

South Carolina Department of Natural Resources



PO Box 167
Columbia, SC 29202
(803) 734-3766
danielt@dnr.sc.gov

Robert H. Boyles, Jr
Director

Lorianne Riggan
Director, Office of
Environmental Programs

May 8, 2020

Jeremy Eddy
DHEC – BLWM
2600 Bull Street
Columbia, SC 29201

Electronic submission

RE: Fairfield Quarry, Vulcan Materials Company, LLC (DHEC Application I-002297)
Fairfield County, South Carolina

Dear Mr. Eddy,

Personnel with the South Carolina Department of Natural Resources (SCDNR) have reviewed the proposed project, evaluated its impact on natural resources and offer the following comments.

The proposed 924.1-acre proposed mine would be a new granite, sand and sand/clay mine, located approximately 6 miles west of Winnsboro, South Carolina in Fairfield County (34.399862, -80.979015). The property and vicinity are dominated by planted pine, grassed easements, and bottomland hardwood forests. Surrounding areas have limited residential development, mainly to the northeast. An estimated 0.34 acres of wetlands and approximately 124 linear feet of stream will be permanently impacted by construction of Phase I of the mine in order to construct a haul road across a tributary to Horse Branch. The proposed stream impacts involve permanent piping of the stream in a 12 ft diameter corrugated metal pipe (CMP) culvert for 124 linear feet. The proposed site is proposed to be reclaimed to a pond and grasslands. Haul roads and building infrastructure may remain in place upon reclamation.

Please note that the project boundary appears is inconsistent throughout the materials provided. The Nationwide Permit (NWP) application states that the project boundary is 525.4 acres but the South Carolina Department of Health and Environmental Control (SCDHEC) permit application (Form MR-400) states that 924.1 acres are to be permitted. What is the actual permitted acreage of the proposed site? What is the reason for such a large disparity in proposed permitted area?

According to SCDNR data, there are currently no records of threatened and endangered species within one mile of the proposed site. Please keep in mind that information regarding the presence of species is derived from existing databases, and SCDNR does not assume that it is complete. Areas not yet inventoried by SCDNR biologists may contain significant species or communities.

The application states that 75-foot upland buffers will be maintained adjacent to jurisdictional streams and wetlands. While 75 feet may be appropriate for wetland buffers, larger, 100' buffers are

recommended by the US Army Corps of Engineers (USACE) for the permanent protection of stream resources adjacent to industrial activities in their *Guidelines for Preparing a Compensatory Mitigation Plan*.¹ If adjacent slopes are between 5% and 20%, then 200' buffers are recommended in the USACE guidelines. SCDNR requests that streams adjacent to the mining pit, processing plant, and overburden areas be protected by 100' (minimum width) buffers if sited on adjacent slopes of less than 5%, but by 200' buffers if these areas are sited on adjacent slopes with grades between 5% and 20%. Please see Chart A (found on page 56/114) in the USACE *Guidelines for Preparing a Compensatory Mitigation Plan* for more information.

With regard to the proposed piping of the stream for the haul road crossing, SCDNR recommends that the applicant minimize impacts by constructing an elevated bridge above the alluvial floodplain (and wetlands) of the stream. If building a bridge is deemed impossible or unfeasible, SCDNR recommends the use a bottomless arched culvert rather than the 12' CMP round culvert. If a CMP is used, the invert of the pipe should be buried to allow aquatic animal passage and to protect habitat at base flow. Future crossings should also incorporate bridges or bottomless arched culverts rather than CMPs.

SCDNR recommends that the following best management practices for mining be applied during the preparation, excavation, extraction and reclamation phases of this project to ensure that offsite impacts are minimized.

- Prior to beginning any land disturbing activity, appropriate erosion control measures, such as silt fences, silt barriers or other devices, must be placed between the disturbed area and any nearby waterways and maintained in a functioning capacity until the area is permanently stabilized.
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas.
- The project must be in compliance with any applicable local floodplain, erosion and sediment control and/or storm water ordinances.
- Land disturbance should be kept to a minimum and accomplished in phases, when possible. Disturbed areas should be exposed only for the period of time required to extract the resource and vegetation should be re-established promptly.
- Land clearing should not begin until sediment basins and other conservation practices have been established. Clearing should be limited to the areas to be immediately mined.
- The number of overburden piles should be kept to a minimum and runoff should be diverted into sediment basins until vegetation can be established. Overburden piles should not be placed in drainage-ways or floodways.
- Upon completion, all disturbed areas must be permanently stabilized with vegetative cover (preferable), riprap or other erosion control methods as appropriate. SCDNR prefers and recommends the use of native warm season grasses and/or other native forbs that would be beneficial for wildlife and pollinators for stabilization. Native warm season grass species suggestions include: Indiangrass (*Sorghastrum nutans*), big bluestem (*Andropogon gerardii*) and little bluestem (*Schizachyrium scoparium*). A list of beneficial pollinator plant species, such as milkweed (*Asclepias spp.*), for the southeast may be found at www.xerces.org/pollinators-southeast-region/ or by visiting <http://www.pollinator.org/guides>.
- At the time of reclamation of the mine site to a pond, SCDNR recommends that you consult with the Natural Resources Conservation Service and Clemson Extension if the ultimate goal for the pond is to provide recreational fishing opportunities. Incorporate as much shoreline variation with the use of peninsulas and islands in reclamation to provide ideal shoreline habitat for wildlife and aquatic vegetation. Care should be taken to create littoral zone habitat near

¹ <https://www.mvk.usace.army.mil/Portals/58/docs/regulatory/Charleston%20Method%202010%20Guidelines.pdf>

shorelines, approximately 3 feet or less, and the deeper portions of the pond should ideally be no more than 8 to 15 feet for recreational fishing.

SCDNR offers no objections to this project provided that the above concerns are addressed and these recommendations and BMPs are incorporated into project plans. Thank you for the opportunity to review this project and provide comments. Should you have any questions or need more information, please do not hesitate to contact me by email at DanielT@dnr.sc.gov or by phone at 803.734.3766.

Sincerely,

A handwritten signature in blue ink that reads "Tom Daniel". The signature is written in a cursive style with a large, sweeping initial "T".

Tom Daniel
Office of Environmental Programs