

Section II Site Analysis

Section Overview

This section of the study describes and evaluates the sites natural, historic and man-made characteristics. This section is broken down into the following:

Location

Topography

Hydrology

Water Quality

Floodplains

Wetlands

Cultural Resources

Zoning

Soils

Plants Habitats/Vegetation

Wildlife

Utilities

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II. Site Analysis

Location

Rocky Face is located in the northern part of Alexander County (See Exhibit 1). The mountain is approximately 5 miles north of the Town of Taylorsville and 4 ½ miles south of the Wilkes County line. Carolina Land & Lakes (CL&L) RC&D, Inc. holds the title to the approximately 328 acre property. Rocky Face is at the southern edge of the Brushy Mountains. The proposed park is accessed by Rocky Face Church Road.

Topography

Rocky Face is a dome shaped mass of granite gneiss with a maximum elevation of 1795 feet above sea level. There are actually two summits on the mountain separated by a ridge and saddle. The summit is approximately 600 feet above the surrounding terrain. The terrain is steep and rocky and overall outline of the mountain lies in a northeast to southwest orientation with long sloping steep slopes on each end. The north face is steeper and more vegetated while the south face has seen quarry activity.



Granite Rock Outcrop

Hydrology

Water drainage flows off Rocky Face in all directions. Because of the steep terrain, water drains off the mountain fast. At the former quarry site there is a large depression that can hold water. This area sits below the adjacent roadway grade which traps water on the site. Beaverdam Creek forms along the northern part of the 328 acre tract and this flows into the South Yadkin River. Wallace Creek flows along the western edge of Rocky Face and a tributary to the creek forms near Rocky Face Baptist Church. Rocky Face Branch is formed by two tributaries. The first tributary forms near the old quarry site on the southern end of the mountain and the other tributary forms along the eastern side of the mountain. Both Wallace Creek and Rocky Face Branch drain into the

South Yadkin River and the South Yadkin River ultimately drains into the Yadkin River basin.

Water Quality

According to the Yadkin River Basinwide Plan, none of the tributaries or streams near Rocky Face have been sampled. All of the tributaries and the South Yadkin River support their uses according to the Plan.

Because of the steep terrain, any facilities planned on the mountain should minimize grading and utilize sedimentation controls to minimize runoff.

Floodplains

A review of the appropriate NC Floodplain Map (#3862) shows that there are no floodplains on the proposed park parcel. The largest area of standing water will occur at the old quarry site.

Wetlands

National Wetland Inventory (NWI) maps reveal that there are no wetlands on the proposed park property. Because of the topography and soils, runoff occurs quickly. The old quarry site at times can hold water and there has been discussion regarding the creation of a manmade wetland. There are no streams on the proposed site, therefore US Army Corps of Engineers permits would not be needed for future park activities.

Cultural Resources

There are no structures on the proposed park site nor are there documented sites of national or state cultural or historical significance. A small quarry that was abandoned in the 1920s is on the southwestern side of the site that could have historical value and there are potential sites for the former railroad, prison work camp and spring sites. A formal archeological survey has not been conducted on the site.

Zoning

The proposed Rocky Face Park parcel is zoned RA-20. Recreation parks and facilities are included under this zoning classification. Any future recreation facilities would also be allowed under this classification.

Soils

The proposed Rocky Face Park falls under the Cleveland-Ashe-Rock Outcrop. This is composed of two soil types. Rocky Face and Round Top are the only areas in the county that fall under this classification. The Cleveland-Rock outcrop complex (CnF) and the Ashe-Cleveland complex (AcD). Most of the proposed park is covered by these soils which are characterized as somewhat excessively drained with strongly to very steep slopes and areas of rock outcrop on mountain side slopes. The soils tend to be shallow and the soils are not suited for timber production, farming, or construction development. In addition, these soils present severe limitations for sanitary facilities including septic systems. There is a small area near the old quarry site that is classified Udorthents-Urban Complex (UdC). These areas tend to be cut or filled during grading or similar uses. The slopes tend to be nearly level to strongly sloping. The soils are shallow and construction could occur with this classification. Because of the shallow nature of the soil particularly in the old quarry area, sanitary facilities would have severe limitations.

Wehadkee loam (WeA) is found on the east side of Rocky Face Mountain at the headwaters of one of the tributaries of Rocky Face Branch. The soil map unit where the church is located is Rion sandy loam (RnC) and has few limitations (gentle to strong sloping terrain is the only limitations). The area adjacent to the Church has not been urbanized and could be moderately suited to building sites and recreational activities. Because characteristics of the soil type vary, on site investigation is needed to determine the suitability and limitations for any proposed use.

Plant Habitats/Vegetation

The proposed Rocky Face park area is on the North Carolina Registry of Natural Heritage Areas. A survey was conducted by the North Carolina Natural Heritage Program in 2002 and found significant communities of plants and wildlife. According to the survey:

- Rocky Face Mountain with its extensive exposures of granitic gneiss and areas of shallow soil contains examples of rare natural community types, including Low Elevation Granitic Dome and Montane Red Cedar-Hardwood Woodland, along with good examples of the uncommon Piedmont Monadnock Forest type.
- Rocky Face contains a number of rare species associated with rock outcrops and forest and woodlands. These include Keever's bristle moss which is considered endangered by the state and most of its world population is in the Brushy Mountains. Also included are striped garlic, shinyleaf meadow-sweet, cofaqui giant skipper and giant swallowtail.
- Rocky Face Mountain is an excellent example of a granitic dome or bornhardt, and of the exfoliation process in the massive granitic rock that creates the rock faces.



Cactus Plant

The survey recommends the use of the area for public education and for low-impact recreation. Emergency vehicles should be the only vehicles allowed on the mountain. Foot traffic on the outcrops should be limited, as much as possible to established trails. No new roadways should be constructed. New foot trails may be constructed without damage if care is given to prevent trampling of rock outcrops. Because of their fragile nature, some outcrops should be left without trail access.

Wildlife

Rocky Face Mountain provides an ideal habitat for a variety of wildlife including squirrels, rabbits, rodents and a variety of snakes and birds. Two rare animals both butterflies are known to Rocky Face. Cofaqui giant skipper feeds on yuccas that are abundant in the wooded areas. The Giant swallowtail feeds on the hop-tree. Both of these species are very rare in North Carolina and are currently listed on the NC Natural Heritage Programs list of significant animal species.

Utilities

The proposed park is accessed by Rocky Face Church Road. This road recently had a waterline installed so there would be access to public water. Electrical service would be available to the park.

There are no sewer lines in the vicinity of the park. Any facilities that are constructed that would require sewer must use a septic system. There are no overhead power lines on the park property.

Site Restrictions

Currently, there are two agreements for the proposed park area that have restrictions regarding use. The agreement for the transfer of land between the Felburn Foundation and CLLRC&D contains the following conditions in regard to the property.

- Must be used exclusively for the charitable purpose of maintaining a wildlife, scenic conservation, public recreation, and scientific research site.
- Must be maintained in its natural condition, without disturbance except when appropriate for educational, scientific and aesthetic purposes.
- Can not be sold, transferred mortgaged, or leased without prior written consent from the Felburn Foundation
- Can not be used for any commercial purpose other than charitable.
- Must allow the bulk of the general public to have access.
- May provide shared parking with Rocky Face Baptist Church.
- Must be maintained in a manner compatible with the NC Natural Heritage Program registration.

As part of the agreement between the North Carolina Natural Heritage Program And the CLLRC&D to have Rocky Face included on the North Carolina Registry of Natural Heritage Areas, the following recommendations were made:

- Use of the area for public education and for low-impact recreation is appropriate.
- Rock outcrops are fragile because of their thin soils, vehicle traffic should be removed from them. Most foot traffic should be limited to existing trails.
- Existing roadways and trails may be improved as needed for management and public use.
- Any new trails constructed should take into account the fragility of the rock outcrop communities, and leave some rocks without trail access.
- Woodlands and forests should be allowed to mature naturally to old-growth condition. Trees should not be cut unless it is determined to be needed in the restoration of more natural conditions.
- Prescribed burning should be considered
- Invasive exotic species should be removed or controlled using low-impact methods. These include the Confederate Daisy, Japanese Honeysuckle and Stiltgrass.
- Planning for any new facilities and planning for any significant changes in management should be done in consultation with the Natural Heritage Program.

Recommendations

1. Because of the fragile ecosystem and restrictions described above, proposed project activities on the mountain should be limited to hiking trails and education

and informational signage. Rock outcrops need to be evaluated to determine if viewpoints can be achieved that will protect the fragile ecosystem and provide safety for visitors. In some cases, raised platforms with fences may be needed.

2. The lower lying areas near the Church and the old quarry site are more suitable for parking, picnic shelters, educational amphitheater and buildings. Because of shallow soils at the old quarry site, the property near the church may be suited for restrooms.
3. Off-road vehicle traffic needs to be controlled. Where this is occurring, large barriers need to be constructed along with signage.