. Some local and statewide park user groups circulated the web link of the online survey to their members. By the time the survey was closed to responses, 3,927 individuals interested in North Carolina state parks completed a survey.

The survey found the five **most popular** facilities in the park system to be: 1. Hiking Trails, 2. Nature Trails, 3. Picnic Table with Grill, 4. Multi-Use Trail, and 5. Observation Decks.

*The five **least popular** facilities were: 1. Equestrian Trails, 2. Recreation Vehicles (RV)/Trailer campsite with hook-ups, 3. Marina, 4. Playground, and 5. Boat Ramp/Dock. (Table 4-4)*

Table 4.4 - What types of facilities would you use in a state park?

Potential Park Facilities	I would use	I might use	I would not use
Hiking trail	**79.50%**	16.20%	4.30%
Nature trail	**74.10%**	21.30%	4.60%
Picnic table with grill	**68.40%**	26.10%	5.50%
Multi-use trail	**61.20%**	30.90%	7.90%
Observation decks	**61.00%**	31.00%	8.00%
Paddle trails and river access areas	55.50%	33.10%	11.50%
Picnic shelter	53.90%	37.00%	9.10%
Beach	53.40%	34.00%	12.70%
Museum / educational exhibit	50.70%	37.50%	11.80%
Swimming area	48.40%	38.00%	13.60%
Tent / trailer campsite without hookups	47.90%	31.70%	20.40%
Cabin with kitchen, heat, and restroom	45.00%	36.90%	18.00%
Mountain bike trail	39.30%	25.40%	35.20%
Back-country primitive campsite	38.90%	32.30%	28.80%
Simple cabin (enclosed living space)	37.20%	43.30%	19.50%
Tent / trailer campsite with hookups	35.20%	30.70%	34.20%
Open play area	32.40%	35.80%	31.80%
Fishing pier	30.80%	35.80%	33.40%
Rock climbing area	30.70%	33.00%	36.30%
Group campsites	30.30%	44.70%	25.00%
Boat ramp / dock	30.20%	33.30%	***36.50%***
Playground	29.80%	28.40%	***41.80%***
RV / trailer campsite with hookups	22.70%	17.80%	***59.50%***
Equestrian trail	20.90%	13.90%	***65.10%***
Marina	17.60%	30.20%	***52.20%***

Table 4.5 - To what degree do you agree or disagree with the statements below?

Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
It is important to protect North Carolina's unique natural resources, even if it means limiting public access to certain areas.	**48.3%**	41.5%	8.7%	1.5%
It is important to protect natural and scenic resources by acquiring land even if these areas may not be accessible to the public until planning, design and funding are in place to be developed as park units.	**59.5%**	34.2%	5.2%	1.1%
NC Parks should add new parks to provide additional recreational opportunities.	**60.7%**	34.5%	4.4%	0.4%
NC Parks should provide more recreational facilities and activities at its existing parks.	40.4%	**43.2%**	15.0%	1.4%
Completing land acquisition and construction plans at existing parks should take priority over adding new parks, recreation areas, or natural areas.	19.3%	**38.2%**	36.6%	5.9%
It is important to locate new parks equitably across the state based on geography and population.	18.9%	**45.2%**	31.4%	4.4%
It is important to locate new parks based on the need to protect natural and recreational resources regardless of their proximity to centers of population.	**49.5%**	40.4%	9.2%	1.0%
I would be willing to pay higher fees for improved and expanded state park services and programs.	28.8%	**49.7%**	18.1%	3.3%
Fees should be kept at a minimum to serve greatest number of people possible.	27.6%	**50.9%**	18.5%	3.0%
Information on the NC Parks website is sufficient for my needs.	11.4%	**65.7%**	20.4%	2.5%
The brochures and maps for the state parks I visit are sufficient for my needs.	14.3%	**68.4%**	16.0%	1.4%
NC Parks should focus on providing more environmental education opportunities for visitors at parks.	27.6%	**55.0%**	24.9%	1.7%
NC Parks should increase its environmental education programs for public schools curriculum.	27.6%	**52.9%**	17.4%	2.1%
NC Parks should focus on providing educational opportunities in parks for children and families with children.	22.4%	**56.2%**	19.3%	2.1%
NC Parks should focus on improving maintenance and cleanliness of its parks.	20.4%	**57.4%**	21.4%	0.9%
NC Parks should focus on improving natural resource protection.	38.5%	**51.2%**	9.8%	0.5%
Access at state parks for persons with disabilities needs improvement.	10.4%	**45.3%**	41.1%	3.2%

The greatest percentage of survey respondents **strongly agreed** or ***agreed*** with the following statements (Table 4-5):

Strongly Agreed:

- NC Parks should add new parks to provide additional recreational opportunities.
- It is important to protect natural and scenic resources by acquiring land even if these areas may not be accessible to the public until planning, design and funding are in place to be developed as park units.
- It is important to locate new parks based on the need to protect natural and recreational resources regardless of their proximity to centers of population.
- It is important to protect North Carolina's unique natural resources, even if it means limiting public access to certain areas.

Agreed:

- The brochures and maps for the state parks I visit are sufficient for my needs.
- Information on the NC Parks website is sufficient for my needs.
- NC Parks should focus on improving maintenance and cleanliness of its parks.
- NC Parks should increase its environmental education programs for public school's curriculum.
- NC Parks should focus on providing more environmental education opportunities for visitors at parks.

The following statements had ***a higher level of disagreement***:

- Completing land acquisition and construction plans at existing parks should take priority over adding new parks, recreation areas, or natural areas.
- It is important to locate new parks equitably across the state based on geography and population.
- Access at state parks for persons with disabilities needs improvement.

The survey respondents ranked the ***top five priority statements*** as follows:

- First Priority: It is important to protect North Carolina's unique natural resources, even if it means limiting public access to certain areas. (25.5% selected this as their first priority)
- Second Priority: It is important to protect natural and scenic resources by acquiring land even if these areas may not be accessible to the public until planning, design and funding are in place to be developed as park units. (19.4% selected this as their second priority)
- Third and Fourth Priority: It is important to locate new parks based on the need to protect natural and recreational resources regardless of their proximity to centers of population. (16.7% selected this as their third priority and 10.8% selected this as their fourth priority)
- Fifth Priority: NC Parks should focus on improving natural resource protection. (11.3% selected this as their fifth priority)

IMPLICATIONS OF DEMOGRAPHIC AND SOCIOECONOMIC TRENDS

- Increasing population and associated development pressures underscore the importance of conserving naturally significant land and water resources.
- The most popular state parks are also the parks that are most impacted by increasing visitation and population growth. Providing additional recreational opportunities in appropriate places and environmental education will help accommodate more people and enhance an appreciation for the state's natural heritage.
- An increasing multicultural and educated proportion of the North Carolina population participates in outdoor recreation more frequently, usually on weekends and close to home. This pattern creates a greater demand for higher quality outdoor recreation near population centers.
- As two-wage-earner families and urban lifestyles predominate, these families will have less time to plan outings. Better information systems about state parks, such as the centralized reservation system and the state park webpages, will help increase public awareness of recreational opportunities as well as planning a visit more convenient.
- Most types of trail use, such as hiking, bicycling, and nature study are among the most popular activities in states parks. Trail construction and maintenance should continue to be a priority.
- Use of mountain bikes have increased dramatically in the state. Mountain bike trails in state parks are quite popular. It will continue to be important to working with bicycle groups to find appropriate locations and cooperate to minimize impacts.
- The growing elderly population has more leisure time but participates in active leisure activities less frequently than do younger age groups. The elderly are more concerned with the safety, quality and accessibility of park facilities. The Americans with Disabilities Act stipulates that both facilities and programs should be accessible to all visitors. Newly constructed park facilities will be accessible and older facilities renovated to meet ADA standards. Making parks accessible to all citizens will continue to be important.
- State parks attract tourist spending. Additional efforts to market state parks would be beneficial across the state and particularly in counties experiencing a decline in population and a related downturn in the local economy.
- Increasing the availability of Spanish for park signs and other information within state parks would assist visitors from the growing Hispanic population in North Carolina. Warning signs, directions, and fee collection would seem to be a logical starting point.
- Nationwide, local, county, state, and federal governments are working to reduce childhood obesity and encourage children and families to be more physically active through recreation planning and infrastructure programs. The provision of outdoor open spaces and recreational space is a key to addressing these issues.
- The 2013 Outdoor Recreation Participation Report found 90 percent of adults who regularly recreate outdoors were introduced to outdoor activities between the ages of five and 18. This makes youth participation critical to encouraging similar patterns for future generations.
- Visiting beaches, lakes, parks, as well as walking for pleasure are the most popular outdoor recreational activities in the state. It is important that residents have easy access to information about state park sites that offer these opportunities.

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CHAPTER FIVE

STRATEGIC DIRECTIONS

Although expressed in different words over the years, the mission and long-term goals of the North Carolina State Parks System have been adhered to since the first state park was established at Mount Mitchell in 1916. The strategies used to achieve these goals have adapted to changing circumstances, trends, and opportunities.

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.

LONG TERM VISION

- Preserve and protect high-quality, representative examples of the biological, geological, archaeological, scenic, and recreational resources of North Carolina by including such resources in the state parks system for public enjoyment, education, and inspiration.
- Offer a wide range of safe and enjoyable outdoor recreation opportunities in the state parks system by developing and staffing appropriate public facilities.
- Support recreation opportunities provided by other agencies and local governments by offering training and technical assistance, and by administering grant programs for park, trail, and greenway acquisition and development.
- Maintain and enhance the ecological quality of park resources by conducting appropriate stewardship activities, ensuring adequate staffing levels and by careful planning and management of visitor use patterns and park development projects.
- Promote understanding of and pride in the natural heritage of the state by providing environmental education and interpretive materials and programming for teachers, students, and park visitors.
- Institute a statewide program "Park's Educational Program for Elementary Students" that exposes every elementary school student with a meaningful experience in a state Park, to support North Carolina curriculum objectives and to foster lifelong appreciation for nature and history.

TWENTY-FIVE YEARS AGO

At the end of 1993, the North Carolina State Parks System consisted of 58 units, totaling 135,738 acres, with annual attendance of 11,076,082 visitors. In 1993, voters approved a $35 million state parks improvement bond referendum, and in 1994, the North Carolina General Assembly established the North Carolina Parks and Recreation Trust Fund (PARTF). The General Assembly made an initial appropriation of $1 million to the PARTF to fund improvements in state parks, to fund grants for local governments and to increase public access to the state's beaches. In 1995, the General Assembly dedicated funds from the excise stamp tax to the trust fund starting in FY 1996-97

Prior to the 1993 bond referendum and the establishment of the PARTF, land acquisition funding was sporadic, and opportunities to acquire new units were delayed or missed. Capital improvements were typically projects constructed by the Civilian Conservation Corps during the 1930's. The 1993 bond referendum and the establishment of the PARTF essentially put an end to the sleepy park system and through the availability of a steady funding source, ushered in a park system that every North Carolinian can be proud of.

In addition to establishing a dedicated funding source, the General Assembly also added significantly to the state park operating budget. Sixty new maintenance positions were added, as well as 34 new office assistants. Falls Lake and Jordan Lake state recreation areas together added 26 new positions, and an additional 35 new ranger positions were added across the state. The General Assembly supported the staffing of new land and facilities that were added to the system.

FIFTEEN YEARS AGO

By the end of 2003, the status of the state parks system was quite different. The number of units had increased to 70, total acreage had increased to 172,815, and annual visitation was 11,210,836. Revenue to the trust fund for FY2002-2003 was $28,484,354, of which $12,571,570 was available for state park capital needs and $5,387,816 was available for land acquisition. With bond and PARTF funding, many of the most urgent land inholdings and critical safety and health project needs were being addressed. The prospect of annual, recurring funds made it possible to conduct facility planning in a systematic, predictable way.

Meanwhile, funding had become available from other sources as well. The Natural Heritage Trust Fund, also funded by the excise stamp tax, provided grants for acquisition of lands with important natural and cultural resource value. The Clean Water Management Trust Fund, established in 1996, provides grants for acquisition of riparian buffer lands. Both of these trust funds have provided generous grants to the state parks system.

In addition, public support for protection of open space was growing. In 1999, Governor James B. Hunt proposed to permanently protect an additional one million acres of farmland, open space, and conservation lands in the State. In 2000, the state's General Assembly codified this goal in statute.

The time was right for a major expansion of the state parks system. The strategic directions in the 2000 Systemwide Plan were to complete the land acquisition and development envisioned in master plans for existing parks, and to add carefully selected new park units to the system. Criteria were identified, proposed sites were evaluated, and new units were added to enhance the system as a whole and to help the system fulfill its statutory purpose for future generations. Because PARTF was indexed to the real estate excise tax, the booming real estate market of the 2000's generated revenue exceeding projections. The legislature also authorized special indebtedness (bonds) for land acquisition. Prior planning made it possible for the North Carolina Division of Parks and Recreation (DPR) to take advantage of significant opportunities to add important new state parks, state natural areas, and state trails to the system.

FIVE YEARS AGO

At the end of 2013, the situation changed again. The state parks system had grown to 74 units with a total of almost 224,000 acres. Visitation in 2013 was 14,172,661. After nearly two decades of unprecedented growth, expansion of the North Carolina State Parks System slowed considerably from 2009 through 2013 due to the depressed economy. Growth and capital development in the parks was also curtailed by the General Assembly's decision to fund the Parks and Recreation Trust Fund through appropriations and eliminate its dedicated funding source. From 1999 through 2008, North Carolina established 15 new state park units and acquired 46,340 acres. From 2009 through 2013, one new unit was established and 14,152 acres were added to the state parks system.

Like many states, North Carolina suffered the effects of the nationwide economic downturn. Long term goals for the state park system remained the same, yet the system's strategic directions responded to the challenging times. From 2008 to 2013, the state parks system implemented many improvements to efficiency and contributed in significant ways to supporting job growth and economic development in North Carolina.

TODAY

By 2017, the park system had seen many changes including increased visitation and increased funding. The visitation has continued to increase from 14 million in 2013 to over 19 million in 2017, fueled by new parks, new facilities and DPR's first ever marketing program funded as part of the 2016 centennial. More people from both within and outside of North Carolina are visiting our parks, supporting our state and local economies.

The North Carolina General Assembly increased the trust fund and allocated $75 million in Connect NC Bond funds, later approved by voters, for 45 projects at state parks. These projects include expanded visitor centers, campgrounds, day use facilities and land acquisitions for parks, natural areas and trails. Every state park has a project identified in the bond package. The General Assembly also increased the Parks and Recreation Trust Fund by $10.6 million, almost doubling the amount of funding allocated for state parks in 2017.

With this additional funding facilities were added to the state parks, and over 7,800 acres of land was acquired for existing parks units. In 2017, the General Assembly also crafted a bill authorizing three new natural areas to be added to the state park system. Governor Roy Cooper signed the legislation in July 2017 which added Bobs Creek in McDowell County, Warwick Mill Bay in Robeson County and Salmon Creek in Bertie County which represent diverse and rare ecosystems across the state.

As the popularity of our parks continues to increase, we are faced with challenges which affect our ability to provide the best user experience to visitors. With increased visitation, our parks are becoming overcrowded with parking capacity issues and the general user experience being compromised. DPR is continually struggling with how much is too much development in a park. While DPR strives to accommodate all users, there is a point that this accommodation can begin to threaten the resources DPR is protecting.

Another challenge that DPR faces is the Infrastructure at many of our parks is nearing the end of it useful life. Preventative maintenance is ongoing, but eventually full replacement is needed for bathhouses, showerhouses, restrooms etc. as well maintenance equipment.

GOAL #1

CONTINUE EXPANSION OF THE STATE PARKS SYSTEM

Despite past economic challenges, the state parks system continues to grow and improve. With the authorization of the NC Connect Bond funds, land acquisition and facility development has increased again. Public support for open space protection and new park units remains high (Chapter 4). North Carolina continues to be an attractive place for development, and strong population growth is anticipated in the coming decades. There is a continuing need to protect important natural resources and to provide outdoor recreation opportunities. There will be continued emphasis on careful planning and evaluation of statewide priorities to ensure the best use of funding. As the state parks system moves into the future, strategic planning efforts will be implemented to meet the demands of outdoor recreation and natural resource protection.

FIVE-YEAR OBJECTIVES

- Complete construction, fully staff and operate all North Carolina bond projects.
- Develop a new state park system expansion plan to meet the demands of a growing population and increase demand for outdoor recreation and natural resource protection.
- Complete a comprehensive statewide trail plan and 5-year vision plan for the state trails system.

Ongoing Objectives

- Develop a future acquisition plan for each new park unit which identifies priority acquisitions.
- Implement priority land protection projects, with emphasis on completing existing parks, providing locations for facilities and protecting high priority resource themes.
- Identify recreational needs, prepare master plans and general management plans, establish statewide priorities, and administer a capital development program for planning, design and construction of park facilities, both at newly established and existing parks.
- Update the Project Evaluation Program (PEP) to reflect current needs for funding capital improvement projects. This new evaluation will go hand in hand with the updated GMP's.
- Initiate master plan efforts at Mayo River and newly authorized state natural areas.
- Ensure new staffing is identified and hired as new land, facilities, as well as, increase visitation are added to existing parks and as new park units are authorized.
- Develop a plan for equipment retirement and replacement.
- Develop enhanced visitor experiences and services to increase revenue.

GOAL #2

PROVIDE THE BEST POSSIBLE VISITOR EXPERIENCE

DPR can improve the quality of the park visitor's experience by better coordinating all aspects of the operation to focus on connecting visitors to the state's unique natural resources in a purposeful, planned manner.

The visitor experience has two components. The internal experience is the visitor's perspective, which is created by a combination of feelings, sensations and prior experiences. This is unique to every visitor. The external component consists of the many separate pieces outside the visitor – the road conditions in the park, the cleanliness of the campgrounds, the clarity and readability of park signs, and the friendliness of park staff are just a few examples. Integrating all these pieces is the key to providing great visitor experiences.

DPR is made up of many individual programs, each responsible for a part of the visitor's experience: operational policies, park design, constructed facilities, natural resource management, recreational activities, visitor services, interpretation, trails, signage, brochures, public information, and others. By focusing on collaboration and coordination among these programs, DPR seeks to provide purposeful, consistent, authentic experiences for visitors.

FIVE-YEAR OBJECTIVES

- Ensure adequate staffing is available to guarantee the best possible visitor experience.
- Collect and analyze survey results from the online survey of park users.

Ongoing Objectives

- Use a wide range of data from the centralized reservation system to identify trends and visitor demand in order to better target capital development to visitor needs.
- Expand retail space and product lines, increase public-private partnerships to offer a greater variety of recreational experiences and use marketing and other promotional effects to steer visitation to under utilized parks and facilities.
- Promote and integrate "Park's Educational Program for Elementary Students" program into all programs and promote the effort.
- Track international, national, and statewide recreation trends.
- Give priority to providing basic public services at every park and to expanding accessibility for all people to state park facilities. All new projects will provide accessibility in accordance with the standards of the American Disabilities Act.
- Create a plan for retrofitting, upgrading or replacing the aging infrastructure in the state park system.
- Provide for effective wayfinding designs as part of park master plans.
- Integrate trail routing and design with interpretation and education themes for each park.
- Provide a variety of opportunities for public input in the facility planning process.

GOAL #3

INCREASE OPERATIONAL EFFICIENCY

The recent growth of the state parks system, increased visitation, and high public interest in DPR services has placed great demands on DPR's resources and capabilities. DPR operates and maintains state park units open to the public 364 days per year (all park units are closed on Christmas Day), including law enforcement, public safety, education, natural resource protection, and visitor services. In addition, much work remains to be done to acquire, plan, staff, and develop newly established park units. Past economic downturns have not provided opportunities for DPR to increase staffing and the system's growth threatens to outpace the agency's capabilities.

DPR's challenge will be to manage the rapid growth of the parks system while maintaining excellence in state park operations and stewardship. It will be essential to increase DPR's organizational effectiveness, and to foster efficient use of funds and resources available to the DPR.

FIVE-YEAR OBJECTIVES

- Transition from a crisis driven maintenance program to a coordinated and efficient preventative maintenance program.
- Improve personnel retention at all staffing levels.
- Continue to migrate DPR data to electronic formats and integrate data into a centralized system.

Ongoing Objectives

- Ensure adequate staffing both in the land management program and at the state property office to be able to manage the increased land acquisitions envisioned in the future.
- Pursue multiple funding opportunities for accessibility modifications to existing facilities.
- Design sites and facilities to minimize staff travel distances and patrol time, to streamline maintenance costs, and to reduce energy costs.
- Pursue new technologies appropriate for state parks construction, maintenance, and operation. Explore using recycled materials, low waste systems, renewable energy and energy savings. Use environmentally friendly materials. All facilities will use "green" building standards as a guide for project design and construction.
- Improve interdisciplinary collaboration in project planning in order to target projects to identified needs, to identify constraints early, and to identify potential efficiencies and cost savings.
- Communication and data sharing among DPR's multiple field offices and remote sites will be improved with web-based data sharing.
- All programs will work to improve integration of multiple data sources and formats, including land acquisition, budget data, visitor use statistics, GIS data, and natural resource inventory.
- Take advantage of technological advances to improve park operations, both in the central office and in the field.
- Work with administration to identify activities which maximize revenue and incorporate the activities into future planning efforts.

- Continue to develop and implement DPR-wide fiscal data management system.
- Develop ways to identify, track and demonstrate cost efficiencies.
- Strengthen leadership training throughout DPR by encouraging completion of the Certified Public Managers Program or other leadership programs such as the Natural Resources Leadership Program offered by North Carolina State University.
- Use the website to host public information electronically. Maps, brochures, reports, and newsletters will be increasingly formatted for web distribution, although DPR will continue to provide printed materials.
- Continue the use of new communication opportunities, such as Facebook, Twitter, Instagram and other technological innovations. As new communications methods become available and are embraced by the public, state parks will explore and initiate utilization
- Explore ways to use available youth corps workers, to enhance volunteer recruitment and retention, to train volunteers to work independently in long-term positions, and in other ways to reduce labor costs and to allow state park units to operate more efficiently.
- Increase the number of volunteers systemwide by 50 percent.
- Increase total number of volunteer hours by 25 percent.
- Work with departmental Human Resources to improve/streamline the hiring process.
- Work with departmental Budget and Human Resources Department to remedy pay inequities.
- Continue to improve and enhance the centralized reservation system to improve both efficiency and customer service.
- Use the central warehouse to increase efficiencies in purchase and distribution of supplies and materials.
- Over time, as funding allows, convert vehicle fleet to more fuel-efficient vehicles. Evaluate use of vehicles and develop ways of reducing vehicle and fuel costs.
- Evaluate energy use patterns in buildings to identify cost-saving measures; including replacing the existing lighting in exhibit halls with more efficient LED lighting.
- Identify energy efficiency improvements in museums and incorporate these into museum maintenance projects.
- Improve personnel retention, thus reducing staff turnover, hiring and training expenses, by pursuing salary improvements for critical classes of employees commensurate with increasingly complex responsibilities.
- Better educate Local Governments regarding the PARTF (Parks and Recreation Trust Fund), RTP (Recreational Trails Program) and LWCF (Land and Water Conservation Fund) programs and the administration of the programs, through training seminars, the DPR web site, and Recreation Resources Services.

GOAL #4

SUPPORT LOCAL ECONOMIC DEVELOPMENT

The state's rural areas have been increasingly turning to ecotourism for economic growth and stability. The state parks are important regional attractions that can form the cornerstone of these local efforts. In addition, DPR can support local economic development by participating in local and regional tourism initiatives, by coordinating multi-jurisdictional recreation planning, by offering grants for local park and trail projects, and by providing environmental education opportunities for schools and universities.

DPR will look for innovative ways to support local economic development, while adhering to the mission and long-term goals of the state parks system, keeping public costs reasonable, and avoiding competition with the private sector.

FIVE YEAR OBJECTIVE

- Complete regional trail planning for the southern coastal plain and institute planning in the northern coastal plain.
- Prioritize acquisition and development of park units in Hometown Strong communities.

Ongoing Objectives

- Ensure that proper staffing is available to support local communities in increasing the economic development opportunities.
- Explore ways to increase support for and participation in community festivals, regional tourism initiatives, local planning projects, and youth job projects.
- Seek community input on park planning efforts and actively participate in community planning efforts.
- Continue support for recreation and ecotourism development at the local level.
- Work with local partners to provide grant funding and technical assistance for the implementation of trail and greenway projects.
- Update the DPR website to disseminate information on trail and greenway opportunities available across the state from various recreation providers.
- Increase partnerships with local school districts by offering educational programming targeted toward K-12 teachers and students.
- Partner with universities by making appropriate sites available for college-level field visits and research, and by exploring ways to fund research needed for park management.
- Revise and expand the basic EELEs, and place field-tested EELE activities on DPR's website so that educators can search a database and download activities to meet the learning needs of their students.
- Improve the availability of park resources for education by developing a systematic, coordinated approach for disseminating information about interpretation and education programs, interpretive exhibits and brochures and EELEs to teachers, scout leaders and other appropriate individuals.

GOAL #5

SUPPORT STATE AND LOCAL HEALTH AND WELLNESS

Studies show the average American boy or girl spends just four to seven minutes in unstructured outdoor play each day, and more than seven hours each day in front of an electronic screen. This lack of outdoor activity has profoundly impacted the wellness of our children. Childhood obesity rates have more than doubled in the last 20 years; the United States has become the largest consumer of ADHD medications in the world; and pediatric prescriptions for antidepressants have risen precipitously. DPR will develop partnerships with public and private health organizations to explore ways to use the state parks to encourage physical activity and healthy lifestyles.

FIVE YEAR OBJECTIVES

- Initiate the "Park's Educational Program for Elementary Students".
- Expand outreach efforts to local governments that have never applied for or received a PARTF (Parks and Recreation Trust Fund) grant.

Ongoing Objectives

- Continue to sponsor and promote first day hikes and steer visitation to under-utilized parks and facilities.
- Explore partnerships with healthcare providers to promote and encourage physical activity especially related to hiking biking and jogging.
- Continue to partner with outside organizations in supporting fitness related activities such as triathlons, trail running, hiking, mountain bike and other community events we can host in our parks.
- Continue to support, promote and manage the 100-mile challenge and passport program.
- Provide marketing strategies and support for the continued development, professionalism and financial stability and viability of Friends of State Parks.
- Develop and maintain partnerships with insurance and healthcare providers and other corporate sponsors.
- Increase outreach efforts to local governments to better inform them of available grant opportunities through state and federal grant programs.

GOAL #6

INCREASE NATURAL AND CULTURAL RESOURCE STEWARDSHIP

The ecosystems and cultural features protected by the state parks system often represent the highest quality examples of the state's natural landscape and cultural heritage. In many cases, these ecosystems and cultural features are also among the most threatened. DPR is responsible for the protection of the natural and cultural resources within the state parks system. The primary objective of DPR's natural resource management initiatives is to correct or compensate for the disruption of natural processes caused by human activities. These initiatives include the reintroduction of natural fire regimes, restoration of natural communities, and removal of exotic invasive species. The primary goal of cultural resource management is to protect and preserve historically significant features.

FIVE YEAR OBJECTIVES

- Double the annual acreage of prescribed burns within the park system.
- Continue ongoing restoration efforts and initiate two new restorations.
- Create efficiencies by improving effectiveness of invasive species control prescriptions.

Ongoing Objectives

- Ensure appropriate staffing is available to carry out the programs in a safe and efficient manner.
- Work with biologists to complete a geographic information system based natural community dataset. This dataset will form the basis for documenting natural community types and planning restoration efforts.
- Develop park fire prescriptions for all areas known to support communities with fire adaptive species. Apply prescribed fire on all areas with an appropriate natural fire return interval.
- Develop timber management plans for restoring damaged forests. Plans will include a description of existing conditions, restoration goals, monitoring objectives and public involvement
- Develop a strategic plan for controlling exotic invasive species throughout the park system.
- Partner with universities by making appropriate sites available for college-level field visits and research, and by exploring ways to fund research needed for park management.
- Develop management plans for each State Natural Area. Management plans will include objectives for the natural areas, land protection goals and protection plan for significant cultural and natural features.
- Ensure appropriate fire and exotic invasive species management training is available for field staff.
- All new seasonal fire staff will receive training on chainsaw, off-road vehicle usage, heat exhaustion, and other fire safety.
- Pre-fire briefings will discuss how to prepare for any emergencies on the fire line.

- Ensure all park facilities will be designed, constructed, and maintained to avoid direct and indirect adverse impacts to high quality natural communities, rare plant and animal species, major archaeological sites, and other significant natural and cultural resources.
- Ensure all appropriate park staff have training in fire and exotic species management. Where appropriate, a division certified burn boss should be trained for each unit.
- Each park will schedule an annual meeting with Natural Resources and NC Forest Service staff to review the park fire management plan and goals for prescribed fire.
- Each park should designate a staff liaison to coordinate with Natural Resources staff and take a lead on natural resource management initiatives.

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