

The Sierra Club
Capital Group
NC Chapter

Umstead Park-RDU-Quarry

The Sierra Club has a long history of protecting public lands beginning with those which would become the National Parks 127 years ago. A major focus of the Sierra Club Capital Group has been Umstead State Park, and RDU has been a neighbor of Umstead Park for about 80 years. Although both entities have much different goals, we recognize the needs for RDU in the community, understand the basis of the RDU authority and have worked together before in previous years. In 2016 when the FAA future of RDU was available for public comment we participated; although, we did not feel heard by the Authority. The discussion was limited and controlled. When alternate uses than a quarry were proposed we supported them. The RDU authority appears to have little consideration for its neighbor.

Umstead is a 5,559 acre forest which has seen a dramatic increase in the number of visitors with 1.8 million visitors in 2016, a 38 percent increase over 2015. The sale/lease of 105 acres of RDU managed property to Wake Stone has put Umstead State Park at much higher risk for long term damage and exposure to environmental pollution. There are many major concerns here. One of such concerns is the need to protect the multi-use trails within Umstead State Park that serve as arterial greenway trails connecting Durham, Cary and Raleigh. Another major concern is the need to protect Crabtree Creek, a class B-NSW stream in the Neuse River Basin. Something to understand here is that the Nutrient Sensitive Waters (NSW) is a supplemental classification intended for waters needing additional nutrient management due to being subject to excessive growth of microscopic or macroscopic vegetation. The entire Neuse River Basin including Crabtree Creek is classified as NSW.

-description of damage to the park

Removing the forested buffer of the Odd Fellows Tract and replacing it with a quarry will harm Umstead State Park.

- Air Quality impacts of particulate pollution caused by quarry operations of blasting, grinding, and crushing of granite that have been observed both at the entrance to the existing quarry at Harrison Avenue and within Umstead State Park. There is also a concern about the presence of silica in the particulate pollution generated by the quarry.
- Water Quality impacts due to quarry operations that generate fines that are washed into Crabtree Creek during heavy precipitation events. This has resulted in observable white sediment being discharged into Crabtree Creek into Umstead State Park from the sediment holding ponds at the existing quarry. It is not clear that best management practices are being implemented at the existing quarry for controlling total suspended solids. The riparian buffers and stormwater rules required for the Neuse River Basin do not appear to be followed by Wake Stone Corporation at their existing quarry.

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- Riparian buffer impacts, the currently undisturbed forested land along Crabtree Creek helps to absorb excessive nutrient pollution from the North Cary Water Reclamation Facility that is discharged upstream of the Odd Fellows Tract before entering Umstead State Park. The riparian buffer also helps to protect Umstead State Park from PCB pollution that has migrated downstream from the Ward Transformer Superfund Site.
- Riparian buffer impacts, the undisturbed 105 acre forested riparian buffer helps to absorb pollution from I-40 Highway runoff before it enters Umstead State Park. Numerous pollutants have been identified in highway runoff, including various metals (e.g., lead, zinc, iron), sediment, pesticides, deicing salts, nutrients (nitrogen, phosphorus), and petroleum hydrocarbons.
- Floodplain impacts, the placement of berms in the 50 ft riparian buffer between the existing Wake Stone Quarry and Crabtree Creek does not allow nutrients or pollutants to be absorbed by vegetation as it disconnects the creek from its natural flood plain.
- Noise pollution from the quarry operations will harm the tranquility of Umstead State Park.

-description of damage to the community environmentally

- Increasing the amount of impervious surface will exacerbate downstream flooding, impacting Crabtree Valley Mall and other developments in the floodplain that are vulnerable to flash flooding.
- Truck traffic generated by the need to remove the trees and overburden from the site will be unsafe for recreational users of the I-40 bridge at Old Reedy Creek Road, and over the single land bridge over Crabtree Creek. Old Reedy Creek Road Multi-Use Trail within Umstead State Park is a major segment of the East Coast Greenway that goes from Maine to Florida.
- Building a new bridge over Crabtree Creek will disturb Umstead State Park and the users of the popular Company Mill Trail.
- An assessment of the wildlife and fauna on the Odd Fellows Tract has not been done to determine what will be lost if it is developed as a quarry.
- Air pollution generated by the quarry should be studied to determine PM2.5 and PM10 exposure to visitors of Umstead State Park.

-worst case description

The lease of this land for a quarry will harm the health and safety of over 2 million visitors per year to Umstead State Park for 25+ years. The quarry may sever or severely impair the east-west portion of the Cross-County connection between Durham County and Wake County through Umstead State Park. Active transportation users can currently travel north to south on the American Tobacco Trail or the Neuse River Trail, and east to west between the trails that go through Umstead State Park. This east-west connection is currently the only safe route for

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bicyclists, runners and pedestrians going between all of these major municipalities. (Note: building the connection between Crabtree Creek Greenway and Umstead State Park's Turkey Creek and Cedar Ridge Trails on the other side of Umstead State Park was delayed over 20+ years due to litigation between the City of Raleigh and Hanson Aggregates Quarry.)

RDU Authority has the purpose of serving the community and must consider functions which assist in that purpose. The Sierra Club does feel that other uses such as a forested recreation land use as offered by the Conservation Fund is a better choice than the quarry. Once the rock is removed, the 400 feet deep quarry pit will remain and there will be no way to return it to a scenic and environmentally supportive use.

-concerning preservation of open space or public property

The Sierra Club will always strive to promote efficient use of our natural resources, especially in urban areas as growing cities are encroaching upon our natural resources. We believe that it is imperative that we can conserve open space wherever possible, as doing so would promote better quality of life and infrastructure in a growing city like Raleigh. Furthermore, as Sierra Club is committed to the advocacy of equity, inclusion, and justice, we want to ensure that everyone can benefit from the preservation of open space regardless of backgrounds, and the aforementioned proposal to turn the Odd Fellows Tract into a part of the forested recreation is one which the general public can all benefit.

Supporting references:

Article XIV, Section 5, of the North Carolina Constitution provides the following: It shall be the policy of this State to conserve and protect its lands and waters for the benefit of all its citizenry, and to this end it shall be a proper function of the State of North Carolina and its political subdivisions to acquire and preserve park, recreational, and scenic areas, to control and limit the pollution of our air and water, to control excessive noise, and in every other appropriate way to preserve as a part of the common heritage of this State its forests, wetlands, estuaries, beaches, historical sites, open lands, and places of beauty.

References

Air Quality

Particulate emissions:

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.857.9280&rep=rep1&type=pdf>

<https://www.marincounty.org/-/media/files/departments/pw/land-use/feir-response-to-comments-amendment.pdf>

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.735.4106&rep=rep1&type=pdf>

http://oa.upm.es/52948/1/TFM_Gonzalo_Morera_Vall_Gonzalez.pdf

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NOx emissions:

<https://www.pitandquarry.com/utilizing-bulk-emulsions-in-quarry-blasting/>

Water Quality References:

https://www.researchgate.net/publication/225230668_Analysis_of_the_mobilization_of_solid_loads_and_heavy_metals_in_runoff_waters_from_granite_quarries

<http://gcaa.org/wp-content/uploads/2016/09/bmpmanual.pdf>

<https://deq.nc.gov/about/divisions/water-resources/planning/nonpoint-source-management/nutrient-strategies/neuse#stormwater-and-nutrient-offsets>

<https://files.nc.gov/ncdeq/Water%20Quality/Surface%20Water%20Protection/401/Riparian%20Buffers/Neuse%20and%20Tar-Pam%20Buffer%20Rules%20Brochure.pdf>

https://www.chesapeakebay.net/content/publications/cbp_13019.pdf

<https://www.epa.gov/nutrientpollution/sources-and-solutions-wastewater>

<https://www.epa.gov/nutrient-policy-data/reports-research-and-resources-nutrient-pollution>

Number of visitors to Umstead State Park:

<https://www.ncdcr.gov/news/press-releases/2018/01/16%20/north-carolina-state-parks-report-record-194-million-visitors-2017>

<https://www.wunc.org/post/state-park-visitors-increase-sharply>

https://files.nc.gov/ncparks/481/DPR_AnnualReport_WebFinal_2017%27.pdf

<https://files.nc.gov/ncparks/dpr-annual-report-2018.pdf>

NC General Statute to identify and preserve natural areas.

https://files.nc.gov/dncr-nhp/documents/files/nature_preserves_act_chapter_143b_part_42_recodified.pdf

Map of Greenway System and potential future greenway connectors between Durham and Raleigh through Umstead State Park.

<https://www.google.com/maps/d/u/0/viewer?ll=35.819943029187%2C-78.703494071882&z=13&fbclid=IwAR3fzysfhxCAUC0jik4XUbbRlnzpeJjAxd9eUKW59B7cZ1oLEoxxADYCMAs&mid=11jDSZvXKi3QUPKBpwvJS2Zxvi-k>

Crabtree Cross-City Connector

<https://www.raleighnc.gov/parks/content/ParksRec/Articles/Projects/CrabtreeCreekWest.html>

Sierra Club's call for preservation of open space in urban areas

<https://www.sierraclub.org/policy/urban-environment#>

Sierra Club article on how equity ties into open space preservation

<https://www.sierraclub.org/north-carolina/blog/2019/04/equity-committee-seeks-bring-new-views-voices-nc-chapter-s-work>

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March 5 Capital Group Sierra Club Letter to Raleigh City Council

https://drive.google.com/drive/u/0/folders/1yOoZOz2WRJOMZjITZrTBCP_KFP_Ktjeb

May 7 Capital Group Sierra Club Public Comments to Raleigh City Council

https://docs.google.com/document/d/1eMr7HD8gGV-h-iF_ENs6gcEUAWgVpKP-HjXci8OWiSM/edit

400 Feet Down Website and Movie

<https://www.400feetdown.com/>