

DR. J.H. CARTER III & ASSOCIATES, INC.

Environmental Consultants

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17 August 2021

Mr. Josh Epps
2411 North Oak Street
Myrtle Beach, SC 29577

Dear Mr. Epps:

On 16 July 2021, personnel from Dr. J. H. Carter III & Associates, Inc. (JCA) sent a letter (JCA letter) to you documenting the results of an initial **habitat assessment** that was completed for Soilutions, LLC's 33-acre parcel on Edge Road, near Conway, Horry County, South Carolina (SC), as shown on the enclosed map (Figure 1). The purpose of that **habitat assessment** and the JCA letter was to determine if there were habitats on the property that could support 3 rare or threatened species; the spotted turtle (*Clemmys guttata*), southern hognose snake (*Heterodon simus*) and Carolina pygmy sunfish (*Elassoma boehlkei*). This letter addresses comments that you received from the SC Department of Natural Resources (SCDNR) and the SC Department of Health and Environmental Control (DEHC) concerning that JCA letter. The comments you received were in an email from Ms. Susan Davis of SCDNR on 30 July 2021 to Mr. Joe Koon of DEHC. A copy of that email is included with this letter.

In Ms. Davis' email she suggested/stated that the terms "environmentally sensitive habitat" and "where threatened or endangered species are known to exist" from DEHC's siting criteria may apply to your mine application. Her concern applied specifically to the occurrence of 2 known Federally-endangered red-cockaded woodpecker (*Dryobates borealis* = *Picoides borealis*) (RCW) clusters on the adjacent Lewis Ocean Bay Heritage Preserve (LOB) (LOB Clusters 10 and 11R) (Figure 2). As previously stated in the JCA letter, the one-half mile radius foraging habitat partitions for these known clusters overlap the Soilutions property. Ms. Davis' questioning also mentioned that the JCA biologist observed 2 RCWs foraging on the Soilutions 33-acre parcel on 1 July 2021. This observation was along the property's southwestern boundary over 1,000 feet (ft.) from the proposed mine area-not within the proposed mine site. These same 2 birds were followed further west onto the LOB property and within LOB Cluster 10. JCA evaluated the proposed mine area and specifically surveyed for RCW cavity trees as stated in the

JCA letter. No RCW cavity trees were observed on the proposed mine site or on the 33-acre property. The RCW Standard Managed for Stability (SMS) guidelines require a minimum of 3,000 ft.² of pine basal area in pines \geq 10 inches in diameter in breast height (dbh) on at least 75 acres of contiguous suitable habitat (USFWS 2003) or as defined in the Regional SMS Foraging Habitat Standards for the Outer Coastal Plain in southeastern North Carolina (NC) and Northeastern SC (Carter 2012) in order to avoid “incidental take”. There are 494 acres of forested lands adjacent to the Soilutions 33-acre parcel within the 2 known foraging partitions on LOB, over 3 times the amount needed to meet the federal minimum standard. JCA contacted Mr. Matt Lerow the RCW Project Leader for SCDNR the week of 16 August 2021. During that conversation both Dr. Carter and he agreed that the RCW habitats on LOB were of higher quality and are sufficient to meet that federal minimum RCW habitat standards necessary to avoid incidental take.

JCA noted that there was no evidence of recent or historical burning on the proposed mine site or property, while there was some evidence of charring and past fire within adjacent LOB. While the adjacent private properties were not entered by the JCA biologist, observations from the boundary line suggested that those areas were forested similarly to the Soilutions property.

The forested portion of the mine area is typical of fire suppressed Xeric Sandhill Scrub habitat found throughout North and South Carolinas’ Coastal Plain. The mine site is not unique or rare in the region.

In Ms. Davis’ email she stated that “Spotted turtles are a state threatened species and are likely on the tract given the habitat classified on the site.” It was stated in the JCA letter that “The project site is unlikely to support spotted turtles as there were no water features onsite that they are typically found in. If a major rain event or even normal rainfall events were to increase the standing water in the onsite wetland it would be more *likely* to support the turtle.” However, the spotted turtles presence would not be significantly more probable with an increased water level due to other conditions on the site that limit its use. As stated in the JCA letter “Overall, the thickness of the foliage, shrubs and trees would decrease the likelihood of the spotted turtle using the wetland even if it did have some standing water of sufficient depth to meet their hydrological requirements. Vegetative shading would decrease desirability during cooler days when the turtles need sunlight to regulate body temperature.” This excerpt from the JCA letter clearly states JCA’s opinion that the wetland immediately east of the proposed mine site did not

represent quality spotted turtle habitat. There is no spotted turtle habitat on the 4.8-acre mine site itself.

Prior to writing the JCA letter, SCDNR herpetologist Mr. Andrew Grosse was contacted by JCA to discuss the conditions on the proposed mine site and the adjacent wetland to its east. Mr. Grosse was sent site photos which were then discussed in reference to the observed site conditions on 1 and 2 July 2021. On a subsequent phone conversation both parties were in agreement that while there was a wetland on the parcel, it did not contain any order of quality stream, pond or even ditch habitat for spotted turtles. There were no significant channels, pools or other water collection points. There were few to no basking areas present within the subject wetland. The spotted turtle assessment protocol that was established in 2018 by the Spotted Turtle Working Group (STWG) in partnership with various state agencies and the USFWS is utilized by SCDNR. It states that the preferred turtle traps require some channels or open water that have at least a few inches of water in them, but preferably less than 0.2 meters in order to be utilized (STWG 2018). In the observed condition it would be impossible to perform any sort of trapping for turtle species because there was no standing or flowing water. The extremely dense foliage in the wetland would preclude extensive visual spotted turtle surveys even during the correct survey window. While JCA was **not** performing visual surveys during the July 2021 site visit, attempts were made to determine if any areas of the wetland presented adequate points from which to perform future spotted turtle visual surveys. No significant observation points were found; the wetland is too densely vegetated. In general this wetland is low quality regardless of the time of year due to the lack of significant hydrology or evidence of significant hydrology potential. The JCA biologist that was onsite on 1 and 2 July 2021 is a wetland specialist who has over 23 years of wetland, stream and water body assessment, delineations and evaluation experience. This knowledge has often been used in conjunction with herpetofauna habitat evaluations and surveys. In the opinion of JCA, the wetland adjacent to the proposed mine is a poor system to support spotted turtles, especially when considering that the shrubs and other vegetation were far too dense to be considered typical of the areas where spotted turtles are found.

During the July 2021 site visits there were no waters that would support fish at all within the subject wetland. While flood water events may have a slight potential to allow small fish onto the site they would only be present in an ephemeral nature. As the water receded they would leave the site or die naturally from lack of water or predation. The wetland adjacent to the

proposed mine site did not have a significant channel connected to down slope wetlands. A small choked culvert passes under a dirt access drive separating the onsite wetland from the larger more significant wetlands off property to the south and east.

The southern hognose snake was also considered during the July 2021 habitat evaluation. The habitat conditions on the proposed mine site were discussed during the above referenced communication with Mr. Grosse of SCDNR. While it was agreed by both parties that the xeric upland within the proposed mining footprint met the minimum description of habitats known to support southern hognose snakes it was worth noting this habitat is not rare in the Southeast or in South Carolina in general. Both parties also accepted that the southern hognose snake is cryptic and fossorial and difficult to find in any habitat, even those where they have been previously observed. No southern hognose snakes were observed during the July 2021 site visit. During the phone conversation with Mr. Grosse, JCA inquired about using some silt/drift and other similar fencing around the activity area of the proposed mine to attempt to keep small wildlife species such as hognose snakes from entering. Both parties again agreed that this could be beneficial. The JCA biologist recounted past projects where silt fences were used to keep rattlesnakes from entering subdivisions.

None of the habitats within the proposed mine site or its adjacent wetland were particularly rare or what JCA would consider environmentally sensitive as far as any of the species in question are concerned. While working within known RCW partitions requires adherence to US Fish and Wildlife Service regulations many types of development occur within them. This project would not remove significant or quality RCW foraging habitat or reduce the area available to the RCW anywhere close to minimal threshold levels (USFWS 2003).

Please feel free to call if you have any questions or comments.

Sincerely,

William Mullin
Wetland & Wildlife Biologist

Carter, J.H., III. 2012. Red-cockaded Woodpecker Regional Standard for Managed Stability Foraging Habitat Standards for the Outer Coastal Plain and Southeastern North Carolina and Northeastern South Carolina. 6 pp.

Spotted Turtle Working Group. 2018. Spotted Turtle Assessment Protocol. 12pp accessible at www.northeastturtles.org

United States Fish and Wildlife Service. 2003. Red-cockaded woodpecker recovery plan: 2nd revision. US Fish and Wildlife Service, Atlanta, Georgia. 296 pp.