

ROY COOPER
Governor
MICHAEL S. REGAN
Secretary
BRIAN WRENN
Acting Director



June *, 2020

Certified Mail
Return Receipt Requested
7016 2140 0000 4367 6393

Mr. Scott Martino
Carolina Sunrock LLC
200 Horizon Drive, Suite 100
Raleigh, North Carolina 27615

RE: Proposed Prospect Hill Quarry and Distribution Center
Caswell County
Roanoke River Basin

Dear Mr. Martino:

We have reviewed the application your company submitted for the referenced mine site. In order for this office to complete its review of the referenced project in accordance with GS 74-50 and 51 of the Mining Act of 1971, please provide the additional or revised information in accordance with the following comments:

1. Please provide proof, such as copies of the signed return receipts from certified mail, that the following adjoining landowners have been properly notified: Phillip & Susan Allen (Ed Daugherty) and Rover Companies LLC.
2. Please provide access to the cemetery. Access to the cemetery must be provided at all times. In addition, your company must insure safe passage to the cemetery.
3. Please provide proof that your company has applied for and obtained an NPDES Stormwater Permit. Please note that your proposal to discharge to high quality waters may require an individual stormwater permit. Please detail (list) the types of NPDES permits for mining and all other proposed industrial activities for the subject site. Also include proof that your company is obtaining all necessary NPDES permits for storm water and pit water discharge, including an acceptable operations and maintenance plan to protect wetlands and water ways.
4. Please provide proof your company has obtained any necessary Air Quality Permits for this site.



5. Please see the enclosed comments provided by the Division of Water Resources. Your company must address all of the concerns regarding streams, wetlands and runoff. If stream impacts (e.g., road crossings) are proposed, additional permits may be necessary.
6. Please see the enclosed email from the Winston Salem Regional Office regarding the erosion and sediment control plan submitted with your company's application. The erosion and sediment control issues noted from the Winston Salem Regional Office staff must be completely addressed. It is imperative that all stream crossings and bridges be shown along with details for the construction and installation of these features
7. Please revise the Initial Mine Map to show all monitoring wells and stream gauge locations. Differentiate between existing and proposed roadways.
8. Roadways cannot go through sediment basins. Please correct this on the mine map. Make sure the erosion control plans coincide with the mine map.
9. Please explain why the areas in the northwest corner of the proposed site have extensive erosion control designed measures if these areas are not to be disturbed but planted in trees.

Please note, this office may request additional information, not included in this letter, as the mining application review progresses. Be advised that our review cannot be completed until all of the items listed above have been fully addressed.

In order to complete the processing of your application, please forward two (2) copies of the requested information to my attention at the following address:

Division of Energy, Mineral Land Resources
Department of Environmental Quality
1612 Mail Service Center
Raleigh, NC 27699-1612

As required by 15A NCAC 5B.0013, you are hereby advised that you have 180 days from the date of your receipt of this letter to submit all of the requested information. If you are unable to meet this deadline and wish to request additional time, you must submit information, in writing, to the Director clearly indicating why the deadline cannot be met and request that an extension of time be granted. If an extension of time is not granted, a decision will be made to grant or deny the mining permit based upon the information currently in the Department's files at the end of the 180-day period.

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Though the preceding statement cites the maximum time limit for your response, we encourage you to provide the additional information requested by this letter as soon as possible. Your prompt response will help us to complete the processing of your application sooner.

Please contact me at (919) 707-9220 if you have any questions.

Sincerely,


Judith A. Wehner
Assistant State Mining Specialist

Enclosures

cc: Ms. Tamera Eplin, PE

Division of Wat Resources Comments

DWR offers the following comments and concerns for your consideration.

1. The revised application indicates that all streams and wetlands are to be avoided such that the project will not require authorization under the 404/401 program.
2. The revised hydrological report proposes that stream gauges will be installed for the purpose of monitoring of three perennial streams within the project boundary. The Division generally agrees with the proposal with regards to these three specific streams (Sugartree Creek, Unnamed Stream 1 and Unnamed Stream 2) , however we would recommend modifications to the proposed monitoring schedule and inclusion of reporting requirements. We offer the following example of two conditions used by the 401 program in a recent 401 approval for a mine in the Piedmont for your reference (please note that site nomenclature are from the original approval letter and would need to be modified for this project).
 - a. *Streams within the project limits that have been avoided by direct impacts from the project shall be monitored for surface flow by the Permittee to establish any loss of hydrologic function/flow and to determine if the streams continue to provide aquatic life propagation and biological integrity per required in North Carolina Administrative Code 15A NCAC 2B .0211(1). Continuous flow measurement shall occur through gauges installed at the locations identified as 401-1 through 401-8 as shown on the attached Monitoring Location Map. Background flow measurements shall be conducted for a minimum of 1 year prior to the commencement of pit dewatering activities and shall continue until a it can be demonstrated that all possible pit dewatering conditions have been realized for a sufficient period of time to document flow trends during each season, and any hydrologic function/flow impacts have been sufficiently monitored. Annual reports of monitoring shall be submitted to the Winston-Salem Regional Office on June 1 of each year. If monitoring of stream flow indicates a reduction of flow of greater than 10% at any sampling location, then the Permittee shall submit a report to the Division which includes an analysis of hydrologic and aquatic function of the stream. If the Division determines that there has been a loss of functioning accordance with 15A NCAC 2B .0211(1) the Permittee shall submit a mitigation plan to the Division.*
 - b. *Upon the start of pit dewatering activities, groundwater levels shall be continuously monitored in observation wells OB-1 through OB-13 as shown on the Mine Map provided with the July 3, 2019 supplement provided to the Division. Groundwater levels in the observation wells shall be recorded a minimum of 24 hours prior to the start of pit dewatering. The Permittee shall provide a minimum of 1 year of baseline monitoring from previously established monitoring locations (MW-1 to MW-5, OW-2S, OW-2D, PW-1, OW-1S and OW-1D) to represent groundwater elevations across the site prior to the commencement of pit*

dewatering. Annual reports of monitoring results shall be submitted to the Winston-Salem Regional Office on June 1 of each year. If observation well show lowering of the groundwater table below that predicted by the technical memo submitted to the Division on July 3, 2019 then the Permittee shall provide an updated report that addresses impacts to surrounding public water supply wells.

3. Based on the information provided in the revised application, the drainage areas of multiple small intermittent streams and linear wetlands which are adjacent to the pit areas have the potential to be indirectly impacted from the rerouting of their entire drainage areas and surface flows into the pits. This has the potential to remove existing hydrology from some of these features adjacent to the pits and therefore remove existing uses of the stream channels or wetlands which may result in a violation of water quality and/or wetland standards. The Division would recommend that the applicant provide a detailed hydrologic analysis of indirect impacts to these small intermittent streams and wetlands adjacent to the pit areas when the watershed to the feature is completely encompassed within the pit area. As stated in the revised hydrological report:
 - a. "Perched water tables are common in the Piedmont, consisting of isolated and laterally discontinuous lenses or layers of groundwater residing on top of low-permeability layers such as clay or unfractured bedrock. Perched water tables are separate and distinct from the "true" water table that lies at greater depth and are not hydraulically connected to the water table. Perched water tables are generally poor sources of groundwater supply but may serve as sources of water recharge to upland draws or springs were in contact with such features" (emphasis added)
 - b. "In these settings, most precipitation infiltrates into the subsurface, with most of the water returning to the atmosphere through evapotranspiration and a lesser amount moving laterally in thin, discontinuous, temporary, perched zones (a.k.a. perched water tables), which may discharge to perennial streams, intermittent streams, or internally drained surface depressions. "
 - c. "Daniel and Dahlen report that baseflow makes up an average of 47 percent of total streamflow in seven watersheds of the Piedmont provide in North Carolina, meaning that overland flow contributes the majority of water to streamflow in the Piedmont" (emphasis added)
 - d. "Rather, these drainage features have intermittent flow that is fed directly by surface runoff, or shallow subsurface flow as described above. Quarrying operations may disrupt these minor drainage features directly, where excavation removes the drainage features, and indirectly where dewatering changes subsurface flow directions in shallow, small, and discontinuous perched water tables, although this latter mechanism should be active only for drainage features in contact with the quarry pit." (emphasis added)

Erosion and Sediment ation Control Comments

1. Several sheets show haul roads crossing wetlands, creeks and at least one basin. Existing vs. proposed haul roads should be clarified with appropriate measures.
2. It appears the basins do not overlap the mine pit nor the wetlands, but that will be verified with the final submittal.
3. Significant area is shown draining below the diversions and sediment basins. In the initial stages of mining, this area must either be addressed by immediate stabilization after grading the diversions and sediment basins, with matting for slopes steeper than 3:1, or additional measures need to be proposed. Silt fencing can only handle ¼ acre per 100 LF of silt fencing at flat grade, less for slopes.
4. Note during the meeting, it was mentioned that maintenance of the baffles and basin would mean dipping out and replacing baffles at the time sediment is dipped out of the basins for maintenance. This is due to the U shaped configuration of the baffles.
5. The plans show slope drains in the specifications, but the sediment basins have “rip rap/lined transition areas”. Anchored slope drains are recommended for vertical differences over 7 feet. Any rip rap/lined transition areas would need to have anchored geotextile underlayment.
6. Please specify the brand of skimmer, since different skimmer manufacturers have different design criteria.
7. The creek crossings are not shown as part of the erosion control plan, neither the plans nor the construction sequence. The ESC involved with their installation needs to be incorporated into the application/plans.
8. The original application was for 426 acres and the updated application is for 409 acres, but it appears the LOD is the same. Please clarify.