



State of South Carolina  
**Department of Natural Resources**

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**Robert H. Boyles, Jr.**, *Director*  
**Lorianne Riggan**, *Director, Office of Environmental Programs*

May 15, 2024

Mr. Jeremy Eddy  
SCDHEC  
2600 Bull Street  
Columbia, SC 29202

RE: Mining P/N I-002424, Luck Stone Corporation  
Luck Edgefield Quarry, Edgefield County

Dear Mr. Eddy,

The South Carolina Department of Natural Resources (SCDNR) is the state agency charged by state law with the management, protection, and enhancement of wildlife, fisheries, and marine resources in South Carolina. In addition to natural resource management responsibilities through research, management and licensing, the SCDNR is also charged with statewide responsibilities for regulating watercraft operation and associated recreation on state waters, conducting geological surveys and mapping, promoting soil and water conservation, flood mitigation, drought response planning and coordination, and the coordination of the state scenic rivers program. SCDNR's mission is to serve as the principal advocate for and steward of South Carolina's natural resources. (SCDNR authorities and responsibilities are described in Titles 48, 49 and 50, South Carolina Code of Laws (1976), as amended). As such, personnel with the SCDNR have reviewed the proposed project, evaluated its impact on natural resources and offer the comments included below.

Project Description

The proposed work consists of the development of a granite quarry on a 424.5-acre site on Woodlawn Road near Clarks Hill in Edgefield County (33.622195, -82.090264). The total affected acres are stated in the permit application to be 344.5 with 74.1 buffer acres and 5.9 acres of future reserves. The final depth of the quarry is proposed to be approximately 400 feet below the adjacent ground surface, or -100 feet mean sea level. The site is adjacent to Stevens Creek and contains several smaller tributaries. The mining plan identifies a 50-foot property line and wetland buffer. The permit application indicates that the proposed mine site will be reclaimed to grassland, lakes or ponds.

The Protected Species Assessment provided in the permit application describes the site as consisting of floodplain hardwoods, cutover land, pine-mixed hardwoods, planted pines, and aquatic resources (tributaries and wetlands). The Cultural Resources Reconnaissance Survey describes the site as steeply sloped with elevations ranging from 190 ft above mean sea level (AMSL) along Stevens Creek to 460 ft AMSL on a hilltop in the central portion of the site. Review of the maps provided indicates that Stevens Creek flows for approximately 3000 linear feet along the northern boundary of the site. An unnamed tributary forms the eastern boundary of the site and another unnamed tributary flows through the western portion of the site. The maps provided also indicate the presence of a high-pressure pipeline corridor in the northern portion of the site near Stevens Creek and a public walking trail located along the property boundary immediately adjacent to Stevens Creek.

### Agency Comments

The Long Cane Ranger District of Sumter National Forest is adjacent to the proposed mine site to the north across Stevens Creek, to the south across Woodlawn Road and to the west in McCormick County. These lands are owned by the U.S. Forest Service (USFS) and are managed through a cooperative partnership with SCDNR. These lands are within the Wildlife Management Area (WMA) program administered by the SCDNR and are available for public hunting, fishing and other allowable outdoor recreational opportunities. Many areas within the forest such as closed roads, firelines, wildlife openings and utility rights-of-way are planted with wildlife foods, are maintained in an open state for habitat diversity and are managed to maintain and improve wildlife habitat. Forested areas that consist of predominantly thinned pine stands are prescribed burned periodically to reduce fuel buildup and minimize the danger of wildfire and to enhance the habitat for wildlife.

### **Protected Species**

The permit application includes a Protected Species Assessment dated February 9, 2024, prepared by S&ME, Inc. The document assesses five federally listed species: bald eagle (*Haliaeetus leucocephalus*), red-cockaded woodpecker (*Dryobates borealis*), relict trillium (*Trillium reliquum*), monarch butterfly (*Danaus Plexippus*), and tricolored bat (*Perimyotis subflavus*). The monarch butterfly is listed as a candidate species and tri-colored bat is listed as a proposed endangered species. The assessment concludes that the proposed quarry will have no effect on bald eagle, red-cockaded woodpecker, and relict trillium and that a biological determination is not applicable at this time for the monarch butterfly and tricolored bat since neither is federally protected at this time. However, the assessment notes that “*a final decision on the listing of this species may come as soon as mid-2024; if the tricolored bat becomes listed as an endangered species, further consultation may be required as the removal of trees may affect this species. Please note that the USFWS currently recommends that no tree removal occur during the pup season (April 15 to July 31) of this species. As a conservation measure, SCDNR and USFWS recommend that tree clearing activities be conducted during the inactive season (November 1 through March 15) for tricolored bat.*” The SCDNR confirms and supports these recommendations regarding tree removal and tree clearing activities regarding the tricolored bat.

### Ocmulgee Skullcap

The SCDNR has records that ocmulgee skullcap (*Scutellaria Ocmulgee*), a recently proposed federally threatened plant species occurs in the project area. The proposed mine site is located between two extant populations on USFS land north of the site near the Lick Fork Recreation Area and south of the site on privately protected land near Interstate 20. SCDNR recommends that appropriate measures should be taken to minimize or avoid impacts to this species of concern. Consultation with SCDNR should ensue if any ocmulgee skullcap are found on the project site and may be impacted by the proposed mining activities.

### Websters Salamander

The SCDNR also has records that Websters salamander (*Plethodon websteri*) occurs upstream on Stevens Creek approximately 5 miles north of the proposed mine site. Websters Salamander is a state listed endangered species that inhabits the forest floor, predominantly under hardwood log debris, in old growth oak-hickey forest habitats. Take of this state listed species is prohibited under S.C. Code of Laws §50-15-30. While the preference is old-growth forest that have experienced very little disturbance from natural or anthropogenic processes (i.e., heavy equipment, forest practices, erosion, etc.), disturbance should not preclude habitats from being surveyed. Websters salamander is likely to exist inhabit these types of habitats in Saluda, Greenwood, Edgefield, and McCormick Counties.

If suitable habitat is found in the project area, the SCDNR recommends that the areas of impact be completely surveyed by individuals qualified to identify these salamanders. If Websters salamanders are found to occur on the proposed site, the SCDNR recommends the following:

- Prior to habitat disturbance in the proposed work area, the areas of impact must be completely surveyed by individuals qualified to identify this species and its habitat during the months of December through March after rains have moistened the surface, but when temperatures under the cover objects do not exceed 72 °F.
- Sites flagged as known locations and suitable habitat in the vicinity of those locations should be flagged and impacts avoided.
- It is unlawful for any person to take, possess, transport, import, export, process, sell, offer for sale, ship, or receive for shipment any Websters salamander without a permit from the SCDNR.

### *Survey Protocol*

Surveys should be conducted during the months of December through March after rains have moistened the surface, but when temperatures under cover objects are above 40 °F and do not exceed 72 °F. Surveys can be conducted by walking transects and flipping under logs, leaves, rocks and other objects on the forest floor. If cover objects are limited, untreated pieces of plywood can be arranged throughout the forest floor and checked while walking transects. If plywood is deployed, each piece of plywood must be a minimum of 2 x 2 ft and placed in the survey area at a minimum of 6 months prior to the survey occurring. GPS coordinates for all plywood pieces must be provided and all plywood collected and removed at the conclusion of the survey.

### *Avoidance & Minimization Measures*

If Websters salamanders are found to occur on the proposed site, the SCDNR recommends that all known locations should be flagged, and GPS coordinates taken. Impacts to this habitat should be avoided.

### **Additional Concerns**

The SCDNR has several additional concerns and questions regarding the proposed project. Please provide additional information on the following for the natural resources of the project site to be fully evaluated:

1. The Mine and Reclamation Maps provided in the permit application indicate the presence of a high-pressure pipeline in the northern portion of the site. The pipeline is located north of the proposed North Berm/Overburden Area and is located between this overburden area and Stevens Creek on the eastern side of the property and between the North and Northwest Berm/Overburden areas in the western part of the site. Please provide more information regarding this pipeline including the type of pipeline, pipe size and ownership. Does the pipeline owner have any agreements with the property owner regarding the right-of-way, access, or management of the pipeline? Please provide more information regarding how the mining operations, blasting and placement of overburden will be accomplished without impacting the pipeline. Is there a spill prevention plan in place by either the pipeline owner or by Luck Stone?
2. The proposed overburden areas are all on steeply sloped land adjacent to streams and wetlands. Of particular concern are the proposed north and northwestern overburden areas that are adjacent to Stevens Creek and several of the tributaries on the site. The northwestern berm/overburden area is constrained on all sides by streams, floodplains and the aforementioned high-pressure pipeline. The east and west berm/overburden areas are also steeply sloped and adjacent to multiple streams and wetlands. The permit application describes an outside-in construction process for these areas. Please provide more information on how this process will be accomplished in these steeply sloped areas. This information should include conceptual drawings, cross sections, and more detailed plan view drawings.
3. The Mining and Reclamation Maps provided indicate the presence of a public walking trail along Stevens Creek on the project site. Does this walking trail connect existing trails on the adjacent properties? Will it remain open after mining operations begin?

4. A temporary crossing is indicated on the stream in the western portion of the property. SCDNR recommends that all tributary crossings must be made with appropriately sized bridges and/or culverts. Culverts must be sized and designed to prevent restricting natural stream flow that can degrade stream banks and beds by causing excessive scour/erosion with increased water velocities and altered sediment transport. Culverts should be large enough to pass aquatic organisms under baseflow and adequately sized to handle bankfull events. SCDNR reserves the right to review and comment on any required permits and/or certifications that may be required for this proposed crossing.
5. An unspecified impact area (Future Impact Area FI-1) is identified on the Mine and Reclamation Maps. The proposed reclamation is also not specified for this impact area. Based on the maps and information provided Area FI-1 is steeply sloped and adjacent to streams, wetlands and the proposed high-pressure pipeline. SCDNR offers the same concerns as outlined above regarding the other proposed impact areas and recommends that this area be avoided and incorporated into the proposed buffer area.

### **Mining BMPs**

As the applicant finalizes mining plans, the SCDNR recommends that the following best management practices for mining be applied and considered by DHEC as permit recommendations.

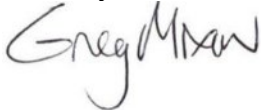
- Prior to beginning any land disturbing activity, appropriate erosion and siltation control measures (i.e. silt fences or barriers) must be in place and maintained in a functioning capacity until the area is permanently stabilized.
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/water.
- Once the project is initiated, it must be carried out to completion in an expeditious manner to minimize the period of disturbance to the environment.
- 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. According to the reclamation plan (MR-500) on page 11 of 15, the seed selection includes bermuda grass. Bermuda grass and other non-native turf grasses, once established, will likely outcompete native vegetation and may create difficulties in establishing native vegetative habitat. 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 switchgrass (*Panicum virgatum*), indiagrass (*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/](http://www.xerces.org/pollinators-southeast-region/) or by visiting <http://www.pollinator.org/guides>. Additional South Carolina native pollinator plant species that may be applicable for use at the site during reclamation can be found in Appendix A of the Technical Guidance for the Development of Wildlife and Pollinator Habitat at Solar Farms at <https://www.dnr.sc.gov/solar/assets/pdf/solarHabitatGuide.pdf>.

- All plantings should consist of appropriate native species for the ecoregion and should exclude plant species found on the exotic pest plant council list: [https://www.se-eppc.org/southcarolina/SCEPPC\\_LIST2014finalOct.pdf](https://www.se-eppc.org/southcarolina/SCEPPC_LIST2014finalOct.pdf) .
- At the time of reclamation of the mine site to a pond, if the ultimate goal for the pond is to provide recreational fishing opportunities, SCDNR recommends that you consult with the Natural Resources Conservation Service and Clemson Extension to determine any modifications needed for increased productivity. These modifications could include the incorporation of 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 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. For your reference, the SCDNR Guidelines for Private Recreational Ponds can be found online at [www.dnr.sc.gov/environmental/docs/private-ponds.pdf](http://www.dnr.sc.gov/environmental/docs/private-ponds.pdf).

### Summary

The SCDNR finds that additional information is needed for impacts to natural resources to be fully evaluated prior to permit issuance for the project as currently proposed. Please provide the additional information requested as soon as possible. Should you have any questions or need more information, please do not hesitate to contact me by email at [MixonG@dnr.sc.gov](mailto:MixonG@dnr.sc.gov) or by phone at 803-734-3282.

Sincerely,



Greg Mixon  
Office of Environmental Programs