



Mining Form MR-400

S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
BUREAU OF LAND AND WASTE MANAGEMENT
DIVISION OF MINING AND SOLID WASTE PERMITTING
2600 BULL STREET, COLUMBIA, SC 29201
PHONE:803-898-1362 FAX: 803-4-898-1426 EMAIL: AskMines@dhec.sc.gov

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
BUREAU OF LAND AND WASTE MANAGEMENT
DIVISION OF MINING AND SOLID WASTE PERMITTING
2600 Bull Street
Columbia, SC 29201

APPLICATION FOR A MINE OPERATING PERMIT
FORM MR-400 DATE VERSION ADOPTED 7/1/94

"The South Carolina Mining Act," Sections 48-20-10 through 48-20-310, Code of Laws of South Carolina, 1976, as amended provides in part: "No operator may engage in mining without having first obtained from the Department an operating permit which covers the affected land and which has not been terminated, been revoked, suspended for the period in question, or otherwise become invalidated." (Section 48-20-60)

I.APPLICANT INFORMATION

1. Name of Company: Soilutions, LLC

Check form of business entity: Corporation Partnership Limited Partnership Sole Proprietorship

2. Name of Proposed Mine Edge Road County Horry

3. Home Office Address 255 Welcome Drive 803-968-1637
(Street and P.O. Box) (Telephone No.)

Myrtle Beach SC 29573 None
(City) (State) (Zip Code) (Fax. No.)

4. Local Office Address: None (Telephone No.)
(Street and P.O. Box)

(City) (State) (Zip Code) (Fax. No.)

5. Designate to which office Official Mail is to be sent:

Home Office x Local Office

6. Name of company personnel and their title to be the contact for official business and

correspondence: Ethan Epps, Member

7.Location of Mine: Edge Road Myrtle Beach
State or County Hwy No. Nearest Town or City

8. Locate accurately on a county map, USGS 7.5' Topographic Map, or draw a detailed map to scale of: (1) how to get to your local office and (2) how to get to the mine and attach to this application.

9. If land is leased, complete the following:

A. Name of landowner: _____

Landowner's Address: _____

Street and PO Box

City

State

Zip Code

Telephone Number

B. Date lease became effective _____

Date of lease termination _____

Name of lessee _____.

II. GENERAL CHARACTERISTICS OF MINE:

1. Material(s) to be mined Sand/Clay

2. Mining Method:

A. List equipment to be used for mining and provide a brief description as to how the mine will be operated.

Topsoil needed for reclamation will be temporarily stored in small stockpiles and or berms along the outside perimeter of the pit or directly moved to final placement for reclamation. Active portions of the pit will be dewatered with "rim ditches" and sump(s). The collected groundwater and stormwater will be held in the mine sump and pumped to basin to be discharged through NPDES outfall. Equipment to be used in the mining process will be the typical track hoe and end loader.

See attached mine plan for the Edge Road Mine for additional information.

B. Will there be a process plant located at the mine site within the boundary of the permitted area? If so, please provide a brief description of the plant equipment and function of the plant.

No

3. Do you anticipate blasting as part of the mining operation? Yes X No If yes, provide the distance to the nearest inhabited structure not owned or leased by the applicant. Also, provide as an attachment to this application the names and addresses of all the owners of all structures within one-half mile from the nearest point of blasting during the life of the proposed mine. How will flyrock be prevented from being projected from the permitted area?

4. Has this site been mined in the past? If so, please indicate the present condition of the land.

Mining was conducted under General Mine Operating Permit GP1-002336.

5. What is the expected maximum depth of this mine? Provide any addition information about the final depth of the mine that would be useful to the Department. (Ex. Final depth of pit will be level to adjacent road, elevation above Mean Sea Level (MSL)).

Phase I depth is 30 feet (+12 feet msl). Phase II (segments 2 – 4) a maximum depth of 50 feet (-8 feet msl).

Surface elevation is estimated from Horry County GIS.

III. DETERMINATION OF PERMITTED ACREAGE, AFFECTED ACREAGE AND RECLAMATION BOND

1) Total acres for which permit is being requested:

33.0 Permitted acres owned by the operator

0.0 Permitted acres leased by the operator

Note: Permitted acreage should include the following: 1) acres of land to be affected (excavation, processing plant, stockpiles, etc.); 2) future area(s) to be mined and 3) land to be used for buffer zones around the affected land. The permitted area should be the property described in the LAND ENTRY AGREEMENT(S) (FORMS MR-600 OR MR-700).

2. Total affected acreage:

Acres

A) Area used for sediment control ponds

0.0

Initial mining will excavate the sediment control pond. The 6.7 acres is included in the total pit area of 21.7 acres in section G) below.

B) Area used for stockpiles of unprocessed minerals

0.0

Temporary stockpiles, if any, will be located within the pit and included in the Pit acreage in item G. below.

C) Area used for spoil (overburden) banks, topsoil and disposal refuse (exclusive of tailings impoundments)

0.0

Overburden will be backfilled into the pit.

D) Areas used for on-site processing facilities and stockpiles of processed minerals

0.0

There are no on-site processing facilities.

E) Areas used for tailings pond (waste material from mineral processing)

0.0

A process plant will not be a part of the mining operation. No tailings will be generated.

F) Area for access or haul roads

0.9

Vehicles accessing the mine permit area from Edge Road will use an existing private road.

G) Area for excavation during the period of this permit

21.7

OR

If mining and reclamation are to be done in segments, state the size of each segment (acres) _____ . Multiply the size of the segments by 3 and enter the resulting

number. ----->

NA

H) TOTAL OF 2A THROUGH 2G

22.6

3. Check acreage to be bonded: total affected acreage calculated from Section 2.

_____ 0.00 - 9.99 acres (bond amount - \$10,000)

_____ 10.00 – 14.99 acres (bond amount - \$15,000)

x 15.00 – 24.99 acres (bond amount - \$25,000)

_____ 25.00 + acres (bond amount - \$25,000 or greater)

Applicant may submit a reclamation cost estimate for mines that will affect greater than 25 acres. Estimate should be based upon requirements in Regulation 89-20 B.

Affected Acres 22.6 ; Buffer Acres 10.4 ; Future Reserves 0.0 ; Permit Acres 33.0

4. Will this operation be covered by a blanket bond? If so, please list your company's other permitted mining operations in South Carolina giving mine names, permit numbers and state the present reclamation bond amount on file with this Department.

No

5. Number of years for which this permit is requested. The requested number of years the permit is requested should coincide with the Schedule of Reclamation as proposed by the applicant in the RECLAMATION PLAN, Form MR-500.

Life of Mine years

IV. PROTECTION OF NATURAL RESOURCES*

1. Will there be a waste water treatment system at your mine site? Yes x No

2. Will there be a point source discharge from your plant or mine requiring an NPDES Permit? If no, provide information as to how stormwater and groundwater will be managed. x Yes No

All groundwater and stormwater discharges will be routed into the pit. The mine has the ability to discharge groundwater and stormwater through an outfall under coverage of NPDES General Permit for Discharges Associated with Nonmetallic Mineral Mining Facilities (SCG731593). This NPDES permit coverage was previously approved for the General Mine Operating Permit GP1-002336 and will be updated with the mine expansion.

3. Will there be air contaminant emissions from your plant or mine requiring an Air Quality Permit?

 Yes x No

A processing plant will not be a part of the mining operation. An Air Construction Permit is not required.

4. Do you anticipate pumping of groundwater? If yes, describe. x Yes No

Groundwater table is approximately 5 feet below ground surface. The active pit will be dewatered with a series of rim ditches routing groundwater and stormwater to central sump for that mine segment or combination of segments, i.e., segments 2 - 4. The water collected in the sump will be pumped to previous mined segments. As water will be held in segment 1 after mining is completed in that segment (sediment/recharge basin), the water will infiltrate into the ground and will limit the need to discharge water to Waters of the State while recharging the surficial groundwater system. The maximum distance for groundwater drawdown from the center of mining is estimated to be 2,500 feet. (Refer to document submitted as supplemental information titled, "Estimating Groundwater Drawdown for the Edge Road Mine - Limited Effects to Wetlands from Mining.")

5. Will jurisdictional wetlands be affected, filled or altered in any fashion that will require a Section 404 Dredge and Fill Permit? Yes x No

All Corps jurisdictional wetlands and isolated wetlands will be avoided and protected with a 50-foot upland buffer. Attached to this application the Army Corps of Engineers letter concurring with the wetland delineation, (SAC-2021-00961).

6. Are there any known cultural or historic sites located within the proposed area to be permitted?

 Yes x No

A cultural resources reconnaissance survey conducted by Terracon Consultants; Inc. determined no historic resources will be adversely affected. Terracon's report is being submitted with this application.

7. Will any part of the permitted area be used as a solid waste disposal site? If no, describe how waste, trash, scrap metal material, garbage will be handled. Yes x No

Any solid waste generated at the site will be removed from the site and properly disposed of at a permitted solid waste facility.

8. Describe the wildlife or freshwater, estuarine or marine fisheries in the area of the mining operation. Also provide information about any ponds and/or streams that may be located in the proposed permitted area.

The mine permit area does not contain any open ponds. Two freshwater wetland areas were delineated by the Brigman Company totaling 2.26 acres. Letter from the Army Corps of Engineers, SAC-2021-00961, verifying the wetlands delineation is attached.

Concerns were previously expressed about potential impacts on spotted turtle, southern hognose snake and Carolina pygmy sunfish habitats. Based upon a habitat assessment by a Mr. Bill Mullin, Wetland and Wildlife Biologist, with Dr. J.H. Carter III & Associates, Inc., these species were not observed. While the site visit during the assessment was not an exhaustive visual survey, efforts were made to assess if there are suitable observation points from which to perform a spotted turtle visual survey. The wetlands on site were determined to not have significant observation points due to the dense vegetation. The site is not considered an environmentally sensitive habitat.

The mine is adjacent to Lewis Ocean Bay Heritage Preserve (LOB). Report from Dr. J.H. Carter III & Associates, Inc. observe flyover of the mine property by red-cockaded woodpecker(s) (RCW) while conducting a field investigation. Their July 16, 2021 report to Mr. Josh Epps noted that the LOB contained RCW cavity trees, but no cavity trees were observed on the mine property.

Attached to the application is the July 16, 2021 report from Bill Mullin, Wetland and Wildlife Biologist, with Dr. J.H. Carter III & Associates, Inc. and his follow up August 17, 2021 letter to Mr. Josh Epps to address additional comments expressed by SC Department of Natural Resources.

9. State the land cover and land uses on the permitted land area and contiguous tracts of land to the permitted land area.

Current land cover for permit area are composed mostly of pond pine woodlands and uplands were mostly Xeric Sandhill Scrub. (*July 16, 2021 letter communication from William Mullin, wetland and wildlife biologist, to Joshua Epps.*)

Adjacent to the site along the southern and eastern borders of the project area is the Lewis Ocean Bay Heritage Preserve. Along the western boundary are woodlands. North is agricultural fields with limited rural residences.

10. Describe measures to be taken to insure against (1) substantial deposits of sediment in neighboring streams, rivers lakes or ponds; (2) landslides; (3) acid water formation and discharge. Attach any supporting documents (engineering designs, calculations, sediment & erosion control plan, setbacks, geotechnical information, acid prediction test etc.) to this application.

(1) The primary sediment control measures will be first to limit the area of disturbance to only what is necessary to conduct safe mining operations. Second – The primary measure will be to route the great majority of stormwater from mine disturbed land into the pit. Silt fence, undisturbed buffer and revegetation also will be used to control erosion and sediment runoff as necessary. Initial mining will excavate the 6.7-acre sediment basin in segment 1 (Phase I). Groundwater and stormwater pumped from the active pit will be routed through previously mined segments. This will minimize the potential for pit water discharge into waters of the state. If water must be discharged, it will be discharged through the NPDES outfall.

(2) Limited depth of mining minimizes potential for landslides. As mining approaches final pit wall locations, the mine wall will be graded to 3:1 slope in the upper 10 feet of the highwall. Below the anticipated pond level, the mine walls will be at a 2:1 slope for final reclamation.

(3) Not applicable to this geology

V. SAFETY

1. Describe methods to be used during the time the mine operating permit is active to prevent physical hazards to persons and to any neighboring dwelling, house, school, church, hospital, commercial or industrial building or public road. If applicable, provide the zoning designation for the property to be permitted.

Site is in an isolated area. The nearest house is 800 feet distant from the property line of the mine site. See document submitted as supplemental information titled, "*Response to Sinkhole Concerns from the Edge Road Mine.*"

2. Describe methods to be used to prevent an adverse effect on the purposes of a publicly- owned park, publicly-owned forest, or publicly-owned recreation area. If any of these facilities are within one (1) mile of the proposed affected property, please locate on mine location map and the submitted U.S.G.S topographic map for this application.

The Lewis Ocean Bay Heritage Preservation area is adjacent to the mine site. There will be no adverse impacts to the physical nature of LOB preserve or to the flora and fauna within the preserve. The groundwater drawdown from mine dewatering will extend to approximately 2% of the 10,000-acre LOB preserve. (Refer to supplemental information, "*Estimating Groundwater Drawdown for the Edge Road Mine - Limited Effects to Wetlands from Mining*" for details on distance of groundwater drawdown.) Groundwater drawdown will not have any effects on Carolina Bays within the preserve because Bays have limited hydrologic connection with the surficial groundwater system and the groundwater drawdown from mine dewatering will not extend to Carolina Bays within the preserve. Consequently, any flora and fauna within the Bays will not be affected. Pit water discharge from the mine will be treated by a 6-acre sediment/groundwater recharge basin to comply with NPDES water quality standards. Furthermore, there is no chance of sediment entering the LOB preserve since discharged water from the mine will flow away from the preserve.

3. Describe measures to be taken for screening the operation from view from public highways, public parks or residential areas.

The mine site is surrounded by undeveloped land. The nearest public road is Edge Road that is approximately 800 feet distant. Existing vegetation to remain in buffer and wetlands will visually screen the mine.

VI. MINE MAP

- 1. Provide the U.S.G.S. topographic map(s) that contains the proposed mine site. The proposed permitted area should be outlined on this submitted topographic map.**

- 2. Attach two (2) copies of a map of the site (referred to as the MINE MAP) that shows the following:**
 - A. Outline of the area to be affected by mining during the number of years for which the permit is requested. See Section III, Question 1 on page 3 of this application form.**

 - B. Outline of the permitted area that shows the buffers zones, future mine areas and areas to be affected by mining.**

 - C. Outline of the planned pits or excavations for which your company has detailed plans. If your company has reason to believe that additional land may be mined in the future within the permitted area but is not feasible to show as planned excavations; indicate these areas as FUTURE RESERVES on this site map.**

 - D. Outline of areas for the storage of naturally occurring soil that will be suitable for the establishment of vegetation in final reclamation.**

 - E. Outline of planned areas for disposal of refuse, exclusive of tailings ponds.**

 - F. Outline of planned spoil, overburden or other similar waste material disposal areas.**

 - G. Locations of planned access and haul roads on the area to be affected.**

 - H. Outline of planned tailings ponds.**

 - I. Locations of sediment control pond(s) and other sediment control structures within the affected area. Outline of areas on which temporary or permanent vegetation will be established to control erosion during the mine operation.**

 - J. Location and name (if appropriate) of streams, lakes, wetlands and existing drainage ditches within the area to be permitted. Use arrows to indicate direction of water flow in such streams and drainage ditches.**

 - K. Boundary for the 100 year floodplain, where appropriate.**

 - L. Outline of areas for stockpiles of unprocessed minerals.**

 - M. Outline of area of previously mined land that will not be affected.**

 - N. Outline of the area to be occupied by processing facilities including stockpiles of processed minerals if such facilities are to be an integral on-site part of the mining operation.**

 - O. Show location of the two permanent survey control points.**

 - P. A legend showing the name of applicant, name of the proposed mine, north arrow, county, scale, date of preparation and name and title of person who prepared the site map.**

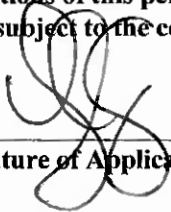
THE REQUIRED SITE MAP SHALL HAVE A NEAT, LEGIBLE APPEARANCE AND BE OF SUFFICIENT SCALE TO CLEARLY SHOW THE REQUIRED INFORMATION LISTED ABOVE. THE BASE FOR THE MAP SHALL BE EITHER A SPECIALLY PREPARED LINE DRAWING, AERIAL PHOTOGRAPH, ENLARGED USGS TOPOGRAPHIC MAP OR A RECENTLY PREPARED PLAT.

3. Provide the most recent county tax map that shows all contiguous land owners of the permitted mine site. Provide name and addresses of all land owners contiguous to the proposed permitted mine site.

4. Provide letter from an attorney attesting to (1) the ownership if the property, (2) ownership of the mineral rights and (3) that the applicant has the legal right to mine the proposed mineral resource on the property as described in this application.

We hereby certify that all information and details contained hereinabove, within any supporting documents and on the map are true and correct to the best of our knowledge. We fully understand that any willful misrepresentation of facts will be cause for permit revocation.

The applicant acknowledges that Section 48-20-130, Code of Laws of South Carolina, provides in part: "Upon receipt of the operator's annual report or report of completion of reclamation and at any other reasonable time the department may elect, the department shall inspect the permit area to determine if the operator has complied with the reclamation plan, the requirements of this chapter, regulations promulgated by its authority, and the terms and conditions of this permit. Accredited representatives of the department at all reasonable times may enter upon the land subject to the certificate of exploration or operating permit for the purpose of making the inspection."



Signature of Applicant/Operator or his Authorized Representative

JOSHUA K. EPPS MEMBER & MANAGER

Printed Name of Applicant/Operator or his Authorized Representative

MEMBER & MANAGER

Title

11/12/2022

Date

Department Use Only

Application No. I-002375 Date Application Approved 6/20/2023 Date Bond Rec'd 5/23/2023

Bond Amount \$25,000.00 Blanket or Single Bond Single Permit Issuance Date 6/20/2023

ACTION TAKEN ON THIS APPLICATION

 Approved Denied X Approve with additional Terms and Conditions

By: Jeremy E. Eddy
SECTION MANAGER

Date: June 20, 2023

Revised Mine Plan Narrative 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 22.6 acres. The 22.6 acres includes 21.7 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 be conducted in two phases. Phase I includes segment 1 and Phase II includes segments 2 – 4. Buffers along the property lines (permit boundary) with LOB in segments 2 & 4 are being increased from 50 feet to 100 feet. Mining will continue to observe 50-foot buffers along the property lines (permit boundary) in segment 1 because a portion of this segment was previously mined up to the 50-foot buffer under SCDHEC's General Mine Permit. Delineated wetlands will be protected by 50-foot buffers. 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 10.4 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. Any water discharged will meet all Water Quality Standards as required by the NPDES permit.

Mine Plan

The planned maximum depth of mining is 50 feet in Phase II. The mine plan has been revised to limit the depth of mining in Phase I to 30 feet. The reduction in depth for Phase I will enable Soilutions to transition that segment more quickly from active mining to a sediment/recharge basin. Additionally, 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 on benches that will range from 10 – 20 feet in height. The initial stripping of overburden will be approximately 5 feet to remove stumps, root mat 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 and groundwater recharge basin. 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 15.0 acres of mining in segments 2 – 4. Given the locations of wetlands, 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.