



## South Carolina Department of Natural Resources

---

Robert H. Boyles, Jr.  
Director

Lorianne Riggan, Director  
Office of Environmental Programs

August 15, 2023

Ms. Michele Hartung  
SCDHEC OCRM  
927 Shine Avenue  
Myrtle Beach, SC 29577

Brett M. Caswell  
SCDHEC Industrial Wastewater  
2600 Bull Street  
Columbia, SC 29201

RE: Moss Park Partners II, LLC/West Cox Ferry Road Sand Mine , SCG731662 and HPR-4H8F-T0XBX

Dear Ms. Hartung & Mr. Caswell

Personnel with the South Carolina Department of Natural Resources (SCDNR) have reviewed the public notice referenced above and evaluated its impact on fish and wildlife habitat, recreation, and other factors related to the conservation of natural resources and offer the following comments for consideration.

### Project Description

The proposed project includes the mining of sand material to a maximum depth of 20 ft. The total area to be disturbed with the proposed activity is 4.94 acres. The proposed project parcel includes wetlands; however, there are no direct impacts to wetlands with mining activity proposed. Wetlands onsite connect to wetlands located on the Waccamaw heritage preserve located adjacent to the proposed project. The applicant is proposing a 50-ft setback with adjacent properties.

### Agency Comments

According to the SCDNR Heritage Trust database, there are known occurrences of the state-threatened and federally At-Risk spotted turtle (*Clemmys guttata*) in and around the proposed project area. 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.

Additionally, the wetlands and location of the proposed project have connectivity to aquatic resources utilized by the federally endangered Atlantic sturgeon (*Acipenser oxyrinchus*). However, it is the opinion of the SCDNR that the proposed work will not significantly alter or impact Atlantic sturgeon and its habitat.

Because there are occurrences of spotted turtle onsite and on the adjacent Waccamaw Heritage Preserve and because spotted turtles are known to move considerable distances between and within habitats<sup>1</sup>, the proposed project has the potential to impact the state-threatened spotted turtle; therefore, SCDNR recommends the applicant assume spotted turtle presence on the proposed project site and, to prevent the take of a spotted turtle, abide by the following:

- Avoid any construction in areas within or adjacent to aquatic resources (wetlands, streams, etc.) from January 15th through May 31st.

---

<sup>1</sup> A male can have a home range of 5 hectares, where females have been documented to have home ranges of 16 hectares (Litzgus and Mousseau 2004).

- Prior to any construction activity, install silt fencing from November 15th through January 15th. Silt fencing should include 45-degree arms to direct spotted turtles to the uplands adjacent to the waterbody and away from the construction site. The 45-degree arms should be placed at a minimum of 100 ft from the waterbody and no more than 300 ft from the waterbody. Additionally, silt fence arms should extend at least 50-ft and extend in each direction so that the ends of each 45-degree angle to the fence meet to form a triangle. Silt fencing should remain in place throughout the duration of the proposed construction activities.
- Prior to construction, monitor the silt fencing to ensure it is effectively working properly on a monthly basis. This should effectively exclude the species from the project area prior to construction activities. Once construction activities begin, the silt fence should be monitored weekly for the integrity of the fencing and the presence of spotted turtles or other herpetofauna or small wildlife species. If spotted turtles are encountered, the SCDNR state herpetologist should be notified immediately by calling 854-202-0472.

Should the applicant not be able to install the silt fencing in accordance with the proposed window, it will require the applicant to install the exclusion fencing when the species is more active and has the potential to trap individuals with the area of proposed construction. Therefore, the SCDNR recommends checking the perimeter of the fencing twice daily for 14 days prior to ground disturbance and/or clearing in areas adjacent to and near these wetlands to ensure that spotted turtles are not trapped within the proposed project footprint.

Any turtles found within the construction area during this initial monitoring period and the construction monitoring period described below must be relocated. The relocation plan must be submitted to SCDNR for review prior to the installation of the silt fencing and the proper permits acquired from the SCDNR Herpetologist for the movement of a state protected species per S.C. Code of Laws §50-15-20(C). Please contact the State Herpetologist by calling 843-527-8448.

Regarding aquatic resource buffers, readily available scientific literature indicates that the ability of vegetated buffers to trap suspended sediments are positively correlated with width and negatively correlated with slope (Wenger 1999). A literature review performed by Castelle et al (1994), found that buffers must be 30 meters (100 ft) wide to maintain the health of the biota in nearby streams, but that this width would need to be increased for steeper slopes. Peterjohn and Correll (1984) found that for a 5% slope, only 90% of the suspended sediment was trapped in the first 19 meters (62 ft), and that the entire 60-meter (164 ft) buffer trapped only 94% of the sediment. The SCDNR requests that onsite and offsite aquatic resources be protected by vegetated buffers at least 75 to 100 feet wide wherever practicable. Please note that cleared/denuded vegetated buffer areas should be replanted in native woody vegetation in order to better protect adjacent aquatic resources.

Upon reclamation of the proposed mine site, the SCDNR recommends against the use of non-native stabilization seed mixes that often include *Sericea Lespedeza* (*Lespedeza cuneata*), Bermuda grass, and Bahiagrass. Native to eastern Asia, *Sericea Lespedeza* is considered a noxious, invasive plant pest, earning a “severe threat” designation by the South Carolina Exotic Pest Plant Council. A study of a reclaimed mine in Virginia found that northern bobwhite (*Colinus virginianus*) populations were limited due to poor habitat quality resulting from the monoculture plantings of *Sericea Lespedeza* and turf grasses (Stauffer 2011). At a former surface mine site in Kentucky (now Peabody Wildlife Management Area), a 2015 study demonstrated that areas dominated by *Sericea Lespedeza* were not preferred habitat for bobwhite (Unger et al.), as it is not a preferred food for bobwhite (Ellis 1961), nor does it contain enough

nutritional value to support a bobwhite population (Newlon et al. 1964). Due to its invasive nature and lack of benefit to wildlife, the SCDNR strongly recommends against planting *Sericea Lespedeza*. Additionally, Bermuda grass, Bahiagrass, and other non-native turf grasses, once established, will likely outcompete native vegetation and may create difficulties in establishing native vegetative habitat.

Instead of planting *Sericea Lespedeza* and non-native turf grasses, the SCDNR prefers and recommends the use of native warm season grasses and/or other native forbs for stabilization that are beneficial for wildlife and pollinators. 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/](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>.

In addition to the aforementioned recommendations, the 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.
- At the time of reclamation of the mine site to a pond, the 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 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).

If the aforementioned recommendations regarding avoidance and minimization for impacts to spotted turtle mentioned are incorporated as conditions to the Coastal Zone Consistency Certification, the SCDNR has no objections to the proposed project. However, please note the SCDNR would recommend the Coastal Zone Consistency Certification be held in abeyance if these measures are not put in place to avoid and minimize a take of the state listed species.

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 [JamisonM@dnr.sc.gov](mailto:JamisonM@dnr.sc.gov) or call 843.953.9003.

Sincerely,

A handwritten signature in black ink that reads "Maggie Jamison". The signature is written in a cursive, flowing style.

Maggie Jamison  
Office of Environmental Programs  
PO Box 12559  
Charleston, SC 29422

*Live Life Outdoors*

## References

- Castelle, A. J., A. W. Johnson and C. Conolly. 1994. Wetland and stream buffer requirements - A review. *Journal of Environmental Quality*.
- Ellis, J. A. 1961. Consumption of some food items by pen-reared bobwhites. *Journal of Wildlife Management*.
- Litzgus, J. D., & Mousseau, T. A. 2004. Home range and seasonal activity of southern spotted turtles (*Clemmys gullata*): Implications for management. *Copeia*, 2004(4), 804–817. <https://doi.org/10.1643/CH-04024R1>
- Newlon, C. F., T. S. Baskett, R. P. Breitenbach, and J. A. Stanford. 1964. Sustaining values of emergency foods for bobwhites. *The Journal of Wildlife Management*.
- Peterjohn, W. T. and D. L. Correll. 1984. Nutrient dynamics in an agricultural watershed: Observations on the role of a riparian forest. *Ecology*.
- Stauffer, D. F. 2011. Potential of reclaimed mine–land habitat to support northern bobwhite bobwhite—a pilot study. Virginia Department of Game and Inland Fisheries, Richmond.
- Unger, A. M., E. P. Tanner, C. A. Harper, P. D. Keyser, F. T. Van Manen, J. J. Morgan, and D. A. Baxley. 2015. Northern bobwhite seasonal habitat selection on a reclaimed surface coal mine in Kentucky. *Journal of the Southeastern Association of Fish and Wildlife Agencies*.
- Wenger, S., 1999. A Review of the Scientific Literature on Riparian Buffer Width, Extent, and Vegetation. *Publication of the Office of Public Service and Outreach, Institute of Ecology; University of Georgia, Athens, Georgia (March 5, 1999)*.