

## Mine Plan for Edge Road Mine

### Introduction

The Edge Road Mine will be located on three tracts of land totaling 33.0 acres. With the avoidance of wetlands, upland buffers for wetlands and buffers along property lines, the actual acres to be directly impacted by mining will be 24.1 acres. The 24.1 acres includes 23.2 acres for mining and 0.9 acre of haul road to Edge Road. The material to be mined is a sand/clay that will be used for construction project as fill material. Processing the sand/clay by screening and washing is not necessary. The Edge Road Mine will not have a processing plant. Typically, the mined sand/clay is loaded directly into haul trucks for delivery to the construction site.

Mining will observe 50-foot buffers along the property lines (permit boundary) and delineated wetlands. Total wetlands delineated by The Brigman Company and verified by the US Army Corps of Engineers through a delineation concurrence letter is 2.26 acres (SAC-2021-00961). In terms of the mine operating permit, wetlands are considered undisturbed buffers and will be avoided. Total acres for buffers as shown by the mine map will be 8.9 acres. Buffers will remain undisturbed during mining except for a rip rap lined channel extending across the wetland buffer to wetland #1. The channel will convey pit water discharges to nearby wetlands that drain to Boggy Swamp.

### Mine Plan

The planned maximum depth of mining is 50 feet. However, the depth may be less in some sections of the pit depending on continuity of sand deposit. Typical of most sand deposits, there are clay layers that will be encountered. Thin clay layers can be stripped to uncover sand deposit below and continue mining. However, thick layers of clay could render sand deposit below uneconomic, and mining would not extend any deeper in that section of the mine.

Mining will be conducted in benches that will range from 10 – 20 feet in height. The initial stripping of overburden will be approximately 5 feet to remove stumps, root map etc. If the working benches average 15 feet in thickness, there will be three benches to mine to the full depth of 50 feet. To manage the groundwater and stormwater within the pit, a “rim ditch” will be excavated around the perimeter of the pit floor with each mine bench. The rim ditch will intercept groundwater and collect stormwater and route to a collection sump where a pump can remove the pit water from the active pit.

Managing the overburden will consist of temporary storage on the surface during the early phase of mining. Once pit development matures, overburden from later segments can be backfilled into the pit.

Mining will be conducted in two phases. The initial phase will mine segment 1 to create a sediment pond. As previously described, rim ditch will route pit water to a collection sump. The sump will range in area from 0.25 to 0.5 acre in area and 5 – 8 feet in depth below the bench floor to allow adequate volume for water storage and settling time for sediment. A floating intake will be used to decant the clean water from the top of the water column in the sump for discharge. The discharge will be through NPDES outfall 001 and regulated pursuant to *General NPDES permit for Discharges Associated with Nonmetal Mineral Mining Facilities*, general permit SCG731593.

The second phase of mining, segments 2 – 4, will continue to use the rim ditch technique. The collection sumps within the active portions of mining in segments 2 – 4 will pump the pit water to the sediment pond (segment 1) to contain or if necessary, discharge clean pit water through the NPDES Outfall 001. The sediment pond in segment 1 will be approximately 6.7 acres.

Mining along a terminal wall, i.e., where mining will not advance any further in that direction, will be conducted on a 2:1 slope for stability. To construct the sediment pond in segment 1, a berm will be left

in-place between segment 1 and segment 2. The berm will isolate the sediment pond from remaining 16.5 acres of mining in segments 2 – 4. Given the locations of wetland, mining will generally advance from segment 1 through segment 4.

### **Reclamation**

Reclamation of the site will be to create a pond bordered by grassland graded to blend into the natural land contour. The grassland will be established using a “bird friendly” seed mix as recommended by the South Carolina Department of Natural Resources (SCDNR). The pond design includes a series of littoral zones situated along the wetland buffers and in three of corners of the mine property. The littoral zones will range in depth from 5 to 8 feet below water to allow aquatic vegetation to establish and create suitable shallow habitat for fisheries. The total area of the littoral zones are approximately 2.5 acres which would be approximately 10% to 11% of the pond surface area. See Reclamation Map, sheet 3 of 4 and cross sections, sheet 4 of 4, for general locations of planned littoral zones.

At the end of mining a segment, a 3:1 slope will be graded in the upper 10 feet of the pit wall. The 3:1 slope will extend to approximately 5 feet below the anticipated pool level of the pond. The upper 5 feet of the 3:1 slope will have topsoil placed for seed bed preparation to establish vegetation for erosion control.

Mining in segment 1, creating the sediment pond, will be completed first. Reclamation would begin as described to reclaim the banks around segment 1. As mining is completed on other segments or as feasible, banks of the pond would be sloped and revegetated.

### **Long-term Stewardship**

Upon mine closure and reclamation, the owners of the mine propose to donate the entire site to either SCDNR or Horry County. In the case of SCDNR, the site conceptually would make an addition to the adjacent Lewis Ocean Bay Heritage Preserve and be made available for public use (fishing, birdwatching, nature study, etc.) In the case of Horry County, the site conceptually would be managed by the County Parks and Recreation Department and made available for public use (fishing, birdwatching, nature study, etc.) The concept of land donation after mine closure has been preliminarily discussed with both SCDNR and Horry County. Additionally, donation to Horry County could include the installation of fire hydrant pump pipes and a fire truck access site as part of final reclamation. This could be of significant benefit to Horry County in the context of public safety in the case of wildfire. In the case of both government entities, donation to Horry County or SCDNR require an approval process for accepting land donations. If a donation to either government entity is approved, it would come with the granting of an unfettered access easement that currently exists. Donation to SCDNR would provide the option of having an additional access to the northwestern side of Lewis Ocean Bay Heritage Preserve.

The formal process to apply for donation to either governmental entity can begin at a later date, however it should be recognized at the time of the permit application that this is the mine owner’s stated intent for long-term stewardship such that the appropriate conservation steps can be planned thoughtfully in order to prevent the resultant mine pit being reclaimed as an amenity fostering additional development in this rural and conservation worthy site.