



**DEPARTMENT OF THE ARMY**  
CHARLESTON DISTRICT, CORPS OF ENGINEERS  
69A HAGOOD AVENUE  
CHARLESTON, SOUTH CAROLINA 29403-5107

July 30, 2020

Regulatory Division

Mr. George Grice  
Sabine & Waters Inc.  
311 N Magnolia St  
Summerville, South Carolina 29407  
ggrice@sabinc.net


Dear Mr. Grice:

This is in response to your request for a Delineation Concurrence (SAC-2020-00730) received in our office on May 21, 2020 for a 92 acre site located at 6366 Hyde Park Road in Ravenel, Charleston County, South Carolina (Latitude: 32.8257°, Longitude: -80.2566°).

Based on a review of the information you submitted, the delineated boundaries depicted on the map titled "Wetland Exhibit McLain – Hyde Park Charleston County, South Carolina" prepared by your office and dated July 24, 2020 are a reasonable representation of the aquatic resources located onsite.

In all future correspondence, please refer to file number SAC-2020-00730. A copy of this letter is forwarded to State and/or Federal agencies for their information. If you have any questions, please contact me at (843) 329-8039 or by email at Leslie.A.Estill@usace.army.mil.

Sincerely,

 2020.07.30  
10:47:01 -04'00'

Leslie Estill  
Project Manager

Enclosures:

Map titled "Wetland Exhibit McLain – Hyde Park Charleston County, South Carolina"

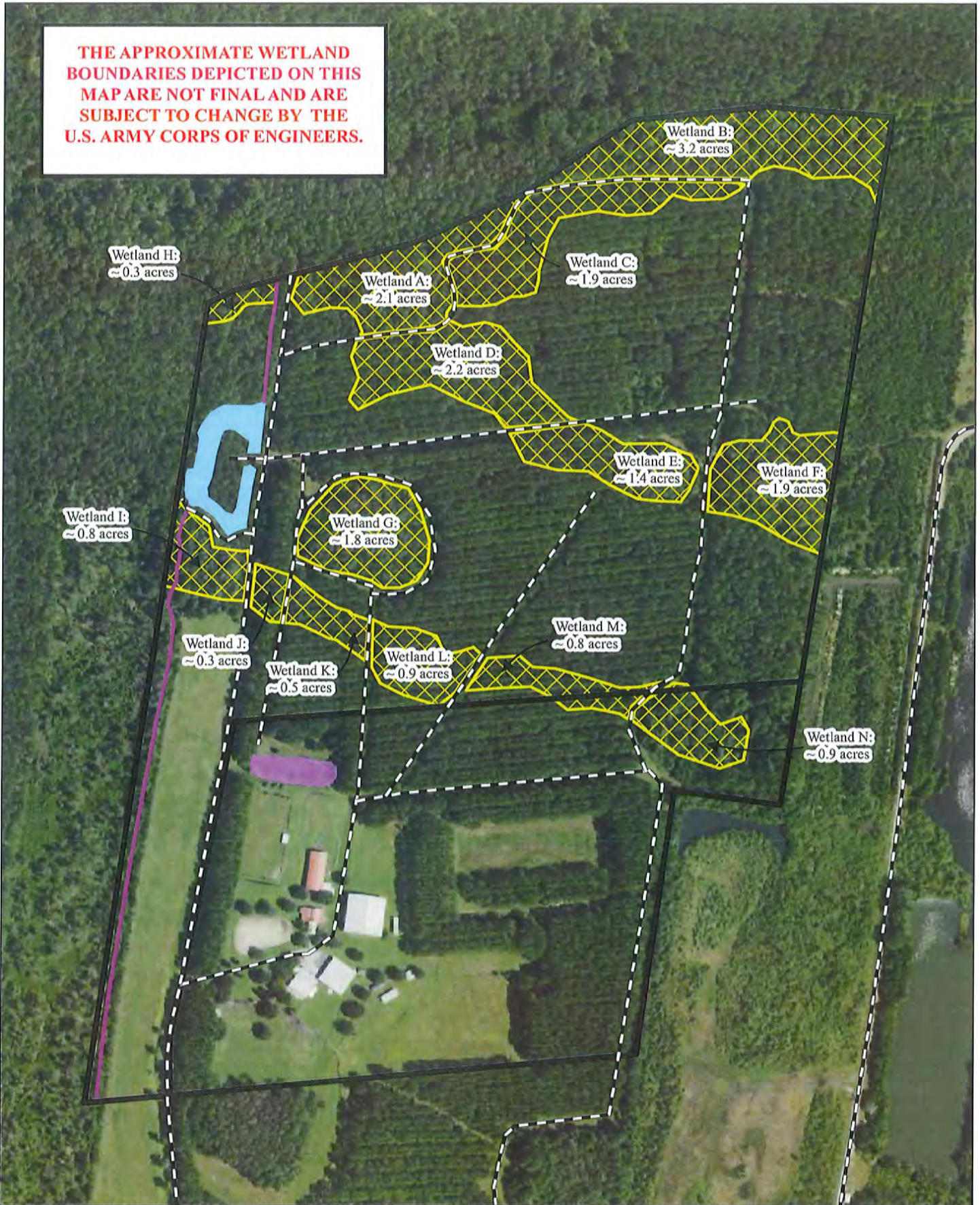
Copies Furnished:

Mr. Jeff McLain  
6366 Hyde Park Rd  
Ravenel, South Carolina 29470  
[jeff@signaturekitchens.net](mailto:jeff@signaturekitchens.net)

SC DHEC - Bureau of Water  
2600 Bull Street  
Columbia, South Carolina 29201  
[WQCWetlands@dhec.sc.gov](mailto:WQCWetlands@dhec.sc.gov)

SC DHEC - OCRM  
1362 McMillan Avenue, Suite 400  
North Charleston, South Carolina 29405  
[OCRMPermitting@dhec.sc.gov](mailto:OCRMPermitting@dhec.sc.gov)

**THE APPROXIMATE WETLAND BOUNDARIES DEPICTED ON THIS MAP ARE NOT FINAL AND ARE SUBJECT TO CHANGE BY THE U.S. ARMY CORPS OF ENGINEERS.**



Wetland H:  
~0.3 acres

Wetland A:  
~2.1 acres

Wetland C:  
~1.9 acres

Wetland B:  
~3.2 acres

Wetland D:  
~2.2 acres

Wetland E:  
~1.4 acres

Wetland F:  
~1.9 acres

Wetland I:  
~0.8 acres

Wetland G:  
~1.8 acres

Wetland M:  
~0.8 acres

Wetland J:  
~0.3 acres

Wetland K:  
~0.5 acres

Wetland L:  
~0.9 acres

Wetland N:  
~0.9 acres

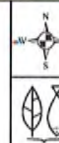
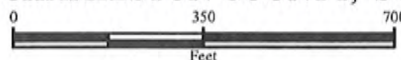
EXTERNAL SOURCES: NAIP 2019 TRUE COLOR AERIAL, U.S. CENSUS ROADS, CHARLESTON COUNTY GIS PARCELS

Created by: Stephen Bennett  
Date Created: July 24, 2020  
Copyright 2020 Sabine & Waters, Inc.  
R:\custidat\mclain\hyde park\mapping\asce\wet\_exhibit.mxd  
Sabine & Waters, Inc.  
Environmental Land and Management Consultants  
P.O. Box 107 Summerville, SC 29484  
843.871.5383 (phone) 843.871.2050 (fax)  
http://www.sabine.net

Disclaimer: This map is a graphic representation of data obtained from various sources. All efforts have been made to warrant the accuracy of this map. However, Sabine & Waters, Inc. disclaims all responsibility and liability for the use of this map.

**REVISED: 7/24/2020**

**WETLANDS EXHIBIT  
MCLAIN - HYDE PARK  
CHARLESTON COUNTY, SC**



**LEGEND**

- PROPERTY BOUNDARY: +/- 92 AC
- WETLANDS: +/- 19.0 AC
- UPLAND EXCAVATED BORROW PIT: +/- 0.8 AC
- STORMWATER POND: +/- 0.4 AC
- DITCHES
- ROADS

Long: -80.258172 W  
Lat: 32.823022 N

May 21, 2023

Mr. Benjamin Thepaut,  
SCDHEC CZC  
2600 Bull Street  
Columbia, SC 29201

Dear Mr. Thepaut,

This letter is in reference to South Carolina Department of Health and Environmental Control's Coastal Zone Consistency review for the Highthorne Mine located off of Hyde Park Road, Ravenel, SC in Charleston County, further identified by Charleston County TMS# 175-00-00-065.

A wetland delineation was completed by Sabine & Waters, Inc. in 2020. Following a site visit, the U.S. Army Corps of Engineers concurred that the area in question is an active upland-excavated borrow pit. The US Army Corps of Engineers (USACE) wrote a Delineation Concurrence Letter dated July 30, 2020 reflecting that concurrence. The borrow pit was excavated in uplands to provide material for road repairs and improvements to the horse pastures and barn area. It is important to note that only the USACE can determine the limits and jurisdictional status of aquatic resources. Through a delineation concurrence, the USACE agreed with the limits of the wetlands present within the tract; and specifically, did not include the upland excavated burrow pit to be a wetland.

Based on this information, it is my professional opinion that the feature is not a wetland and is not subject to federal regulation.

Please contact me with any further questions,

Tory Grayson, PWS



703-969-9245

Tory@waterlandsolutions.com





January 05, 2024

CERTIFIED LETTER  
RETURN RECEIPT REQUESTED

Jeffery Mclain  
6366 Hyde Park Road  
Ravenel, S.C. 29470

RE: Approval of Application and Reclamation Plan for a Mine Operating Permit  
Issuance of Mine Operating Permit I-002394  
Highthorne Mine, Charleston County

Dear Mr. Jeffery Mclain,

The S.C. Department of Health and Environmental Control (DHEC) has approved the application and reclamation plan for the Highthorne Mine as of January 05, 2024. DHEC has approved the reclamation bond for Segments 1 and 2 submitted in the amount of \$26,455.00.

With the receipt of the reclamation bond and the approval of the application and reclamation plan, this letter serves as official notification that the Mine Operating Permit for the Highthorne Mine is being issued as of the date of this letter and that the previous General Permit, Hyde Park GP1 (GP1-002322) is hereby superseded by this permit and terminated. Enclosed are the permit document, reclamation plan, and mine and reclamation maps.

Should there be any questions or if we may be of further assistance, please do not hesitate to contact the project manager, William Meservy, at (803) 898-1369 or by e-mail at [meservwn@dhec.sc.gov](mailto:meservwn@dhec.sc.gov). Margaret Sarvis-Colburn is the regional mine inspector for Charleston County.

Sincerely,

Jeremy E. Eddy, P.G.  
Manager - Mining and Reclamation Section  
Division of Mining and Solid Waste Management

cc: William Meservy – DMSWM  
Margaret Sarvis-Colburn – Regional Inspector  
Brett Caswell – BoW  
AirPermitting – BAQ ([airpermitting@dhec.sc.gov](mailto:airpermitting@dhec.sc.gov))  
Jennifer Miller ([JMiller@charlestoncounty.org](mailto:JMiller@charlestoncounty.org)) - Charleston County  
Jennifer Werking ([JWerking@charlestoncounty.org](mailto:JWerking@charlestoncounty.org)) - Charleston County  
Gary McClellan ([stormwater@charlestoncounty.org](mailto:stormwater@charlestoncounty.org)) - Charleston County

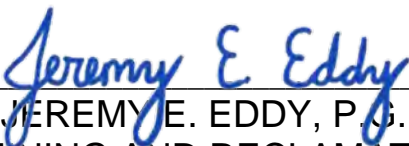


# MINE OPERATING PERMIT

## PART I:

### Highthorne Mine Jeffery McClain

**Jeffery McClain**, a corporation individual, has been granted a Mine Operating Permit, Mine Permit Number I-002394, to operate the Highthorne Mine in accordance with the S.C. Mining Act (S.C. Code Sections 48-20-10 *et seq.*, 1976) and Regulations 89-10 *et seq.* The operator shall conduct this operation as represented in documents submitted to support the issuance of this permit.



JEREMY E. EDDY, P.E.

MANAGER - MINING AND RECLAMATION SECTION  
DIVISION OF MINING AND SOLID WASTE MANAGEMENT

**PERMIT NUMBER:** I-002394  
**ISSUED:** January 05, 2024

In accordance with Section 48-20-60 of the South Carolina Mining Act, this Mine Operating Permit will remain valid unless it terminates as set forth in R.89-270 or is revoked in accordance with Section 48-20-160 and R.89-280. The anticipated mining completion date is shown on the *Schedule for Conservation and Reclamation Practices* in the *Reclamation Plan*.

The approved *Permit Application*, *Reclamation Plan*, and all supplemental information referenced herein, are an integral part of this permit. *Land Entry Agreements and Mine Maps* as identified in Part II and Part IV, respectively, are also a part of this permit.

# Jeffery Mclain

**Home Office Address:** Jeffery Mclain  
6366 Hyde Park Road  
Ravenel, SC 29470

**Address for Official Mail:** Jeffery Mclain  
6366 Hyde Park Road  
Ravenel, SC 29470

**Personnel and title to be the contact for official business and correspondence [South Carolina Department of Health and Environmental Control (DHEC) should be notified in writing immediately of any change in contact, address, telephone or fax numbers]:**

Contact: Robert Strange	Phone: 843-830-5375
Title: Consultant	Email: rstrange@greentrelandmanagement.com

**LOCATION:** The mine is located on the Osborn, SC U.S.G.S. 7.5' Topographic Map. The approximate geographic coordinates for the site are:

Latitude: 32.824522 Longitude: -80.257728

**DESCRIBE LOCATION:** The operation is located in Charleston County, approximately 2.75 mile(s) north of Ravenel, S.C. Specifically, the site is located 0.5 miles north of the intersection of Hyde Park Road and Highthorne Road.

## **Part II: MINE OPERATIONS**

Jeffery McClain, also referred to as the operator, is permitted to mine sand, clay, and topsoil at the Highthorne Mine. The maximum depth to the pit floor shall not exceed 30 feet below ground surface (to an elevation of +10 feet mean sea level) measured from the lowest ground surface elevation. Mining will take place on a tract of land owned by the referenced operator. This tract of land is identified in the submitted *Land Entry Agreement* (LEA).

### **MINE/PIT CHARACTERIZATION:**

The sand, clay, and topsoil will be excavated and stockpiled on site. Ground clearing will be accomplished by bulldozer. Excavation, stockpiling, and the loading of material will be done by excavator. Dump trucks will be used to haul material off-site. Grading for reclamation will be done with a bulldozer. Adequate amounts of topsoil shall be stockpiled for reclamation of the affected area. Excess topsoil not needed for reclamation may be sold.

### **PROCESSING PLANT LOCATED ON MINE SITE:**

Processing plants are not permitted at this mine site. Screens set to remove roots or other organic matter from the topsoil are not considered to be processing and are allowed on this site.

### **MINE DEWATERING:**

The water table at the mine site is relatively shallow, and lowering of the water table via dewatering is necessary to facilitate mining. Additionally, where feasible, stormwater runoff shall be diverted into the pit, collected into the sump, and discharged in the same manner as groundwater. Any accumulation of groundwater and stormwater shall be pumped into a sediment basin prior to discharge. Water discharged from the mine to a receiving stream must be discharged through an outfall regulated by an NPDES permit.

If an operator receives a complaint concerning adverse impacts to neighboring wells, the operator is to notify DHEC's Manager of the Mining and Reclamation Section, Columbia, SC, within 24 hours. After investigation, if DHEC determines dewatering activities at the mine are affecting a drinking water well or water supply well, the operator shall be responsible for repairing, deepening, or re-drilling such wells. Until that permanent water supply is re-established, the operator shall supply the owner with a temporary water supply (e.g., bottled water for drinking, provisions for laundry).

Active pumping and discharge of water shall cease if the dewatering discharge causes flooding conditions to property downstream of the mine site.

### **BLASTING:**

Blasting operations are not permitted at this mine site.

### **SIGNIFICANT CULTURAL OR HISTORICAL SITES:**

No significant cultural or historical sites have been identified. Note Part X: *Additional Terms and Conditions* of this Mine Operating Permit.

### **VISUAL SCREEN:**

To appropriately screen the operation from view, the operator shall maintain a minimum 50ft. undisturbed buffer between mining activity and all property lines. A vegetated earthen berm or brush barrier may be asked for required by DHEC on the mine side of this undisturbed buffer where needed.

**NOISE MONITORING AND CONTROL:** The operator shall use Best Management Practices (BMPs) to minimize noise from the mine site. These noise BMPs shall include, at a minimum, proper maintenance of mufflers on equipment (trucks, trackhoes, pumps, etc.) and consideration of special buffering measures if planning to operate equipment during nighttime hours.

**OTHER STATE OR FEDERAL PERMITS:** The operator must obtain, maintain, and update, as appropriate, all necessary State and Federal permits in order to construct and operate the mine.



**LAND ENTRY AGREEMENTS:** The operator is required to furnish and maintain up-to-date *Land Entry Agreements* on all lands covered under this permit. Any change in ownership on any portion of land covered by this permit, the operator is responsible for furnishing the appropriate and completed *Land Entry Agreements* (Forms MR-600 or MR-700) to DHEC within 30 days of the change of ownership.

Land Owner(s) as Listed on *Land Entry Agreement(s)*:

TMS #	Land Owner(s)
175-00-00-023	Jeffery Mclain

Total acres of the contiguous tract(s) of land for which the permit is granted:

OWNED 94.5                      LEASED 0.0                      TOTAL 94.5

**Part III: PERMITTED LAND**

This permit allows the operator to conduct mining operations within the permitted land as defined through the *Land Entry Agreement* submitted as part of the application. Permitted land as defined by Section 48-20-40(18) is "the affected land in addition to (a) lands identified for future mining to become affected land; (b) and undisturbed or buffer area that is or may become adjacent to the affected land." Therefore, this permit grants the operator the right to conduct active mining operations within the specified affected land, delineate land for future mine areas as future reserves, and to establish undisturbed buffer zones to mitigate any adverse effects to the surrounding environment.

**AFFECTED LAND:** 41.4 acres of land are to be affected by Jeffery Mclain under the current mine plan; 11.2 of the affected acres (Segments 1 and 2) are currently bonded. The affected acres are derived from the operator's response in the *Application for a Mine Operating Permit* and are shown on the approved mine map(s).

**FUTURE RESERVES:** 0.0 acres are identified as future reserves and are specified on the mine site map. Prior to the initiation of activity in future reserves, the operator shall submit detailed mine and reclamation plans to DHEC for approval.

**BUFFER AREAS:** 53.1 acres are identified as buffer area, setbacks, or areas that will not be disturbed beyond the pre-mine natural state. These buffer areas are identified on the mine site map. Acres designated as buffer areas are not bonded under the reclamation bond. Any activity within the buffer areas (e.g. removal of timber) shall require **prior** notification and approval by DHEC.

**TOTAL PERMITTED AREA:** 94.5 acres as submitted on the *Land Entry Agreement(s)*.

**Part IV: MAPS**

The mine site maps were prepared by Robert Strange. These maps are further identified with the following SCDHEC map numbers and are part of the operating permit:

- SM-2394-0V1    Mine Map                      Dated: January 30, 2023
- SM-2394-1V1    Mine Map                      Dated: January 30, 2023
- SM-2394-2V1    Mine Map                      Dated: January 30, 2023
- SM-2394-3V1    Mine Map                      Dated: January 30, 2023
- SM-2394-4V1    Mine Map                      Dated: January 30, 2023
- SM-2394-5V1    Mine Map                      Dated: January 30, 2023

The reclamation maps were prepared by Robert Strange. These maps are further identified with the following SCDHEC map numbers and are part of the operating permit.

RM-2394-0V1	Reclamation Map	Dated: January 30, 2023
RM-2394-1V1	Reclamation Map	Dated: January 30, 2023
RM-2394-2V1	Reclamation Map	Dated: January 30, 2023
RM-2394-3V1	Reclamation Map	Dated: January 30, 2023
RM-2394-4V1	Reclamation Map	Dated: January 30, 2023
RM-2394-5V1	Reclamation Map	Dated: January 30, 2023

## Part V: RECLAMATION BOND

The Reclamation Bond is based upon the total affected acres that the operator is allowed to disturb. Pursuant to Section 48-20-70 and R.89-200, the reclamation bond for this mining permit is set at \$26,455.00 and currently allows the operator to disturb Segments 1 and 2 as described in the mine maps. The reclamation bond shall remain in force and continuous throughout the life of the mining operation and shall only be released, partially or in full, back to the operator after the operator has completed reclamation in accordance with the approved *Reclamation Plan* and the minimum standards in R.89-330.

## Part VI: PROTECTION OF NATURAL RESOURCES

### 1. Describe the area of and around the mine site. Specify topography, surface water systems, wildlife habitats, residential houses, commercial properties, recreational areas, and/or public roads.

Prior to mining activities, this site's land use type was agricultural; the immediate area around this site is agricultural and mining with some rural residences nearby. The topography of this area is slightly variable (i.e., mostly flat), with surface elevation ranging from 35 - 45 ft. MSL. There is a pond located approximately 1000 ft. east of the mine site.

Common wildlife typical to this area can be found in and around this site; the Spotted Turtle is a threatened or endangered species believed to inhabit this area. Please see Part X: *Additional Terms and Conditions #6* for additional information related to the protection/relocation of this species.

There are residential area(s) southeast of the mine site.

### 2. Methods used to prevent physical hazards to persons and to any neighboring dwelling, house, school, church, hospital, commercial or industrial building, or public road.

A gate shall be installed at the entrance to the mine site and kept locked during inactive periods. *Warning* and/or *Danger* signs shall be posted around the perimeter of the property.

Operator shall use BMPs to prevent accumulation of sediment/soil on public roads carried by trucks and other vehicles exiting the mine site; any accumulations shall be removed by the operator on a daily basis or more frequently if needed. To reduce the potential of trackout on public roads, the operator shall construct a crushed stone "mud mat" that extends the width of the haul road and stretches a minimum of one hundred (100) feet in length.

The operator shall establish a protected area or establish procedures to minimize fuel spillage or incidental spillage of other petroleum products during storage, refueling of equipment or in the performance of routine maintenance on equipment. Contaminated materials resulting from contact with petroleum products shall be removed from the site and disposed of properly to prevent contamination to ground and surface water resources.

### 3. Methods used to prevent an adverse effect on the purposes of a publicly owned park, forest, or recreation area.

There are no publicly owned parks, forests, or recreation areas near this mine site.

**4. Measures taken to insure against substantial deposits of sediment in stream beds or lakes.**

The operator shall comply with the NPDES General Permit for Non-metallic Mineral Mining and Stormwater Pollution Prevention Plan developed for the mine.

**5. Measures taken to insure against landslides or unstable mine walls.**

To minimize the potential for landslides or unstable mine walls, the operator shall grade side slopes as excavation progresses, and maintain slopes no steeper than a 3H:1V gradient. The operator is responsible for maintaining stable mine walls and appropriate setbacks to prevent significant slumping that may encroach into non-permitted lands.

**6. Measures taken to insure against acid water generation at the mine site that may result in pollution on adjacent property.**

Acid water is not anticipated to be generated from the oxidation of existing minerals currently found on this site.

**7. Measures taken to minimize or eliminate fugitive dust emissions from the permitted area.**

The mine operator will use appropriate measures (e.g. water truck, dust suppressants) to control fugitive dust created by moving equipment along haul roads. The operator, where feasible, shall establish vegetation in non-active mine areas barren of vegetation to stabilize the soil and reduce potential for wind erosion and dust emissions.

**Part VII: STANDARD CONDITIONS OF MINE OPERATING PERMIT**

1) SURVEY MONUMENTS: In accordance to R.89-130, the operator shall install and maintain the two required permanent survey monuments, or control points, within the permitted area as shown on the mine site map. At the discretion of DHEC, the operator may be required to mark the area to be affected with flagging or other appropriate measures.

2) RIGHT OF ENTRY: Pursuant to Section 48-20-130 and R.89-240, the operator shall grant DHEC and/or duly appointed representatives access to the permitted area for inspection to determine whether the operator has complied with the reclamation plan, the requirements of this chapter, rules and regulations promulgated hereunder, and any terms and conditions of this permit.

3) RECORDS RETENTION: All records are to be maintained through additional terms and conditions of this permit or by regulations. Records shall be kept on site or at the office identified for receipt of official mail and open for inspection during normal business hours. The records shall be maintained for a minimum of three (3) years or as specified by DHEC. The operator shall furnish copies of the records upon request to DHEC.

4) PERMIT MODIFICATIONS: Pursuant to Section 48-20-80, the operator may apply for modification of the permit and/or *Reclamation Plan*, which may be modified upon approval by DHEC. Requests for permit and/or *Reclamation Plan* modifications may be made to DHEC on Form MR-1300. The operator shall submit any requested supporting data for consideration during DHEC's evaluation of the modification request. If a modification request is determined to be substantial by DHEC, the modification request will be public noticed pursuant to R.89-100 and a modification fee will be required as specified in R.89-340. If DHEC determines activities proposed under the *Reclamation Plan* and other terms and conditions of the permit are failing to achieve the purpose and requirements of the S.C. Mining Act and Regulations, DHEC shall notify the operator of its intentions to modify the permit and/or *Reclamation Plan* pursuant to Section 48-20-150 and may modify the permit and/or Reclamation Plan consistent with Section 48-20-150.

5) TRANSFER OF PERMIT: Pursuant to Section 48-20-70, this permit may be transferred to another responsible party. The transfer of the permit must be conducted in accordance with R.89-230. The transferor of the permit will remain liable for all reclamation obligations until all required documents, plans, and the replacement reclamation bond have been submitted and approved by DHEC. The transfer will be considered complete when all parties have received notification by certified letters of the approval of the transfer by DHEC.

6) DURATION OF MINE OPERATING PERMIT: In accordance with Section 48-20-60, this Mine Operating Permit will remain valid unless this permit terminates as set forth in R.89-270 or is revoked in accordance with Section 48-20-160 and R.89-280. The proposed anticipated mining completion date is shown on the *Schedule for Conservation and Reclamation Practices* in the *Reclamation Plan*.

Pursuant to R.89-80(B), the operator shall conduct reclamation simultaneously with mining whenever feasible. Reclamation shall be initiated at the earliest practicable time, but no later than 180 days following termination of mining of any segment of the mine and shall be completed within two years after completion or termination of mining on any segment of the mine.

## **Part VIII: ENFORCEMENT ACTIONS**

Pursuant to Section 48-20-30 of the S.C. Mining Act, "DHEC has ultimate authority, subject to the appeal provisions of this chapter, over all mining, as defined in this chapter, and the provisions of the chapter regulating and controlling such activity." This allows DHEC to assist, cooperate with, or supersede other State agencies in taking enforcement action on violations of the State Regulations or violations of the S.C. Mining Act to ensure the purposes of this Act are enforced.

COMPLIANCE: The operator shall comply at all times with all conditions of this mine operating permit. Non-compliance with this mining permit, statute, or regulations could lead to permit revocation and bond forfeiture pursuant to Sections 48-20-160 and 48-20-170 or other enforcement action allowed by law.

Compliance with the Mine Operating Permit requires the operator to conduct the mining operation as described in the approved *Application for a Mine Operating Permit*. Variance from the *Application for a Mine Operating Permit*, this permit, statute or regulation, without first receiving DHEC approval, shall be deemed non-compliance with the permit.

An operator or official representative of the mine operator who willfully violates the provisions of the S.C. Mining Act, rules and regulations, or willfully misrepresents any fact in any action taken pursuant to this chapter or willfully gives false information in any application or report required by this chapter shall be deemed guilty of a misdemeanor and, upon conviction, shall be fined not less than one hundred dollars nor more than one thousand dollars for each offense. Each day of continued violation after written notification shall be considered a separate offense.

The operator is responsible for all mining activity on the permitted mine site.

## **Part IX: REPORTS**

1) ANNUAL RECLAMATION REPORTS: The operator shall comply with Section 48-20-120 and Regulation 89-210 and submit an *Annual Reclamation Report* on Form MR-1100 as supplied by DHEC. The form for the report will be made available to the operator electronically. The operator should receive access to the report form by July 1 of each year; however, the operator is ultimately responsible for obtaining the *Annual Reclamation Report* form and is not excused from penalty fees for failure to submit the report on time.

The Annual Operating Fee is a part of the *Annual Reclamation Report*. Failure to submit a complete *Annual Reclamation Report* and fee, in accordance with Section 48-20-120 and R.89-340, will result in a late penalty payment. The *Annual Reclamation Report* and Annual Operating Fee are required if there is any permitted land not fully reclaimed and released by DHEC by June 30 of each year.

2) SPECIAL REPORTS: DHEC may at any time request information, data, or explanations from the operator as to conditions relating to the permitted mine site. Such requests from DHEC shall be made in writing to the operator with an appropriate time frame stated for the submittal of the requested information to DHEC. The operator must produce the information requested within the timeframe specified by DHEC.

## Part X: ADDITIONAL TERMS AND CONDITIONS

1. If archaeological materials are encountered prior to or during the construction of mine facilities or during mining, the S.C. Department of Archives and History, the South Carolina Institute of Archaeology and Anthropology, and DHEC should be notified immediately. Archaeological materials consist of any items, fifty years or older, which were made or used by humans. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, oyster shell, worked wood, bone and stone, metal and glass objects, human skeletal remains, and concentrations of charcoal and stones below the ground surface. These materials may be present on the ground surface and/or under the surface of the ground.
2. Temporary or permanent placement of refuse and debris (e.g., concrete, brick, asphalt) from off-site locations is prohibited without approval by DHEC. Topsoil fill approved by DHEC may be brought in from off-site sources only for the purposes of mine land reclamation.
3. In the future, if determined to be necessary by DHEC, an appropriate fence will be installed around the affected area.
4. Mining cannot be initiated in Segments 3-5, which are depicted in the mine map, until DHEC reviews the operator's financial assurance and grants approval.
5. The operator shall comply with the approved Coastal Zone Consistency Determination issued under the SC Coastal Zone Management Program by SCDHEC's Office of Ocean and Coastal Resource Management (OCRM). See Appendix B.
6. Prior to initiating mining activities in Segments 2 – 5, the operator shall submit a survey for the Spotted Turtle, prepared by a subject matter expert. The survey shall be conducted between February 15<sup>th</sup> and April 15<sup>th</sup> and utilize an appropriate method detailed in S.C. Department of Natural Resources' (SCDNR) Spotted Turtle Assessment Protocol. The survey shall be submitted to SCDNR, DHEC's Mining and Reclamation Program, and DHEC's Ocean and Coastal Resource Management Program for review. If Spotted Turtles are found to be on site, further coordination shall occur at SCDNR's guidance before mining activities may commence in those segments.
7. Prior to initiating mining activities within each segment, the operator shall install Best Management Practices as described in Appendix C: *Spotted Turtle Avoidance and Minimization Measures*.

# APPENDIX A

## MODIFICATIONS TO MINE PERMIT I-002394

<b>NUMBER</b>	<b>DATE</b>	<b>DESCRIPTION OF MODIFICATION</b> (PA= Permitted Acreage; AA= Affected, Bonded Acreage; FR= Reserves Acreage, B= Buffer Acreage)
Issue	01/05/2024	PA = 94.5ac., AA = 41.4ac., FR = 0ac., B = 53.1ac. Permit issued.



## APPENDIX B

### Coastal Zone Consistency Determination

To: William Meservy, BLWM Mining and Reclamation Permitting Section

From: Benjamin Thépaut, OCRM Coastal Zone Consistency Section *BT*

Applicant: Jeffery McClain

Project Name: Highthorne Mine

Finding: Conditionally Consistent with the SC Coastal Zone Management Program

Site Location: 6366 Hyde Park Road, Ravenel, Charleston County, South Carolina  
(TMS#: 175-00-00-023, 175-00-00-065)

Reference #: HPR-2WTM-51QYW

Date: October 10, 2023

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The staff of the Office of Ocean and Coastal Resource Management (OCRM) reviewed the above referenced Coastal Zone Consistency project request for land disturbance associated with expansion of mine for sand. Mining activities include excavation by earthwork equipment and removal offsite using dump trucks to include segments 2-5. Stormwater Management includes BMP's and settling basins for each respective segment. A proposed reclamation plan involves restoring the site to a lake and grasslands. The total area of disturbance will be 41.4 acres of a 94.5 acre project site.

We hereby certify that the above referenced project is **Conditionally Consistent** with the **Guidelines for Evaluation of All Projects** as well as the Coastal Industries (*Mineral Extraction*), Wildlife and Fisheries Management, and Stormwater Management (*Mines*) policies contained in the S.C. Coastal Zone Management Program provided the following conditions are included in the permits and adhered to by the applicant.

1. In the event that any historic or cultural resources and/or archaeological materials are found during the course of work, the applicant must notify the State Historic Preservation Office and the South Carolina Institute of Archaeology and Anthropology. Historic or cultural resources consist of those sites listed in the National Register of Historic Places and those sites that are eligible for the National Register. Archaeological materials consist of any items, fifty years old or older, which were made or used by man. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, worked wood, bone and stone, metal and glass objects, and human skeletal materials.

2. The project must be consistent with State Stormwater Permitting requirements during and post construction for protection of water quality.
3. All construction BMPs must be installed, inspected and maintained to hold sediment onsite and to protect any adjacent or downstream critical area, wetlands and waters through the life of the project. Upon completion of construction activities, all disturbed (includes undeveloped) areas, including those impacted for access, must be immediately stabilized.
4. The project must be fully consistent with local zoning and comprehensive plans prior to work being conducted.
5. The applicant is not authorized to impact any wetlands. In the event any impacts to wetlands occur, the US Army Corps of Engineers and DHEC-OCRM must be notified and all work must cease to minimize additional impacts until the applicant receives authorization.
6. The applicant must retain open space or natural (undisturbed) areas around sites as buffer zones and recharge areas. Impacts to buffers will require DHEC authorization.
7. For Mining Segments 2-5: The applicant has agreed to the following Wildlife and Habitat Management for Spotted Turtle
  - a) Surveys for the presence of spotted turtle in wetlands to be impacted should occur from February 15th – April 15th. The best window for visually identifying spotted turtles as well as successfully trapping is February to early May. Visual surveys are usually most effective February to April and trapping, usually March to May. All of this depends on water levels in the surveyed wetland habitat. If dry or extremely low water levels, neither method will be effective or appropriate. Spotted turtles utilize wetland habitat during certain times of the year, but during periods of drought or low water levels, spotted turtles will aestivate in the surrounding forests adjacent to wetlands. The SCDNR recommends one of the methods detailed in the Spotted Turtle Assessment Protocol developed by the Spotted Turtle Working Group in the attachment be utilized. Following completion of surveys, the results should be submitted to SCDNR, DHEC-Mining, and DHEC-OCRM, and further coordination occur if spotted turtle are found to be present onsite.

This determination shall serve as the SCDHEC OCRM Coastal Zone Consistency Determination for the work described above. However, this determination **does not** serve as a Department permitting decision and **does not** alleviate the applicant's responsibility to obtain any applicable State or Federal permit(s) for the work. Local government authorizations **may also** be required.



## APPENDIX C

### Spotted Turtle Avoidance and Minimization Measures (10/9/2023)

The spotted turtle (*Clemmys guttata*) is a state-threatened species and a federal at-risk species. Please note that take of this state listed species is prohibited under S.C. Code of Laws §50-15-20(C).

Suitable habitat for spotted turtles includes heavily vegetated, shallow wetlands with standing or flowing water including Carolina Bays, bogs, swamps, marshes, and wet meadows (wetlands with soft, mucky substrates are preferred) (Jensen et al. 2008). While often associated predominantly with wetlands, spotted turtles spend a considerable amount of time on land throughout the year; however, preferred upland habitat types have not been identified. Keep in mind that spotted turtles are known to move considerable distances between and within habitats; 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).

*For areas where wetlands are being avoided, the SCDNR recommends the following:*

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

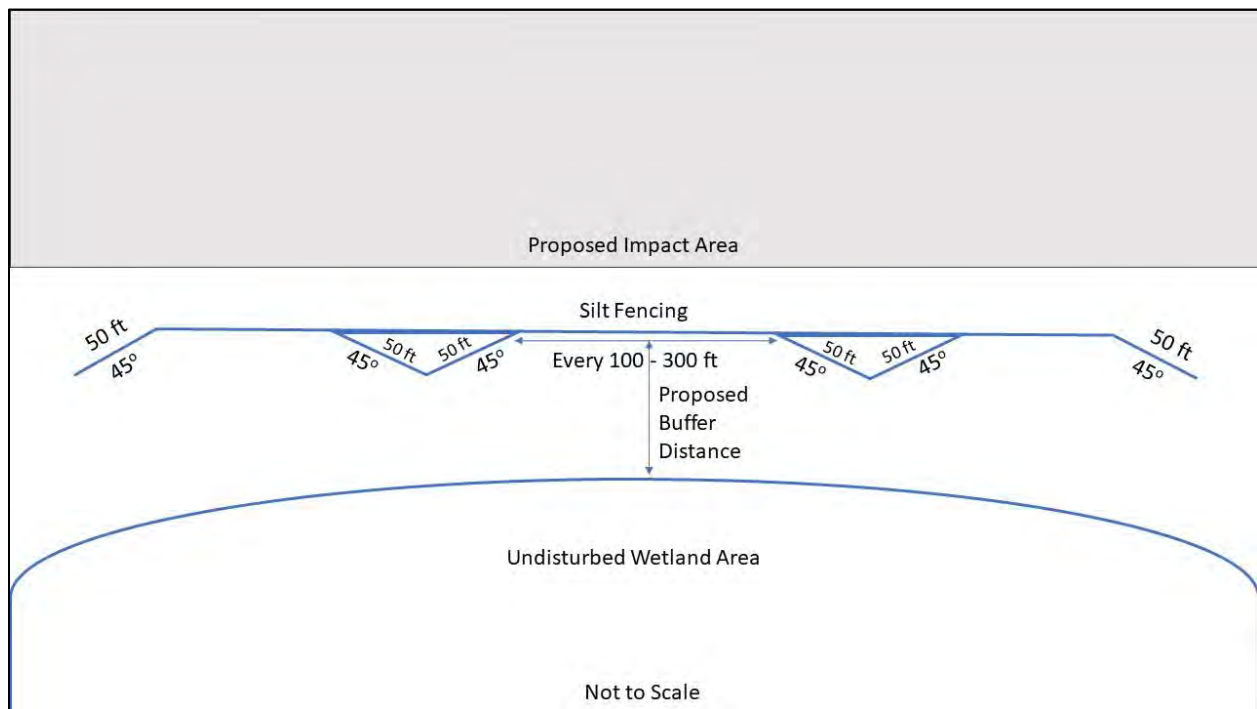
Any turtles found within the construction area during this initial monitoring period and the construction monitoring period described below must be relocated. The relocation plan must be submitted to SCDNR for review prior to the installation of the silt fencing and the proper permits acquired from the 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.

Should the applicant need access across the fencing, during the initial 14 days of monitoring, the construction area should be entirely enclosed within the exclusion fence. After the 14-day installation period, a single point of access may be established in the exclusion fence, utilizing four 45-degree arms (two facing inward and two facing outwards (e.g., ---< >---)) as outlined in the guidance below. Please note that the following guidance necessitates that a minimum 100' upland buffer be established between the affected area and the adjacent wetlands.

- 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 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.

Spotted turtles may be allowed to be relocated into areas of suitable habitat, management, and conservation status; however, any plans for relocation should be submitted for review to SCDNR with a detailed description and images of the current and future habitat and proposed work plan and methodologies as it pertains to a relocation project. It should be noted that not all habitats are suitable for relocation.

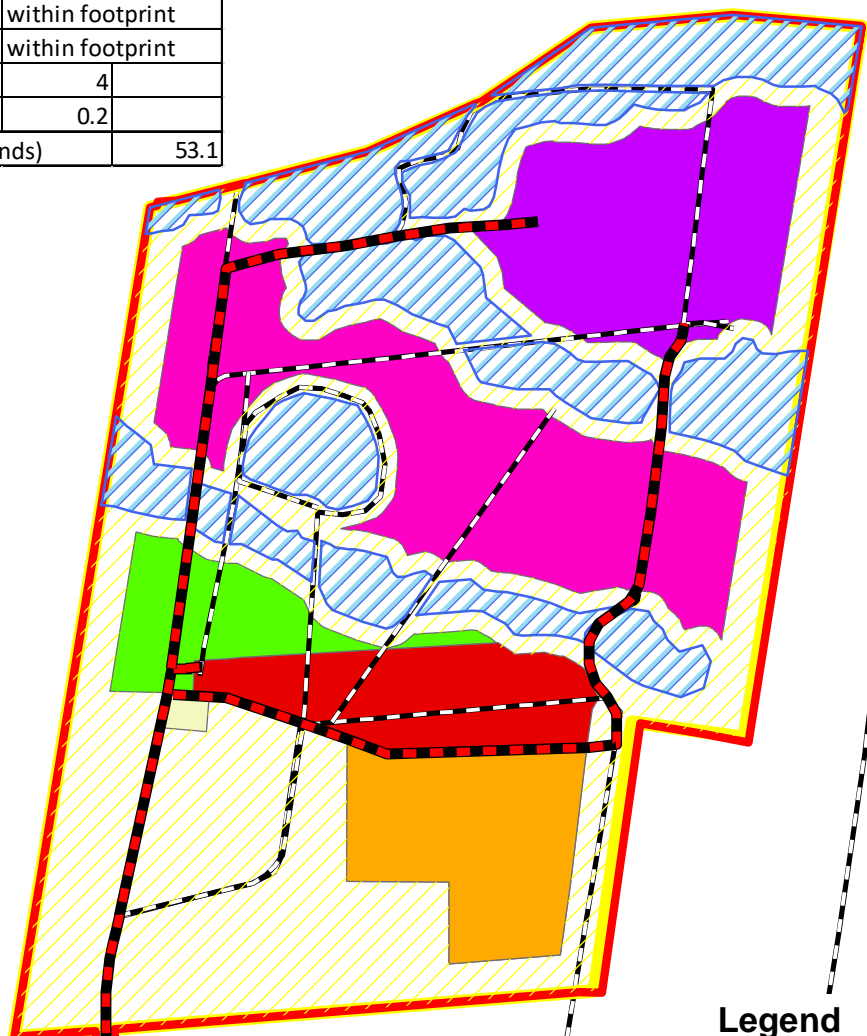
#### Spotted Turtle Silt Fence Exclusion Diagram



#### Literature Cited

- Jensen, J.B., C.D. Camp, J.W. Gibbons, M.J. Elliott. 2008. *Amphibians and Reptiles of Georgia*. University of Georgia Press. Athens, GA.
- Litzgus, J. D., & Mousseau, T. A. (2004). Home range and seasonal activity of southern spotted turtles (*Clemmys guttata*): Implications for management. *Copeia*, 2004(4), 804–817.  
<https://doi.org/10.1643/CH-04024R1>

PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1



APPROVED BY  
 SOUTH CAROLINA DEPARTMENT OF  
 HEALTH AND ENVIRONMENTAL CONTROL  
 DIVISION OF MINING AND SOLID WASTE MGT

BY Jeremy E Eddy  
 TITLE SM-0394-0V1  
 DATE APPROVED January 05, 2024  
 PERMIT NO I-002394

**Legend**

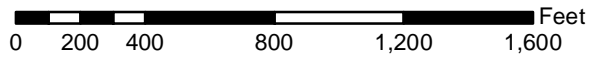
- Property Boundary - 92 AC
  - Mine Permit Boundary -94.5 AC
  - Wetland +/- 19 AC
  - Buffers - 34.1 AC
  - Haul Road - 4 AC
  - Roads
- Mine Segments**
- Segment 1 - 5 AC (GP1-002322)
  - Segment 2 - 6.2 AC
  - Segment 3 - 3.6 AC
  - Segment 4 - 13.4 AC
  - Segment 5 - 9 AC
  - Office and Parking Area -0.2 AC

State Rd S-10-1332

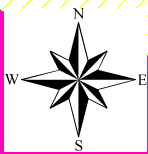
Greentree Land Management, LLC.  
 105 Wappoo Creek Drive, Suite 4A  
 Charleston, SC 29412  
 (843) 830- 5375

HIGHTHORNE MINE  
 CHARLESTON COUNTY, SC  
 TMS # 175-00-00-023 & -065

Applicant: Jeff McClain  
 Owner: Jeff McClain  
 Prepared By: Robert Strange



PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1



**Legend**

- Property Boundary - 92 AC
- Mine Permit Boundary - 94.5 AC
- Wetland +/- 19 AC
- Buffers - 34.1 AC
- Haul Road - 4 AC
- Roads
- Dimensions
- Direction of Excavation
- Discharge Path

**Mine Segments**

- Segment 1 - 5 AC (GP1-002322)
- Segment 2 - 6.2 AC
- Segment 3 - 3.6 AC
- Segment 4 - 13.4 AC
- Segment 5 - 9 AC
- Office and Parking Area - 0.2 AC

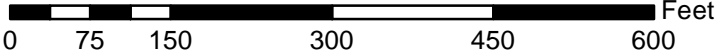
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SOUTH CAROLINA DEPARTMENT OF  
HEALTH AND ENVIRONMENTAL CONTROL  
DIVISION OF MINING AND SOLID WASTE MGT

BY Jeremy E. Eddy  
TITLE SM 2394-1V1  
DATE APPROVED January 05, 2024  
PERMIT NO 1-002394

Greentree Land Management, LLC.  
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Charleston, SC 29412  
(843) 830- 5375

**HIGHTHORNE MINE SEGMENT 1 MINE MAP**  
CHARLESTON COUNTY, SC  
TMS # 175-00-00-023 & -065

Applicant: Jeff McClain  
Owner: Jeff McClain  
Prepared By: Robert Strange

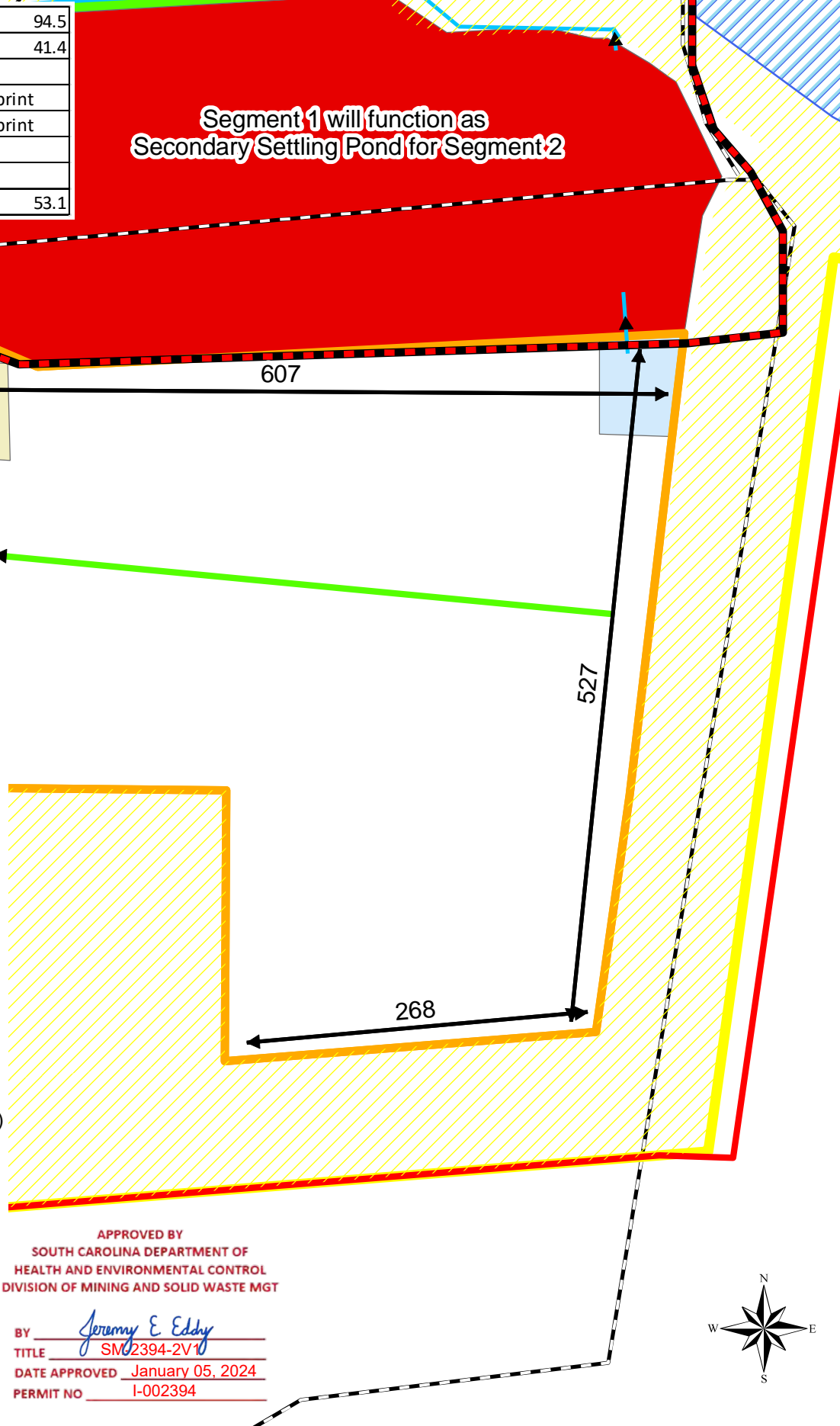


PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1

Segment 1 will function as  
Secondary Settling Pond for Segment 2

**Legend**

- Property Boundary - 92 AC
  - Mine Permit Boundary - 94.5 AC
  - Wetland +/- 19 AC
  - Buffers - 34.1 AC
  - Haul Road - 4 AC
  - Roads
  - Dimensions
  - Direction of Excavation
  - Discharge Path
- Mine Segments**
- Segment 1 - 5 AC (GP1-002322)
  - Segment 2 - 6.2 AC
  - Segment 3 - 3.6 AC
  - Segment 4 - 13.4 AC
  - Segment 5 - 9 AC
  - Office and Parking Area - 0.2 AC
  - Settling Basin
  - Stockpile



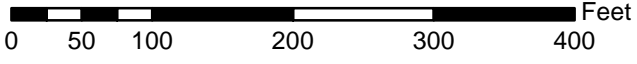
APPROVED BY  
SOUTH CAROLINA DEPARTMENT OF  
HEALTH AND ENVIRONMENTAL CONTROL  
DIVISION OF MINING AND SOLID WASTE MGT

BY Jeremy E Eddy  
TITLE SM 2394-2V1  
DATE APPROVED January 05, 2024  
PERMIT NO I-002394



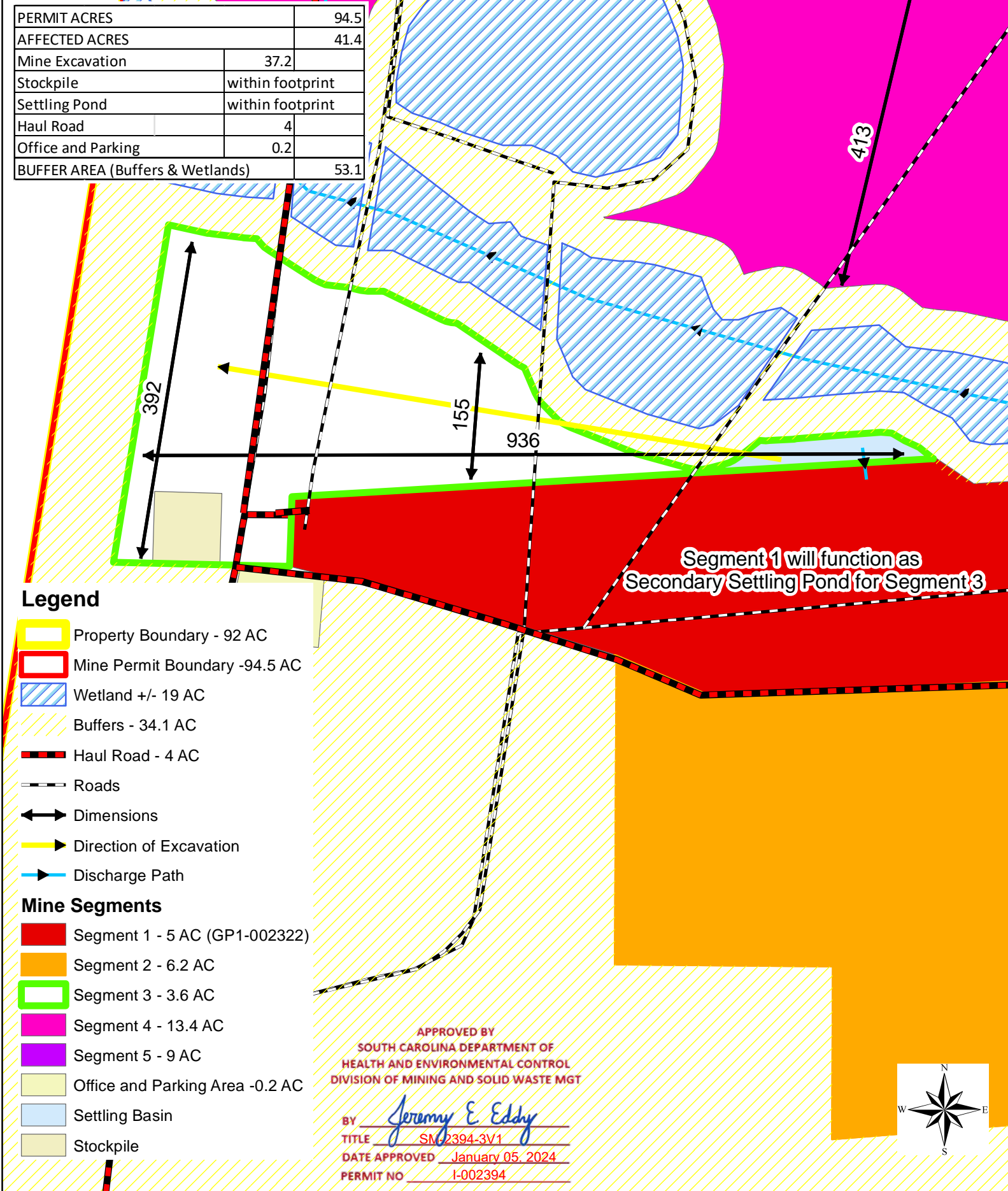
Greentree Land Management, LLC.  
105 Wappoo Creek Drive, Suite 4A  
Charleston, SC 29412  
(843) 830- 5375

**HIGHTHORNE MINE SEGMENT 2 MINE MAP**  
CHARLESTON COUNTY, SC  
TMS # 175-00-00-023 & -065



Applicant: Jeff McClain  
Owner: Jeff McClain  
Prepared By: Robert Strange

PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1



**Legend**

- Property Boundary - 92 AC
  - Mine Permit Boundary -94.5 AC
  - Wetland +/- 19 AC
  - Buffers - 34.1 AC
  - Haul Road - 4 AC
  - Roads
  - Dimensions
  - Direction of Excavation
  - Discharge Path
- Mine Segments**
- Segment 1 - 5 AC (GP1-002322)
  - Segment 2 - 6.2 AC
  - Segment 3 - 3.6 AC
  - Segment 4 - 13.4 AC
  - Segment 5 - 9 AC
  - Office and Parking Area -0.2 AC
  - Settling Basin
  - Stockpile

Segment 1 will function as Secondary Settling Pond for Segment 3

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HEALTH AND ENVIRONMENTAL CONTROL  
DIVISION OF MINING AND SOLID WASTE MGT

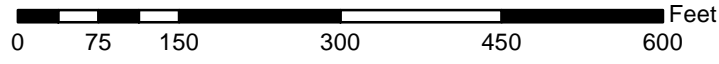
BY Jeremy E. Eddy  
TITLE SM 2394-3V1  
DATE APPROVED January 05, 2024  
PERMIT NO I-002394



**HIGHTHORNE MINE SEGMENT 3 MINE MAP**  
CHARLESTON COUNTY, SC  
TMS # 175-00-00-023 & -065,

Greentree Land Management, LLC.  
105 Wappoo Creek Drive, Suite 4A  
Charleston, SC 29412  
(843) 830- 5375

Applicant: Jeff McClain  
Owner: Jeff McClain  
Prepared By: Robert Strange



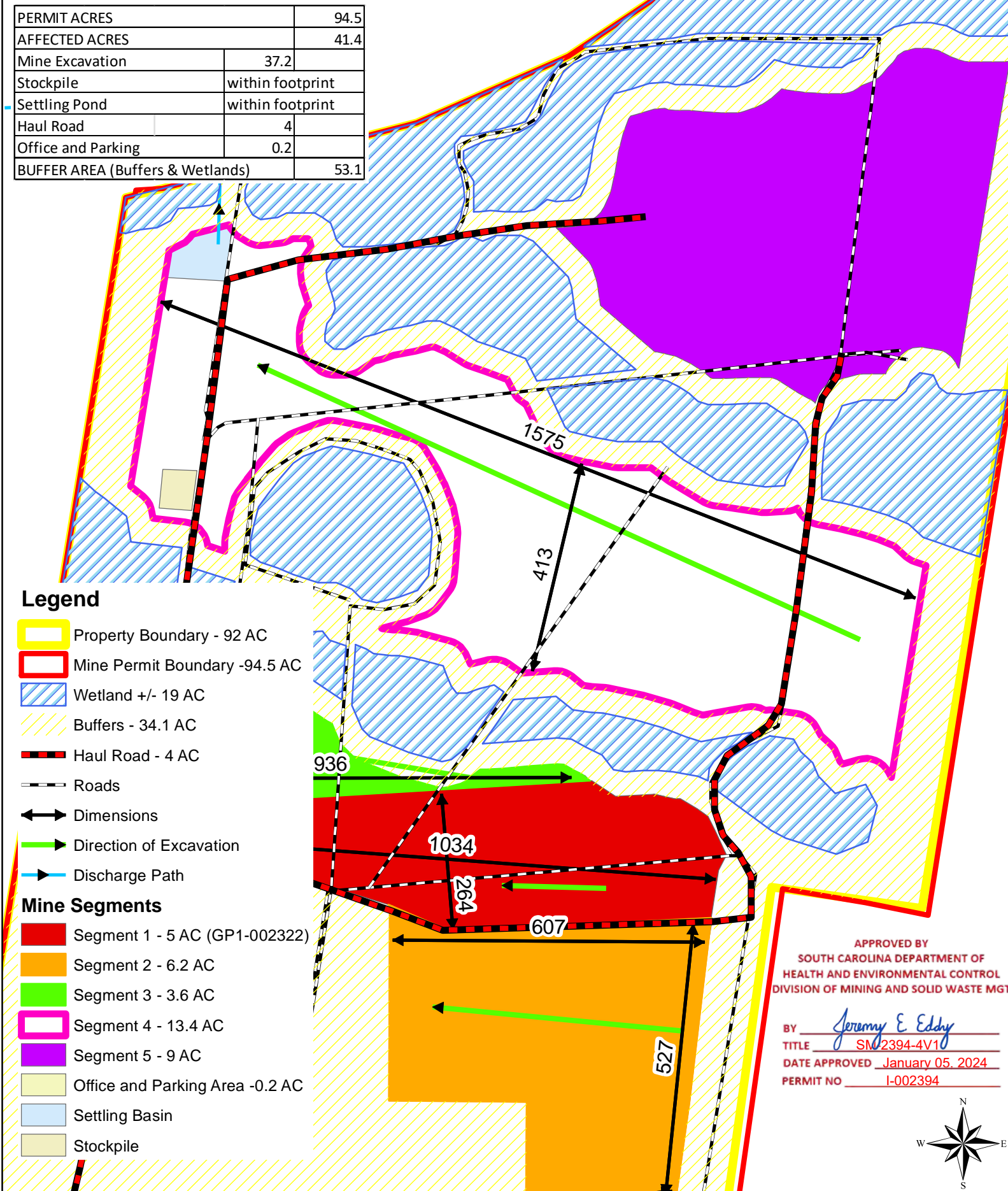
PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1

**Legend**

- Property Boundary - 92 AC
- Mine Permit Boundary -94.5 AC
- Wetland +/- 19 AC
- Buffers - 34.1 AC
- Haul Road - 4 AC
- Roads
- Dimensions
- Direction of Excavation
- Discharge Path

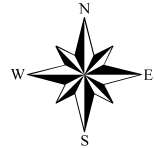
**Mine Segments**

- Segment 1 - 5 AC (GP1-002322)
- Segment 2 - 6.2 AC
- Segment 3 - 3.6 AC
- Segment 4 - 13.4 AC
- Segment 5 - 9 AC
- Office and Parking Area -0.2 AC
- Settling Basin
- Stockpile



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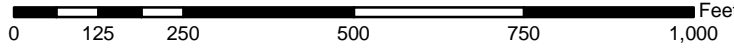
BY Jeremy E. Eddy  
 TITLE SM2394-4V1  
 DATE APPROVED January 05, 2024  
 PERMIT NO I-002394



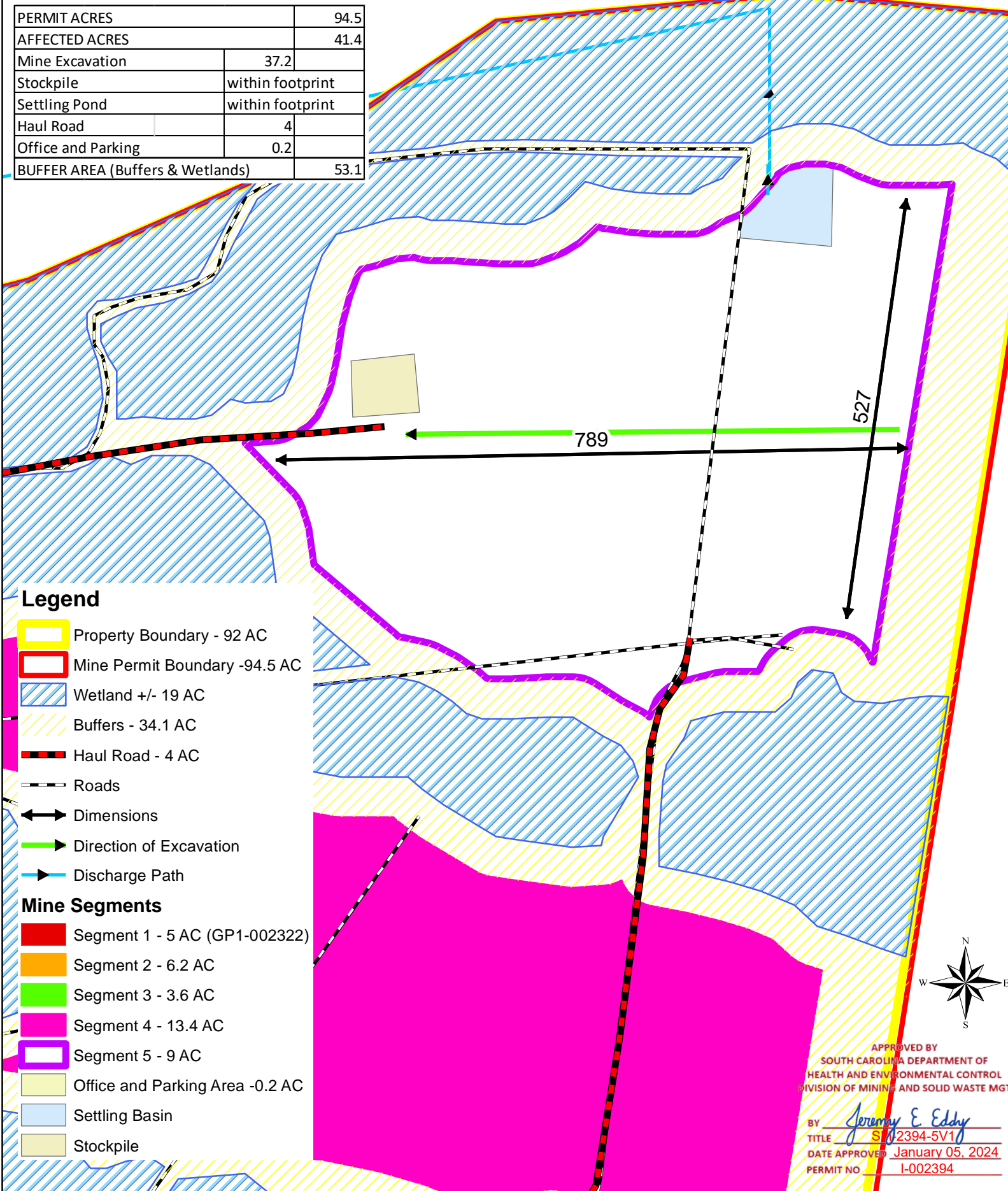
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**HIGHTHORNE MINE SEGMENT 4 MINE MAP**  
 CHARLESTON COUNTY, SC  
 TMS # 175-00-00-023 & -065

Applicant: Jeff McClain  
 Owner: Jeff McClain  
 Prepared By: Robert Strange



PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1



**Legend**

- Property Boundary - 92 AC
  - Mine Permit Boundary -94.5 AC
  - Wetland +/- 19 AC
  - Buffers - 34.1 AC
  - Haul Road - 4 AC
  - Roads
  - Dimensions
  - Direction of Excavation
  - Discharge Path
- Mine Segments**
- Segment 1 - 5 AC (GP1-002322)
  - Segment 2 - 6.2 AC
  - Segment 3 - 3.6 AC
  - Segment 4 - 13.4 AC
  - Segment 5 - 9 AC
  - Office and Parking Area -0.2 AC
  - Settling Basin
  - Stockpile

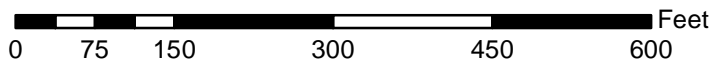
APPROVED BY  
 SOUTH CAROLINA DEPARTMENT OF  
 HEALTH AND ENVIRONMENTAL CONTROL  
 DIVISION OF MINING AND SOLID WASTE MGT

BY *Jeremy E. Eddy*  
 TITLE S 2394-5V1  
 DATE APPROVED January 05, 2024  
 PERMIT NO. I-002394

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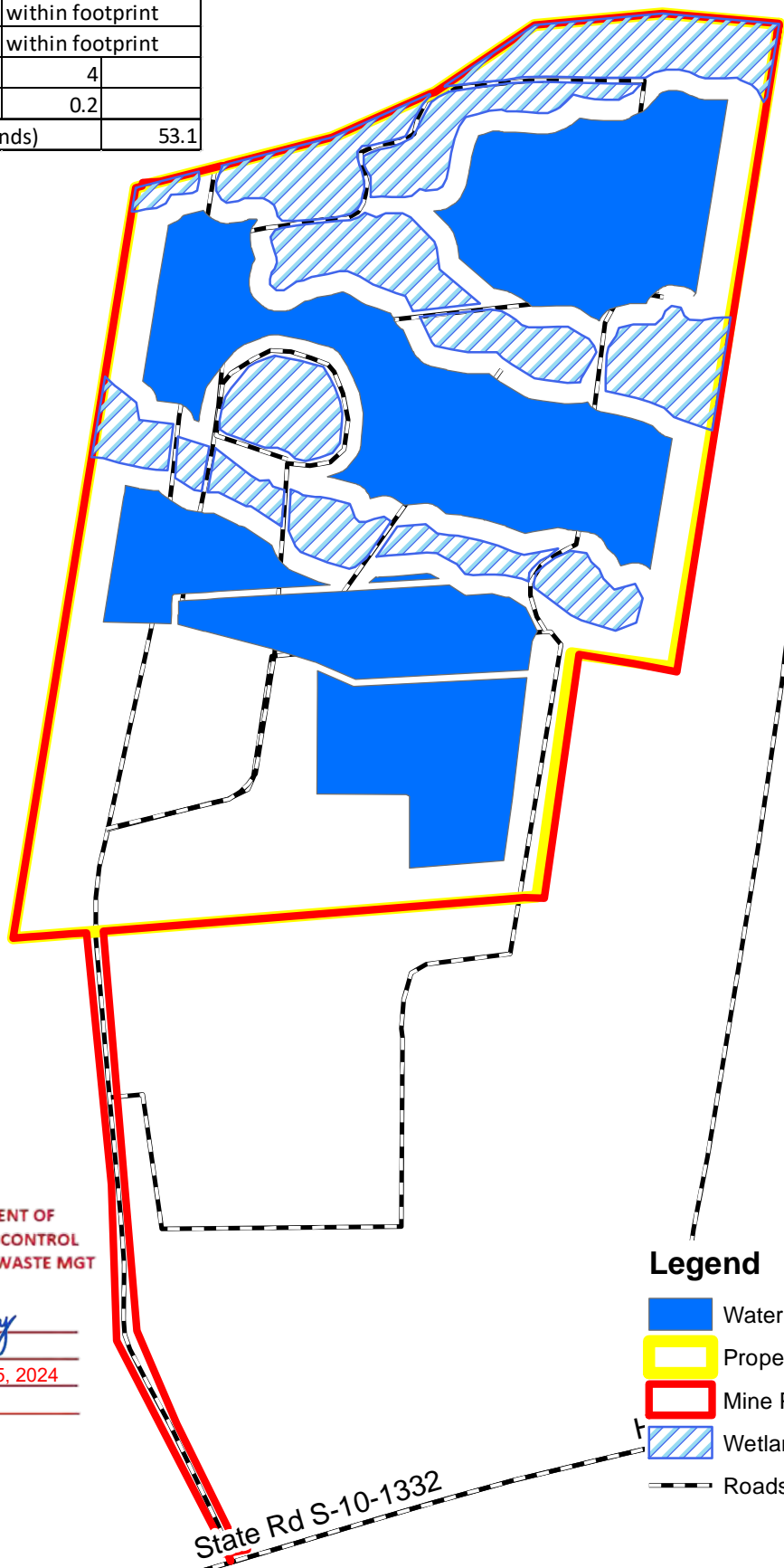
**HIGHTHORNE MINE SEGMENT 5 MINE MAP**  
 CHARLESTON COUNTY, SC  
 TMS # 175-00-00-023 & -065

Applicant: Jeff McClain  
 Owner: Jeff McClain  
 Prepared By: Robert Strange





PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1



APPROVED BY  
 SOUTH CAROLINA DEPARTMENT OF  
 HEALTH AND ENVIRONMENTAL CONTROL  
 DIVISION OF MINING AND SOLID WASTE MGT

BY Jeremy E Eddy  
 TITLE RM 0394-0V1  
 DATE APPROVED January 05, 2024  
 PERMIT NO I-002394



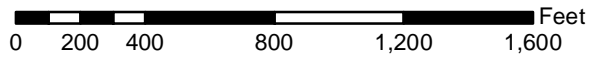
**Legend**

- Water - +/- 40 AC
- Property Boundary - 92 AC
- Mine Permit Boundary - 94.5 AC
- Wetland +/- 19 AC
- Roads

State Rd S-10-1332

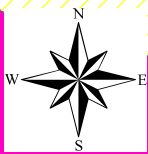
Greentree Land Management, LLC.  
 105 Wappoo Creek Drive, Suite 4A  
 Charleston, SC 29412  
 (843) 830- 5375

**HIGHTHORNE MINE RECLAMATION MAP**  
 CHARLESTON COUNTY, SC  
 TMS # 175-00-00-023 & -065



Applicant: Jeff McClain  
 Owner: Jeff McClain  
 Prepared By: Robert Strange

PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1

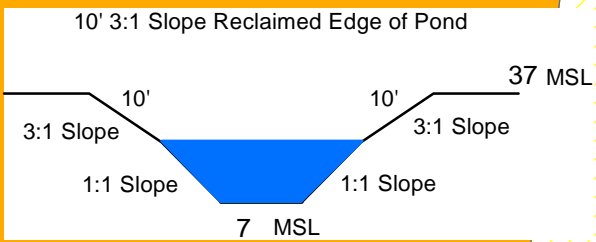


**Legend**

- Property Boundary - 92 AC
- Mine Permit Boundary - 94.5 AC
- Wetland +/- 19 AC
- Buffers - 34.1 AC
- Haul Road - 4 AC
- Roads
- Discharge Path

**Mine Segments**

- Segment 1 - 5 AC (GP1-002322)
- Segment 2 - 6.2 AC
- Segment 3 - 3.6 AC
- Segment 4 - 13.4 AC
- Segment 5 - 9 AC
- Office and Parking Area - 0.2 AC
- Water - 4.5 AC



APPROVED BY  
SOUTH CAROLINA DEPARTMENT OF  
HEALTH AND ENVIRONMENTAL CONTROL  
DIVISION OF MINING AND SOLID WASTE MGT

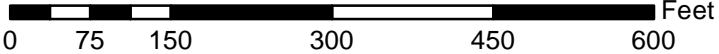
BY Jeremy E. Eddy  
TITLE RM-2394-1V1  
DATE APPROVED January 05, 2024  
PERMIT NO I-002394

**HIGHTHORNE MINE - SEGMENT 1 RECLAMATION MAP**

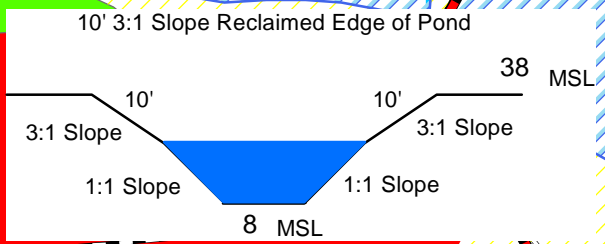
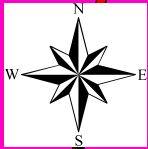
Greentree Land Management, LLC.  
105 Wappoo Creek Drive, Suite 4A  
Charleston, SC 29412  
(843) 830- 5375

CHARLESTON COUNTY, SC  
TMS # 175-00-00-023 & -065

Applicant: Jeff McClain  
Owner: Jeff McClain  
Prepared By: Robert Strange



PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1



**Legend**

- Property Boundary - 92 AC
- Mine Permit Boundary - 94.5 AC
- Wetland +/- 19 AC
- Buffers - 34.1 AC
- Haul Road - 4 AC
- Roads
- Discharge Path

**Mine Segments**

- Segment 1 - 5 AC (GP1-002322)
- Segment 2 - 6.2 AC
- Segment 3 - 3.6 AC
- Segment 4 - 13.4 AC
- Segment 5 - 9 AC
- Office and Parking Area - 0.2 AC
- Water - 5.6 AC

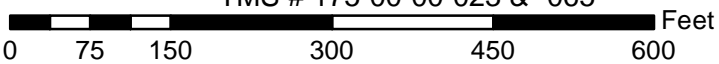
APPROVED BY  
 SOUTH CAROLINA DEPARTMENT OF  
 HEALTH AND ENVIRONMENTAL CONTROL  
 DIVISION OF MINING AND SOLID WASTE MGT

BY Jeremy E Eddy  
 TITLE RM 2394-2V1  
 DATE APPROVED January 05, 2024  
 PERMIT NO I-002394

**HIGHTHORNE MINE - SEGMENT 2 RECLAMATION MAP**

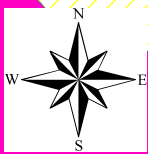
CHARLESTON COUNTY, SC  
 TMS # 175-00-00-023 & -065

Greentree Land Management, LLC.  
 105 Wappoo Creek Drive, Suite 4A  
 Charleston, SC 29412  
 (843) 830- 5375



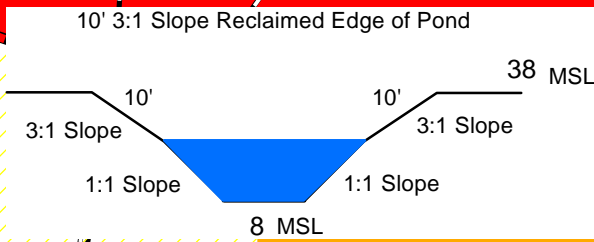
Applicant: Jeff McClain  
 Owner: Jeff McClain  
 Prepared By: Robert Strange

PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1



**Legend**

- Property Boundary - 92 AC
  - Mine Permit Boundary - 94.5 AC
  - Wetland +/- 19 AC
  - Buffers - 34.1 AC
  - Haul Road - 4 AC
  - Roads
  - Discharge Path
- Mine Segments**
- Segment 1 - 5 AC (GP1-002322)
  - Segment 2 - 6.2 AC
  - Segment 3 - 3.6 AC
  - Segment 4 - 13.4 AC
  - Segment 5 - 9 AC
  - Office and Parking Area - 0.2 AC
  - Water - 3 AC

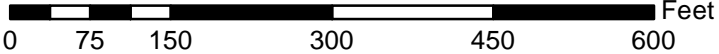


APPROVED BY  
 SOUTH CAROLINA DEPARTMENT OF  
 HEALTH AND ENVIRONMENTAL CONTROL  
 DIVISION OF MINING AND SOLID WASTE MGT

BY Jeremy E. Eddy  
 TITLE RM 2394-3V1  
 DATE APPROVED January 05, 2024  
 PERMIT NO I-002394

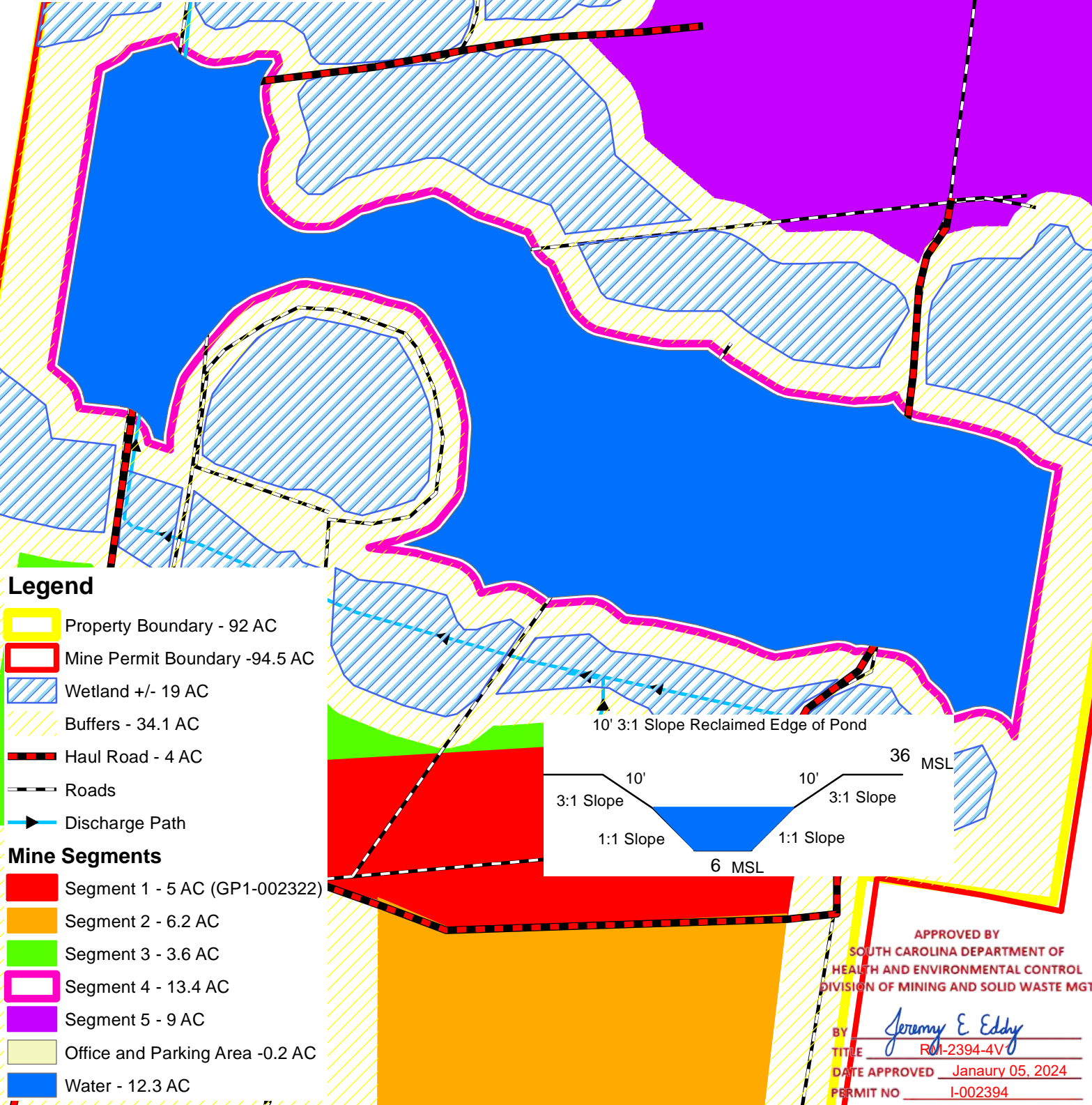
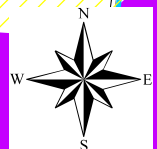
**HIGHTHORNE MINE - SEGMENT 3 RECLAMATION MAP**  
 CHARLESTON COUNTY, SC  
 TMS # 175-00-00-023 & -065

Greentree Land Management, LLC.  
 105 Wappoo Creek Drive, Suite 4A  
 Charleston, SC 29412  
 (843) 830- 5375



Applicant: Jeff McClain  
 Owner: Jeff McClain  
 Prepared By: Robert Strange

PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1



**Legend**

- Property Boundary - 92 AC
- Mine Permit Boundary - 94.5 AC
- Wetland +/- 19 AC
- Buffers - 34.1 AC
- Haul Road - 4 AC
- Roads
- ▶ Discharge Path

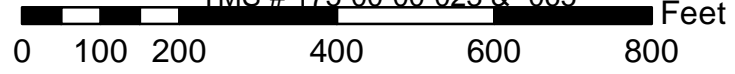
**Mine Segments**

- Segment 1 - 5 AC (GP1-002322)
- Segment 2 - 6.2 AC
- Segment 3 - 3.6 AC
- Segment 4 - 13.4 AC
- Segment 5 - 9 AC
- Office and Parking Area - 0.2 AC
- Water - 12.3 AC

APPROVED BY  
SOUTH CAROLINA DEPARTMENT OF  
HEALTH AND ENVIRONMENTAL CONTROL  
DIVISION OF MINING AND SOLID WASTE MGT

BY Jeremy E Eddy  
TITLE RM-2394-4V  
DATE APPROVED January 05, 2024  
PERMIT NO I-002394

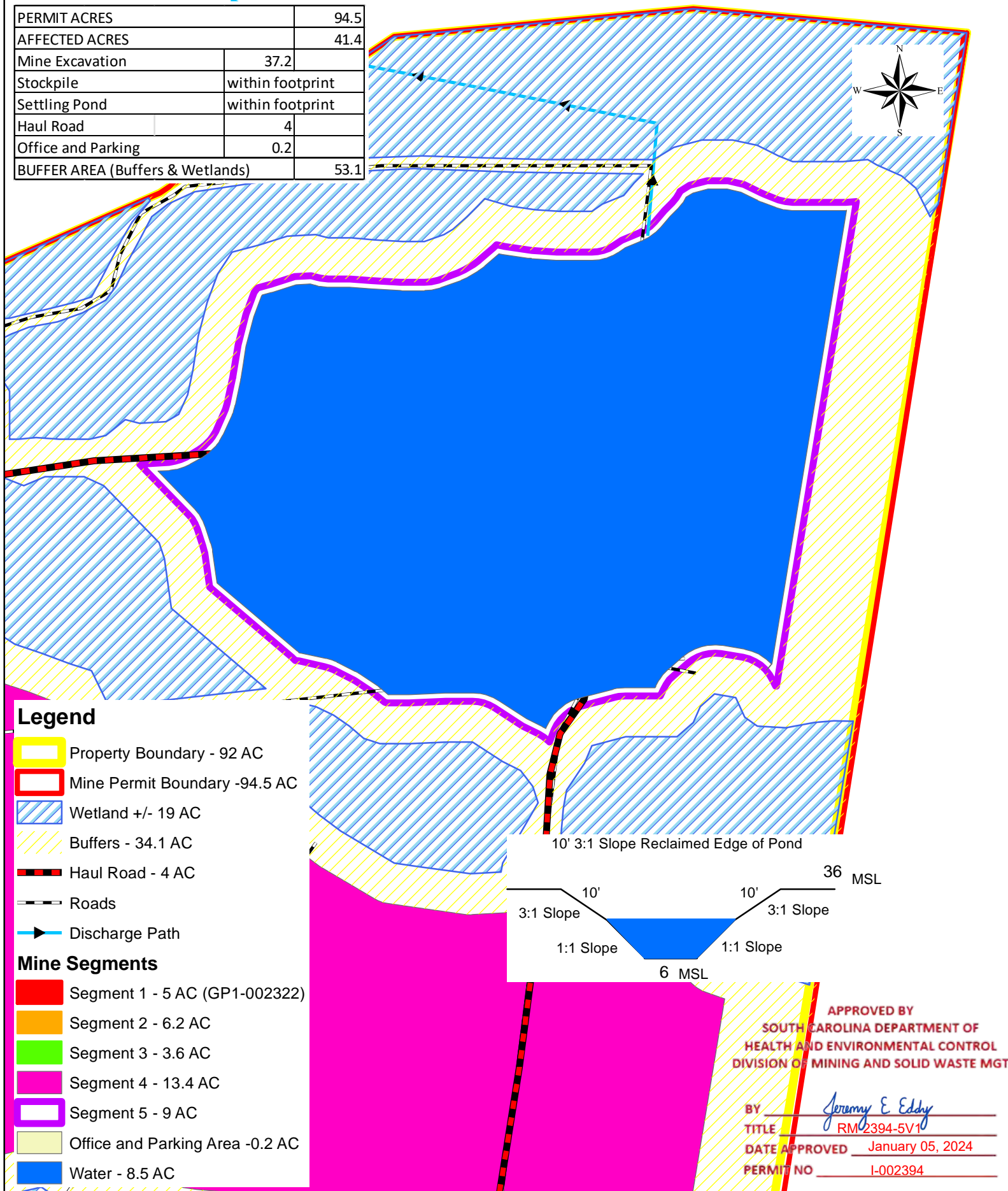
**HIGHTHORNE MINE - SEGMENT 4 RECLAMATION MAP**  
CHARLESTON COUNTY, SC  
TMS # 175-00-00-023 & -065



Greentree Land Management, LLC.  
105 Wappoo Creek Drive, Suite 4A  
Charleston, SC 29412  
(843) 830- 5375

Applicant: Jeff McClain  
Owner: Jeff McClain  
Prepared By: Robert Strange

PERMIT ACRES	94.5
AFFECTED ACRES	41.4
Mine Excavation	37.2
Stockpile	within footprint
Settling Pond	within footprint
Haul Road	4
Office and Parking	0.2
BUFFER AREA (Buffers & Wetlands)	53.1

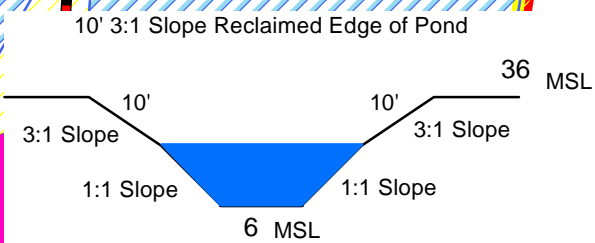


**Legend**

- Property Boundary - 92 AC
- Mine Permit Boundary - 94.5 AC
- Wetland +/- 19 AC
- Buffers - 34.1 AC
- Haul Road - 4 AC
- Roads
- Discharge Path

**Mine Segments**

- Segment 1 - 5 AC (GP1-002322)
- Segment 2 - 6.2 AC
- Segment 3 - 3.6 AC
- Segment 4 - 13.4 AC
- Segment 5 - 9 AC
- Office and Parking Area - 0.2 AC
- Water - 8.5 AC

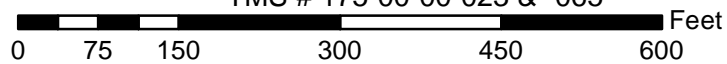


**APPROVED BY**  
**SOUTH CAROLINA DEPARTMENT OF**  
**HEALTH AND ENVIRONMENTAL CONTROL**  
**DIVISION OF MINING AND SOLID WASTE MGT**

BY Jeremy E. Eddy  
 TITLE RM 2394-5V1  
 DATE APPROVED January 05, 2024  
 PERMIT NO I-002394

Greentree Land Management, LLC.  
 105 Wappoo Creek Drive, Suite 4A  
 Charleston, SC 29412  
 (843) 830- 5375

**HIGHTHORNE MINE - SEGMENT 5 RECLAMATION MAP**  
**CHARLESTON COUNTY, SC**  
**TMS # 175-00-00-023 & -065**



Applicant: Jeff McClain  
 Owner: Jeff McClain  
 Prepared By: Robert Strange

# MR-500 Reclamation Plan for an Individual Mine Operating Permit

## Environmental Protection

---

### **Describe practices to protect adjacent resources such as roads, wildlife areas, woodland, cropland and others during mining and reclamation.**

The woodlands on the upland areas of the property that will be clearcut. The majority of the surrounding properties are undeveloped forested tracts that give the wildlife many places to move to if mining displaces them temporarily. Road use is permitted by SCDOT and enforced readily, so no negative effects will occur to any surrounding roads.

### **Describe proposed methods to limit significant adverse effects on adjacent surface water and groundwater resources.**

Surface water and ground water resources will be protected via best management practices as described in the NPDES permit. Water will be collected and allowed to settle within the footprint of the mine before being discharged into an adjacent wetland. Water testing will occur on a monthly basis to ensure TSS and PH are within allowable limits.

### **Describe method to prevent or eliminate conditions that could be hazardous to animal or fish life in or adjacent to the permitted area.**

PH will be monitored within the mine pit and discharge water, but currently there is no fish life within any wetlands on the property that could be impacted. Clearing of the property will take some time, allowing any animals in the upland affected area to move to an undisturbed area.

### **Describe how applicant will comply with State air quality and water quality standards as established by the S.C. Department of Health and Environmental Control.**

The applicant will meet the air and water quality standards by following the best management practices within the permitted area. Water trucks will keep the dust down during dry periods and water quality will be regularly tested to ensure that the discharge is within the allowable limits of the NPDES on file.

## Reclamation of Affected Area

---

### **State useful purpose(s) the affected land is being proposed for reclamation.**

Lake or Pond  
Grassland  
Recreation

### **Feasibility Documentation Attachment**

NONE PROVIDED

#### **Comment**

NONE PROVIDED

### **Will the final maximum surface gradient (slope) in soil, sand, or other unconsolidated materials be steeper than 3 Horizontal : 1 Vertical (18 degrees or 33 percent)?**

No

### **How will the final slopes in unconsolidated material be accomplished?**

The slopes will be dug to a maximum of 3H:1V slop during mining. Stripped topsoil and off-site "muck" will be used to top-dress the material to ensure that grasses and vegetation will grow on the slopes to stabilize it.

**i** If the slope will be by backfilling, demonstrate that there is adequate material to accomplish the stated final gradient. If gradient is to be achieved by bringing in material from outside the permitted area, state the nature of the material and approximate quantities. If the gradient is to be achieved by grading, show that there is adequate area for grading to achieve gradient (i.e., adequate distance between the property line and edge of highwall).

## **Final slopes calculations or other supporting information attachment(s)**

[Highthorne Mine IP Segment 2 Reclamation Map.pdf - 01/30/2023 08:13 PM](#)

[Highthorne Mine IP Reclamation Map.pdf - 01/30/2023 08:13 PM](#)

[Highthorne Mine IP Segment 1 Reclamation Map.pdf - 01/30/2023 08:13 PM](#)

[Highthorne Mine IP Segment 5 Reclamation Map.pdf - 01/30/2023 08:13 PM](#)

[Highthorne Mine IP Segment 3 Reclamation Map.pdf - 01/30/2023 08:13 PM](#)

[Highthorne Mine IP Segment 4 Reclamation Map.pdf - 01/30/2023 08:13 PM](#)

### **Comment**

Mine will either be dug to a 3:1 slope as it is excavated or rebuilt using topsoil and overburden brought back into the pit from other jobs, also known as "muck".

## **Describe the plan for revegetation or other surface treatment of affected area(s). The revegetation plan shall include but not be limited to the following: (a) planned soil test; (b) site preparation and fertilization; (c) seed or plant selection; (d) rate of seeding or amount of planting per acre; (e) maintenance.**

The slopes will be allowed to naturally revegetate with native species. If there are problematic areas of erosion, the erosion will be corrected then the area will be planted and either a slope-drain or erosion control mats put in place while the area stabilizes. If needed, a combination of native warm-season or cool-season grasses as well as Japanese millet will be planted to ensure quick germination while also providing a food source for wildlife.

## **Does the possibility exist for (a) acid rock drainage; (b) where the National Pollutant Discharge Elimination Systems (NPDES) Permit has discharge limitation parameters other than pH and Total Suspended Solids (TSS); (c) chemically treated tailings or stockpiles (excludes fertilizer or lime for revegetation purposes)?**

No

## **Describe the methods to control contaminants and permanently dispose any mine waste. This includes any soil, rock (overburden), mineral, scrap, tailings, fines, slimes, or other material directly connected with the mining, cleaning, and preparation of mineral substances mined. It also includes all waste material deposited on or in the permit area from any source.**

There is no processing taking place so there should be no contaminants from the site. A spill kit will be located on site in the event of a fuel or hydraulic oil spill. Monthly water quality testing will take place to ensure that the discharge meets all NPDES requirements.

## **Describe the method of reclaiming settling and/or sediment ponds.**

The settling/sediment pond is located within the footprint of the mine, so it will be reclaimed with the mine once resource extraction is completed.

## **Describe the method of restoring or establishing stream channels, stream banks, and site drainage to a condition to minimize erosion, siltation, and other pollution.**

There are no streams within or adjacent to the proposed mine area.

## **What are the maintenance plans to insure that the reclamation practices established on the affected land will not deteriorate before released by the Department?**

The applicant is bound by SCDHEC's bond and the NPDES permit to maintain the slopes and practice best management practices until at which time they deem the mine can be released. It is in the best interests of the applicant to maintain these slopes as the property will be developed once mining ceases.

## **For final reclamation, submit information about practices to provide for safety to persons and to adjoining property in all excavations. Identify areas of potential danger (vertical walls, unstable slopes, unstable surface on clay slimes, etc.) and provide appropriate safety provisions.**

The mine will be buffered from adjacent properties and a fence will be placed around the property to ensure nobody accesses the property unless they are supposed to be there. The applicant will dig the mine to a 3H:1V slope as they go to ensure there are no cliffs or other safety issues at hand. Visitors will sign in and out when coming and going from the mine.

## **What provisions will be taken to prevent noxious, odorous, or foul pools of water from collecting and remaining on the mined area? For mines to be reclaimed as lakes or ponds, provide supporting information that a minimum water depth of four (4) feet on at least fifty percent (50%) of the pond surface area can be maintained.**

There are various other mines in the area that do not have any issues with noxious or odor water. Enough water is moving through the system from surface water, precipitation, and groundwater to not stagnate. The water table sits at approximately 4-5' in elevation, so the anticipated mine depth is 35', so there should be plenty of water of the 4' deep threshold.



**Identify any structures (e.g. buildings, roads) that are proposed to remain as part of final reclamation. Provide justification for leaving any structures.**

No structures will remain after the reclamation has been deemed complete.

**Attach a copy of a map of the area (referred to as the RECLAMATION MAP) that shows the reclamation practices and conservation practices to be implemented. The following should be shown (A through P - see below):**

[Highthorne Mine IP Reclamation Map.pdf - 01/30/2023 07:51 PM](#)

[Highthorne Mine IP Segment 5 Reclamation Map.pdf - 01/30/2023 07:51 PM](#)

[Highthorne Mine IP Segment 4 Reclamation Map.pdf - 01/30/2023 07:51 PM](#)

[Highthorne Mine IP Segment 2 Reclamation Map.pdf - 01/30/2023 07:51 PM](#)

[Highthorne Mine IP Segment 3 Reclamation Map.pdf - 01/30/2023 07:51 PM](#)

[Highthorne Mine IP Segment 1 Reclamation Map.pdf - 01/30/2023 07:51 PM](#)

**Comment**

NONE PROVIDED

- A. The outline of the proposed final limits of the excavation during the number of years for which the permit is requested.
- B. The approximate final surface gradient(s) and contour(s) of the area to be reclaimed. This would include the sides and bottoms of mines reclaimed ponds and lakes.
- C. The outline of the tailings disposal area.
- D. The outline of disposal areas for spoil and refuse (exclusive of tailings ponds).
- E. The approximate location of the mean shore line of any impoundment or water body and inlet and/or outlet structures which will remain upon final reclamation.
- F. The approximate locations of access roads, haul roads, ramps or buildings which will remain upon final reclamation.
- G. The approximate locations of various vegetative treatments.
- H. The proposed locations of re-established streams, ditches or drainage channels to provide for site drainage.
- I. The proposed locations of diversions, terraces, silt fences, brush barriers or other Best Management Practices to be used for preventing or controlling erosion and off-site siltation.
- J. Proposed locations of the measures to provide safety to persons and adjoining property.
- K. Segments of the mine that can be mined and reclaimed as an ongoing basis.
- L. The boundaries of the permitted area.
- M. The boundaries of the affected area for the anticipated life of the mine.
- N. The boundaries of the 100-year floodplain, where appropriate.
- O. Identify sections of mine where the final surface gradient will be achieved by grading and/or backfilling.
- P. A legend showing the name of the applicant, the name of the proposed mine, the north arrow, the county, the scale, the date of preparation and the name and title of the person who prepared the map.

THE REQUIRED RECLAMATION 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. RECLAMATION MAP SHOULD BE THE SAME SCALE USED FOR THE SITE MAP.

## Schedule for Implementation of Conservation and Reclamation Practices

As stated in Section 48-20-90 of the S.C. Mining Act, reclamation activities, to the extent feasible, must be conducted simultaneously with mining operations. Identify which areas or segments of the mine are not feasible to reclaim simultaneously with mining. Provide reasons why reclamation can not proceed simultaneously with mining in these areas.

Reclamation can occur simultaneously in all segments as they are mined.

### Schedule for Implementing Conservation and Reclamation Practices

Conservation & Reclamation Practices	Segment # or Area	Planned Amount	Planned Year	*Applied Amount	*Applied Year	Notes
Establish Mine Areas and Flag Buffer Area	PA	NONE PROVIDED	NONE PROVIDED			See Note 2, maintain LOM
Install survey control markers and clear mine area if necessary	PA	NONE PROVIDED	NONE PROVIDED			See note 1, maintain LOM
Post Warning Signs	PA	NONE PROVIDED	NONE PROVIDED			Maintain LOM
Install Stormwater BMPS; maintain sediment basin	AA	NONE PROVIDED	NONE PROVIDED			See note 3, maintain LOM
Maintain haul roads, gate	AA	NONE PROVIDED	NONE PROVIDED			Maintain LOM
Excavate rim ditch/dewater	by segment	NONE PROVIDED	NONE PROVIDED			constructed as needed when segments are opened
Clear/stockpile topsoil	1	5	2022			See Note 4
Remove/stockpile overburden	1	0.2	2022			See Note 5
Excavate/grade outer slopes	1	5	2022-2023			See note 6
Clear/Stockpile topsoil	2	6.2	2023			See Note 4
Remove/Stockpile Overburden	2	0.2	2023			See Note 5
Topsoil/Fertilize/seed final slopes	1	0.5	2023			See Note 7
Excavate/Grade outer slopes	2	6.2	2023			See Note 6
Inspect, repair, maintain	1	5	2023-release			See Note 8
Clear/Stockpile topsoil	3	3.6	2023-24			See Note 4
Remove/Stockpile overburden	3	0.2	2023-24			See Note 5
Topsoil/Seed final slopes	2	0.6	2023			See Note 7
Excavate/grade outer slopes	3	3.6	2023-24			See note 6
Inspect, repair, maintain	2	6.2	2024-release			see note 8
clear/stockpile topsoil	4	13.4	2025			See Note 4

<b>Conservation &amp; Reclamation Practices</b>	<b>Segment # or Area</b>	<b>Planned Amount</b>	<b>Planned Year</b>	<b>*Applied Amount</b>	<b>*Applied Year</b>	<b>Notes</b>
remove/stockpile overburden	4	0.2	2025			See note 5
Topsoil/Seed Final Slopes	3	0.6	2025			See Note 7
Excavate/Grade outer slopes	4	13.4	2025-27			See note 6
Inspect, repair, maintain	3	3.6	2025-release			See Note 8
Clear/Stockpile Topsoil	5	9	2027			See note 4
Remove/stockpile overburden	5	0.2	2027			See note 5
Topsoil, fertilize, seed final slopes	4	0.9	2028			See note 7
Excavate/ Grade outer slopes	5	9	2027-2030			See note 6
Inspect, repair, maintain	4	13.4	2028-release			See Note 8
Topsoil, fertilize, seed final slopes	5	0.5	2030			See Note 7
Inspect, repair, maintain	5	9	2030-release			See Note 8

① \*Applied fields to be completed by department

**Encroachment Permit Hyde Park Mine**

5 messages

**Robert Strange** <rstrange@greentrelandmanagement.com>

Fri, Feb 3, 2023 at 11:14 AM

To: "Clark, Wayne E." &lt;ClarkWE@scdot.org&gt;, "Tumboli, Catherine" &lt;TumboliC@scdot.org&gt;

Mr. Clark, I took over management of a mine off of Hyde Park road on Charleston County TMS 175-00-00-023 and we are expanding it to -065 as well. Previously, Mr. Canaday said an encroachment permit was not required for the site as the access is down Highthorne Road. Is this still the case? I have attached an old correspondence with Mr. Canaday and my former employer who managed this, as well as updated mine maps for the pending individual mine permit. Charleston County Planning and Zoning will either need an encroachment permit or proof of correspondence with SCDOT for the mine expansion plans.

Thanks,  
Robert Strange

--

**Robert Strange, SCRF#1931**

Principal &amp; Realtor

Greentree Land Management, LLC.

Forestry | Environmental Services | Land Sales | GIS

[www.greentrelandmanagement.com](http://www.greentrelandmanagement.com)

105 Wappoo Creek Drive Suite 4A

Charleston, SC 29412

(m) 843.830.5375

(o) 843.723.7849

**2 attachments** **Encroachment Permit Not Required.pdf**  
752K **Highthorne Mine IP Mine Segment Map TC.pdf**  
1115K**Robert Strange** <rstrange@greentrelandmanagement.com>

Wed, Feb 8, 2023 at 12:19 PM

To: "Clark, Wayne E." &lt;ClarkWE@scdot.org&gt;, "Tumboli, Catherine" &lt;TumboliC@scdot.org&gt;

Mr. Clark,  
I just wanted to follow up on my email about the Hyde Park encroachment. Thank you,  
Robert Strange  
[Quoted text hidden]

**Clark, Wayne E.** <ClarkWE@scdot.org>

Fri, Feb 10, 2023 at 9:54 AM

To: Robert Strange &lt;rstrange@greentrelandmanagement.com&gt;, "Tumboli, Catherine" &lt;TumboliC@scdot.org&gt;

Robert:

So, the entrance way stays the same? If there is no work going on in the SCDOT Right of Way (R/W) then there should not be an issue. If you are doing work again in the R/W then you may need an Extension or a new Permit depending on what type of work is being performed in the R/W.

Should you have any questions and or concerns, feel free to contact me.

Regards,

Wayne E. Clark

Charleston County

Encroachment Permit Manager

[clarkwe@scdot.org](mailto:clarkwe@scdot.org)

Office Phone: (843)745-7454

**From:** Robert Strange <rstrange@greentrelandmanagement.com>**Sent:** Wednesday, February 8, 2023 12:19 PM**To:** Clark, Wayne E. <ClarkWE@scdot.org>; Tumboli, Catherine <TumboliC@scdot.org>**Subject:** Re: Encroachment Permit Hyde Park Mine

\*\*\* This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source. \*\*\*

[Quoted text hidden]

**Robert Strange** <rstrange@greentreeandmanagement.com>  
To: "Clark, Wayne E." <ClarkWE@scdot.org>  
Cc: "Tumboli, Catherine" <TumboliC@scdot.org>

Fri, Feb 10, 2023 at 10:51 AM

No work is occurring in the ROW, we are using the same driveway , just changing the amount of mining acreage, traffic is not expected to differ from what is already occurring either.  
Thanks,  
Robert Strange  
[Quoted text hidden]

---

**Clark, Wayne E.** <ClarkWE@scdot.org>  
To: Robert Strange <rstrange@greentreeandmanagement.com>

Fri, Feb 10, 2023 at 1:13 PM

Robert:

If there is no work in The R/W there is no Permit needed.

Let me know if you have any questions and or concerns.

[Quoted text hidden]



JD Collins &lt;jcollins@sabinc.net&gt;

**McLain Mine Encroachment**

2 messages

**JD Collins** <jcollins@sabinc.net>  
To: "Canaday, Steven L." <canadaysl@scdot.org>

Thu, Sep 30, 2021 at 2:26 PM

Steve,

Can you please verify that based on our previous discussions and site plan, we do not need to acquire an encroachment permit for the mining activities? Thanks!

Thanks,



**J.D. Collins, Associate Wildlife Biologist@  
Ecologist**

**Sabine & Waters, Inc.**

Forestry | Environmental Service | Stormwater Monitoring | Land Sales | GIS  
311 N. Magnolia St., Summerville, SC 29483

(o) 843.871.5383 (m) 843.991.0966 (f) 843.871.2050

[Website](#) | [Email](#) | [Instagram](#) | [Facebook](#)

**Canaday, Steven L.** <CanadaySL@scdot.org>  
To: JD Collins <jcollins@sabinc.net>

Thu, Sep 30, 2021 at 2:33 PM

JD,

I do not see any major issues with using the existing driveway and therefore an encroachment permit is not needed at this time.

Thanks,

Steven

**From:** JD Collins <jcollins@sabinc.net>  
**Sent:** Thursday, September 30, 2021 2:26 PM  
**To:** Canaday, Steven L. <CanadaySL@scdot.org>  
**Subject:** McLain Mine Encroachment

\*\*\* This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from

a trusted source. \*\*\*

Steve,

Can you please verify that based on our previous discussions and site plan, we do not need to acquire an encroachment permit for the mining activities? Thanks!

Thanks,

**J.D. Collins, Associate Wildlife Biologist®  
Ecologist**

**Sabine & Waters, Inc.**

Forestry | Environmental Service | Stormwater Monitoring | Land Sales | GIS

311 N. Magnolia St., Summerville, SC 29483

(o) 843.871.5383 (m) 843.991.0966 (f) 843.871.2050

[Website](#) | [Email](#) | [Instagram](#) | [Facebook](#)

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April 17, 2023

Robert Strange  
Greentree Land Management LLC  
105 Wappoo Creek Drive  
Charleston, SC 29412

RE: Minor Modification to NPDES General Permit No. SCG731576  
JEFF MCLAIN/HIGHTHORNE MINE  
Formerly (JEFF MCLAIN/HYDE PARK GP1 MINE)  
Charleston County

Dear Robert Strange:

The South Carolina Department of Health and Environmental Control has made a minor modification to the NPDES General Permit issued to the above-referenced facility to reflect a name change and increase the permitted acreage to 41.4 acres.

The effective date of the modification is April 17, 2023.

In addition to this NPDES general permit coverage, other permits may apply. Mines, other than borrow pits for SC DOT projects, are required to have a mine operating permit. Prior to implementing these changes to your NPDES general permit coverage, you may be required to request to modify your mine operating permit. Mine operating permits are issued through the Division of Mining and Solid Waste Management in the Bureau of Land and Waste Management. If you have questions concerning the mine operating permit process, contact Mr. Jeremy Eddy at (803) 898-7609.

If you have any questions, please contact Brett M Caswell at 803-898-4396.

Sincerely,

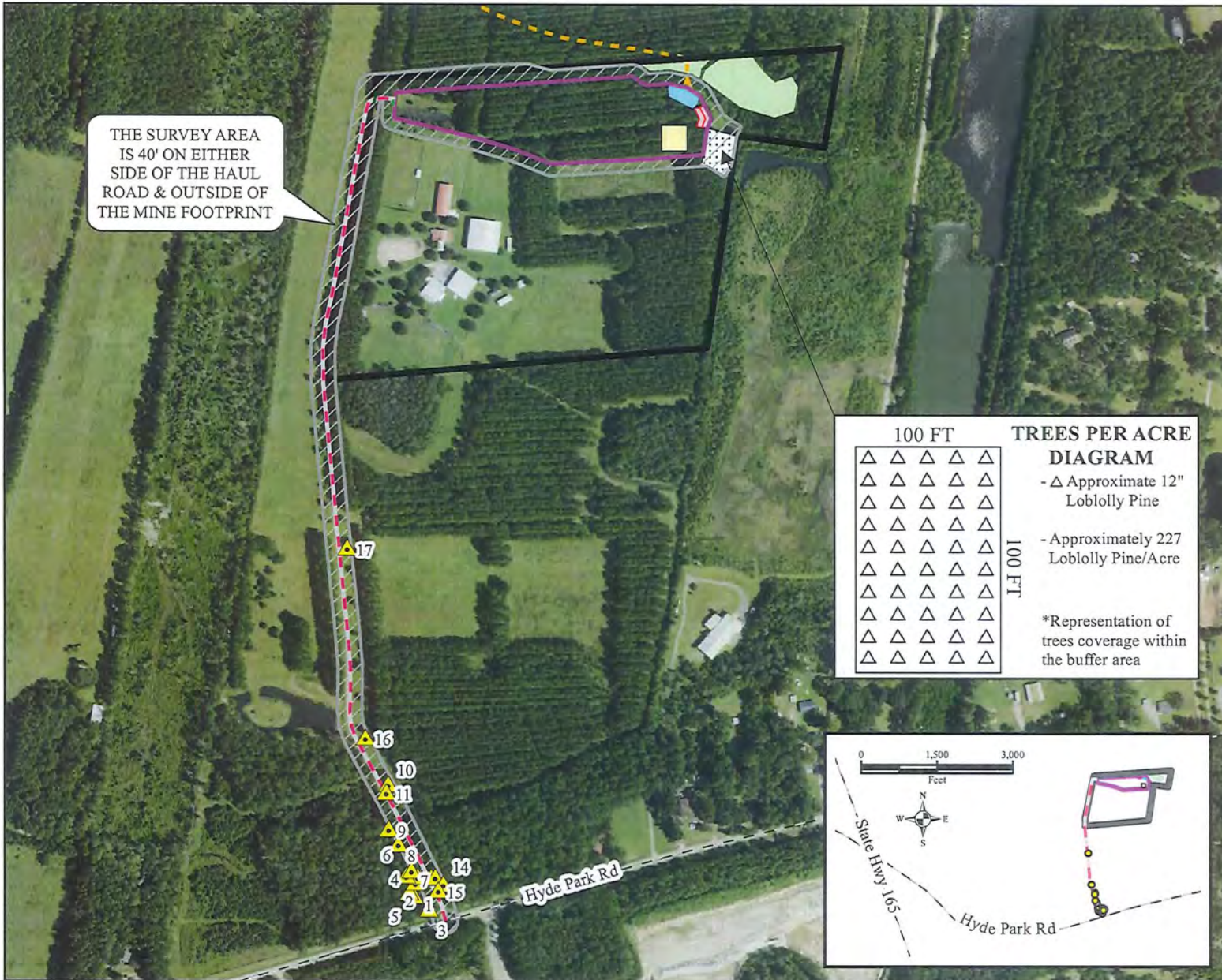
A handwritten signature in black ink that reads 'Patty Barnes'.

Patty Barnes  
NPDES Administration

e-mail: Wendy Boswell, Lowcountry EA Charleston  
CHARLESTON EQC LAB  
Kristian S Tucker, BOW/WPC Enforcement  
Brett M Caswell, Industrial Section Permit Engineer  
Jeremy Eddy, Mining/Reclamation Division, BLWM

Mine Permit Application No.: I-002394





**TREE SURVEY**

**APPLICANT:  
MCLAIN, JEFF**

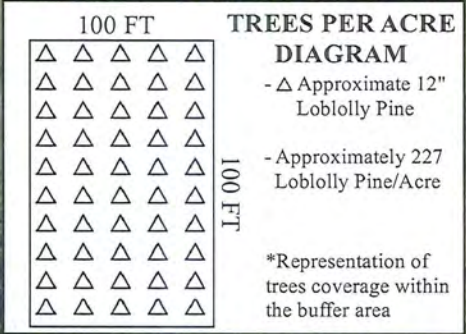
**OWNER:  
MCLAIN, JEFF**

PREPARED BY:  
Stephen Bennett  
SABINE & WATERS, INC.  
August 31, 2020

TREE SURVEY CONDUCTED  
AND APPROVED BY:

Ryan Wenzel  
SCR# #1850  
*[Signature]*  
SEP 27 2020

\*NO GRAND TRRE WERE  
OBSERVED WITHIN THE  
SURVEY AREA



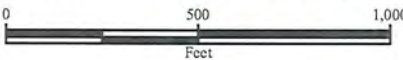
- LEGEND**
- PROPERTY BOUNDARY: 30.2 AC
  - MINE FOOTPRINT: 5.0 AC
  - OVERBURDEN/STOCKPILE: 0.2 AC
  - SURVEY AREA
  - ▲ MEASURED TREES
  - SETTLING POND: 0.2 AC
  - GRAVEL PARKING SPOT (9' X 18')
  - TREES DIAGRAM AREA
  - FULLY STABILIZED VEGETATED BERM (80 LF LONG)
  - WETLANDS
  - HAUL ROAD
  - = ROADS

EXTERNAL SOURCES: U.S. CENSUS ROADS, CHARLESTON COUNTY GIS PARCEL, NAIP 2019 TRUE COLOR AERIAL

Created By: Stephen Bennett  
Date Created: May 27, 2021  
Copyright 2021 Sabine & Waters, Inc.  
Environmental Land Management Consultants  
P.O. Box 1072 Summerville, SC 29484  
843.871.5383 (phone) 843.871.2050 (fax)  
R:\consult\mcl\mhyde park\mapping\mining\gp1 mine maps\trees\_survey.mxd

Disclaimer: This map is a graphic representation of data obtained from various sources. All efforts have been made to warrant the accuracy of this map. However, Sabine & Waters, Inc. disclaims all responsibility and liability for the use of this map.

**TREE SURVEY  
HYDE PARK GP1  
CHARLESTON COUNTY, SC**



**REVISED: 1/13/2022**



Joel H. Evans, AICP, PLA  
Zoning & Planning Director

843.202.7200  
1.800.524.7832  
Fax: 843.202.7222  
Lonnie Hamilton, III  
Public Services Building  
4045 Bridge View Drive  
North Charleston, SC 29405-7464

Jeffery McLain  
7200 Highthorne Road  
Ravenel, SC 29470

March 18, 2022

Refer to Board of Zoning Appeals **Case # BZA-01-22-00549**

The Charleston County Board of Zoning Appeals (BZA) held a public hearing on **March 7, 2022**, to review your request for a Special Exception. The Special Exception request was **approved with conditions** for the property identified as **TMS # 175-00-00-023**. Please find an enclosed copy of the Order on Special Exception Application # **BZA-01-22-00549**.

Required permits must be obtained from the Zoning & Planning Department, Public Services Building at 4045 Bridge View Drive, North Charleston, SC prior to commencing work. To expedite the permitting process, please provide a copy of the enclosed Order when applying for permits.

An approved Special Exception shall lapse and be of no further effect 12 months after the date that the Special Exception was approved by the BZA unless a Complete Application for a Zoning Permit to establish the Special Exception use is submitted in accordance with Article 3.8, Zoning Permits, of the Charleston County Zoning and Land Development Regulations Ordinance.

One one-year extension of a Special Exception approval may be granted by the Zoning and Planning Director if the Applicant/Property Owner can demonstrate that a Complete Application for a Zoning Permit is being diligently pursued. Applications for extensions of Special Exception approvals shall be submitted to the Zoning and Planning Director on forms available in the Zoning and Planning Department at least 15 days prior to the expiration of the Special Exception approval.

Sincerely,

Jenny J. Werking, AICP  
BZA Secretary

JJW/SDM  
Cc: File BZA-01-22-00549  
ZSPR-06-21-00613  
Enclosure



Joel H. Evans, AICP. PLA  
Zoning & Planning Director

843.202.7200  
1.800.524.7832  
Fax: 843.202.7222  
Lonnie Hamilton, III  
Public Services Building  
4045 Bridge View Drive  
North Charleston, SC 29405-7464

Sabine & Waters, Inc.  
Attn: JD Collins  
PO Box 1072  
Summerville, SC 29484

March 18, 2022

Refer to Board of Zoning Appeals **Case # BZA-01-22-00549**

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Sincerely,

Jenny J. Werking, AICP  
BZA Secretary

JJW/SDM  
Cc: File BZA-01-22-00549  
ZSPR-06-21-00613  
Enclosure

**Board of Zoning Appeals  
Final Decision and Order on Special Exception  
Application # BZA-01-22-00549 for property  
Located at 7200 Highthorne Road  
(St. Pauls Area, Charleston County)**



Findings of Fact

The Charleston County Board of Zoning Appeals ("BZA") makes the following findings of fact pursuant to S.C. Code Ann. §6-29-800 and the *Charleston County Zoning and Land Development Regulations Ordinance (ZLDR)* Article 3.6, §3.6.5. Based on the evidence presented at the hearing to include the Planning Department staff review and pursuant to the *Charleston County ZLDR* §3.6.5, the Charleston County BZA finds that Jeffery McLain ("the Applicant" and "the Property Owner") and JD Collins of Sabine & Waters, Inc. ("the Representative") filed an application for a Special Exception for the property identified as TMS # 175-00-00-023 and located at 7200 Highthorne Road in the St. Pauls Area of Charleston County, South Carolina. The Applicant requests a Special Exception for the establishment of a Resource Extraction/Mining use in the Resource Management (RM) Zoning District. The Applicant filed this request on January 24, 2022, and the BZA heard the Applicant's request on March 7, 2022.

The BZA finds that the subject property is located in the Rural Area and implements the Rural Area policies and Resource Management future land use category of the Charleston County Comprehensive Plan. Per the Plan, *"Designation of Resource Management areas recognizes the importance of a coordinated effort to protect and conserve natural resources while allowing for the continued economic use of private property and public lands. The type and intensity of development in Resource Management areas should support the needs of timber production, wildlife habitat management, recreation, agriculture, and areas of environmental sensitivity."* The applicant's letter of intent states, *"Mr. McLain's property is currently zoned Resource Management (RM). Property is currently managed for silviculture, wildlife and recreation, and has been for many decades. While the Comprehensive Plan (Plan) identifies uses in these areas as principally for timber production, wildlife habitat, recreational and commercial fishing, and limited agriculture, sand, fill dirt and other mineral extractions are undoubtedly other examples of natural resource management and utilization that offers landowners additional potential sources of revenue. Considering this, resource extraction with the ultimate purpose of creating a pond that can be used as wildlife habitat and for recreation, fits the character of this zoning district. Furthermore, the Plan identifies quality affordable housing as a primary goal. There is currently an obvious shortage in fill material in Charleston County. When developers have to haul material in from surrounding counties it increases the average home cost. Sources of fill material located in Charleston County not only increase tax revenue for the County, but also help to maintain a lower price point for housing the area so desperately needs."* Therefore, the completed resource extraction use (the future pond) is consistent with the recommendations contained in the *Comprehensive Plan* and the character of the RM Zoning District. Thus, the request meets this criterion.

The BZA also finds that the proposed resource extraction use is compatible with existing uses in the vicinity and will not adversely affect the general welfare or character of the immediate community. The applicant's letter of intent states, *"Mineral extraction activities are not expected to adversely impact any surrounding properties. While multiple interior roads are shown on the Proximity Map submitted to SCDHEC, only the pink and white identified haul road (shown on the site plan) will be used for mining operations. Aside from the applicant's home, there is only one other dwelling along the haul road. The operator will maintain respect for that resident and minimize potential issues to the greatest extent practicable. Mr. McLain's mine would be the third active mining operation currently located off of Hyde Park Road. It would also be the smallest. A larger operation is currently taking place on the south side of Hyde Park with a similarly sized operation that is currently in the permitting stages east of the subject property. These properties are also zoned RM. Much of the surrounding property is managed for timber production and mining. Log trucks as well as dump trucks are often seen on Hyde Park Road as the residents of the area manage their natural resources. Mining has been taking place off of Hyde Park Road for over a decade while logging has been conducted on the surrounding properties much longer."* Therefore, the request meets this criterion.

The BZA also finds that the project is currently in the Site Plan Review process to ensure compliance with the Ordinance. The applicant's letter of intent states, *"Every reasonable precaution has been accounted for in this mining operation. Undisturbed buffers will be established at a distance of at least 50' from the proposed mine location and any adjacent property boundaries, and 50' from any wetlands identified per request from Charleston County Planning and Zoning. A 50' buffer will be established on the northern border of the mine site, adjacent to parcel 175-00-00-065...A 100' buffer will be established on the eastern border of the mine site, adjacent to parcel 180-00-00-002. Land use buffer of 100*

feet against residential parcel 180-00-00-002 complies with Type F Landscaping Standards (ZLDR Table 9.5.4.B.5). As this area was planted in loblolly pine approximately 17 years ago, there is a surplus of canopy trees. Natural regeneration of loblolly pine (evergreen) saplings, along with various types of hardwood saplings occupies the understory, also exceeding the requirements. A surplus of shrubs occupies the available space along the forest floor. All buffers around the mine site will remain undisturbed. There are currently approximately 227 loblolly pine trees per acre in the buffer area. In the approximately 80-foot linear section of landscape buffer that does not exist, a six-foot tall, fully stabilized, vegetative berm will be constructed. A locking gate will also be installed at the entrance of the mine site. Furthermore, as Mr. McLain resides on the property, there will be constant surveillance of the mine site outside of normal operating hours, ensuring trespassers will be kept out and maintain the safety of the general public...No chemicals or harmful substances are used in the mining process that would impact wells on adjacent properties or create foul odors. Monthly monitoring will be conducted to ensure total suspended solids as well as pH meet the requirements set forth by DHEC before water is discharged into wetlands. Lastly, a Stormwater Pollution Prevention Plan (SWPPP) has been prepared that includes very detailed monitoring and reporting protocol that will aid to significantly reduce the possibility of adverse effects on the mine site and surrounding properties." Therefore, the request meets this criterion.

The BZA also finds that the proposed plan for the resource extraction use preserves and incorporates important natural features. The applicant's letter of intent states, "Additionally, a tree survey was performed by a South Carolina Registered Forester within the mine footprint, along the haul road and 40 feet outside of both. No grand trees (24" DBH and greater) were identified." Therefore, the request meets this criterion.

The BZA also finds that the applicant is currently in the Site Plan Review process to ensure compliance with the applicable requirements of this Ordinance and to coordinate with other pertinent regulatory agencies. The applicant's letter of intent states, "All applicable federal and state permits have been acquired at this point in the planning process. The wetlands have been verified by the USACE, the mining permit has been issued by DHEC Mining, Coastal Zone Consistency has been issued by DHEC-OCRM and a land disturbance permit has been issued by DHEC Bureau of Water. Furthermore, Charleston County Stormwater has determined a stormwater permit will not be required SCDOT has also determined an encroachment permit will not be required and Charleston County Site Plan Review has given approval to proceed with the BZA Special Exception application. These approvals have been included in this application." Therefore, the request meets this criterion.

The BZA also finds that vehicular traffic and pedestrian movement on adjacent roads should not be hindered or endangered. The applicant's letter of intent states, "Following conversation with SCDOT, it was determined that an encroachment permit would not be required, nor would any improvements need to be made to the existing haul road (Highthorne Road). Approximately 20 feet of paved apron exists at the junction of Hyde Park Road and Highthorne Road. Furthermore, all landowners sharing use of Highthorne Road were made aware of Mr. McLain's intentions to use the road for mineral extraction. At approximately 0.5 miles, the graveled haul road should provide ample time for dust and dirt to settle before trucks enter Hyde Park Road. If sediment does accumulate on Hyde Park, sweepers will be utilized to remove any build up. Water trucks will also be available to reduce dust on Highthorne Road during dry periods. While the added truck traffic associated with a mining operation may be of some concern, there are several important factors to note that will mitigate the potential hazards that could arise. The location of the proposed mine site is unique in that it provides multiple routes truck drivers can utilize to reach their destinations. It is also located in a central area as it relates to current and planned developments, reducing the time and distance trucks have to spend on the roads. Development is trending to areas located in southern Charleston County as well as Dorchester County. Depending on where a development is located, there are several routes that can be taken. Current and planned developments taking in Dorchester County along the Hwy 165 corridor are less than 10 miles from this mine site. Improvements are already being made to Hwy 165 which will severely reduce the risk of traffic accidents when servicing those areas. Developments located in Hollywood and Ravenel are also less than 10 miles away and offer a route that would take truck drivers on low traffic roads until they hit Hwy 17, a major four lane corridor. For projects located closer to West Ashley, drivers may take Hwy 17 or Hyde Park Road to County Line Road to get to their destinations. Having multiple routes to major highways will significantly reduce the risk of vehicular conflicts. Once trucks reach Hwy 17 there are sidewalks located on both sides of the road, substantially reducing the risk of pedestrian/vehicular accidents. The hours of operation previously stated will only allow truck drivers on the road during daylight hours for the majority of the year, further reducing the risk of traffic hindrances. Finally, truck traffic is not expected to cause abnormal vehicular congestion along Hyde Park Road as similar traffic patterns from past mining activity in the area have not caused any significant known issues." Therefore, the request meets this criterion.

The BZA also finds that the applicant shall meet the following conditions:

1. Prior to zoning permit approval, the applicant shall complete the Site Plan Review process.
2. The days and hours of operation for this project shall not exceed Monday through Friday, 7:00 am to 5:00 pm.
3. The applicant shall maintain the travel way of Hyde Park Road for a distance of 300 feet in each direction from the truck entrance free of all dirt, gravel, or other debris associated with the resource extraction at least twice during each workday, and once at the end of each workday to maintain a safe travel way.
4. The applicant shall maintain the 25' ingress/egress easement on Highthorne Road to include water application as required for dust mitigation on Highthorne Road.
5. The applicant shall be responsible for any damage to roads associated with the resource extraction and coordinate with the State in maintaining and repairing the roads as necessary.
6. The applicant shall post an all-weather sign on the haul road entrance visible from the Hyde Park Road Right-of-Way listing the name and contact information, including a phone number, of the local contact. This person listed will serve as a contact for this project, in case there are any compliance issues that arise during the mining operation.
7. The Applicant shall provide documentation from an Environmental Engineer, Geologist, Hydrogeologist, or other similarly qualified professional outlining the effect/impact on well and groundwater within 1000' of the subject property. The Applicant shall work with County Staff to determine how the Owner will mitigate any negative impacts, if found.
8. All Resource Extraction will be completed no later than 24 months from the date of the commencement of work.

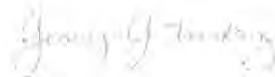
Conclusions of Law

The BZA is authorized pursuant to S.C. Code Ann. §6-29-800 and the *Charleston County Zoning and Land Development Regulations Ordinance (ZLDR)* §3.6.5 to hear and approve, approve with conditions, or deny special exceptions. Based upon the findings of fact, the Board of Zoning Appeals concludes as a matter of law that the applicant's request for the special exception satisfies the Approval Criteria in the *Charleston County (ZLDR)* §3.6.5.

**THEREFORE**, the Charleston County Board of Zoning Appeals approves the Special Exception request for the establishment of a Resource Extraction/Mining use in the Resource Management (RM) Zoning District with the above referenced conditions.

Pursuant to the *Charleston County (ZLDR), Article 3.6 Special Exceptions, Section 3.6.9 Lapse of Approval*, "An approved Special Exception shall lapse and be of no further effect 12 months after the date that the Special Exception was approved by the Board of Zoning Appeals unless a Complete Application for a Zoning Permit to establish the Special Exception use is submitted in accordance with Article 3.8, Zoning Permits, of this Ordinance. One one-year extension of a Special Exception approval may be granted by the Zoning and Planning Director if the Applicant/Property Owner can demonstrate that a Complete Application for a Zoning Permit is being diligently pursued. Applications for extensions of Special Exception approvals shall be submitted to the Zoning and Planning Director on forms available in the Zoning and Planning Department at least 15 days prior to the expiration of the Special Exception approval."

Any person with a substantial interest may appeal the Board of Zoning Appeals' decision to the Circuit Court of Charleston County within 30 calendar days after the decision of the Board of Zoning Appeals is mailed.



---

Jenny J. Werking, AICP  
BZA Secretary

Date issued: March 7, 2022

Date mailed to parties in interest: March 18, 2022

## Kaitlyn Morris

---

**From:** Robert Strange <rstrange@greentreelandmanagement.com>  
**Sent:** Tuesday, May 14, 2024 7:39 AM  
**To:** Jeff McLain; Jenna Nelson; Kaitlyn Morris  
**Subject:** [EXTERNAL] Fwd: Hide Park Mine

See below from RO Collins for Hyde Park Mine.

### Robert Strange, SCRF#1931

Principal & Realtor

**Greentree Land Management, LLC.**

Forestry | Environmental Services | Land Sales | GIS [www.greentreelandmanagement.com](http://www.greentreelandmanagement.com)

105 Wappoo Creek Drive Suite 1A Charleston, SC 29412

(m) 843.830.5375

----- Forwarded message -----

**From:** <[bill@robertcollinscompany.com](mailto:bill@robertcollinscompany.com)>  
**Date:** Tue, May 14, 2024 at 7:36 AM  
**Subject:** Hide Park Mine  
**To:** <[rstrange@greentreelandmanagement.com](mailto:rstrange@greentreelandmanagement.com)>

Robert,

Following up on our phone conversation, We have mined all the available material at the Hide Park mine. There is currently no activity at the this mine, and I don't foresee any activity in the future. The owner is just letting the property sit at this point.



**Bill Sharpe**

*Operations Manager*

Robert Collins Company

---

843-544-7549

[bill@robertcollinscompany.com](mailto:bill@robertcollinscompany.com)

[www.robertcollinsco.com](http://www.robertcollinsco.com)



---

**GP1-002412 | Draycor Mine | Reclamation status**

2 messages

**Meservy, William N.** <meservwn@dhec.sc.gov>

Thu, Apr 4, 2024 at 4:34 PM

To: Robert Strange &lt;rstrange@greentreeandmanagement.com&gt;

Robert,

I have no Annual Reclamation Report for the Draycor Mine yet, which is a smaller <5-acre mine. As far as I am aware, it hasn't excavated any material yet.

Regards,

**William Meservy**

Project Manager, Mining and Reclamation Section

Division of Mining &amp; Solid Waste Management

**S.C. Dept. of Health & Environmental Control**

Office: (803) 898-1369

Connect: [www.scdhec.gov](http://www.scdhec.gov) [Facebook](#) [Twitter](#)

---

**Robert Strange** <rstrange@greentreeandmanagement.com>

Thu, Apr 11, 2024 at 11:27 AM

To: Jenna Nelson &lt;jnelson@bowman.com&gt;, Kaitlyn Morris &lt;kaitlynmorris@bowman.com&gt;

[Quoted text hidden]

--

**Robert Strange, SCRF#1931**

Principal &amp; Realtor

**Greentree Land Management, LLC.**

Forestry | Environmental Services | Land Sales | GIS

[www.greentreeandmanagement.com](http://www.greentreeandmanagement.com)

105 Wappoo Creek Drive Suite 1A

Charleston, SC 29412

(m) 843.830.5375

---

**I-002119 | Hyde Park Mine | Reclamation Status**

2 messages

**Meservy, William N.** <meservwn@dhec.sc.gov>

Thu, Apr 4, 2024 at 4:28 PM

To: Robert Strange &lt;rstrange@greentreeandmanagement.com&gt;

Robert,

According to its most recent Annual Reclamation Report, the Hyde Park Mine (I-002119) has not excavated material for the last 24 months and is reclaiming.

Regards

**William Meservy**

Project Manager, Mining and Reclamation Section

Division of Mining &amp; Solid Waste Management

**S.C. Dept. of Health & Environmental Control**

Office: (803) 898-1369

Connect: [www.scdhec.gov](http://www.scdhec.gov) [Facebook](#) [Twitter](#)

---

**Robert Strange** <rstrange@greentreeandmanagement.com>

Thu, Apr 11, 2024 at 11:27 AM

To: Kaitlyn Morris &lt;kaitlynmorris@bowman.com&gt;, Jenna Nelson &lt;jnelson@bowman.com&gt;

[Quoted text hidden]

--

**Robert Strange, SCRF#1931**

Principal &amp; Realtor

**Greentree Land Management, LLC.**

Forestry | Environmental Services | Land Sales | GIS

[www.greentreeandmanagement.com](http://www.greentreeandmanagement.com)

105 Wappoo Creek Drive Suite 1A

Charleston, SC 29412

(m) 843.830.5375

---

**I-001724 | Hyde Park Soils Mine | Reclamation status**

2 messages

**Meservy, William N.** <meservwn@dhec.sc.gov>

Thu, Apr 4, 2024 at 4:25 PM

To: Robert Strange &lt;rstrange@greentreeandmanagement.com&gt;

Robert,

According to the most recent annual reclamation report of the Hyde Park Soils Mine (I-001724), they are reclaiming and seeded 7.9 acres in 2023.

Regards,

**William Meservy**

Project Manager, Mining and Reclamation Section

Division of Mining &amp; Solid Waste Management

**S.C. Dept. of Health & Environmental Control**

Office: (803) 898-1369

Connect: [www.scdhec.gov](http://www.scdhec.gov) [Facebook](#) [Twitter](#)

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Thu, Apr 11, 2024 at 11:27 AM

To: Kaitlyn Morris &lt;kaitlynmorris@bowman.com&gt;, Jenna Nelson &lt;jnelson@bowman.com&gt;

[Quoted text hidden]

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# **Storm Water Pollution Prevention Plan (SWPPP)**

As required by

## **NPDES General Permit for Discharges Associated with Nonmetal Mineral Mining Facilities**

South Carolina  
Department of Health & Environmental Control

February 8, 2024

### Disclaimer

*This document has been developed as an instrument to aid mine sites covered under the Department's NPDES General Permit for Discharges Associated with Nonmetal Mineral Mining Facilities (SCG730000). The intended use is to aid mine operators in developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). The South Carolina Department of Health and Environmental Control's Bureau of Water and the Division of Mining & Solid Waste Management (Bureau of Land & Waste Management) worked jointly to prepare this document.*

*The utilization of this document does not revoke the operator's obligation to comply with all terms and conditions of the Permit. Nor does the utilization of this document prohibit the operator from employing other resources necessary to comply with all terms and conditions of the NPDES General Permit.*

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## 1.0 Purpose

The NPDES General Permit for Discharges Associated with Nonmetal Mineral Mining Facilities covers all new and existing point source discharges of **mine dewatering (ground water), storm water, mine equipment wash waters, suction dredge water, and mine process wastewater** to waters of South Carolina. Mining operations that are provided coverage include: sand and gravel mines, sand mines, dimension stone quarries and crushed stone quarries, clay mines, fill dirt mines, kaolin mines, and vermiculite mines. Other types of nonmetal mineral mines or quarries may be covered, but only as approved by the Department on a case-by-case basis. The NPDES General Permit does not cover the mine discharges identified in Part II.B.2 of the General Permit.

### Covered Mine Discharges

#### **Mine dewatering**

- ✓ Any water that is impounded or that collects in the mine and is pumped, drained or otherwise removed from the mine through the efforts of the mine operator

#### **Storm Water**

- ✓ Runoff from any overburden, raw material, intermediate product, finished product, byproduct or waste product located at the mine site which have not undergone chemical processing unless otherwise approved by the Department.
- ✓ Runoff from vehicle maintenance shops and truck washes may also be allowed if there are proper Best Management Practices, Storm Water Pollution Prevention Plans, or Spill Prevention Control or Countermeasures (SPCC) Plans (as appropriate) in place.
- ✓ Runoff from access/haul roads.

#### **Mine process wastewaters**

- ✓ Wash waters generated from washing a mineral
- ✓ Water used in the slurry transport of a mineral
- ✓ Other mine process wastewaters which do not involve use of chemicals, unless approved by the Department

#### **Mine equipment wash water**

- ✓ Wastewater generated by washing mine equipment (including trucks) used in onsite mining operations
- ✓ Detergents used for washing must be biodegradable and phosphate-free.

#### **Suction Dredge Water**

- ✓ Wastewater generated from suction dredging sand or gravel in rivers or streams and discharged after extracting the sand or gravel

All mine discharges, as defined above, are required to have coverage under the NPDES General Permit for Discharges Associated with Nonmetal Mineral Discharges (or coverage under another NPDES permit). The general permit requires mine operations to develop and implement a Storm Water Pollution Prevention Plan (SWPPP).

The guidance presented here lists best management practices (BMPs) and design criteria that must be addressed at the mine site and incorporated into a SWPPP as necessary to protect the waters of the State. Not all BMPs will be needed at all sites, but each site's SWPPP must address BMPs for each potential source of storm water contamination including erosion from access roads, material stockpiles and any other areas subject to erosion.

The operator may incorporate the SWPPP requirements specified in the NPDES general permit Part VIII.C., the BMP requirements specified in Part VIII.A., and if applicable, the Spill Prevention, Control and Countermeasure (SPCC) requirements developed for a mine site under section 311 of the Clean Water Act into one site plan, as long as the requirements for all plans are met.

## 2.0 General Information

Name of Mine: Highthorne Mine

Name of Company: \_

Location Address: Highthorne, Ravenel, SC

Contact for Official Business:

Name: Jeffery Mclain

Title: Owner

Telephone: 843 - 2 9 6 -155 8

Mailing Address: 63 6 6 Hyde Park Road, Ravenel, SC 2 9 470

---

Owner: Jeffery Mclain

Operator: Jeffery Mclain  
(if different from Owner)

Standard Industrial Classification (SIC) Code: 1 4 9 9 F i l l D i r t

NPDES Permit Information: SCG73157 6

Permit Number: SCG73157 6

Effective Date of Coverage: March 22, 2021

Number of Storm Water Outfalls: 2

Receiving Waters: Expected: Adjacent wetlands, Drayton Swamp, eventually reaching  
Wallace Creek, Rantowles Creek, and the Stono River.

Emergency Contact (preferably on-site):

Name: Jeffery Mclain

Telephone: 843 - 2 9 6 - 155 8



### 3.0 Overview

#### 3.1 Introduction

This storm water pollution prevention plan (SWPPP) covers the operations at the Highthorne Mine. It has been developed as required under Part VIII of SCDHEC's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges Associated with Nonmetal Mineral Mining Facilities (SCG730000). This SWPPP describes the mine site and its operations, identifies potential sources of storm water pollution at the site, recommends appropriate best management practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP.

#### 3.2 Objectives

The goal of the storm water permit program is to improve the quality of surface waters by reducing the amount of pollutants potentially contained in the storm water runoff being discharged. Mining operations subject to an NPDES permit must prepare and implement an SWPPP for their facility.

The objectives of this SWPPP is three-fold:

1. to identify potential sources of pollution at  
Highthorne Mine \_\_\_\_\_  
(Name of Mine)
2. to describe best management practices (BMPs) which will be used at  
Highthorne Mine \_\_\_\_\_  
(Name of Mine)
3. to provide other elements such as, but not limited to, a mine site inspection program, site compliance evaluation program, record keeping and reporting program that will help  
Highthorne Mine \_\_\_\_\_  
(Name of Mine)  
comply with the terms and conditions of the general permit.

**4.0 Certification Statement**

**"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."**

*Jeff Mclain*

Operator or Authorized Company Representative

2/8/24

Date

Owner

Title

Jeff Mclain

Printed Name

## 5.0 Storm Water Pollution Prevention Team

**Members of the storm water pollution prevention team are responsible for developing the storm water pollution prevention plan and assisting the mine company or operator in its implementation, maintenance, and revision. This plan identifies the team members and their responsibilities.**

**Jeffery Mclain, Owner, is the person in charge of all aspects of SWPPP**  
(Name) (Title)  
**development and implementation.**

**The members of the team and their responsibilities (i.e., implementation, maintenance, record keeping, submitting reports, conducting inspections, employee training, testing for storm water and non-storm water discharges, signing the required certification) are as follows:**

Name and Title	Responsibility
Jeffery Mclain, SWPPT	Plan implementation, record keeping, employee training, conducting annual compliance evaluation and signing required certification, submitting reports.
Jeffery Mclain, SWPPT	Maintenance of pollution prevention measures, conducting inspections and testing of non-storm water discharges.

## **6.0 Potential Sources of Pollutants**

### **6.1 Site Map**

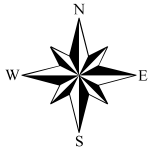
Figure 1 of this plan presents a site map of the mine showing the following minimum features required by the NPDES General Permit for Discharges Associated with Nonmetal Mineral Mining Facilities (SCG730000):

- ✓ Buildings and other structures;
- ✓ Property boundaries;
- ✓ Location of stockpiles and overburden areas;
- ✓ Storm water outfall location(s);
- ✓ Outline of the storm water drainage areas of the mine site within the property boundaries and the direction of flow of storm water at the mine site;
- ✓ Each existing structural runoff controls (e.g., check dams, silt fencing, etc.) used to reduce pollutants in storm water runoff;
- ✓ Surface water bodies;
- ✓ Locations where major spills or leaks have occurred (see part VIII.C.b.iii of the NPDES General Permit);
- ✓ Areas of the mine where significant erosion may occur;
- ✓ Impervious surfaces (roof tops, asphalt, concrete).
- ✓ Locations of the following activities where such activities are exposed to precipitation:
  - Fueling stations;
  - Vehicle and equipment maintenance and/or cleaning areas;
  - Stockpiles;
  - Loading area for trucks;
  - Processing plant area.
















Department approved mine permit drawings and or Spill Prevention, Control and Countermeasure (SPCC) Plans can be used as an alternative to producing a SWPPP site map provided the features listed above are shown.

**Figure 1**

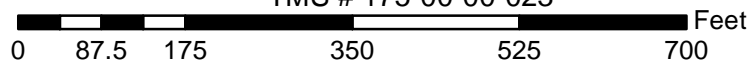
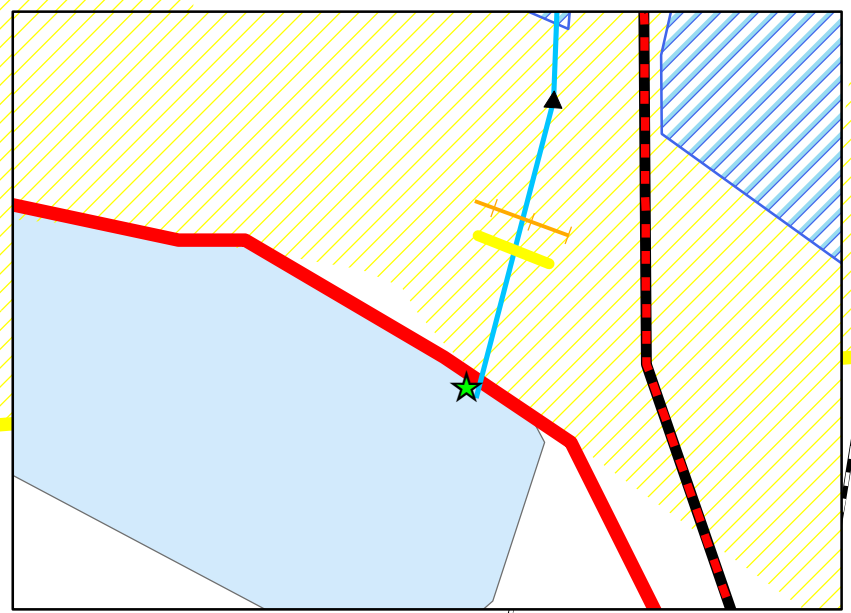
**Site Map**



**Legend**

-  Property Boundary - 92 AC
-  Mine Permit Boundary - 94.5 AC
- Mine Segments**
-  Segment 1 - 5 AC (GP1-002322)
-  Segment 2 - 6.2 AC
-  Segment 3 - 3.6 AC
-  Segment 4 - 13.4 AC
-  Segment 5 - 9 AC
-  Haul Road - 4 AC
-  Wetland +/- 19 AC
-  Buffers - 34.1 AC
-  Silt Fence
-  Asphalt and Rock Mat
-  Rip Rap Check Dam / Forebay
-  Roads
-  Dimensions
-  Direction of Excavation
-  Discharge Path
-  Outfall




















Silt Fence and rip rap installed at outfall and around stockpile if stockpile is not within affected acreage of mine. If stockpile is within affected acreage, no silt fence is required.

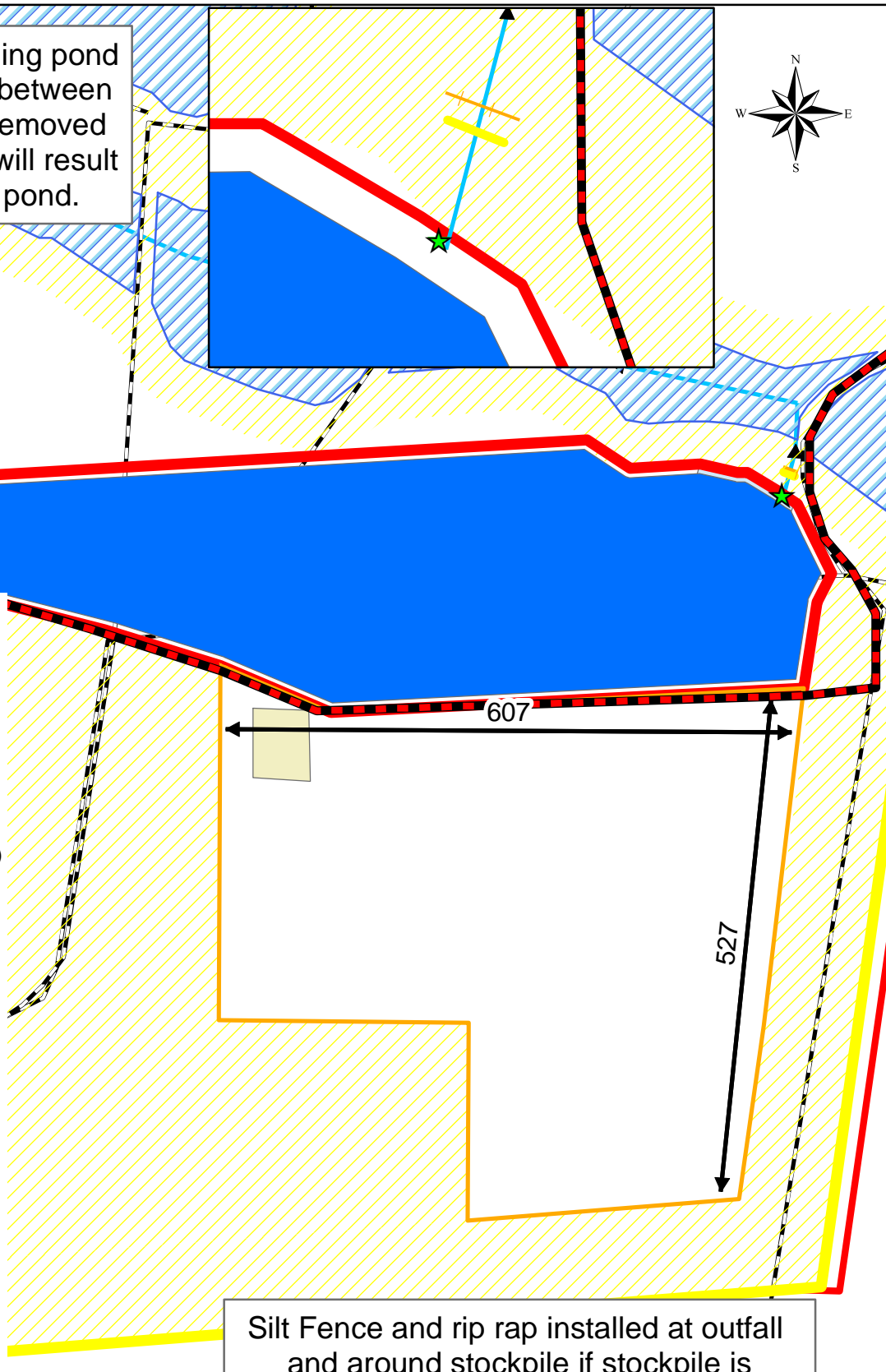


Segment 1 will act as settling pond for Segment 2. Haul road between Segment 1 and 2 will be removed during reclamation and it will result in one large contiguous pond.

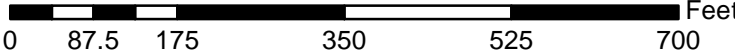


**Legend**

-  Property Boundary - 92 AC
-  Mine Permit Boundary -94.5 AC
-  Outfall
-  Haul Road
- Mine Segments**
-  Segment 1 - 5 AC (GP1-002322)
-  Segment 2 - 6.2 AC
-  Segment 3 - 3.6 AC
-  Segment 4 - 13.4 AC
-  Segment 5 - 9 AC
-  Water
-  Wetland +/- 19 AC
-  Buffers - 34.1 AC
-  Silt Fence
-  Asphalt and Rock Mat
-  Rip Rap Check Dam / Forebay
-  Roads
-  Dimensions
-  Direction of Excavation
-  Discharge Path



Silt Fence and rip rap installed at outfall and around stockpile if stockpile is not within affected acreage of mine. If stockpile is within affected acreage, no silt fence is required.



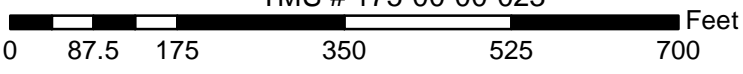
Segment 1 and 2 will act as settling pond for Segment 3.



**Legend**

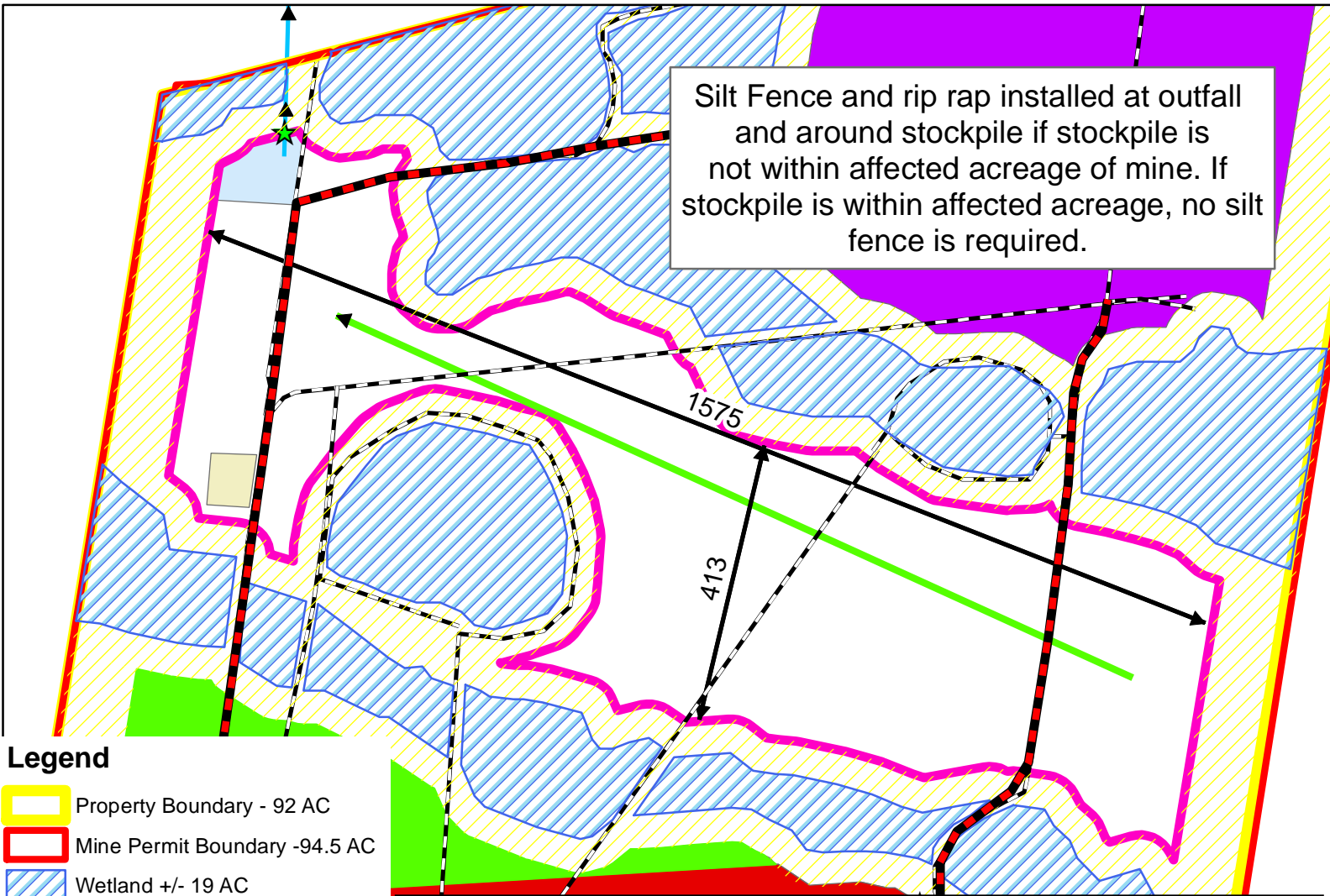
- Property Boundary - 92 AC
- Mine Permit Boundary - 94.5 AC
- Outfall
- Water
- Haul Road
- Mine Segments**
- Segment 1 - 5 AC (GP1-002322)
- Segment 2 - 6.2 AC
- Segment 3 - 3.6 AC
- Segment 4 - 13.4 AC
- Segment 5 - 9 AC
- Wetland +/- 19 AC
- Buffers - 34.1 AC
- Silt Fence
- Asphalt and Rock Mat
- Rip Rap Check Dam / Forebay
- Roads
- Dimensions
- Direction of Excavation
- Discharge Path

Silt Fence and rip rap installed at outfall and around stockpile if stockpile is not within affected acreage of mine. If stockpile is within affected acreage, no silt fence is required.





Silt Fence and rip rap installed at outfall and around stockpile if stockpile is not within affected acreage of mine. If stockpile is within affected acreage, no silt fence is required.

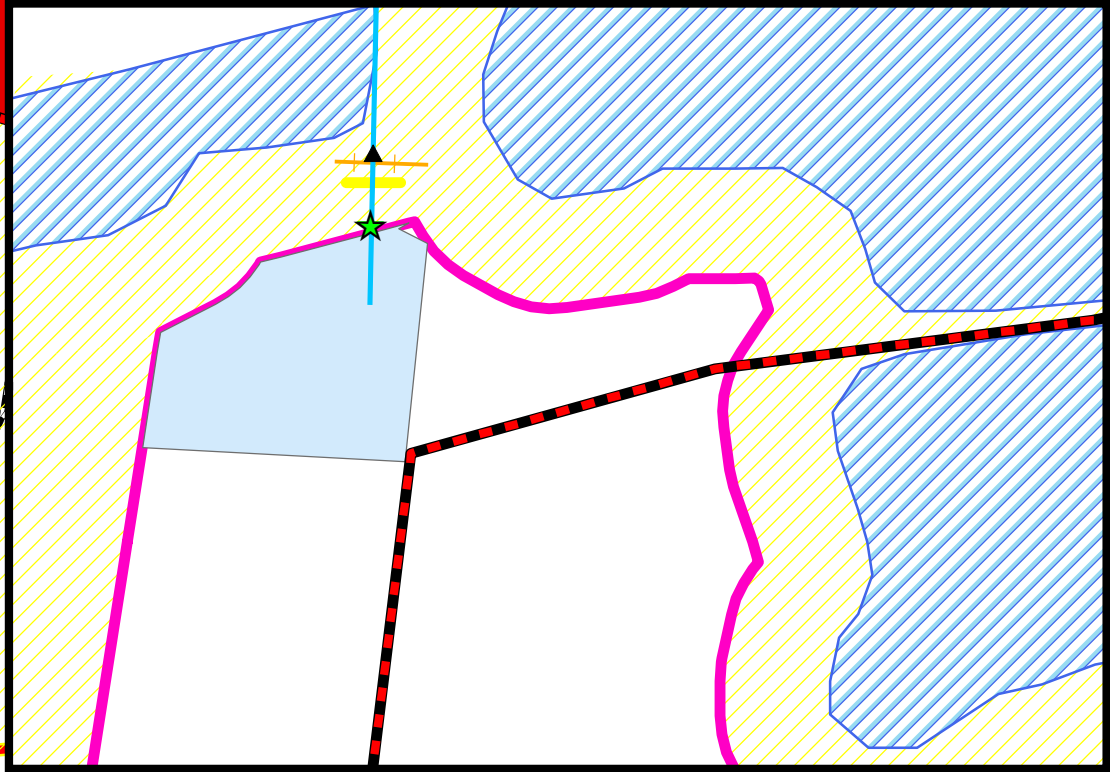


**Legend**

- Property Boundary - 92 AC
- Mine Permit Boundary - 94.5 AC
- Wetland +/- 19 AC
- Buffers - 34.1 AC
- Haul Road - 4 AC
- Roads
- Outfall
- Dimensions
- Direction of Excavation
- Discharge Path

**Mine Segments**

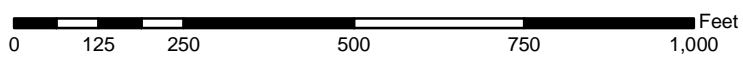
- Segment 1 - 5 AC (GP1-002322)
- Segment 2 - 6.2 AC
- Segment 3 - 3.6 AC
- Segment 4 - 13.4 AC
- Segment 5 - 9 AC
- Office and Parking Area - 0.2 AC
- Settling Basin
- Stockpile



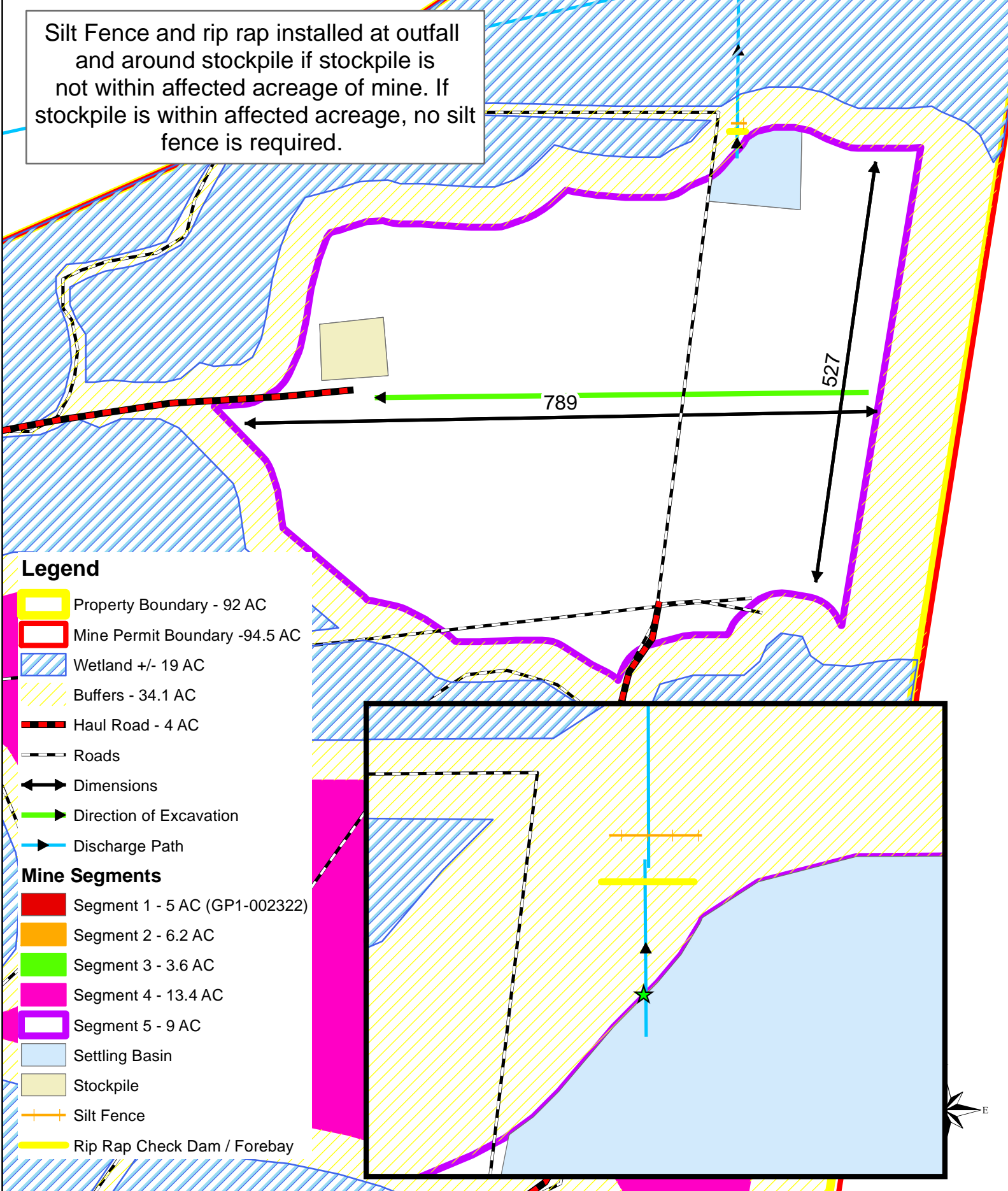
Greentree Land Management, LLC.  
 105 Wappoo Creek Drive, Suite 4A  
 Charleston, SC 29412  
 (843) 830- 5375

**HIGHTHORNE MINE SEGMENT 4 SWPPP MAP**  
 CHARLESTON COUNTY, SC  
 TMS # 175-00-00-023,

Applicant: Jeff McClain  
 Owner: Jeff McClain  
 Prepared By: Robert Strange



Silt Fence and rip rap installed at outfall and around stockpile if stockpile is not within affected acreage of mine. If stockpile is within affected acreage, no silt fence is required.



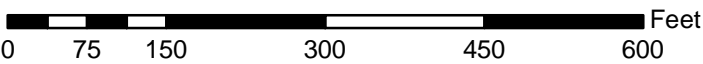
**Legend**

- Property Boundary - 92 AC
- Mine Permit Boundary - 94.5 AC
- Wetland +/- 19 AC
- Buffers - 34.1 AC
- Haul Road - 4 AC
- Roads
- Dimensions
- Direction of Excavation
- Discharge Path
- Mine Segments**
- Segment 1 - 5 AC (GP1-002322)
- Segment 2 - 6.2 AC
- Segment 3 - 3.6 AC
- Segment 4 - 13.4 AC
- Segment 5 - 9 AC
- Settling Basin
- Stockpile
- Silt Fence
- Rip Rap Check Dam / Forebay

Greentree Land Management, LLC.  
 105 Wappoo Creek Drive, Suite 1A  
 Charleston, SC 29412  
 (843) 830- 5375

**HIGHTHORNE MINE SEGMENT 5 SWPPP MAP**  
 CHARLESTON COUNTY, SC  
 TMS # 175-00-00-023 & -065,

Applicant: Jeff McClain  
 Owner: Jeff McClain  
 Prepared By: Robert Strange



## 6.2 Inventory of Exposed Materials

The NPDES general permit requires a general inventory of significant materials on site. For each significant material on site an evaluation is to be conducted to determine the potential for these materials to contribute pollutants to the runoff being discharged from the facility. Areas to focus on may include:

- ✓ Loading and unloading areas
- ✓ Mining activities
- ✓ Other material handling operations (fuel pumps, etc.)
- ✓ Outdoor storage areas
- ✓ Processes which generate dust or particulate matter
- ✓ Waste generating areas
- ✓ Waste disposal practices
- ✓ Maintenance and cleaning practices for vehicles and equipment
- ✓ Sites of environmental contamination
- ✓ Areas where spills of polluting materials have occurred in the past three years
- ✓ Any other areas deemed appropriate

Include the ways in which these materials might be exposed to the storm water runoff. And identify the outfalls from which the materials may be discharged if a release should occur.

<b>INVENTORY OF EXPOSED MATERIALS</b>			
<b>Area/Process</b>	<b>Material</b>	<b>Method of Exposure</b>	<b>Discharge Point/ Outfall</b>
Vehicle maintenance	Diesel oil	Stored outside of covered area	Pit
Stock piles	Fill Dirt	Run-off	Pit/Mine
Access Road	Dust/sediment	Truck ingress and egress	Roadside areas
Loading area	Dust	equipment loading of transport vehicles	Pit
Portable Restrooms	Waste	Use of portable restroom	Pump out Truck
Fuel for on site equipment	Gas and Diesel Fuel	Stored in aboveground fuel tanks	Pit

### 6.3 List of Past Spills and Leaks

The NPDES general permit requires a listing of oil and other polluting materials that have been spilled or leaked in the last three years in areas exposed to precipitation or areas that drain to a storm water conveyance. Also include the date, volume of materials, the location of each release, and the actions taken to clean up the materials and/or prevent exposure of the materials to storm water runoff or contamination of surface waters of the state. (If there have been no spills of polluting materials, state that in this section.)

<b>LIST OF PAST SPILLS AND LEAKS</b>				
<b>Date</b>	<b>Material</b>	<b>Volume</b>	<b>Location</b>	<b>Actions Taken</b>
1/31/2023				No Spills to Date

## 6.4 Summary of Sampling Data

Not all mines will have sampling data available. If there is data available for your mine, it is to be included in the SWPPP. If there is no data available, please state that in this section. In lieu of completing the form below, copies of Discharge Monitoring Reports (DMRs) may be referenced or included in the SWPPP.

Note: Facilities which have mine dewatering, mine process generated wastewater, mine equipment wash water, or suction dredge water discharges, as defined by Part I of the General Permit, are required to conduct effluent monitoring of their mine discharges. Facilities that have only non-mixed storm water discharges are required to conduct benchmark monitoring of their storm water discharges.

The following is a summary of the sampling data available for this facility.

Include sampling date, sampling location, parameters measured, range of concentrations for each parameter, sample collector, sample analyst, and a list of any changes in conditions that suggest the storm water data is no longer indicative of the current conditions at the facility.

SUMMARY OF SAMPLING DATA						
Date	Location	Parameter	Range	Collector	Analyst	Changes
2/8/2024						No data available to date.

## 7.0 Best Management Practices

Storm water management controls, or best management practices (BMPs), will be implemented to reduce the amount of pollutants in storm water discharged from this facility. The permit requires that the following categories of BMPs be considered, and selected where applicable.

### 7.1 Non-Structural Control Measures

Non-structural controls are practices that are specifically intended to reduce the amount of pollution entering surface waters. They are generally implemented to address the problem at the source. They do not require any structural changes to the mine.

#### Good Housekeeping Practices

Good housekeeping practices are designed to maintain a clean and orderly work environment. These practices will reduce the potential for significant materials to come in contact with storm water. Good housekeeping includes regular pickup and disposal of waste materials, and routine inspections for leaks and conditions of drums, tanks and containers.

The follow practices are included in our good housekeeping routine. (Examples: keep vehicle maintenance/fueling areas clean, etc.)

<b>GOOD HOUSEKEEPING PRACTICES</b>		
<b>Area/Equipment</b>	<b>Tasks</b>	<b>Frequency</b>
Excavation equipment	Inspect for leaks	Daily
Mine area	Police area for trash and remove as required	Weekly
Stockpiles	Install silt fence along edge and inspect	Weekly after installation repair as needed
Sump pond	Inspect for accumulation of sediment remove as necessary	Weekly during active mining activities
Access road from paved New Road	Install rock mat the width of the access road and 50' in length. Inspect and replace rock as needed	Weekly during active mining activities
Paved road at entrance to mine access road	Inspect for excess accumulation of sediment and clean as needed	Daily during active mining activities
Mine pit	Attempt to keep slope 3:1 to direct storm water into pit	As needed
Storm water sump pump	Inspect intake of storm sump pump to make sure intake is at a minimum 3' above bottom of pond	Prior to discharging storm water
Portable Restrooms	Inspect for cleanliness, leaks, soap and toilet paper	Daily during active mining activities
Silt Fence/Sediment Trap Rip Rap	Inspect silt fence and rip rap in sediment trap	Weekly

## Preventive Maintenance

Preventive Maintenance involves the regular inspection, testing, maintenance, repair and cleaning of mine equipment and mining operational systems. Preventive maintenance will help to avoid conditions that might lead to a release of materials.

The following equipment/activities are included in the preventive maintenance program. (Examples: cleaning oil/water separators, catch basin, etc.)

<b>PREVENTIVE MAINTENANCE</b>		
<b>Equipment/System</b>	<b>Tasks</b>	<b>Frequency</b>
Storm water sump discharge pump	Inspect elevation of the intake to insure it is at least 3' above average ground.	Prior to discharging storm water
Storm water discharge point	Inspect discharge to ensure sediment loading not occurring in receiving body	During storm water discharge activities
Silt fence	Inspect fence to ensure it is functioning to minimize migration of sediments	Weekly
Rock mat at entrance road	Inspect rock mat to ensure it is functioning to minimize transport of sediments onto paved road	Monthly
Sediment Trap Rip Rap	Inspect rip rap to ensure it hasn't moved and is functioning to minimize sediments and slow velocity of discharge	Weekly

## Routine Facility Inspections

Routine Facility Inspections of the mine site (i.e. all areas of the facility where industrial materials or activities are exposed to storm water, and of all storm water control measures used to comply with the effluent limits contained in the permit) are required by the NPDES general permit. These inspections must occur at least quarterly (i.e. once each calendar quarter), but more frequent inspections may be appropriate for some sites. At least once each calendar year, the routine facility inspection must be conducted during a period when a storm water discharge is occurring.

Records of the inspections must be kept on file with the SWPPP.

The persons or positions that will perform the routine facility inspections are as follows: (at least one member of the Storm Water Pollution Prevention Team must participate) Jeffery McClain SWPPT

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The schedule for performing the routine facility inspection is as follows:

Routine inspections will be conducted at a minimum of once per calendar quarter as long as the mining facility is active and staffed. If mining is not active the routine facilities inspection shall be conducted annually until the permit is terminated and the site released.

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The routine facility inspection will cover the following areas and items:

Routine facility inspections will be conducted in all areas of the facility where materials and activities are exposed to storm water and shall include the inspection of all storm water control measures used to comply with the effluent limits contained in the permit. These inspections shall be conducted when the facility is in operation. Inspections shall include but are not limited to the project area, mine pit, the sediment pond, the intake and outfall structure, ingress and egress corridors and the inspection of equipment for leaks. At least once each calendar year, the routine inspection will be conducted during a period when storm water is being discharged.

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Check if the site is exempt because it is inactive and unstaffed.



## Quarterly Visual Assessments

Once each quarter you must collect a storm water sample from each storm water outfall and conduct a visual assessment of each of these samples. You must follow the sampling procedures specified in the permit (Part VIII.E.2.a.ii., p. 47). You must inspect for color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution.

Records of quarterly visual assessments must be kept on file with the SWPPP.

If your facility has two or more outfalls that you believe discharge substantially identical effluents, as documented in this SWPPP, you may conduct quarterly visual assessments of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s) provided that you perform visual assessments on a rotating basis of each substantially identical outfall throughout the period of your coverage under this permit.

- Check if you are claiming the exception for substantially identical outfalls.
- Check if the site is exempt because it is inactive and unstaffed.

The persons or positions that will perform the quarterly visual assessments are as follows:

**Jeffery McLain, SWPPT**

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Quarterly visual assessments are scheduled as follows for the following outfalls:

Once a calendar quarter a storm water sample will be taken from outfall #1, if utilized, within the first thirty minutes of an actual discharge from a storm event and a visual assessment of the sample will be conducted. The sample will be collected in a clean clear-glass or plastic container and examined in a well-lit area. The sample will be visually inspected for the following water quality characteristics: Color, Odor, Clarity, Floating Solids, Settled Solids, Suspended Solids, Foam, Oil Sheen and Other Obvious indicators of storm water pollution. The sample documentation will include, sample location, sample collection time and date and visual assessment date and time for each sample, Personnel collecting the samples and performing the visual assessment, and their signatures, nature of the discharge (e.g. runoff), results of observations of storm water discharge, probable sources of any observed storm water contamination. If sample could not be taken within the first thirty minutes of a discharge an explanation as to why it could not be taken.

## Comprehensive Site Inspections

Comprehensive site inspections must be conducted at least annually and cover all areas of the facility affected by the requirements in this permit, including the areas identified in the SWPPP as potential pollutant sources (see Part VIII.C.5.b, p.40) and any areas where control measures are used to comply with the effluent limits in Part IX and X. The inspections must also include a review of monitoring data collected in accordance with Part IV and X. Inspectors must consider the results of the past year's visual and analytical monitoring when planning and conducting inspections. Inspectors must examine the following:

- Industrial materials, residue, or trash that could come into contact with storm water;
- Leaks or spills in the past three years from equipment, drums, tanks, and other containers;
- Offsite tracking by vehicles;
- Tracking or blowing of materials from areas of no exposure to exposed areas;
- Control measures needing replacement, maintenance, or repair.
- The S.C. list of approved TMDL must also be reviewed during each annual comprehensive site compliance evaluation related to water-quality-based monitoring and potential corrective action. (<http://www.scdhec.gov/environment/water/tmdl/tmdlsc.htm>)
- Storm water control measures must be observed to ensure that they are functioning correctly. If discharge locations are inaccessible, nearby downstream locations must be inspected.

Records of the inspections must be kept on file with the SWPPP.

The persons or positions that will perform the comprehensive site inspections are as follows: (at least one member of the Storm water Pollution Prevention Team must participate)

Jeffery McInain, SWPPT

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The comprehensive site inspection will be conducted at least once each calendar year and will cover the following areas and items:

Industrial materials, residue, or trash that could come into contact with storm water; Leaks or spills in the past three years from equipment, drums, tanks, and other containers; Offsite tracking by vehicles; Tracking or blowing of materials from areas of no exposure to exposed areas; Control measures needing replacement, maintenance, or repair. The S.C. list of approved TMDL must also be reviewed during each annual comprehensive site compliance evaluation related to water-quality-based monitoring and potential corrective action. (<http://www.scdhec.gov/environment/water/tmdl/tmdlsc.htm>). Storm water control measures must be observed to ensure that they are functioning correctly. The annual comprehensive site inspection may also be used as one of the routine inspections, as long as all components of both types of inspections are included.

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## Benchmark Monitoring

If you discharge storm water, you must conduct quarterly benchmark monitoring for total suspended solids (TSS) beginning in the quarter that begins July 1, 2011. You must follow the sampling procedures specified in the permit (Part IV.C.1.d, p. 24). If you do not discharge storm water, or if your site is inactive and unstaffed, you are not required to conduct benchmark monitoring.

Benchmark monitoring must be performed on a measurable storm event (meaning a storm event that results in an actual discharge from your site) that follows the preceding measurable storm event by at least 72 hours (3 days). You must identify the date and duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days) since the previous measurable storm event. For snowmelt monitoring, you must identify the dates of the snowfall and of the sampling event.

If your facility has two or more outfalls that you believe discharge substantially identical effluents as documented in this SWPPP, you may monitor the effluent of just one of the outfalls and document that the results also apply to the substantially identical outfall(s).

- Check if you are claiming the exception for substantially identical outfalls.
- Check if the site is exempt because it is inactive and unstaffed.

Benchmark monitoring is scheduled as follows for the following outfalls/locations:

Benchmark monitoring at outfall #1 will be performed on a measurable storm event (meaning a storm event that results in an actual discharge from your site) that follows the preceding measurable storm event by at least 72 hours (3 days). A monitoring concentration of 100 mg/l Total Suspended Solids (TSS) will be the target benchmark goal and will apply to the primary industrial activity which is the extraction of nonmetallic minerals. The benchmark monitoring data will be used to determine the overall effectiveness of the on site control measures and to assist in knowing when additional corrective actions may be necessary to comply with effluent limitations. Benchmark monitoring will be conducted quarterly for the first 4 full quarters of permit coverage commencing no earlier than 180 days after the effective date of the permit. After collection of 4 quarterly samples, if the average values for any parameter does not exceed the benchmark, the monitoring requirements have been fulfilled for that parameter for the term of the permit. If after collection of 4 quarterly samples the average of the 4 monitoring values for any parameter exceeds the benchmark the review of the selection, design, installation and implementation of control measures will be evaluated to determine if modifications are necessary to meet the effluent limits in stated in the permit.

Storm water sampling will be performed by the following personnel/positions and/or laboratory.

Greentree Land Management and/or Trident Labs

Analysis of the samples for TSS will be performed by the following certified laboratory.

Trident Labs

Storm event data will be collected according to the following procedures and by the following personnel/positions and/or laboratory.

Greentree Land Management and/or Trident Labs field technicians will recover water samples and process, sending the report to Greentree Land Management, LLC.

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### **Exception for Substantially Identical Outfalls**

If you are claiming the exception to Quarterly Visual Assessments and Benchmark Monitoring for substantially identical outfalls based on the similarities of the general industrial activities, control measures, and exposed materials, include the following information.

Location of outfalls that are substantially identical

Site has only 2 outfalls

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Description of the industrial activities (for example, sand mining), conducted in the drainage area of each outfall.

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Description of the control measures in the drainage area of each outfall.

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Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to storm water discharges.

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An estimate of the runoff coefficient of the drainage areas (low = under 40%, medium = 40-65%, high = above 65%)

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The outfalls are expected to discharge substantially identical effluents because

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**Effluent Limitations Monitoring**

If you discharge mine dewatering, mine process wastewater, mine equipment washwater, or suction dredge water, you are subject to monthly effluent limitations monitoring and are required to complete monthly Discharge Monitoring Reports (DMR). If you are subject to effluent limitations monitoring, DHEC will send the DMR's and your numeric effluent limitations to you when you are granted coverage under the general NPDES permit.

Effluent limitations monitoring is scheduled as follows for the following outfalls/locations: Monthly monitoring at the single outfall for TSS and pH.

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The applicable numeric effluent limitations are as follows:

Numeric Effluent Limitations			
Outfall	Parameter	Frequency	Numeric Limit
001	<i>Total Suspended Solids</i>	<i>monthly</i>	<i>55/110 mg/l</i>
001	pH	Monthly	6 - 8 pH

Effluent limitations sampling will be performed by the following personnel/positions and/or laboratory.

Trident Labs

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Analysis of samples will be performed by the following certified laboratory.

Trident Labs

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## Employee Training

Employee training is a major component toward ensuring the success of the mine's SWPPP. The more knowledgeable all employees are about the mine's SWPPP and what is expected of them, the greater the chance that the plan will be successful.

The following is a description of the employee training programs to be implemented to inform appropriate personnel at all levels of responsibility of the components and goals of the SWPPP. (Examples: good housekeeping practices, spill prevention and response procedures, waste minimization practices, etc.)

<b>EMPLOYEE TRAINING</b>		
<b>Topic</b>	<b>Employees Included</b>	<b>Frequency</b>
Maintenance of Sediment Controls	New Hires	As new employees are added
Good House Keeping	New Hires	As new employees are added
Review SWPPP practices and updates or modifications	All employees	Annual

## Spill Prevention and Response Procedures

Spills and leaks together are the largest industrial source of storm water pollution. Thus, this SWPPP specifies material handling procedures and storage requirements for significant materials. Equipment and procedures necessary for cleaning up spills and preventing the spilled materials from being discharged have also been identified. All employees have been made aware of the proper procedures.

The following procedures have been developed for spill response for our facility. (Examples of areas to include: chemical drum storage, vehicle maintenance and repair, etc.) If applicable, the Spill Prevention, Control and Countermeasure (SPCC) Plan can be referenced for compliance with this section.

<b>SPILL PREVENTION AND RESPONSE PROCEDURES</b>		
<b>Area</b>	<b>Materials Present</b>	<b>Response Equipment Location</b>
<b>Mine Pit</b>	<b>Petroleum Products</b>	<b>Contact fire department emergency response team to assist and supervise with containment and clean up.</b>
<b>Mine pit</b>	<b>Human Waste</b>	<b>Contact lessor of portable toilet for containment and clean up</b>



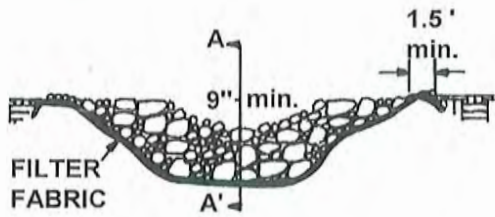
## Erosion and Sedimentation Control Measures

Areas prone to soil erosion need to be protected, and the soil kept out of the storm water discharge. The general objectives for nonmetal mining sites are to: 1) minimize the potential for erosion, 2) minimize storm water runoff from active mining areas and access roads, 3) collect and retain sediment from active areas, and 4) minimize runoff velocities.

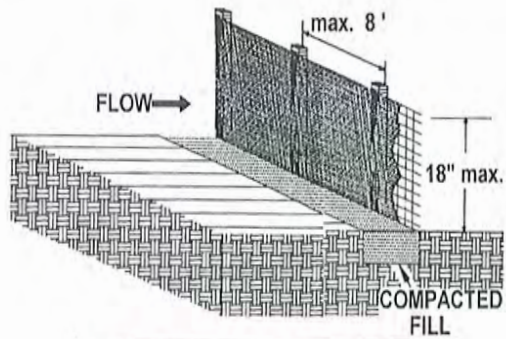
Types of erosion and sedimentation control measures include:

- ✓ Surface roughening (bulldozer tracks)
- ✓ Berms (brush and earthen)
- ✓ Sediment fence
- ✓ Erosion control blanket
- ✓ Check dams
- ✓ Slope drain, flume
- ✓ Sediment pond
- ✓ Vegetation

<b>EROSION AND SEDIMENTATION CONTROL MEASURES</b>	
<b>Area of Concern</b>	<b>Control Measures</b>
Stockpiles	Install silt fence as per diagram and mine map around edge of any stockpiles not located within affected acreage. If stockpile is within AA, no silt fence required.
Sump Pond	Install float on intake pipe to make sure intake is a minimum of 3' from bottom of pond. Put intake in drum if required to ensure proper intake elevation is maintained. Inspect rip rap to ensure no movement and functioning properly. Inspect silt fence as shown in mine map
Access road	Install rock mat at intersection of access road and Hyde Park Road. Rock mat should be as wide as access road and a minimum of 50' in length.
New Road	Inspect Hyde Park Road during active mining to minimize sediment deposits on road. Clean as necessary at access point to minimize the transport of sediments.
Mine Pit	Attempt to keep slopes at a minimum of 3:1 to direct storm water run-off into pit to be pumped to sediment pond for settling. When pumping from sediment pond check out fall for sediment loading if excessive cease pumping until sediment settles or construct check dam across out fall per diagram. Silt fence installed at stockpile if necessary and discharge point.



Riprap Check Dam Design



Sediment Fence Design

## 7.2 Structural Controls

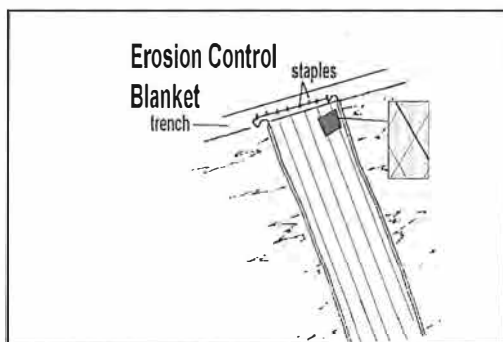
Structural control measures are necessary to control any pollutants that are still present in the storm water after the non-structural controls have been implemented. These types of controls are physical features that control and prevent storm water pollution. They can range from preventive measures to collection structures to treatment systems. Structural controls will require construction of a physical feature or barrier. (If no structural control measures are needed at the mine, state that in this section.)

### Preventive Measures

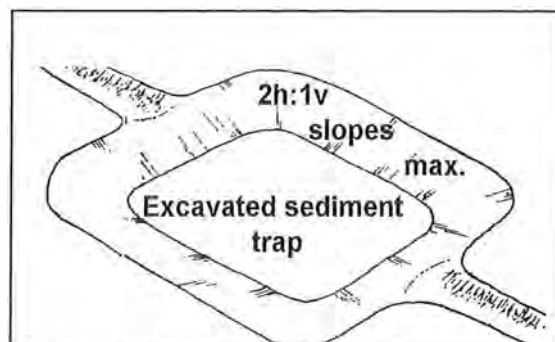
Preventive measures are controls that are intended to prevent the exposure of storm water to contaminants. Some of the preventive measures that should be addressed for a mining facility include: stormwater diversion practices, mud mat for trucks, berm area for vehicle wash water control, and containment area for fuel storage.

The following preventive measures have been chosen for this facility:

PREVENTIVE MEASURES		
Area	Material	Control Measure
Stockpile Areas	Silt fence	Install silt fence according to diagram for stockpiles at grade. Not necessary below grade.
Mine Pit	Sediment	Slope mine so storm water flows into mine pit during storm events to minimize the transport of sediment off site.
Access Road	Rock	Put a rock mat at entrance road to site. Mat should be as wide as entrance road and 50' in length
Haul Road	Silt Fence	Install double silt fence along haul road within wetland areas.



Erosion Control Blanket



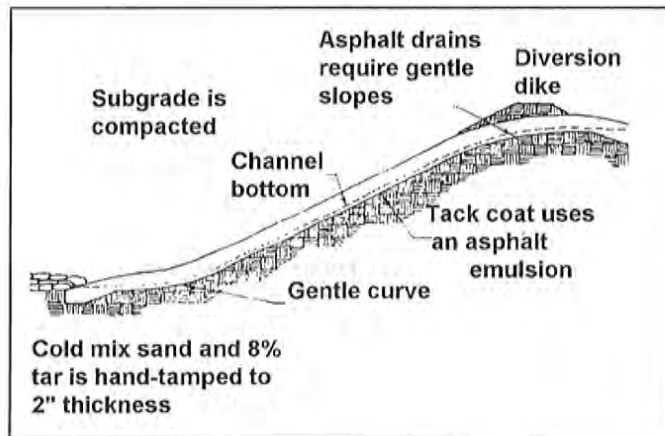
Excavated Sediment Trap

## Diversions

Diversion practices are structures (including grading and paving) that are used to divert storm water away from high-risk areas and prevent contaminants from mixing with the runoff, or to channel contaminated storm water to a treatment facility or containment area.

The following areas are to be protected through the use of diversion structures. (Examples: storage areas, processing areas, past spills, etc.)

DIVERSIONS		
Area	Material	Control Measure
Diversion methods not needed as contaminants associated with this fill dirt excavation are minimal		



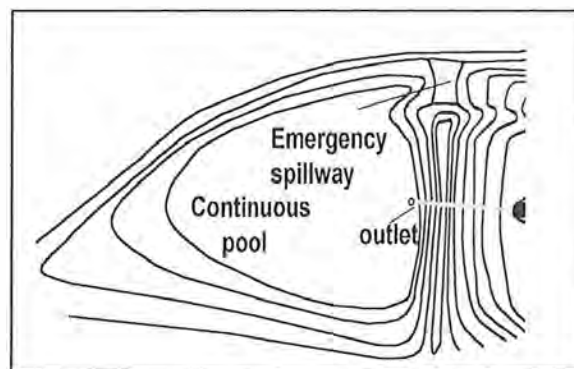
**Flumes**

## Containment

Containment areas are structures designed to hold pollutants or contaminated storm water to prevent it from being discharged to surface waters. These structures can range from drip pans to large containment areas. The Spill Prevention, Control, and Countermeasure (SPCC) plan contains details to ensure compliance with both the SPCC and SWPPP.

Containment structures have been installed in the following areas. (Examples: containment around waste fluid storage areas, drip pans under valves and pipe connections, etc.)

CONTAINMENT		
Area	Material	Control Measure
No contaminants associated with mine activity however it is possible fuel oil and oil could be discharged	Petroleum Products	Contact fire department emergency response team to assist and supervise with containment and clean up.
Mine area	Human Waste	Contact lessor of portable toilet for containment and clean up.
Mine area	Storm water	Install silt fence at discharge point and stockpile as seen on mine map.



Sediment Basin

**Other Controls**

There are other control measures that can be used that may not fit into one of the previously mentioned categories. The use of such controls is encouraged.

The following additional controls will be used at the facility. (Examples: sumps, oil/water separators, sand filters, vegetative filters, basins [collection, retention, detention], reduce, reuse and recycle materials, etc.)

<b>OTHER CONTROLS</b>		
<b>Area</b>	<b>Material</b>	<b>Control Measure</b>
Topsoil Stockpile for Reclamation	Silt fence	Place silt fence around topsoil stockpile to minimize potential for migration of sediments. Allow area to vegetate to stabilize stockpiled material.
Fill dirt stockpiles	Silt fence	Any stockpiles not to be transported off site in a reasonable period of time shall be contained by a silt fence and allowed to vegetate to maximize stabilization of sediment
Access Road/ Haul Road	Double Silt Fence	Install double silt fence along haul road wetland areas and inspect weekly.

## **8.0 Record Keeping and Reporting**

### **8.1 Additional Documentation Requirements**

You are required to keep the following records with your SWPPP. These records must be made available, upon request, to a representative of the South Carolina Department of Health and Environmental Control (SCDHEC).

- a. A copy of the NOI submitted to the Department along with any correspondence exchanged between you and the Department specific to coverage under this permit;
- b. A copy of the acknowledgment letter you receive from the Department assigning your permit coverage number;
- c. A copy of this permit (an electronic copy easily available to SWPPP personnel is also acceptable);
- d. Descriptions and dates of any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants to waters of the State or U.S., through stormwater or otherwise; the circumstances leading to the release and actions taken in response to the release; and measures taken to prevent the recurrence of such releases (see Part IX.A.2.d);
- e. Records of employee training, including the date training is received (see Part IX.A.2.h); documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (see Part IX.A.2.c);
- f. All inspection reports, including the Routine Facility Inspection Reports (see Part VIII.E.1), the Quarterly Visual Assessment Reports (see Part VIII.E.2), and the Comprehensive Site Inspection Reports (see Part VIII.E.3);
- g. Descriptions of any deviations from the schedule for visual assessments and/or monitoring, and the reasons for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes of a measurable storm event; see Parts VIII.E.2.a, IV.C.1.d, and IV.C.2.a.ii);
- h. Description of any corrective action taken at your site, including triggering event and dates when problems were discovered and modifications occurred;
- i. Documentation of any benchmark exceedances and how they were responded to, including either (1) corrective action taken, (2) a finding that the exceedance was due to natural background pollutant levels, or (3) a finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part IV.C.2.a.ii;

- j. Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if you discharge directly to impaired waters, and that such pollutants were not detected in your discharge or were solely attributable to natural background sources (see Part IV.C.2.b.ii); and
- k. Documentation to support your claim that your facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine facility inspections (see Part VIII.E.1.c), quarterly visual assessments (see Part VIII.E.2.c.ii), and/or benchmark monitoring (see Part IV.C.2.a.i(d)).
- l. Regarding sand and gravel dredging operations: description of best management practices selected to minimize the discharge of pollutants (see Part IX.E.2), and documentation of when maintenance activities, including the removal of sediment from basins, were conducted (see Part IX.E.4).

## 8.2 Sample Record Keeping and Reporting Forms

The following pages contain sample forms for the record keeping and reporting associated with the SWPPP. The following forms are examples and may be used by your facility for reporting purposes.

- ✓ Good Housekeeping - A program by which the facility is kept in a clean and orderly fashion.
- ✓ Preventive Maintenance - A program focused on preventing releases caused by equipment problems, rather than repair of equipment after problems occur.
- ✓ Routine Facility Inspection Report - Routine inspections conducted at least quarterly.
- ✓ Quarterly Visual Assessment Report - A visual assessment of stormwater discharges.
- ✓ Comprehensive Site Inspection Report - A program established to oversee facility operations and identify actual or potential problems.
- ✓ Employee Training - A program developed to instill in employees an understanding of the BMP plan.
- ✓ Significant Spill Report - A list of significant spills and leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the mine site.
- ✓ Certification of inactive and unstaffed status of site - Inactive and unstaffed sites may be exempt from benchmark monitoring, routine facility inspections and quarterly visual assessments.



**GOOD HOUSEKEEPING**

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Inspected by (printed): \_\_\_\_\_

Signature: \_\_\_\_\_

<b>Areas Inspected</b>	<b>Observations</b>	<b>Actions Taken</b>
Parking areas		
Fuel pumps		
Storm water outfalls		
Stockpiles		
Plant area		
Equipment storage areas		
Maintenance shed		



**ROUTINE FACILITY INSPECTION REPORT**

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Inspected by (printed): \_\_\_\_\_

Signature: \_\_\_\_\_

Weather observations: \_\_\_\_\_

Areas Inspected*	Observations	Actions Taken

\* Areas Inspected should include all areas of the facility where industrial materials or activities are exposed to stormwater, and all stormwater control measures used to comply with the effluent limits contained in this permit.

Description of any discharges occurring at the time of the inspection:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Additional control measures necessary to comply with permit:

\_\_\_\_\_

**QUARTERLY VISUAL ASSESSMENT REPORT**

Date: \_\_\_\_\_

Inspected by (printed): \_\_\_\_\_

Signature: \_\_\_\_\_

Outfall →				
Time of sample				
Time of assessment				
Color				
Odor				
Clarity				
Floating Solids				
Settled Solids				
Suspended Solids				
Foam				
Oil Sheen				
Other				

If samples were not collected within the first 30 minutes of the discharge, the reasons were as follows:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**COMPREHENSIVE SITE INSPECTION REPORT**

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Inspected by (printed): \_\_\_\_\_

Signature: \_\_\_\_\_

<b>Areas Inspected</b>	<b>Observations</b>	<b>Actions Taken</b>
Office		
Access/Haul Roads		
Offsite tracking locations		
Property boundaries		
Sediment basin(s)		
Storm water outfall(s)		
Stockpiles		
Overburden area(s)		
Equipment storage areas		
Plant area		
Maintenance shed		
Fuel pumps		
Pit		
Spills and leaks past 3 years		
Control Measures		
S.C. TMDL list		

**EMPLOYEE TRAINING**

Date of Session: \_\_\_\_\_

Time: \_\_\_\_\_

Trainer: \_\_\_\_\_  
(Printed)

\_\_\_\_\_  
(Signature)

Attendees (Names, printed):

Signature:

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Topics Covered: \_\_\_\_\_

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**SIGNIFICANT SPILL REPORT**

Date of Occurrence: \_\_\_\_\_

Discovered by Whom: \_\_\_\_\_

Location: \_\_\_\_\_

Material Type & Volume: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Cause of Spill \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Corrective Action Taken including Measures to Prevent a Recurrence: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Agencies/Persons Contacted: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Signature

**CERTIFICATION OF INACTIVE AND UNSTAFFED SITE STATUS**

Benchmark monitoring, routine facility inspections, and quarterly visual assessments are not required at inactive and unstaffed sites.

I hereby certify that the \_\_\_\_\_ Mine  
operated by \_\_\_\_\_

is inactive and unstaffed as of the date of this certification.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

\_\_\_\_\_

If circumstances change and the site becomes active and/or staffed, the exceptions for inactive and unstaffed sites no longer apply, and the statement below indicating the site became active and/or staffed shall be kept with the SWPPP.

This site became active and/or staffed on \_\_\_\_\_ (date).

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_





## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
South Carolina Ecological Services  
176 Croghan Spur Road, Suite 200  
Charleston, SC 29407-7558  
Phone: (843) 727-4707 Fax: (843) 727-4218

In Reply Refer To:  
Project Code: 2023-0100756  
Project Name: Highborne Farm FMP

July 05, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

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Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-

## **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**South Carolina Ecological Services**

176 Croghan Spur Road, Suite 200

Charleston, SC 29407-7558

(843) 727-4707

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## PROJECT SUMMARY

Project Code: 2023-0100756  
Project Name: Highthorne Farm FMP  
Project Type: Forest Management Plan  
Project Description: Forest Management Plan  
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@32.8254749,-80.25660923495599,14z>



Counties: Charleston County, South Carolina

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 16 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

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**BIRDS**

NAME	STATUS
Bachman's Warbler (=wood) <i>Vermivora bachmanii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/3232">https://ecos.fws.gov/ecp/species/3232</a>	Endangered
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10477">https://ecos.fws.gov/ecp/species/10477</a>	Threatened
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a>	Threatened
Red Knot <i>Calidris canutus rufa</i> There is <b>proposed</b> critical habitat for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a>	Threatened
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7614">https://ecos.fws.gov/ecp/species/7614</a>	Endangered
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8477">https://ecos.fws.gov/ecp/species/8477</a>	Threatened

**REPTILES**

NAME	STATUS
Green Sea Turtle <i>Chelonia mydas</i> Population: North Atlantic DPS There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/6199">https://ecos.fws.gov/ecp/species/6199</a>	Threatened
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i> There is <b>proposed</b> critical habitat for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5523">https://ecos.fws.gov/ecp/species/5523</a>	Endangered
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1493">https://ecos.fws.gov/ecp/species/1493</a>	Endangered
Loggerhead Sea Turtle <i>Caretta caretta</i> Population: Northwest Atlantic Ocean DPS There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1110">https://ecos.fws.gov/ecp/species/1110</a>	Threatened

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## FLOWERING PLANTS

NAME	STATUS
American Chaffseed <i>Schwalbea americana</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1286">https://ecos.fws.gov/ecp/species/1286</a>	Endangered
Canby's Dropwort <i>Oxypolis canbyi</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7738">https://ecos.fws.gov/ecp/species/7738</a>	Endangered
Pondberry <i>Lindera melissifolia</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1279">https://ecos.fws.gov/ecp/species/1279</a>	Endangered

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.



# **USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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## MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\) list](#) or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9587">https://ecos.fws.gov/ecp/species/9587</a>	Breeds Apr 1 to Aug 31
Bachman's Sparrow <i>Aimophila aestivalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/6177">https://ecos.fws.gov/ecp/species/6177</a>	Breeds May 1 to Sep 30

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NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31
<b>Brown-headed Nuthatch <i>Sitta pusilla</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jul 15
<b>Chimney Swift <i>Chaetura pelagica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
<b>Kentucky Warbler <i>Oporornis formosus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
<b>Prairie Warbler <i>Dendroica discolor</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
<b>Prothonotary Warbler <i>Protonotaria citrea</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
<b>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
<b>Swallow-tailed Kite <i>Elanoides forficatus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8938">https://ecos.fws.gov/ecp/species/8938</a>	Breeds Mar 10 to Jun 30

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.





Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
  2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
-

3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell

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me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.





## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

### FRESHWATER FORESTED/SHRUB WETLAND

- [PFO1C](#)
- [PFO4A](#)
- [PFO1F](#)

### FRESHWATER EMERGENT WETLAND

- [PEM1C](#)
-

## **IPAC USER CONTACT INFORMATION**

Agency: Greentree Land Management LLC  
Name: Robert Strange  
Address: 105 Wappoo Creek Drive  
Address Line 2: Suite 1A  
City: Charleston  
State: SC  
Zip: 29412  
Email: rstrange@greentreelandmanagement.com  
Phone: 8438305375

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# South Carolina Department of Natural Resources

Robert H. Boyles, Jr.  
Director

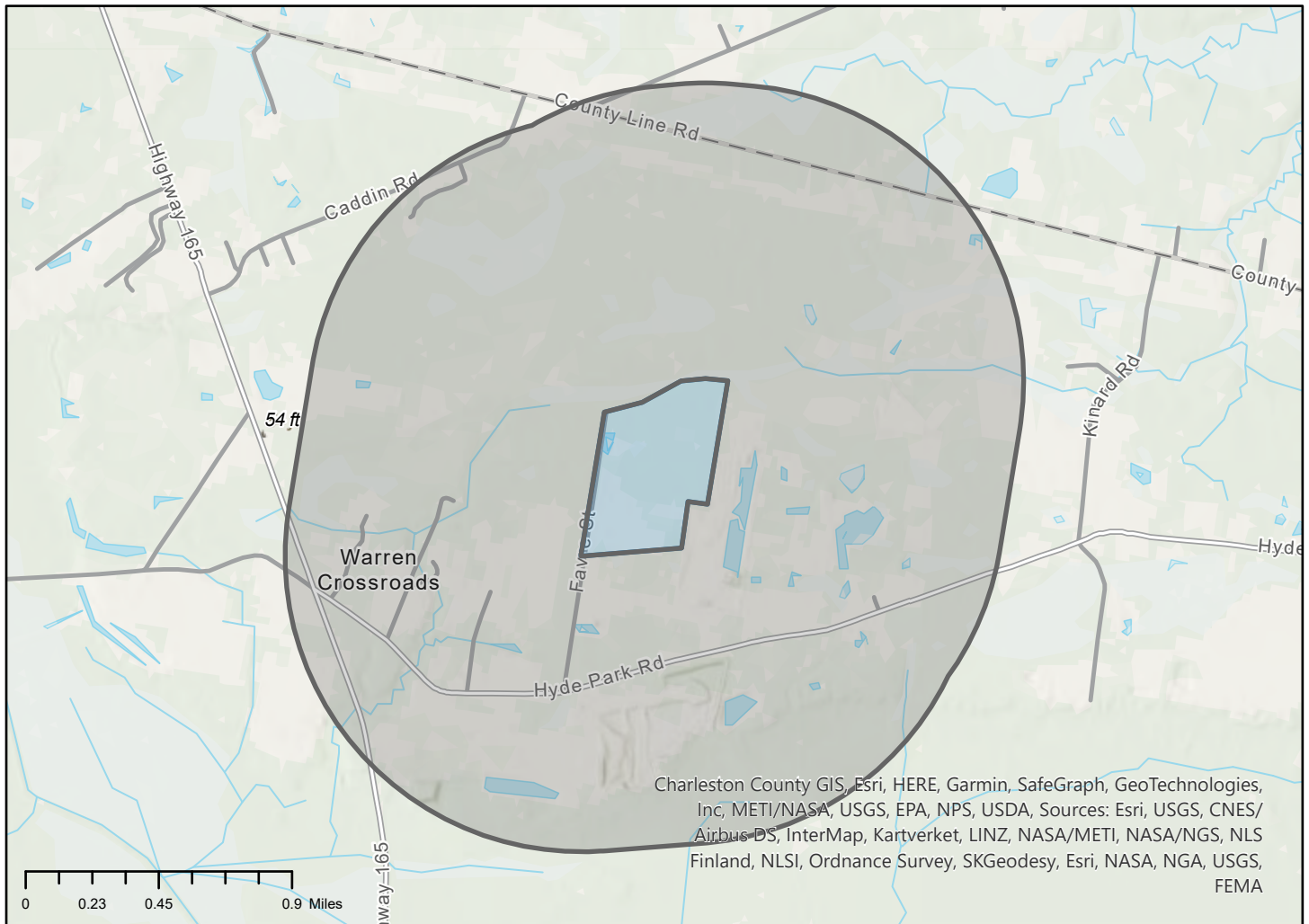
Emily C. Cope  
Deputy Director for Wildlife and Freshwater Fisheries

PO Box 167  
Columbia, SC 29202  
(803) 734-1396  
speciesreview@dnr.sc.gov

*Requested on Wednesday, July 5, 2023 by Robert Strange.*

Re: Request for Threatened and Endangered Species Consultation  
Garretson Carter - Hightorne Farm FMP - Timberlands - Charleston County, South Carolina

The South Carolina Department of Natural Resources (SCDNR) has received your request for threatened and endangered species consultation of the above named project in Charleston County, South Carolina. The following map depicts the project area and a 1 mile buffer surrounding:



Live Life Outdoors





# South Carolina Department of Natural Resources

Robert H. Boyles, Jr.  
Director

Emily C. Cope  
Deputy Director for Wildlife and Freshwater Fisheries

This report includes the following items:

- A - A report for species which intersect the project area
- B - A report for species which intersect the buffer around the project area
- C - A list of best management practices relevant to species near to or within the project area
- D - A list of best management practices relevant to the project type
- E - A list of state & federally listed species within the county of the project area
- F - Instructions to submit new species observation records to the SC Natural Heritage Program

Please be advised:

The contents of this report, including all tables, maps, recommendations, and various other text, are produced as a direct result of the information a user provides at the time of submission. The SCDNR assumes that all information submitted by the user represents the project scope as proposed, and recommends that additional reports be requested should the scope deviate from how the project was initially represented to the SCDNR.

The technical comments outlined in this report are submitted to speak to the general impacts of the activities as described through inquiry by parties outside the South Carolina Department of Natural Resources. These technical comments are submitted as guidance to be considered and are not submitted as final agency comments that might be related to any unspecified local, state or federal permit, certification or license applications that may be needed by any applicant or their contractors, consultants or agents presently under review or not yet made available for public review. In accordance with its policy 600.01, Comments on Projects Under Department Review, the South Carolina Department of Natural Resources, reserves the right to comment on any permit, certification or license application that may be published by any regulatory agency which may incorporate, directly or by reference, these technical comments.

Interested parties are to understand that SCDNR may provide a final agency position to regulatory agencies if any local, state or federal permit, certification or license applications may be needed by any applicant or their contractors, consultants or agents. For further information regarding comments and input from SCDNR on your project, please contact our Office of Environmental Programs by emailing [environmental@dnr.sc.gov](mailto:environmental@dnr.sc.gov) or by visiting [www.dnr.sc.gov/environmental](http://www.dnr.sc.gov/environmental). Pursuant to Section 7 of the Endangered Species Act, requests for formal letters of concurrence with regards to federally listed species should be directed to the USFWS.

Should you have any questions or need more information, please do not hesitate to contact our office by email at [speciesreview@dnr.sc.gov](mailto:speciesreview@dnr.sc.gov) or by phone at 803-734-1396.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph Lemeris, Jr.", is written over a light blue rectangular background.

Joseph Lemeris, Jr.  
Heritage Trust Program  
SC Department of Natural Resources

*Live Life Outdoors*

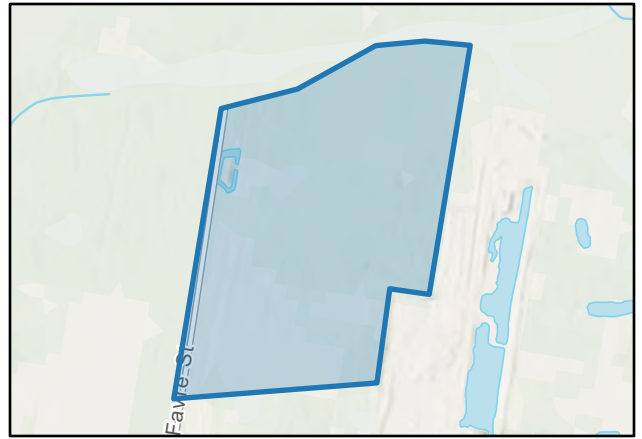


## A. Project Area - Species Report

There are 0 tracked species records found within the project foot print. The following table outlines occurrences found within the project footprint (if any), sorted by listing status and species name. Please keep in mind that this information is derived from existing databases and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. You can find more information about global and state rank status definitions by visiting Natureserve's web page. Please note that certain sensitive species found on site may be listed in this table but are not represented on the map. Please contact [speciesreview@dnr.sc.gov](mailto:speciesreview@dnr.sc.gov) should you have further questions related to sensitive species found within the project area.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, NASA, NGA, USGS,



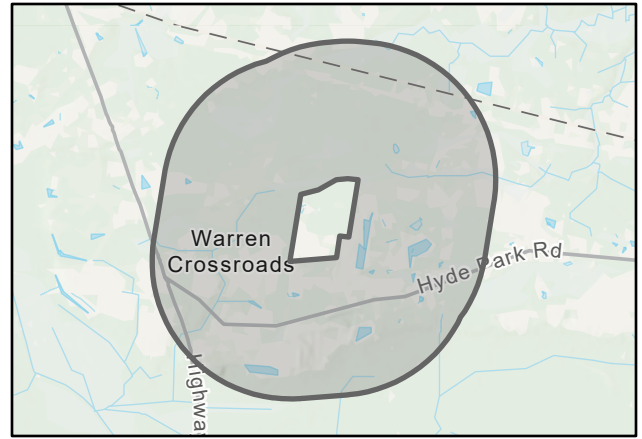
No records for species of concern are found within the project area

## B. Buffer Area - Species Report

The following table outlines rare, threatened or endangered species found within 1 miles of the project footprint, arranged in order of protection status and species name. Please keep in mind that this information is derived from existing databases and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. You can find more information about global and state rank status definitions by visiting NatureServe's web page. Please note that certain sensitive species found within the buffer area may be listed in this table but are not represented on the map.



Map Credits: Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri, NASA, NGA, USGS, FEMA



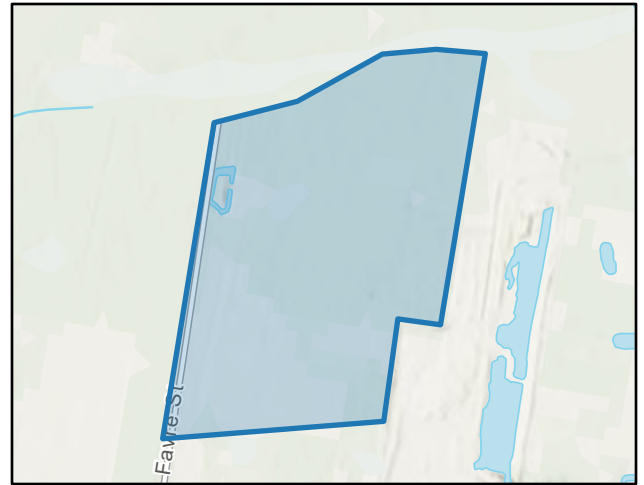
Scientific Name	Common Name	Federal Protection Status	State Protection Status	G Rank	S Rank	Last Obs. Date	Type
<i>Clemmys guttata</i>	Spotted Turtle	ARS: At-Risk Species	ST: State Threatened	G5	S3	2019-04-10	Zoological

## C. Species Best Management Practices (1 of 2)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to species of concern which may be found on or near to the project area. Please contact [speciesreview@dnr.sc.gov](mailto:speciesreview@dnr.sc.gov) should you have further questions with regard to survey methods, consultation, or other species-related concerns.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SK Geodesy, Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, NASA, NGA, USGS,



Regarding spotted turtle (1 of 3): The spotted turtle (*Clemmys guttata*) is a state-threatened species and a federal At-Risk species (ARS). Spotted turtles may be allowed to be relocated into areas of suitable habitat, management, and conservation status; however, any plans for relocation should be submitted for review to SCDNR with a detailed description and images of the current and future habitat and proposed work plan and methodologies as it pertains to a relocation project. It should be noted that not all habitats are suitable for relocation.

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

Regarding spotted turtle (2 of 3): 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. Please contact the State Herpetologist by calling 854-202-0472.

Regarding spotted turtle (3 of 3): For areas where construction will occur in wetlands, the SCDNR recommends the following to prevent the take of this state protected species:

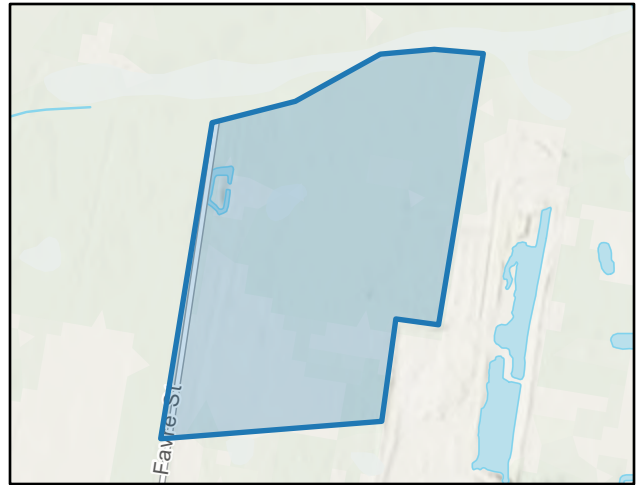
- Surveys for the presence of spotted turtle in wetlands to be impacted should occur from February 15th – April 15th. The best window for visually identifying spotted turtles as well as successfully trapping is February to early May. Visual surveys are usually most effective February to April and trapping, usually March to May. All of this depends on water levels in the surveyed wetland habitat. If dry or extremely low water levels, neither method will be effective or appropriate. Spotted turtles utilize wetland habitat during certain times of the year, but during periods of drought or low water levels, spotted turtles will aestivate in the surrounding forests adjacent to wetlands. The SCDNR recommends one of the methods detailed in the Spotted Turtle Assessment Protocol developed by the Spotted Turtle Working Group be utilized. Following completion of surveys, the results should be submitted to SCDNR, and further coordination occur if spotted turtle are found to be present onsite.

## C. Species Best Management Practices (2 of 2)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to species of concern which may be found on or near to the project area. Please contact [speciesreview@dnr.sc.gov](mailto:speciesreview@dnr.sc.gov) should you have further questions with regard to survey methods, consultation, or other species-related concerns.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SK Geodesy, Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, NASA, NGA, USGS,



Species in the above table with SWAP priorities of High, Highest or Moderate are designated as having conservation priority under the South Carolina State Wildlife Action Plan (SWAP). SWAP species are those species of greatest conservation need not traditionally covered under any federal funded programs. Species are listed in the SWAP because they are rare or designated as at-risk due to knowledge deficiencies; species common in South Carolina but listed rare or declining elsewhere; or species that serve as indicators of detrimental environmental conditions. SCDNR recommends that appropriate measures should be taken to minimize or avoid impacts to the aforementioned species of concern.

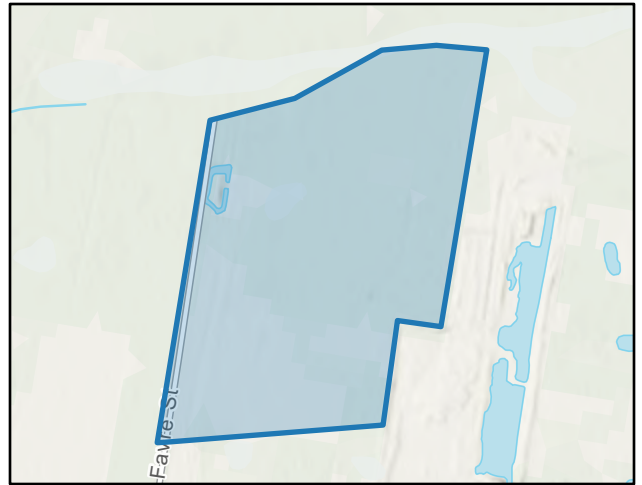


## D. Project Best Management Practices (1 of 2)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to natural resources within or surrounding the project area. Please contact our Office of Environmental Programs at [environmental@dnr.sc.gov](mailto:environmental@dnr.sc.gov) should you have further questions with regard to best management practices related to this project area.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SK Geodesy, Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, NASA, NGA, USGS,



Our records indicate one or more parcels within your project area may be associated with a conservation easement. We recommend you inquire with the appropriate County to receive a copy of the recorded deed and plat before moving forward with any alterations to the project site.

Review of available data, National Wetlands Inventory and hydric soils, indicate that wetlands or waters of the United States are present within your project area. These areas may require a permit from the U.S. Army Corps of Engineers (USACE), as well as a compensatory mitigation plan. SCDNR advises that you consult with the USACE Regulatory to determine if jurisdictional wetlands are present and if a permit and mitigation is required for any activities impacting these areas. For more information, please visit their website at [www.sac.usace.army.mil/Missions/Regulatory](http://www.sac.usace.army.mil/Missions/Regulatory). Additionally, a 401 Water Quality Certification may also be required from the SC Department of Health & Environmental Control. For more information, please visit their website at <https://www.scdhec.gov/environment/water-quality/water-quality-certification-section-401-clean-water-act>.

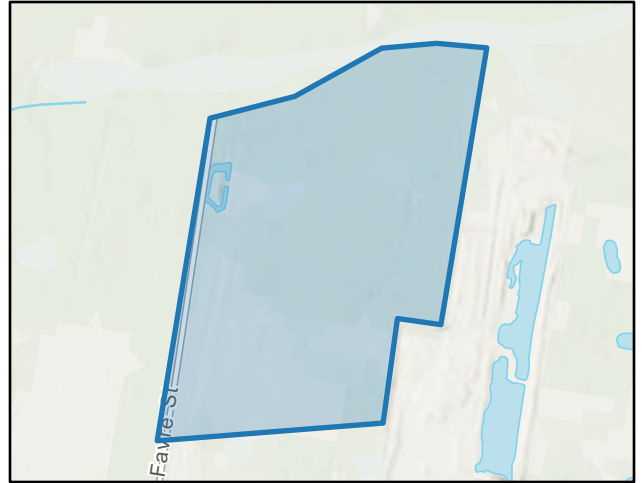
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/water.
- Once the project is initiated, it must be carried to completion in an expeditious manner to minimize the period of disturbance to the environment.
- Upon project completion, all disturbed areas must be permanently stabilized with vegetative cover (preferable), riprap or other erosion control methods as appropriate.
- The project must be in compliance with any applicable floodplain, stormwater, land disturbance, shoreline management guidance or riparian buffer ordinances.
- Prior to beginning any land disturbing activity, appropriate erosion and siltation control measures (e.g. silt fences or barriers) must be in place and maintained in a functioning capacity until the area is permanently stabilized.
- Materials used for erosion control (e.g., hay bales or straw mulch) will be certified as weed free by the supplier.
- Inspecting and ensuring the maintenance of temporary erosion control measures at least:
  - a. on a daily basis in areas of active construction or equipment operation;
  - b. on a weekly basis in areas with no construction or equipment operation; and
  - c. within 24 hours of each 0.5 inch of rainfall.
- Ensuring the repair of all ineffective temporary erosion control measures within 24 hours of identification, or as soon as conditions allow if compliance with this time frame would result in greater environmental impacts.
- Land disturbing activities must avoid encroachment into any wetland areas (outside the permitted impact area). Wetlands that are unavoidably impacted must be appropriately mitigated.
- Your project may require a Stormwater Permit from the SC Department of Health & Environmental Control, please visit <https://www.scdhec.gov/environment/water-quality/stormwater>

## D. Project Best Management Practices (2 of 2)

SCDNR offers the following comments and best management practices (BMPs) regarding this project's potential impacts to natural resources within or surrounding the project area. Please contact our Office of Environmental Programs at [environmental@dnr.sc.gov](mailto:environmental@dnr.sc.gov) should you have further questions with regard to best management practices related to this project area.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SK Geodesy, Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, NASA, NGA, USGS,



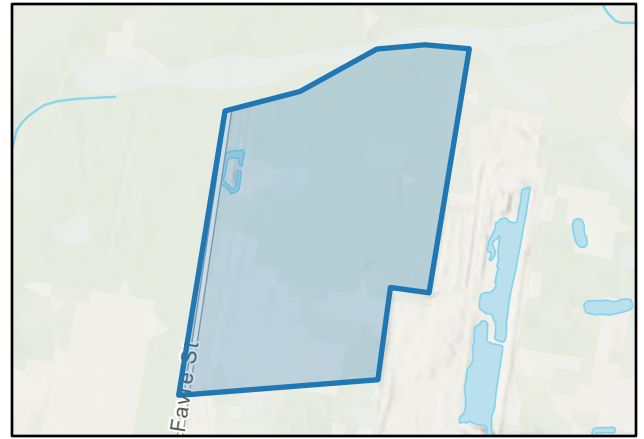
- If clearing must occur, riparian vegetation within wetlands and waters of the U.S. must be conducted manually and low growing, woody vegetation and shrubs must be left intact to maintain bank stability and reduce erosion.
- Construction activities must avoid and minimize, to the greatest extent practicable, disturbance of woody shoreline vegetation within the project area. Removal of vegetation should be limited to only what is necessary for construction of the proposed structures.
- Where necessary to remove vegetation, supplemental plantings should be installed following completion of the project. These plantings should consist of appropriate native species for this ecoregion and 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).
- Your project boundary lies within a coastal county in South Carolina which means you may also need a Coastal Zone Consistency Certification for your project from the SC Department of Health and Environmental Control. For more information, visit: <https://www.scdhec.gov/environment/your-water-coast/ocean-coastal-management/beach-management/coastal-permits/coastal-zone>
- If your project could affect coastal waters, tidelands, beaches and beach/dune systems, you may also need a critical area permit from the SC Department of Health and Environmental Control. For more information, visit: <https://www.scdhec.gov/environment/your-water-coast/ocean-coastal-management/beach-management/coastal-permits/critical-1>

## E. State & Federally Listed Species in Charleston County

The South Carolina Department of Natural Resources' Heritage Trust Program organizes a database that captures and tracks element of occurrence data for rare, threatened and endangered species, both federal and state. Please keep in mind that this information included within this report is derived from existing databases, and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. If your project requires the assessment of potential threatened or endangered species that could be within the project area, the SCDNR asks that you include a review of the state listed species within the county or watershed in addition to those that may be within the report as being within the project footprint or within 1-mile of the proposed project area. Consideration should be given to the occurrence of suitable habitat onsite, species movement and connectivity of habitat when assessing the likelihood of a state listed species on the project area.



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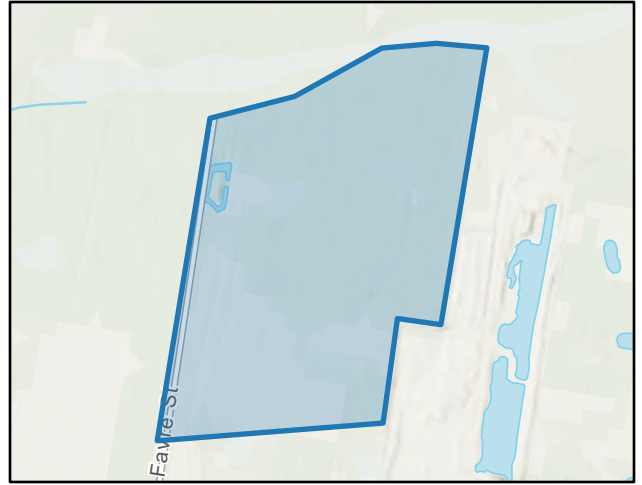


County	Scientific Name	Common Name	G Rank	S Rank	Federal Protection Status	State Protection Status	Group Type
Charleston	<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	G3	S3	LE: Federally Endangered	SE: State Endangered	Zoological
Charleston	<i>Acipenser oxyrinchus</i>	Atlantic Sturgeon	G3	S3	LE: Federally Endangered	Not Applicable	Zoological
Charleston	<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	LT: Federally Threatened	SE: State Endangered	Zoological
Charleston	<i>Bombus pensylvanicus</i>	American Bumble Bee	G3G4	SNR	ARS: At-Risk Species	Not Applicable	Zoological
Charleston	<i>Calidris canutus rufa</i>	Red Knot	G4T2	S2S3N	LT: Federally Threatened	Not Applicable	Zoological
Charleston	<i>Callophrys irus</i>	Frosted Elfín	G2G3	SNR	ARS: At-Risk Species	Not Applicable	Zoological
Charleston	<i>Caretta caretta</i>	Loggerhead Sea Turtle	G3	S3	LT: Federally Threatened	ST: State Threatened	Zoological
Charleston	<i>Charadrius melodus</i>	Piping Plover	G3	S2N	LT: Federally Threatened	SE: State Endangered	Zoological
Charleston	<i>Charadrius wilsonia</i>	Wilson's Plover	G5	S2	MBTA: Migratory Bird Treaty Act	ST: State Threatened	Zoological
Charleston	<i>Clemmys guttata</i>	Spotted Turtle	G5	S3	ARS: At-Risk Species	ST: State Threatened	Zoological
Charleston	<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S2	Not Applicable	SE: State Endangered	Zoological
Charleston	<i>Crotalus adamanteus</i>	Eastern Diamond-backed Rattlesnake	G3	S3	ARS: At-Risk Species	Not Applicable	Zoological
Charleston	<i>Danaus plexippus</i>	Monarch Butterfly	G4	S4	C: Candidate	Not Applicable	Zoological
Charleston	<i>Dermochelys coriacea</i>	Leatherback Sea Turtle	G2	S1	LE: Federally Endangered	SE: State Endangered	Zoological
Charleston	<i>Dryobates borealis</i>	Red-cockaded Woodpecker	G3	S2	LE: Federally Endangered	SE: State Endangered	Zoological
Charleston	<i>Elanoides forficatus</i>	Swallow-tailed Kite	G5	S1S2	MBTA: Migratory Bird Treaty Act	SE: State Endangered	Zoological
Charleston	<i>Eurycea chamberlaini</i>	Chamberlain's Dwarf Salamander	G4	S3	ARS: At-Risk Species	Not Applicable	Zoological
Charleston	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3B,S3N	Bald & Golden Eagle Protection Act	ST: State Threatened	Zoological
Charleston	<i>Heterodon simus</i>	Southern Hog-nosed Snake	G2	S1S2	Not Applicable	ST: State Threatened	Zoological
Charleston	<i>Laterallus jamaicensis</i>	Black Rail	G3	S1	LT: Federally Threatened	Not Applicable	Zoological
Charleston	<i>Lithobates capito</i>	Carolina Gopher Frog	G2G3	S1	ARS: At-Risk Species	SE: State Endangered	Zoological
Charleston	<i>Mycteria americana</i>	Wood Stork	G4	S2	LT: Federally Threatened	SE: State Endangered	Zoological
Charleston	<i>Myotis septentrionalis</i>	Northern Long-eared Bat	G2G3	S1	LE: Federally Endangered	Not Applicable	Zoological
Charleston	<i>Numenius borealis</i>	Eskimo Curlew	GH	SX	MBTA: Migratory Bird Treaty Act	SE: State Endangered	Zoological
Charleston	<i>Perimyotis subflavus</i>	Tricolored Bat	G3G4	S1S2	LEP: Federally Endangered (Proposed)	Not Applicable	Zoological
Charleston	<i>Pseudobranchius striatus</i>	Northern Dwarf Siren	G5	S2	Not Applicable	ST: State Threatened	Zoological
Charleston	<i>Sternula antillarum</i>	Least Tern	G4	S2	MBTA: Migratory Bird Treaty Act	ST: State Threatened	Zoological
Charleston	<i>Trichechus manatus</i>	Florida Manatee	G2G3	S1S2	LT: Federally Threatened	SE: State Endangered	Zoological
Charleston	<i>Vermivora bachmanii</i>	Bachman's Warbler	GX	SX	Not Applicable	SE: State Endangered	Zoological
Charleston	<i>Amaranthus pumilus</i>	Seabeach Amaranth, Dwarf Amaranth	G2	S1	LT: Federally Threatened	Not Applicable	Botanical
Charleston	<i>Carex lutea</i>	Golden Sedge	G2	S1	LE: Federally Endangered	Not Applicable	Botanical
Charleston	<i>Coreopsis integrifolia</i>	Chipola Dye-flower; Ciliate-leaf Tickseed	G1G2	S1	ARS: At-Risk Species	Not Applicable	Botanical
Charleston	<i>Dionaea muscipula</i>	Venus Flytrap, Meadow Clam, Tippitwitchet	G2	S1	ARS: At-Risk Species	Not Applicable	Botanical
Charleston	<i>Lindera melissifolia</i>	Southern Spicebush, Pondberry	G3	S2	LE: Federally Endangered	Not Applicable	Botanical
Charleston	<i>Lobelia boykinii</i>	Boykin's Lobelia	G2G3	S2?	ARS: At-Risk Species	Not Applicable	Botanical
Charleston	<i>Schwalbea americana</i>	Chaffseed	G2	S2	LE: Federally Endangered	Not Applicable	Botanical
Charleston	<i>Tiedemannia canbyi</i>	Canby's Cowbane	G2	S2	LE: Federally Endangered	Not Applicable	Botanical

## F. Instructions for Submitting Species Observations

The SC Natural Heritage Dataset relies on continuous monitoring and surveying for species of concern throughout the state. Any records of species of concern found within this project area would greatly benefit the quality and comprehensiveness of the statewide dataset for rare, threatened and endangered species. Below are instructions for how to download the SC Natural Heritage Occurrence Reporting Form through the Survey123 App.

Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Charleston County GIS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, NASA, NGA, USGS,



## Conservation Ranks & SWAP Priority Status

The SC Natural Heritage Program assigns S Ranks for species tracked within the state of South Carolina based on ranking methodology developed by NatureServe and its state program network. For information conservation rank definitions, please visit <https://explorer.natureserve.org/AboutTheData/Statuses>

The SCDNR maintains and updates its State Wildlife Action Plan (SWAP) every 10 years. This plan categorizes species of concern by Moderate, High, and Highest Priority. Please visit <https://www.dnr.sc.gov/swap/index.html> for more information about the SC SWAP.

## Important Information Regarding Element Occurrence Data:

The South Carolina Department of Natural Resources' Heritage Trust Program organizes a database that captures and tracks element of occurrence data for rare, threatened and endangered species, both federal and state. Please keep in mind that this information included within this report is derived from existing databases, and do not assume that it is complete. Areas not yet inventoried may contain significant species or communities. If your project requires the assessment of potential threatened or endangered species that could be within the project area, the SCDNR asks that you include a review of the state listed species within the county or watershed in addition to those that may be within the report as being within the project footprint or within 1-mile of the proposed project area. Consideration should be given to the occurrence of suitable habitat onsite, species movement and connectivity of habitat when assessing the likelihood of a state listed species on the project area. To view these lists please visit our county and watershed dashboards at our website: <https://schtportal.dnr.sc.gov/portal/apps/sites/#track>

## Instructions for accessing the SC Natural Heritage Occurrence Reporting Form

For use in a browser (on your desktop/PC):

- 1) Follow <https://bit.ly/scht-reporting-form>
- 2) Select 'Open in browser'
- 3) The form will open and you can begin entering data!

This method of access will also work on a browser on a mobile device, but only when connected to the internet. To use the form in the field without relying on data/internet access, follow the steps below.

For use on a smartphone or tablet using the field app:

- 1) Download the Survey123 App from the Google Play store or the Apple Store. This app is free to download. Allow the app to use your location.
- 2) Use the camera app (or other QR Reader app) to scan the QR code on this page from your smartphone or tablet. Click on the 'Open in the Survey123 field app'. This will prompt a window to allow Survey123 to download the SC Natural Heritage Occurrence Reporting Form. Select 'Open.'
- 3) The form will automatically open in Survey123, and you can begin entering data! This form will stay loaded in the app on your device until you manually delete it, and you can submit as many records as you like.

