

Mount Mitchell State Park General Management Plan



North Carolina Department of Natural and Cultural Resources

Division of Parks and Recreation

Mountain Region

February 2017

I. MISSION & PURPOSE

MISSION STATEMENT:

Conservation: To protect natural diversity of North Carolina through careful selection and stewardship of state parks system lands;

Recreation: To provide and promote outdoor recreation opportunities in the state parks system and throughout the state; and

Education: To encourage appreciation of North Carolina's natural and cultural heritage through diverse educational opportunities; for all citizens of and visitors to the State of North Carolina.

Our purpose: The State of North Carolina offers unique archaeological, geologic, biologic, scenic and recreational resources. These resources are part of the heritage of the people of this State. The heritage of a people should be preserved and managed by those people for their use and for the use of their visitors and descendants.

PARK PURPOSE:

Concerned citizens, led by Governor Locke Craig, urged that Mount Mitchell be protected from the massive logging operations that had environmentally and aesthetically damaged much of the Black Mountain range. In response to this concern, the General Assembly in 1915 passed legislation authorizing the purchase of the summit, and a year later Mount Mitchell became North Carolina's first state park. The legislation cited altitude of Mount Mitchell, scenic beauty, and importance to water quality, recreational value, forest resources, and the threats to the mountain as justification for its purchase.

Mount Mitchell offers scenic panoramas of mountain peaks, forests, clouds, rolling ridges, and fertile valleys. On clear days, views of up to 100 miles allow visitors to see prominent geographical features in North Carolina and other states. Dramatic climatic changes and extreme weather conditions at this high elevation allow visitors to experience the forces of nature firsthand.

The high elevation of 6,684 creates local climatic conditions more like those found in Canada than the southeastern United States. This mountain range is the highest peak east of the Black Hills of South Dakota. Snowfall averages about 104 inches per year, with records of snow falling in every month of the year. The cold and wet environmental conditions serve to host biologic resources that are unusual in North Carolina. The high-elevation plant communities in Mount Mitchell State Park include Fraser Fir Forest, Red Spruce-Fraser Fir Forest, and High Elevation Rocky Summit (Northern Variant). Twenty-five special plant species are known from these communities, including Mountain Paper Birch (*Betula papyrifera* var. *cordifolia*), Cain's Reedgrass (*Calamagrostis cainii*), Wretched Sedge (*Carex misera*), Spreading Avens (*Geum radiatum*), Fir Clubmoss (*Huperzia selago*), and White Mandarin (*Streptopus amplexifolius*). In addition, 21 uncommon animal species are listed, including the Peregrine Falcon (*Falco peregrinus*), Carolina Northern Flying Squirrel (*Glaucomys sabrinus coloratus*), Southern Rock Vole (*Microtus chrotorrhinus carolinensis*), New England Cottontail (*Sylvilagus transitionalis*), and numerous invertebrates.

Mount Mitchell is directly linked to thousands of acres in adjacent Pisgah National Forest and to over 15,000 acres of high quality private and municipal conservation lands. The Blue Ridge Parkway is about 1.0 air mile to the south.

Mount Mitchell State Park is part of a continuous landscape representing nearly the entire elevation gradient of the Black Mountains. Ecologically, the park represents an unusual example of conservation that is important for wide-ranging animal species including: Black Bear, Peregrine Falcon, and migrating raptors.

Mount Mitchell is a nationally significant geological resource. It lies in the crest of the Black Mountains, whose lofty and rugged peaks have been worn by wind, water and the forces of nature to rounded, more subdued profiles. Erosion resistant metamorphic rocks, gneiss and schist, have allowed Mount Mitchell to retain its dramatic height of 6,684 feet, making it the highest peak in the United States east of the Mississippi River.

Mount Mitchell State Park provides a combination of day-use and limited overnight recreational opportunities. These include enjoying magnificent vistas, nature study enhanced by park interpretive programs, hiking, picnicking, limited camping, and winter sports. In addition to serving as a destination point for park visitors, Mount Mitchell also serves as a trailhead for hikers using the extensive trail system on adjoining U.S. Forest Service lands.

Historical evidence of earlier uses of the park can be seen in the old railroad beds and remnants of logging and Civilian Conservation Corps camps. Thirty-six buildings, located about a mile south of Mount Mitchell's summit, and up to 200 workers were a part of Civilian Conservation Corps operations from 1936 to 1941.

Mount Mitchell State Park exists primarily because of its scenic beauty and its interacting and important biological and geological resources. The Division is charged with preserving and interpreting these and other values and providing park experiences that promote pride in and understanding of natural heritage of North Carolina.

II. HISTORY

More than a billion years ago, the Black Mountains were formed. This mighty range of peaks once stood lofty and rugged. But over millions of years, wind, water and other forces wore down the pinnacles to their rounded, more subdued profile of today. Only the erosion-resistant igneous and metamorphic rocks allowed Mount Mitchell to retain its dramatic height of 6,684 feet.

Because of the even elevation of its ridgeline, the Black Mountain range was referred to as a single mountain until the late 1850s. Of the separate peaks that have since been designated, six are among the ten highest in the eastern United States. Although the Black Mountain range is higher, its length and breadth do not equal that of the nearby Blue Ridge or Great Smoky mountains. From the air, the range bears the shape of the letter J, and the distance between its end points, Yeates Knob and Celo Knob, is merely 15 miles apart.

The climate of the Black Mountains is more like that of Canada than North Carolina. Extremely cold temperatures during the Pleistocene Era allowed the plants and animals of more northern latitudes to extend their ranges to the south, but as warmer climates returned, these cold-adapted species became restricted to the highest peaks. Therefore, many of the plants and animals of Mount Mitchell are similar to those native to more northern alpine environments.

Long before explorers left Europe in search of the New World, various Native American tribes inhabited the area surrounding the Black Mountains. In the mid 1700's, the tribes were joined by settlers primarily of Scotch-Irish and English origin.

In 1787, French botanist Andre Michaux journeyed to the Black Mountains to seek the most valuable plants of the region so the French government could cultivate them on their royal plantations. On his botanical excursions to the area, Michaux collected more than 2,500 specimens of trees, shrubs and other plants. About the same time that his French counterpart explored the area, Englishman John Fraser collected plants from the region to introduce to his native land. It was for this botanical explorer that the most abundant tree along the crest of the Black Mountains, the Fraser fir, was named.



Observation Deck

Though botany was the first discipline to be explored in the Black Mountains, it was physical geography, particularly the measuring of mountains, that had the greatest impact on the history of Mount Mitchell. In 1835, Dr. Elisha Mitchell, a science professor at the University of North Carolina, made an excursion to the area to measure the mountain elevations. At the time, Grandfather Mountain was assumed to be the highest point in the region, but previous trips to the area had persuaded Mitchell that the Black Mountains were higher. Through the use of barometric pressure readings and mathematical formulas, Mitchell determined the highest elevation of the range to be 6,476 feet, higher than that of Grandfather Mountain. Subsequent visits to the Black Mountains in 1838 and 1844 led Dr. Mitchell to calculate the height of the peak at 6,672 feet—only a mere 12 feet in error of modern calculations.

In the 1850's, controversy arose about which peak in the range was the highest. Thomas Clingman, a former student of Dr. Mitchell, and a United States senator, set the elevation of the highest peak at 6,941 feet and insisted that Mitchell had measured another peak. In 1857, Dr. Mitchell returned to the Black Mountains to verify his measurements and to support his claim. While hiking across the mountain, he fell from a cliff above a 40-foot waterfall. Knocked unconscious by the fall, Dr. Mitchell drowned in the water below. In honor of his work, the highest peak in the Black Mountain range was given his name in 1858. Though originally buried in Asheville, Mitchell's body was reburied atop Mount Mitchell a year later.

Until the late 1800's, the Black Mountains remained largely in a wilderness state. The only apparent influence of man upon the environment was a reduced animal population caused by increased settlement and hunting. However, this lack of exploitation of natural resources was not to last. By the early 1900's, extensive logging operations had denuded much of the Black Mountain range. Logging activity had expanded rapidly by 1913 and citizens began to voice their alarm about the destruction of the forest. Foremost among them was Locke Craig, governor of North Carolina from 1913 to 1917.



Summit of Mount Mitchell

In 1915, a bill was introduced in the state legislature establishing Mount Mitchell as the first state park. The legislation passed both houses quickly and on March 3, 1915, the North Carolina State Parks System came into being. In appreciation of Governor Craig, the second highest peak east of the Mississippi, with an elevation of 6,647 feet, was named Mount Craig.

As of July 1, 2016, Mount Mitchell State Park manages 1,996 acres.

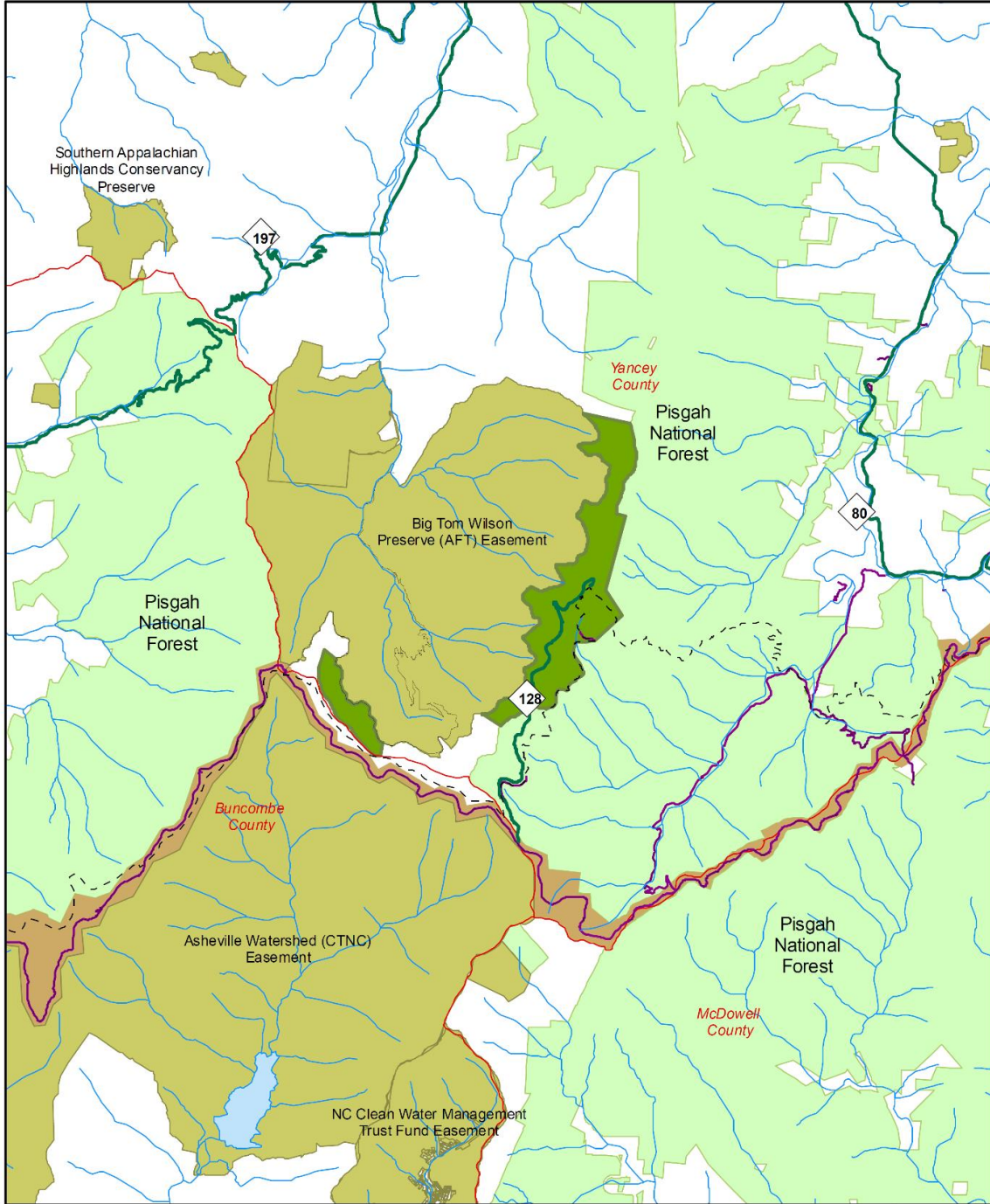
III. THEMES AND INVENTORY

Theme Table for Mount Mitchell State Park

Theme Type	Theme	Mount Mitchell Significance	State System Representation	Parks
Archeological/Historic	Recreation	High	Adequate	
Archeological/Prehistoric	Campsite/Activity Area	High	Adequate	
Archeological/Prehistoric	Quarry-Other	High	Moderate	
Archeological/Prehistoric	Rock Art	High	Moderate	
Archeological/Prehistoric	Shelter/Cave	High	Adequate	
Archeological/Standing Structure	Recreation	High	Adequate	
Biological	High Elevation Rock Outcrops	High	Moderate	
Biological	Northern Hardwood Forests	High	Adequate	
Biological	Spruce-Fir Forests	High	Moderate	
Biological	Upland Seepages and Spray Cliffs	High	Moderate	
Geological	Cliffs	High	Adequate	
Geological	Intrusions	High	Adequate	
Geological	Metamorphic Features	High	Adequate	
Scenic	Caves/Cliffs	High	Moderate	
Scenic	Forests	High	Moderate	
Scenic	Meadows/Grasslands	High	Little	
Scenic	Rock Outcrops	Moderate	Moderate	
Scenic	Scenic Highways	High	Little	
Scenic	Scenic Vistas	High	Moderate	











*See the Systemwide Plan for references to Theme and inventory terms. Themes have both actual and “potential” future needs to be at a park.

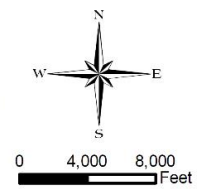
REGIONAL MAP
MOUNT MITCHELL STATE PARK



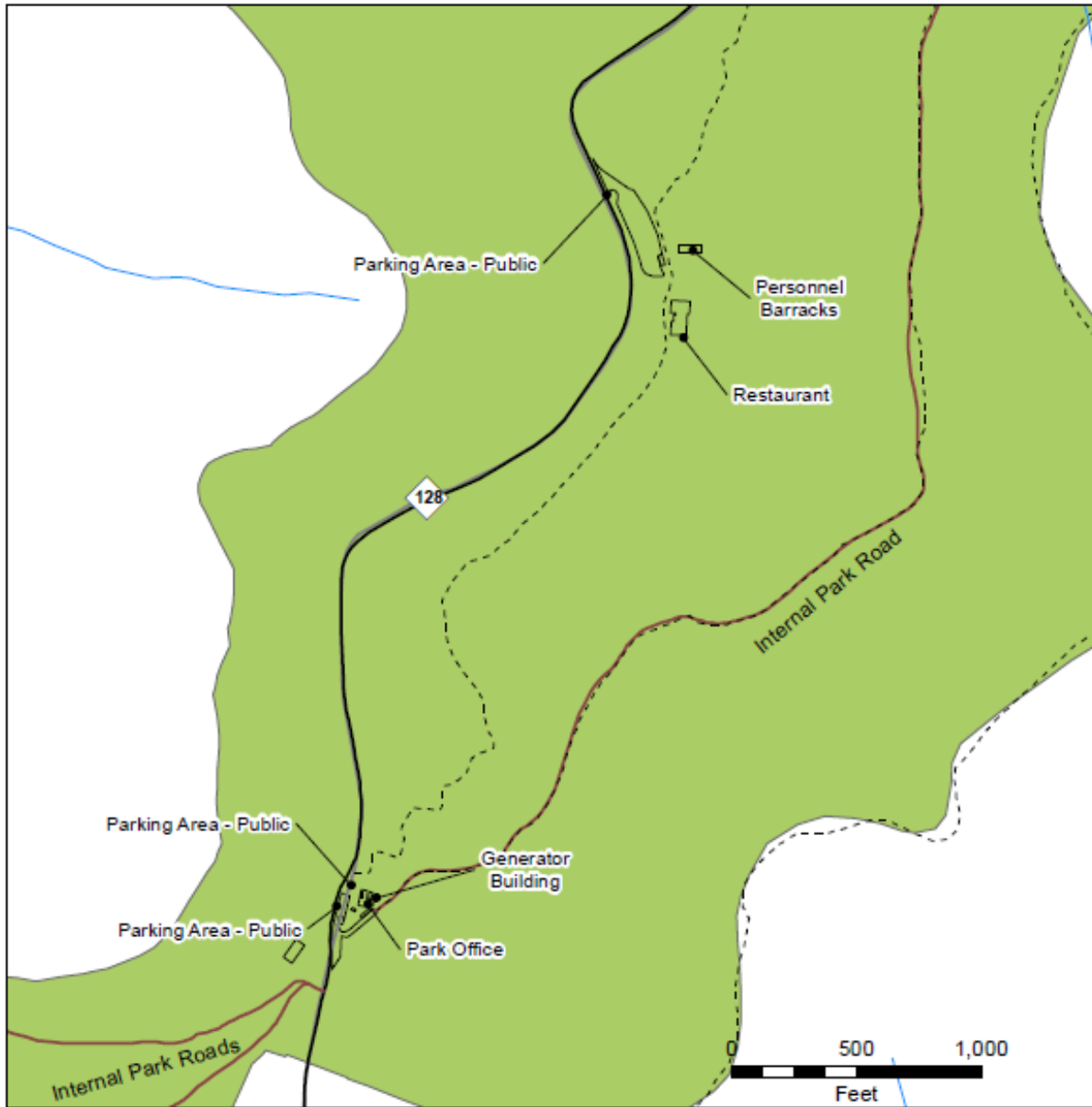
Regional Context

Mount Mitchell State Park

- | | |
|--|--|
|  State Park |  Interstate |
|  Managed Areas for Conservation |  US Highway |
|  Blue Ridge Parkway |  NC Highway |
|  Pisgah National Forest |  State Road |
|  Mountains to Sea Trail |  Other |



PARK OFFICE/RESTAURANT AREA
MOUNT MITCHELL STATE PARK

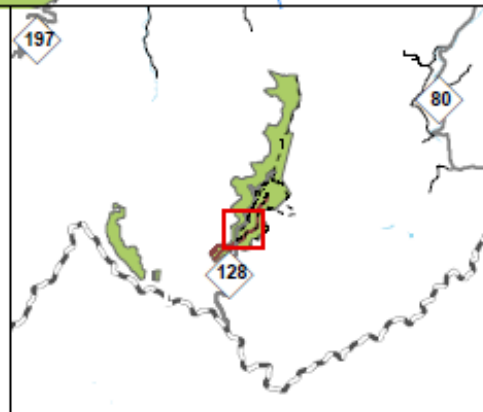


Mount Mitchell
State Park
Facility Inventory

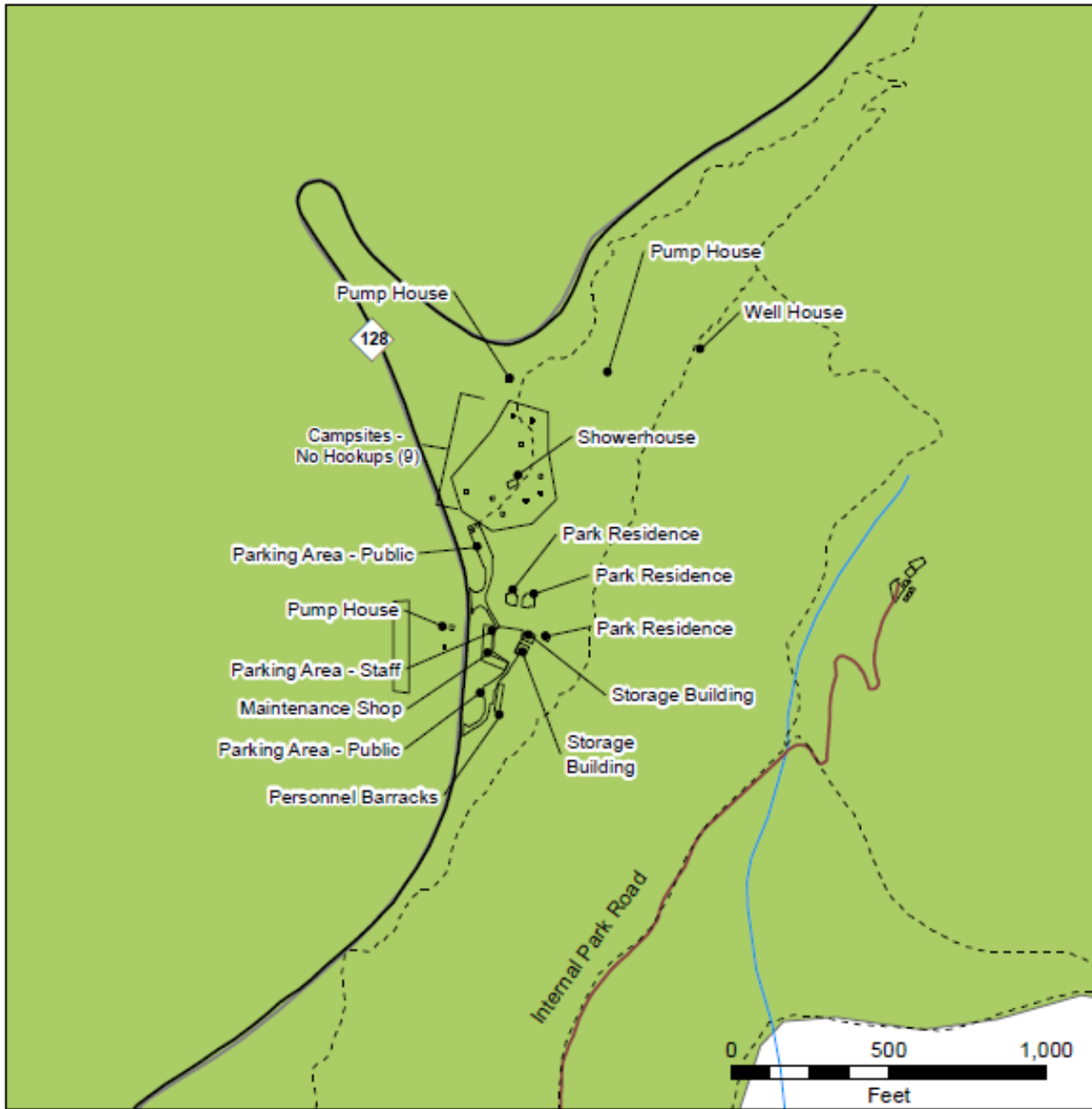
Park Office Area
January 2017



- Existing Trail
- Road - Paved
- Road - Unpaved
- Existing Facilities
- State Parks Unit

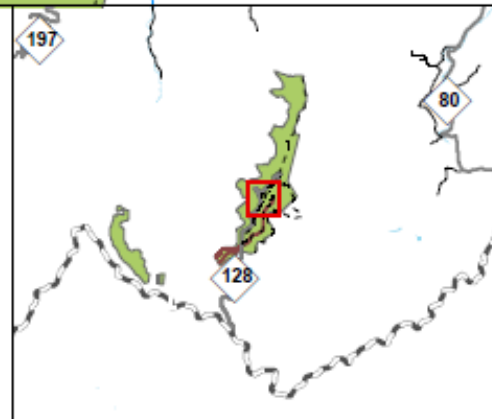


CAMPING AREA/ MAINTENANCE AREA
 MOUNT MITCHELL STATE PARK



Mount Mitchell
 State Park
 Facility Inventory
 Camping Area/Maintenance Area
 January 2017

- Existing Trail
- Road - Paved
- Road - Unpaved
- Existing Facilities
- State Parks Unit



TRAIL INVENTORY
MOUNT MITCHELL STATE PARK

Trails Inventory	Hiking	Multi-Use
Balsam Nature Trail	0.75	
Camp Alice Trail	0.50	
Commissary Trail	2.00	
Deep Gap Trail	4.30	
Mount Mitchell Trail	6.00	
<i>Mountains-to-Sea Trail</i>	3.20	3.20
Old Mitchell Trail	2.20	
Summit Trail	0.25	
Mount Mitchell SP Totals (miles)	19.20	3.20

Balsam Nature Trail: Trailhead at Upper Summit Parking Lot. This self-guided 0.75-mile nature trail starts at its junction with the Mount Mitchell Trail and ends at the Tower Summit parking lot. A tiny stream located along this trail is the highest spring in eastern America. This spring was a major water source for park personnel during the developmental stages of Mount Mitchell State Park.

Camp Alice Trail: Trailhead is located at the Spur Trail from Old Mitchell Trail to Commissary Trail. This strenuous trail intersects the Old Mitchell Trail ¼ mile from the summit and descends the south side of Mount Mitchell to an area called Camp Alice, an old 1900's logging camp. The railroad serving Camp Alice was torn up in the early 1920's and a road opened for vehicles. Between the 1920's and 1940's tourists drove to Camp Alice and then hiked the remaining mile to summit of Mount Mitchell.

Commissary Trail: Trailhead is located at the Park Office. This easy 2.0-mile hike starts at the park office and follows an old logging railroad bed used in the early 1900's. Logging played a very important part in shaping the look of the Black Mountain Range. After logging was prohibited in this area, the logging railroads were used for bringing tourists into the mountains.



Camp Alice Trail



View from Commissary Trail

Deep Gap Trail: Trailhead is located at the picnic area. This 4.30 mile trail, beginning at the picnic area near the summit of Mount Mitchell has vistas that are seen on clear days as one hikes this moderate to strenuously difficult trail. As it follows the crests of the Black Mountains, it crosses Mount Craig and Big Tom Mountain. Mount Craig, named for North Carolina Governor Locke Craig, is the second highest peak (6,647 feet) in eastern America. Big Tom Mountain is named for Thomas Wilson (a famous bear hunter) who found Dr. Elisha Mitchell's body after Mitchell had fallen to his death in 1857.



Deep Gap Trail

Mount Mitchell Trail: Black Mountain Campground (Pisgah National Forest). This is the trail mainly used to climb Mount Mitchell. The trail begins at the Black Mountain Campground, operated by the U.S. Forest Service, and ends at the summit. This 6-mile trail requires about 4 ½ hours of strenuous hiking to reach the top and 3 ½ to return. Numerous dead trees, killed mainly by sub-zero temperatures and high winter winds, are on the top of Mount Mitchell.

Mountains to Sea Trail/ MST: The MST trail along Mount Mitchell traces the southern edge of the park and Camp Alice trail, Balsam Nature Trail, and Deep Gap trail each connect the park and the Mountains to Sea Trail. This section of trail was designed as part of the Balsam Gap to Black Mountain Campground designation in October 1997. The trail lies at the outer edge of Ashe County and is not entirely completed.

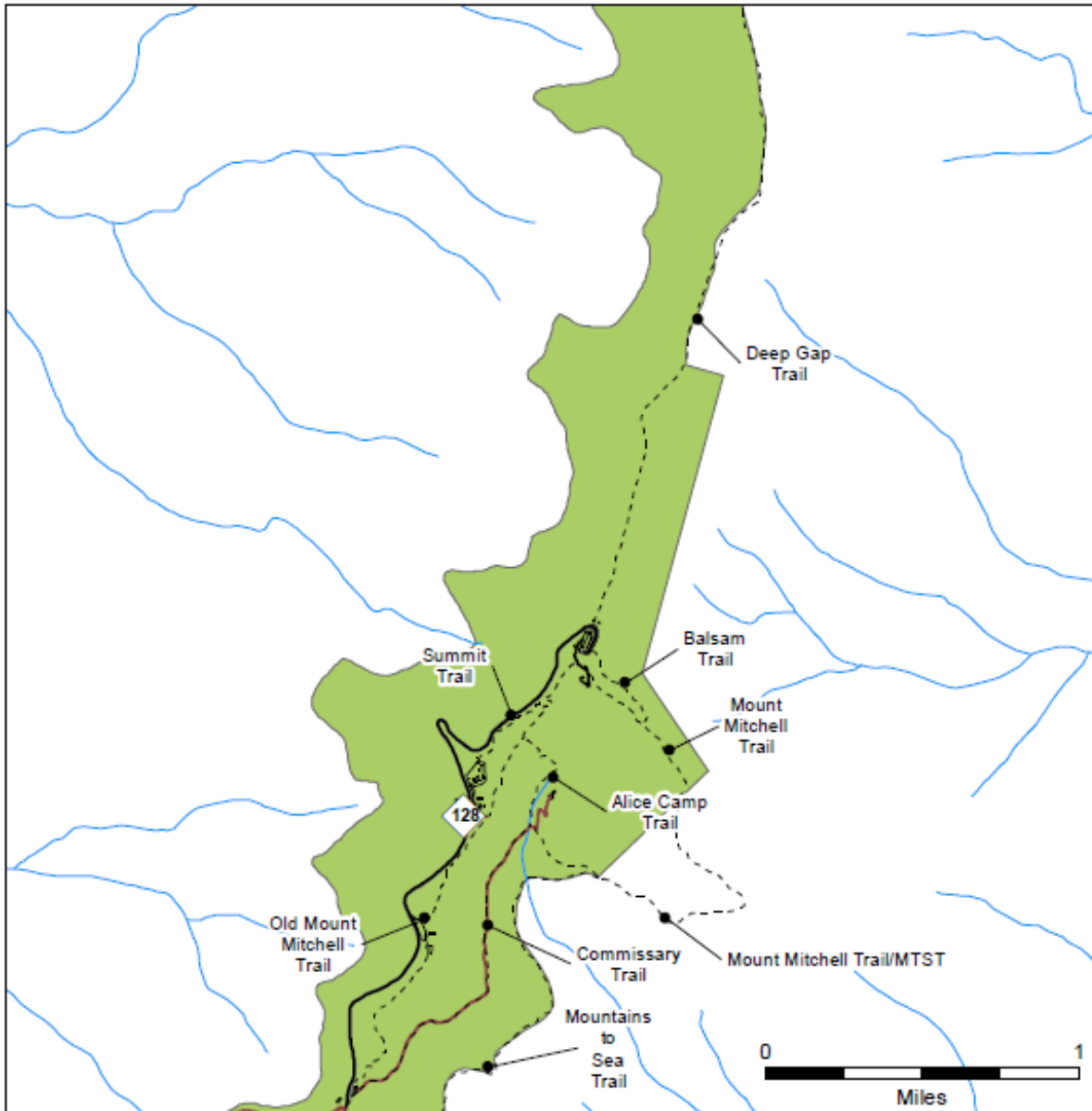
Old Mitchell Trail: Trailhead is located at the Park office. The 2.2-mile Old Mitchell Trail, used by explorers as early as the 1840's, was the primary trail for reaching Mount Mitchell during the late 1800's and the early 1900's. This preserved trail originated along the North Fork of the Swannanoa River, extended along the crests of the Black Mountains, and ended at the Summit of Mount Mitchell. Today, this trail is mainly hiked 2.20 miles from the Park Office to the Summit. Points of Interest include: Mount Hallback and Mount Mitchell.

Summit Trail: The trailhead parking is located at the Upper Summit Parking Lot. A short, easy 0.25-mile trail beginning at the upper summit parking lot leads to the summit observation platform. On a clear day, visitors can see as far as 85 miles and enjoy spectacular views of the surrounding mountains and the Pisgah National Forest.



Summit Trail

TRAIL INVENTORY
MOUNT MITCHELL STATE PARK

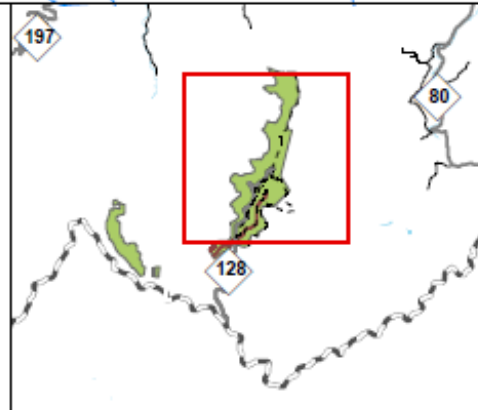


Mount Mitchell
State Park
Trail Inventory

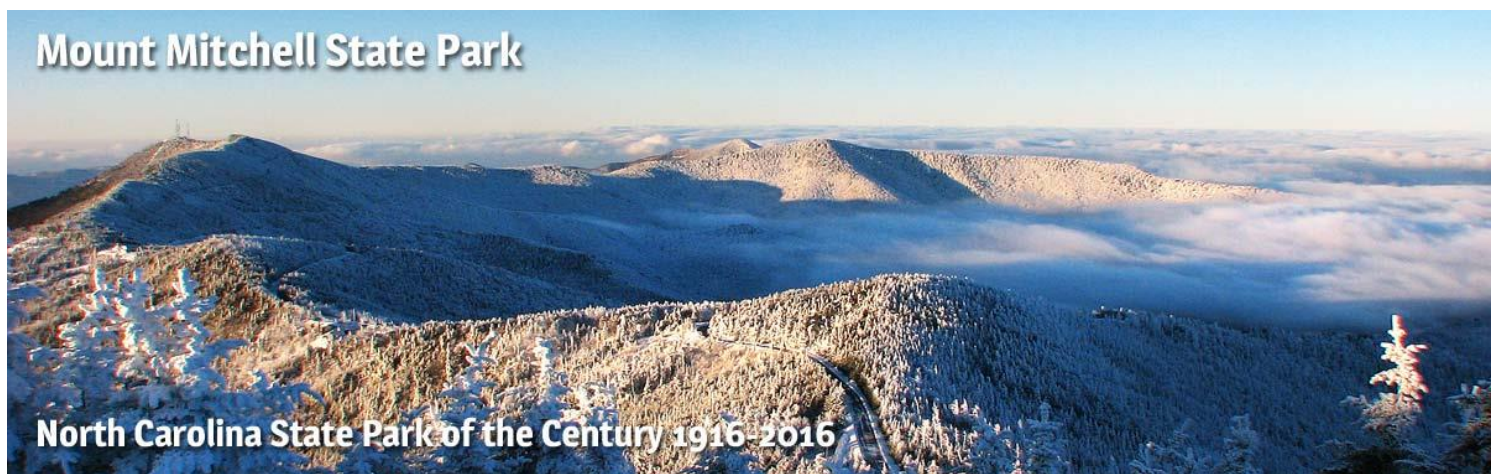
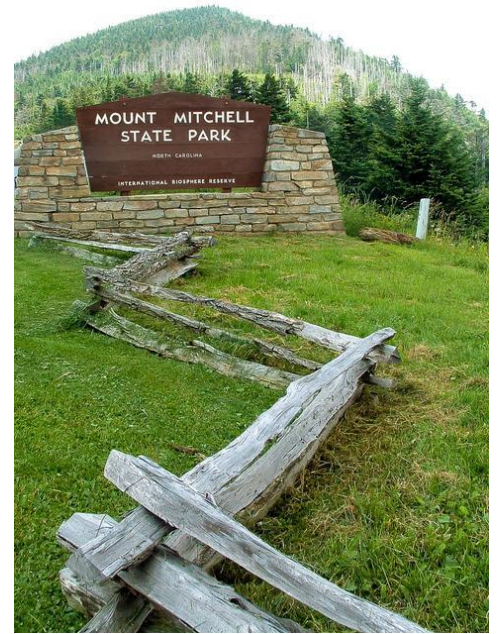
January 2017



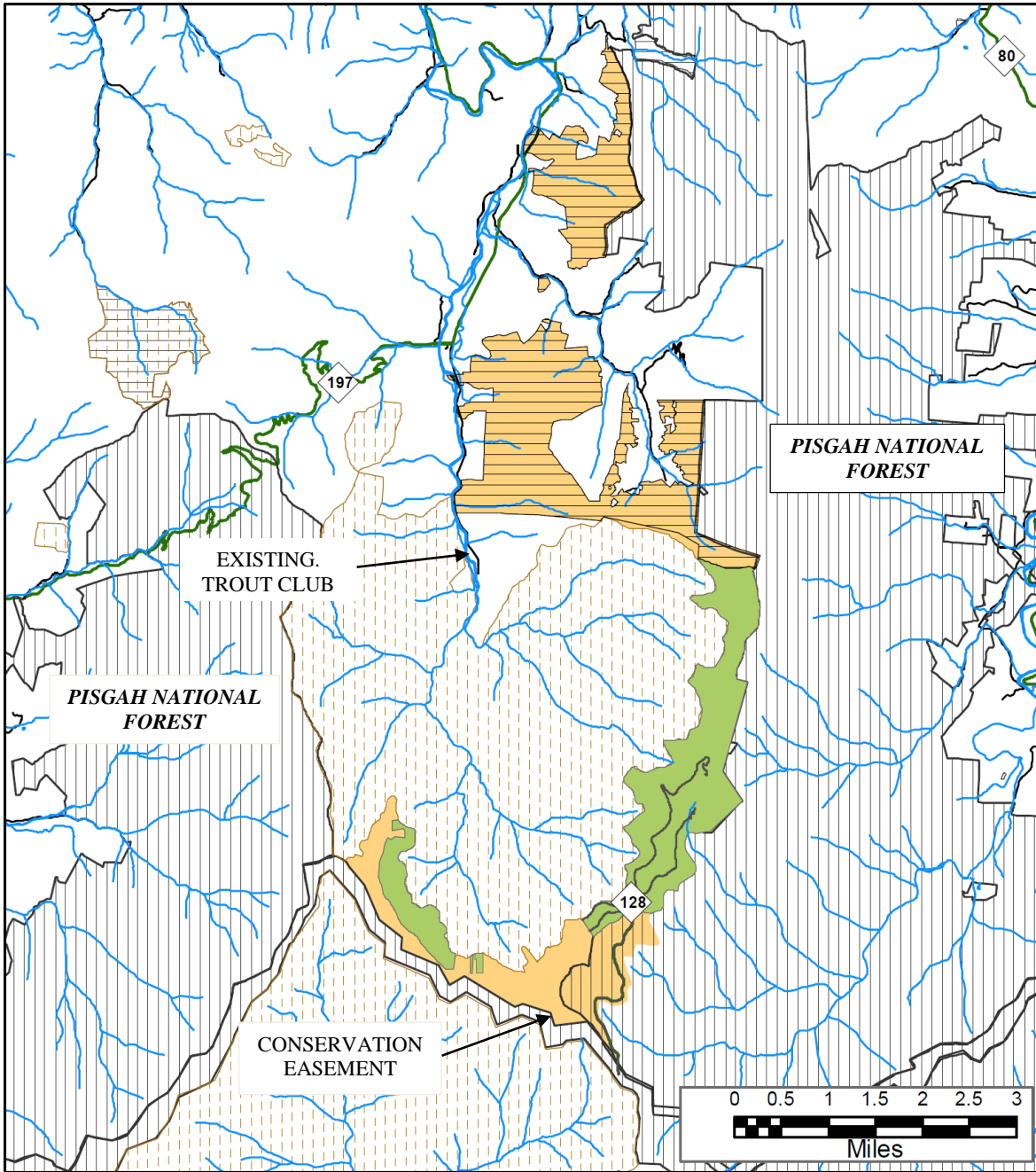
- Existing Trail
- Road - Paved
- Road - Unpaved
- Existing Facilities
- State Parks Unit



IV. PLANNING



LAND PROTECTION PLAN
MOUNT MITCHELL STATE PARK



Mount Mitchell SP



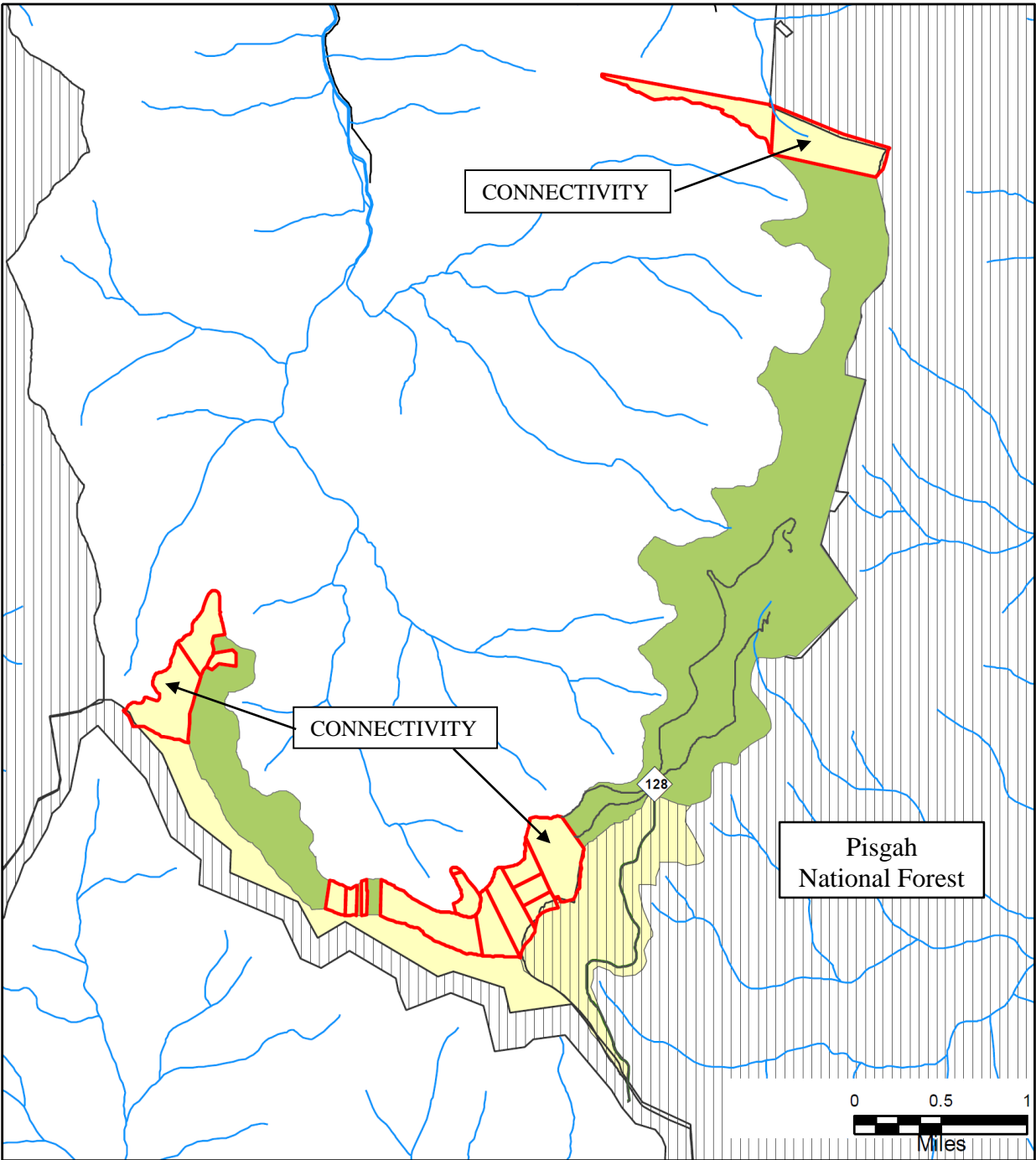
June 2016

Land Protection Plan

- Primary resource protection
- Inholding
- Scenic protection
- Water quality protection
- Facilities development
- Buffer
- State Parks Unit
- Federal
- Other State
- Other
- Conservation Easements



LAND PROTECTION PLAN - CRITICAL ACRES
MOUNT MITCHELL STATE PARK



Mount Mitchell SP



Sept 2015

- | | |
|-----------------------------|--------------------------------|
| Critical need | Other Conservation Land |
| State Parks Unit | Federal |
| Land Protection Plan | State |
| Future need | Other |



PROJECT EVALUATION PROGRAM LIST
MOUNT MITCHELL STATE PARK

Project	Project Title	Cost
1	Summit Improvements	\$600,000
2	Maintenance Area Improvements	\$635,290
3	Stonework Repairs (Park wide)	\$677,053
4	Renovate Three Existing Residences	\$685,422
5	Renovation of Restaurant/Lodge at Summit	\$834,800
6	Trail Improvements (Deep Gap & Old Mitchell)	\$1,862,693
	TOTAL	\$5,295,258

1. Summit Improvements

This project will convert the existing restroom facilities located on the backside of the main building into a storage area. The restroom is in the wrong location and difficult to access.

Scope of work includes: Construct an accessible restroom facility and match architectural style in the area. Feasibility study and cost estimate analysis will be completed.



2. Maintenance Area Improvements

This project enlarges the existing maintenance area by expanding the park maintenance building (Bldg. #5) and upgrading the shop area with upgraded safety equipment. The shop will be expanded by 1,200 sq. feet with electrical upgrades and will be equipped with an automobile service lift. An updated HVAC system and 600 sq. ft. of shop building will be constructed to current building standards.

Additional improvements include relocating existing utilities (water, gas, telephone, power) around the existing maintenance building. Approximately 500 cubic yards of rock will be excavated and the oil pit will be removed. Approximately 200 square yards of the back entrance driveway will be constructed using either gravel or asphalt pavement.

The purpose of this project is to improve the maintenance area, which has limited working

and storage space. Staff needs room to store large snow removal equipment. Alternate sites may be considered.

3. Stonework Repairs (Park Wide)

This project will address the extensive stonework repair needs throughout the park. Majority of the rock work within the park was completed 45- 50 years ago.

Areas in need include:

- a. Repair chimney at restaurant.
- b. Repair to a retaining wall for the concession building septic system to prevent a failure of the sewer system and subsequent closure of concession facilities;
- c. Repair route to the concession area to provide an accessible compatible route
- d. Repair existing wall for a wheelchair ramp near picnic shelters which is needed to prevent road failure and closure of picnic shelters;
- e. Repair stairway and retaining wall between upper and lower parking lots at the summit; add 42” high railing to meet current building code
- f. Rebuilding a dry-stacked retaining wall at restaurant parking lot to current building code standards that will hold up in extreme conditions.

4. Renovate Three Existing Residences

The existing three ranger residences are small, 900 sq. ft., and will be expanded to better accommodate park rangers and their families.



Ranger Residence #1 built in 1950

These improvements include adding an additional bathroom and master bedroom to each residence. With a limited buildable area for expansion, a custom design of attached or duplex type units may be used to combine two homes into one. Severe weather building methods should be utilized due to the exposed nature of the site. The residences will be brought into standard building code and potential health hazards such as asbestos and lead paint will be removed. Utility improvements include replacing old underground power lines and the expanding field drip lines of the septic system. If the renovations are cost prohibitive, then a modular ranger residence will be planned.

5. Renovation of Restaurant/Lodge at Summit

The facility is operated by the N.C. Services for the Blind by their contractor/vendor. This project is a renovation of the lodge portion, built in 1963, located in the restaurant building. Scope of work includes: improving waiting/lounge area, proposed tables and chairs, a mounted projection screen, speakers and an overhead projector. Acoustic improvements will be made and window shades will be installed. An interior storage closet will be constructed for table and chair storage. The electrical and plumbing will be renovated at the restroom facilities and brought to current building standards. Doors and windows will be replaced with energy efficient products. Ingress and egress improvements will be made for universal design standards. Flooring and exhibits will be replaced. The overhead electrical service that services restaurant barracks and restaurant will be relocated underground due to extreme winter conditions.



Restaurant

The restaurant and lodge were constructed in 1953 and asbestos may be present in the kitchen and mechanical area. A study will be conducted to determine the level of asbestos remediation.

6. Trail Improvements (Deep Gap & Old Mitchell Extension)

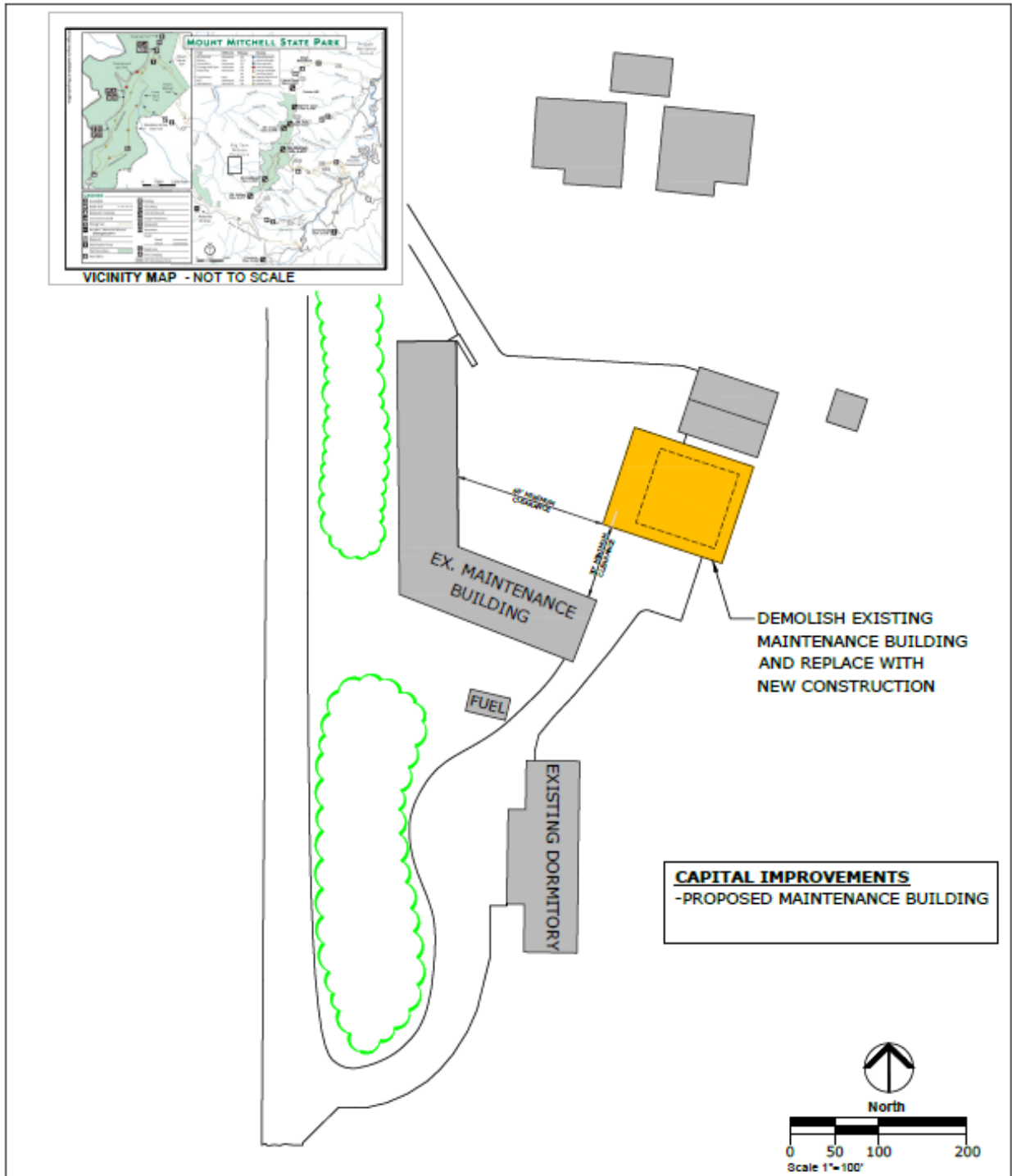
This project includes both the Phase II improvements to the 1.80 mile long Deep Gap Trail and 1.0 mile of improvements to Old Mitchell Trail. Both trail renovations may require some building materials be transported by helicopter and should be considered at time of project funding.

The scope of work for trail renovations and improvements should be examined closely. As trails become less accessible due to the distance from trailheads in high visitor use areas, the level of trail improvements should be decreased to more accurately reflect the back country experience and difficulty of the trail level of use. This will allow for some cost reduction as the trail becomes less accessible to trail crews as well as the visitor. Sustainable trail building construction practices will be used.



Deep Gap Trail

PROJECT # 2: MAINTENANCE AREA IMPROVEMENTS
MOUNT MITCHELL STATE PARK



Rev Jan 2017,
Date: October 2011
Drawn By: CR

Mount Mitchell State Park
Proposed Maintenance Building



N.C. Division of Parks and Recreation
Mail Service Center 1615
Raleigh, N.C. 27699-1615

PARK MAP
MOUNT MITCHELL STATE PARK

