



Protected Species Assessment
River Bend Quarry
Pacolet, Spartanburg Co., SC
S&ME Project No. 22610504

PREPARED FOR:

Riverbend Aggregates LLC
1855 East Main Street
Spartanburg, SC 29307

PREPARED BY:

S&ME, Inc.
134 Suber Road
Columbia, SC 29210

August 30, 2023



August 30, 2023

Riverbend Aggregates LLC
1855 East Main Street
Spartanburg, SC 29307

Attention: Mr. Ross Birkner
rbirkner@turnkeyprocessing.com

Reference: **Protected Species Assessment
River Bend Quarry Site**
Pacolet, Spartanburg County, South Carolina
S&ME Project No. 22610504

Dear Mr. Birkner:

S&ME, Inc. (S&ME) is pleased to submit our Protected Species Assessment for the above-referenced project located in Spartanburg County, South Carolina. This work was performed in general accordance with S&ME Proposal Number 22350504, dated September 29, 2022, the Master Contract Agreement between Synergy Materials, LLC and S&ME, dated August 22, 2022.

S&ME appreciates the opportunity to be of service to you by performing this Protected Species Assessment for this project. Please contact us at (803) 561-9024 with questions regarding this report or if you require additional information.

Sincerely,

S&ME, Inc.

A handwritten signature in black ink that reads "Will Trotter".

Will Trotter
Biologist
jtrotter@smeinc.com

A handwritten signature in black ink that reads "Chris Daves".

Chris Daves, P.W.S.
Senior Scientist
cdaves@smeinc.com



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1.0 Project Background

This Protected Species Assessment has been conducted to assess the potential for the presence of protected species on the site in preparation for proposed aggregate quarry/mine. S&ME is requesting the technical assistance (in the form of a written Response Letter) of the U.S. Fish and Wildlife Service (USFWS) as to whether site development would likely result in “take” as defined under Section 9 of the Endangered Species Act (ESA).

The quarry/mine development area consists of an approximate 444-acre tract (the “site”) within an approximate 782-acre overall tract and is located southwest and northeast of Hammett Grove Road in Pacolet, Spartanburg County, South Carolina as shown on the **Exhibits** in **Appendix I**. The official address for the proposed quarry/mine will be 1234 Hammett Grove Road.

The proposed quarry/mine development consists of a plant/facilities area (26.4 acres), a Phase I pit area (56.4 acres), an east overburden area (28.4 acres), a west overburden area (34.3 acres), and other attendant features (roads, detention ponds, and outbuildings). A Phase II Pit area (56.4 acres) southwest of the Phase I pit area is proposed in the future. Impacts to streams, wetlands, cultural/archaeological sites, and a known tricolored bat hibernacula have been avoided. Bottomless culverts (2) will be used to provide access to the northwestern portion of the site and avoid permanent stream impacts. Site development plans are included in **Appendix II**.

2.0 Site and Habitat Descriptions

The site is located in eastern Spartanburg County within the Southern Outer Piedmont/Piedmont ecoregion of South Carolina. The site consists of floodplain hardwoods, mixed hardwoods, planted pines, ruderal communities, and aquatic resources (tributaries and wetlands). The properties adjacent to the site consist of wooded land, the Pacolet River, open land, and single-family residences. Please refer to **Exhibit 3** and the site photographs in **Appendix I** for depictions of the predominant habitat types located on the site.

2.1 Floodplain Hardwoods

Floodplain hardwood woodland was observed on the western portion of the site adjacent to the Pacolet River and the on-site tributaries (Photographs 1-2). Dominant overstory species observed included sweet gum (*Liquidambar styraciflua*), American sycamore (*Platanus occidentalis*), American holly (*Ilex opaca*), river birch (*Betula nigra*), red maple (*Acer rubrum*), tulip poplar (*Liriodendron tulipifera*), box elder (*Acer negundo*), willow oak (*Quercus phellos*), southern hackberry (*Celtis laevigata*), and green ash (*Fraxinus pennsylvanica*). The understory species consisted of the canopy dominants, water oak (*Q. nigra*), Chinese privet (*Ligustrum sinense*), autumn olive (*Elaeagnus umbellata*), and ironwood (*Carpinus caroliniana*). Woody vine and groundcover species observed consisted of muscadine (*Vitis rotundifolia*), poison ivy (*Toxicodendron radicans*), Japanese honeysuckle (*Lonicera japonica*), crossvine (*Bignonia capreolata*), roundleaf greenbrier (*Smilax rotundifolia*), fish-on-a-pole (*Chasmanthium latifolium*), Christmas fern (*Polystichum acrostichoides*), Japanese stiltgrass (*Microstegium vimineum*), and giant cane (*Arundinaria gigantea*).



2.2 Mixed Hardwoods

Mixed hardwood slopes and riparian mixed hardwoods were observed adjacent to the tributaries located on various portions of the site (Photographs 3-4). Dominant overstory species observed included sweet gum, southern red oak (*Q. falcata*), red maple, northern red oak (*Q. rubra*), American beech (*Fagus grandifolia*), white oak (*Q. alba*), and American holly (*Ilex opaca*). The understory consisted of the canopy dominants, flowering dogwood (*Cornus florida*), and autumn olive. Woody vine and groundcover species observed included muscadine, Japanese honeysuckle, roundleaf greenbrier, supplejack (*Berchemia scandens*), Christmas fern, and spotted wintergreen (*Chimaphila maculata*).

2.3 Planted Pines

Planted pine stands were observed on a majority of the site (Photographs 4-6). The dominant overstory species observed was loblolly pine (*Pinus taeda*). The pine stands observed were approximately 5-25 years in age and averaged approximately 20-60 feet in height. Average diameter-at-breast height (DBH) was 4-14 inches. The understory consisted of the canopy dominant, eastern red cedar (*Juniperus virginiana*), sweet gum, black cherry (*Prunus serotina*), Chinese privet, and autumn olive. Woody vine and groundcover species observed included Japanese honeysuckle, roundleaf greenbrier, muscadine, blackberry (*Rubus* spp.), saw greenbrier (*S. bona-nox*), dog fennel (*Eupatorium capillifolium*), Christmas fern, and basal rosette grass (*Dichanthelium* spp.).

2.4 Ruderal Communities

Ruderal communities were observed within the various logging decks located and the utility easement on the southeastern portion of the site (Photographs 8-9). Dominant shrub species observed included loblolly pine and sweet gum. Woody vine and groundcover species observed included blackberry, broomsedge (*Andropogon virginicus*), and dog fennel.

2.5 Aquatic Features

The site contained multiple aquatic features including wetlands and tributaries (Photographs 5-8). The wetlands observed on the site are classified as palustrine forested (PFO) and palustrine shrub-scrub (PSS), riparian and headwater wetlands.

Dominant overstory species observed in the PFO wetlands located on various portions of the site included American sycamore, river birch, sweet gum, red maple, and American elm (*Ulmus americana*). The understory consisted of the canopy dominants, ironwood, Chinese privet, American holly, and autumn olive. Woody vine and groundcover species observed included crossvine, Japanese stiltgrass, and fish-on-a-pole.

Dominant shrub species observed in the PSS wetlands included red maple, sweet gum, and loblolly pine. Woody vine and groundcover species observed included blackberry and common rush (*Juncus effusus*).

Multiple tributaries were observed on various portions of the site. The tributaries ranged in width from 2-8 feet and are classified as seasonal and perennial. The tributaries had a variety of sand, cobble, boulder, and bedrock substrates. The dominant habitat surrounding the tributaries were similar to the floodplain hardwoods and mixed hardwoods habitat described above.



3.0 Methodology

S&ME personnel reviewed the South Carolina Department of Natural Resources (SCDNR) and the USFWS websites to determine those species that are currently listed as federally protected (threatened or endangered) in Spartanburg County. The results of this search, including identified protected species and preferred habitat served as the basis of the field review and are presented in **Table 4-1**.

SCDNR maintains a database of elements of occurrence for protected species in the state of South Carolina. A search of this database did not reveal the known presence of federally protected species (occurrences) on or immediately adjacent to the site. Supporting information was researched for the purpose of identifying soil types, vegetative communities, and possible drainage features in the study area. The supporting information reviewed included aerial photography, topographic quadrangle maps, soil survey sheets, land use information, and data from the National Wetlands Inventory.

S&ME Biologists, Chris Daves, P.W.S., Chris Handley, and Will Trotter, performed field reviews on December 6, 13, and 20, 2022, and January 5, 18, March 9, and April 27, 2023. The information obtained from supporting documentation was integrated with the field review to identify potential areas of preferred habitat of protected species. Portions of the site that matched descriptions of preferred habitat for protected species listed in **Table 4-1** were considered to be potential habitat for the respective protected species. These areas were subsequently field reviewed to confirm the presence/absence of the respective species.

4.0 Federally Protected Species

Descriptions of the species and their respective federal status are identified in **Table 4-1** and in **Appendix II**. The SCDNR and USFWS websites identified the following federally listed species for Spartanburg County:

Table 4-1 Federally Protected Flora and Fauna Summary

Species	Listing	Habitat
Bald Eagle <i>Haliaeetus leucocephalus</i>	BGEPA	Coastlines, rivers, large lakes which provide adequate feeding grounds.
Dwarf-Flowered Heartleaf <i>Hexastylis naniflora</i>	T	Bluffs, hillsides, ravines, and boggy areas adjacent to streams in Piedmont hardwood forests; Prefers Pacolet, Madison, or Musella soils. Flowers mid-March to late May/early June.
Tricolored Bat <i>Perimyotis subflavus</i>	PE	Roosts among leaf clusters of alive or recently dead deciduous trees. Also roosts in summer months in artificial structures (barns and bridges). Winter hibernacula includes caves, abandoned mines, and road culverts.

T = Threatened

PE = Proposed Endangered

BGEPA = Bald and Golden Eagle Protection Act



4.1 Bald Eagle

BIOLOGICAL DETERMINATION: NO EFFECT

This large raptor has characteristic adult plumage consisting of a white head and tail with a dark brown body. Juvenile eagles are completely dark brown and do not fully develop their majestic white head and tail until the fifth or sixth year. Adults average about three feet from head to tail, weigh approximately 10 to 12 pounds and have a wingspread that can reach seven feet. Generally, female bald eagles are larger than the males. The typical nest is constructed of large sticks and is lined with soft materials such as pine needles and grasses. The nests are large, measuring up to six feet across and weighing hundreds of pounds. Nesting and feeding sites are generally in the vicinity of large bodies of open water (coastlines, rivers, large lakes).

The Pacolet River is located immediately adjacent to the site and considered suitable habitat for the bald eagle. However, no nests or individuals were observed on the site during the field survey. Accordingly, future development of the site is not expected to impact this species.

4.2 Dwarf-Flowered Heartleaf

BIOLOGICAL DETERMINATION: NO EFFECT

Dwarf-flowered heartleaf is a perennial, evergreen herb. Its leathery leaves are round, or heart shaped. Light green reticulation often occurs along the leaf veins. Flowering occurs from mid-March to late May/early June. Its beige to dark brown flowers are the smallest in the *Hexastylis* genus. Flowers are solitary and grow on a short stalk extending from the base of the leaves. The habitat of the dwarf-flowered heartleaf includes acidic, sandy loam soils along bluffs, hillsides, ravines, and boggy areas adjacent to streams in hardwood forests of the Piedmont. The species appears to prefer north-facing slopes. More specifically, it is endemic to the upper Piedmont of North and South Carolina. Soil type (Pacolet, Madison, and Musella soils) appears to be the most important habitat requirement.

Review of the USDA soils information (**Exhibit 4**) depicted Pacolet soils listed throughout the site, often adjacent to on-site streams. These soils are often associated with dwarf-flowered heartleaf. North-facing slopes are also located on the site. Although favorable soils and landscape position were located on the site, dwarf-flowered heartleaf was not observed during our site reconnaissance which was conducted during the flowering season. The only species of *Hexastylis* observed on the site was variable-leaf heartleaf (*H. heterophylla*). Accordingly, future development of the site is not expected to impact this species.

Refer to **Photographs 16-19** and **Exhibit 3** for depictions and locations of variable-leaf heartleaf.



4.3 Tricolored Bat

BIOLOGICAL DETERMINATION: NOT APPLICABLE AT THIS TIME

The tricolored bat is a small bat species reaching between two and three inches in length. It is named after the coloration of each strand of hair, which is dark at the base, blends to yellow midshaft, and ends in a brown tip. The species' current range is eastern North America, though the tricolored bat is in great decline from its historic range and population numbers.

The tricolored bat is a generalist feeder that preys on insects using echolocation. It hibernates in caves or abandoned mines. This species is known to hibernate in man-made structures such as roadside culverts. During spring, summer, and fall seasons the tricolored bat roosts in trees and leaf clusters in both live and dead trees. The tricolored bat tends to hibernate alone, and roost singly, though has been known to share hibernacula with other bat species.

Owls, raccoons, snakes, hawks, and feral cats, among other species, are predators of the tricolored bat. Threats to the tricolored bat include habitat degradation, human disturbance of hibernacula, and a lack of knowledge of their ecology needed to inform management plans.

The SCDNR Natural Heritage Response Letter (January 19, 2023) identified a known location of tricolored bat within the project footprint; however, the letter did not identify the exact location of known hibernacula sites and/or roost trees. S&ME observed an abandoned mine (34.940015°N, -81.774987°W) northwest of the project development site, within the 782-acre overall tract. The abandoned mine is a known winter hibernacula for tricolored bat. SCDNR has identified and confirmed the cave/mine as winter hibernacula for the tricolored bat and actively monitors the onsite population. Refer to **Photograph 20** and **Exhibit 3** for depictions and location of the winter hibernacula.

Forested areas (floodplain hardwoods, mixed hardwoods, and mature planted pines) are located throughout the site. These trees could potentially provide summer roosting habitat for this species.

Since the tricolored bat is not federally protected at this time (soon to be federally listed as endangered), a biological determination is not applicable to this species. However, a final decision on the listing of this species may come as soon as September 2023; if the tricolored bat becomes listed as an endangered species, further consultation with USFWS may be required as the removal of trees may affect this species. Please note that the USFWS currently recommends that no tree removal occur during the pup season (April 15 to July 31) of this species. As part of the site development plans, a 0.25-mile radius of undisturbed buffered has been placed around the abandoned mine.

5.0 Qualifications

The field survey was overseen by Chris Daves of S&ME. Mr. Daves is a Senior Scientist with over 22 years of experience in environmental consulting. Mr. Daves is proficient in conducting wetland delineations, environmental permitting activities, and habitat assessments, including protected species surveys. He is a Professional Wetland



Scientist (PWS) and holds a B.S. degree in Biology from Wofford College and a Master’s degree in Earth and Environmental Resources Management from the University of South Carolina.

The report was written by Will Trotter of S&ME. Mr. Trotter is a Natural Resources Staff Professional with three years of experience in environmental consulting. Mr. Trotter is proficient in conducting wetland delineations and habitat assessments, including protected species surveys. He holds a B.S. degree in Environmental Science from Wofford College.

6.0 Summary and Conclusions

Based on the literature review, habitat assessment, and pedestrian field review of the site, the following conclusions are given regarding federally listed species in Spartanburg County:

Table 6-1 Species Conclusions Table

Species/ Resource Name	Conclusion	ESA Section 7/ Eagle Act Determination	Notes/Documentation
Bald Eagle	Suitable habitat present	No Eagle Act Permit Required	Suitable habitat within a mile of Congaree River. Bald eagle was not observed during field survey. No nests observed on or within 660 feet of site.
Dwarf-Flowered Heartleaf	Suitable habitat present	No Effect	Dwarf-flowered heartleaf not observed during flowering season.
Tricolored Bat (proposed endangered)	Suitable habitat present	Not applicable for proposed species	Suitable habitat within mature planted pines, pine-mixed hardwoods, and forested wetlands. Known winter hibernacula (abandoned mine) for the species located northwest of development site. A 0.25-mile undisturbed buffer has been placed on the Final listing decision expected as soon as September 2023. Further consultation may be required as the removal of trees may affect this species. Winter clearing recommended outside of the pup season.

This Protected Species Assessment Report is being provided to the client as part of mining permit application to the South Carolina Department of Health and Environmental Control (SCDHEC). Formal or informal coordination with the USFWS or SCDNR has not been conducted to date.



7.0 References

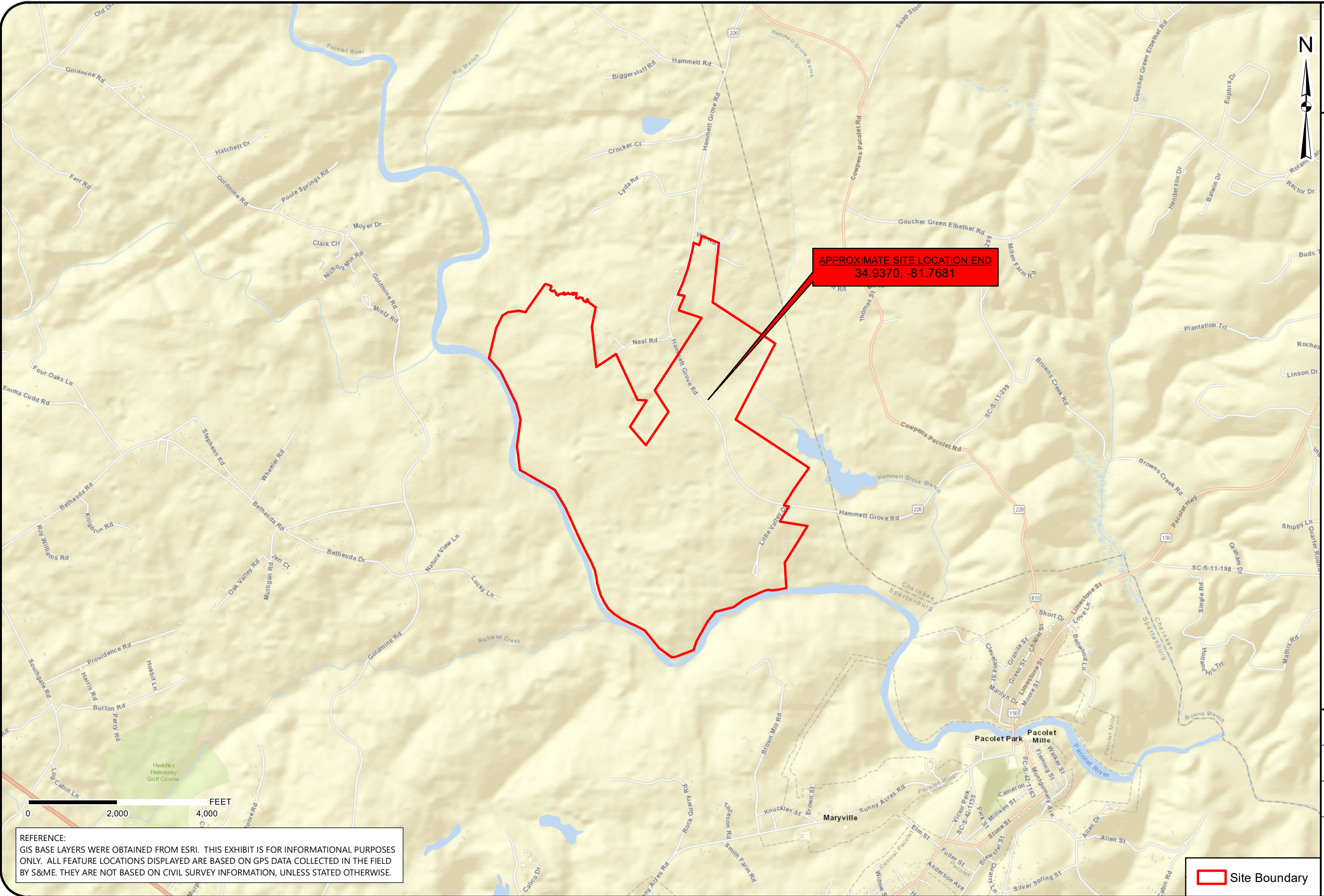
The following sources were referenced during the course of this assessment:

- ◆ SCDNR. Natural Heritage Program: <https://schtportal.dnr.sc.gov/portal/apps/sites/#/natural-heritage-program>.
- ◆ SCDNR. Natural Heritage Program. Response Letter dated January 19, 2023.
- ◆ SCDNR. Rare, Threatened, and Endangered Species Inventory: <https://experience.arcgis.com/experience/af61ba156d054cc7b3e27d09a0c35c0f>.
- ◆ SCDNR: Bald Eagle Locations: <https://scdnr.maps.arcgis.com/apps/opsdashboard/index.html#/e202ad118e5f4d42a15d12bc985b9e33?species=Haliaeetus%20leucocephalus>.
- ◆ U.S. Department of Agriculture – National Resources Conservation Service Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov/app/>.
- ◆ USFWS. Information for Planning and Consultation (IPaC): <https://ecos.fws.gov/ipac/>.
- ◆ USFWS. South Carolina Ecological Services Field Office. <https://www.fws.gov/southeast/charleston/project-planning/>.
- ◆ USFWS. South Carolina List of At Risk, Candidate, Endangered, and Threatened Species by County. https://www.fws.gov/sites/default/files/documents/SouthCarolina_County_by_County_List.pdf.

Appendices

Appendix I – Exhibits and Site Photographs

Drawing Path: T:\Columbia-1610\Projects\2022\22610504_Synergy Materials_Pacolet Quarry_Vicinity Exhibit.mxd Plotted by chandley.03-14-2023



Vicinity Exhibit

River Bend Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: World Street Map

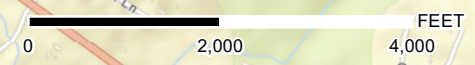
SCALE:
1" = 2,000'

DATE:
3-14-23

PROJECT NUMBER
22610504

EXHIBIT NO.

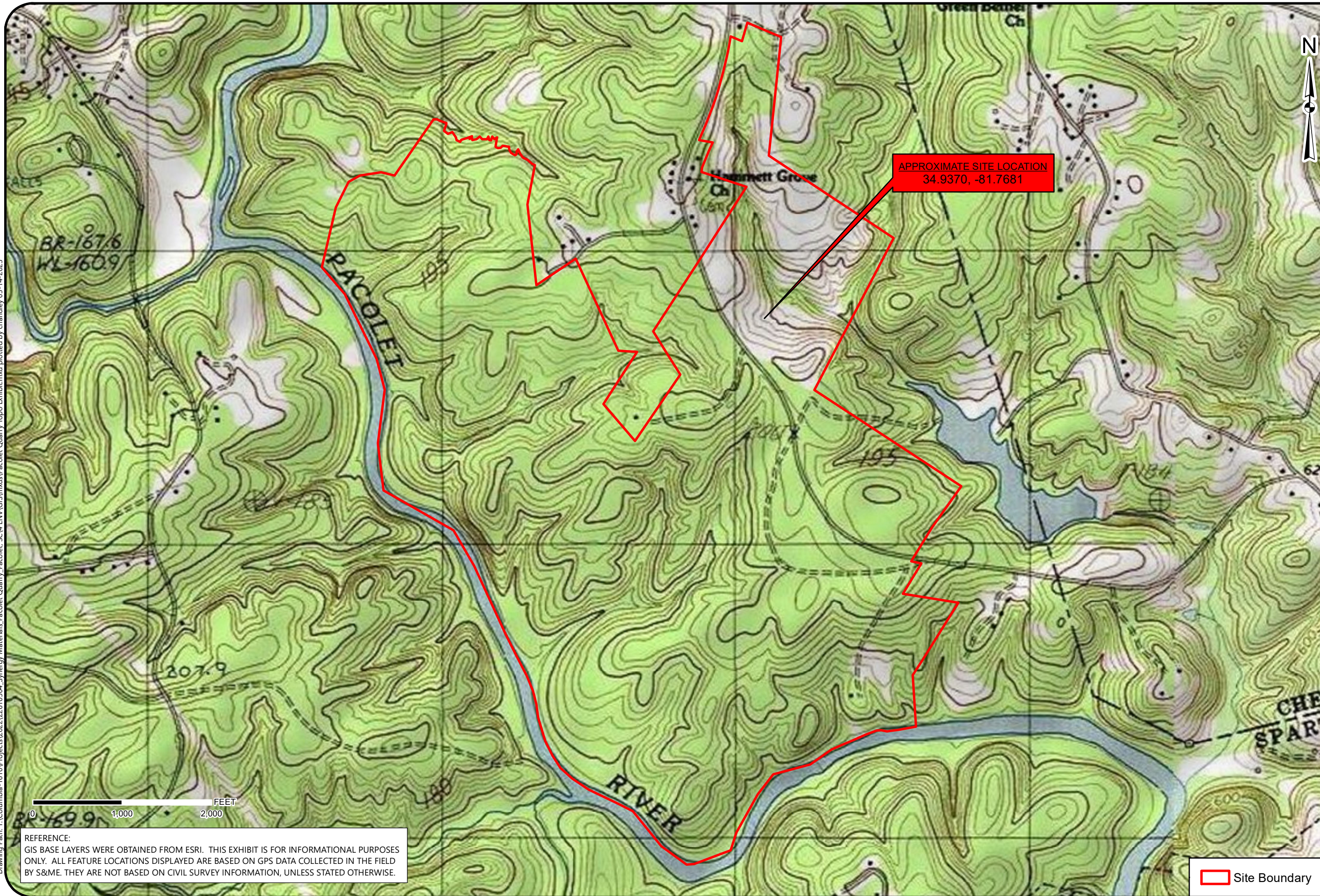
1



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&M. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Site Boundary

Drawing Path: T:\Columbia-1610\Projects\2023\22610504_Synergy_Materials_Pacolet Quarry_Pacolet, SC\4_ENV\GIS\mxds\Pacolet Quarry_Topo Exhibit.mxd plotted by chandley 03-14-2023



Topographic Exhibit

River Bend Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: USGS 7.5-Minute Topo Quad Pacolet, SC 1983

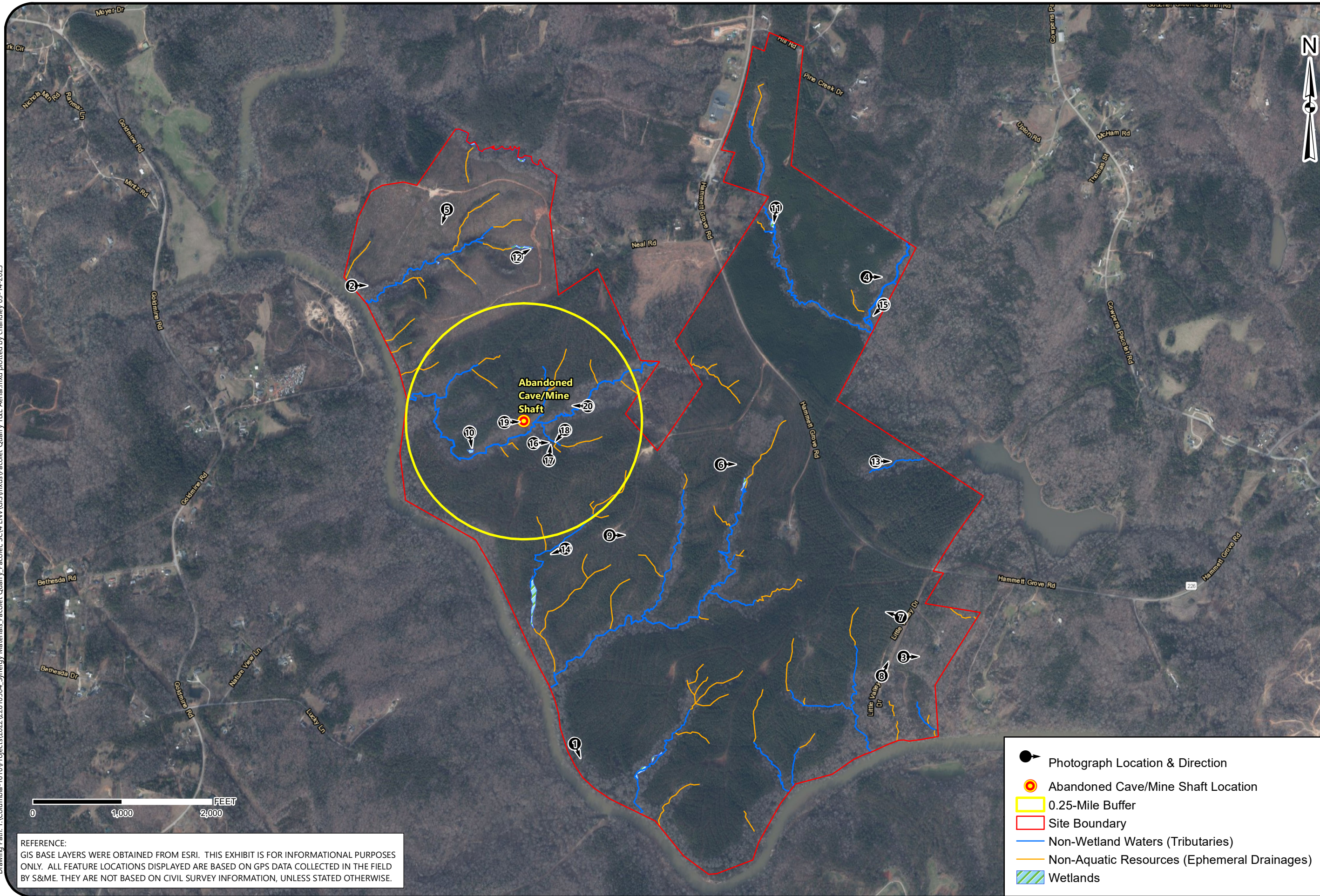
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1" = 1,000'
DATE:
3-14-23
PROJECT NUMBER
22610504
EXHIBIT NO.

2

REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&ME. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

 Site Boundary

Drawing Path: T:\Columbia-1610\Projects\2022\22610504_Synergy Materials_Pacolet Quarry_Pacolet, SC\4 ENV\GIS\mxds\Pacolet Quarry_T&E Aerial.mxd plotted by chandley 09-14-2023



REFERENCE:
 GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&ME. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

- Photograph Location & Direction
- Abandoned Cave/Mine Shaft Location
- 0.25-Mile Buffer
- Site Boundary
- Non-Wetland Waters (Tributaries)
- Non-Aquatic Resources (Ephemeral Drainages)
- Wetlands



Aerial Exhibit

River Bend Quarry Site +/- 782 Acres
 Pacolet, Spartanburg County, South Carolina
 Source: SC Imagery 2020

SCALE:
 1" = 1,000'

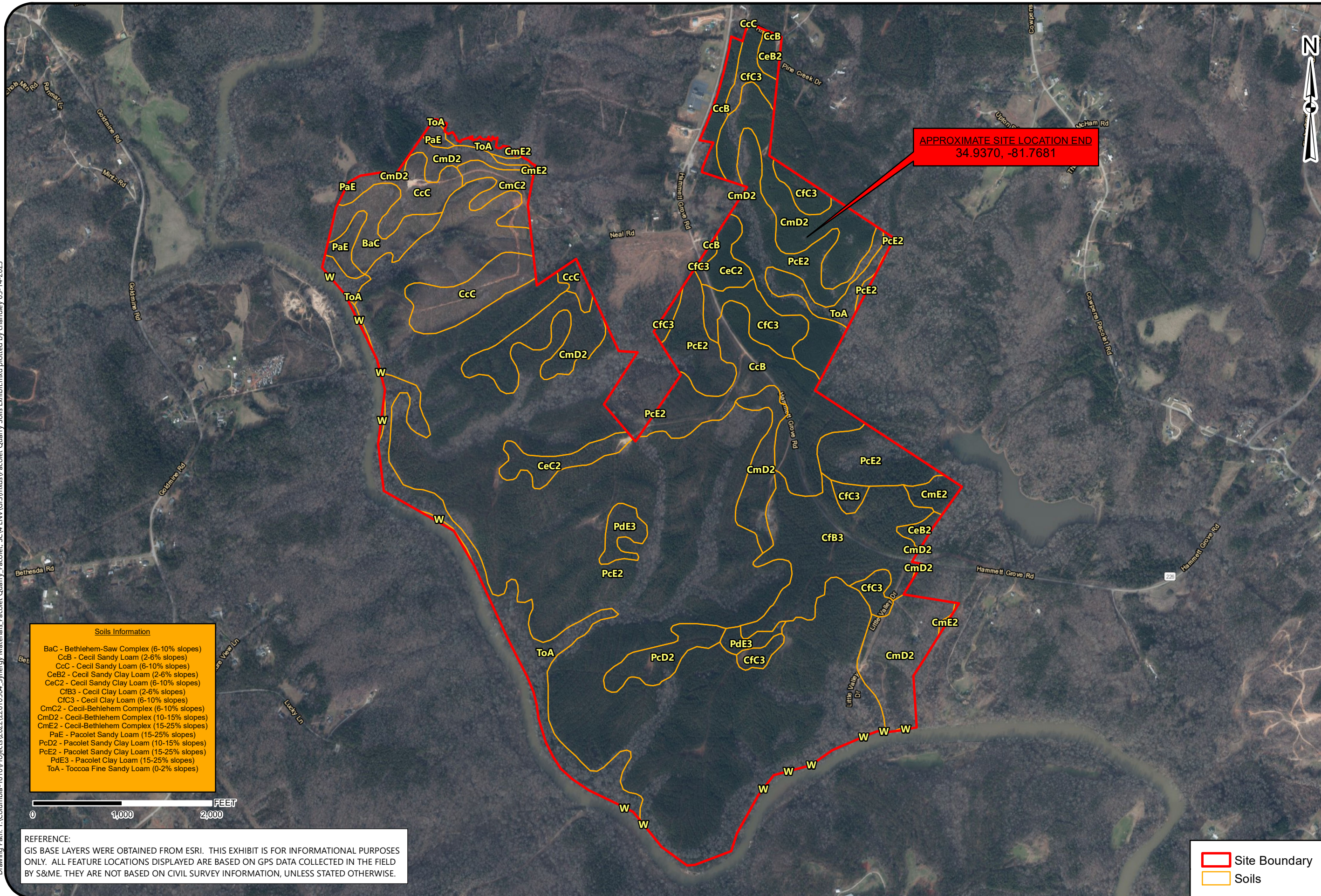
DATE:
 8-30-23

PROJECT NUMBER
 22610504

EXHIBIT NO.

3

Drawing Path: T:\Columbia - 1610\Projects\2023\22610504_Synergy_Materials_Pacolet Quarry.mxd\22610504_Pacolet Quarry Soils Exhibit.mxd plotted by chandley 03-14-2023



Soils Exhibit

River Bend Quarry Site +/- 782 Acres
Pacolet, Spartanburg County, South Carolina
Source: SC Imagery 2020 & NRCS

SCALE:
1" = 1,000'
DATE:
3-14-23
PROJECT NUMBER
22610504
EXHIBIT NO.

4

Soils Information	
BaC	- Bethlehem-Saw Complex (6-10% slopes)
CcB	- Cecil Sandy Loam (2-6% slopes)
CcC	- Cecil Sandy Loam (6-10% slopes)
CeB2	- Cecil Sandy Clay Loam (2-6% slopes)
CeC2	- Cecil Sandy Clay Loam (6-10% slopes)
CfB3	- Cecil Clay Loam (2-6% slopes)
CfC3	- Cecil Clay Loam (6-10% slopes)
CmC2	- Cecil-Bethlehem Complex (6-10% slopes)
CmD2	- Cecil-Bethlehem Complex (10-15% slopes)
CmE2	- Cecil-Bethlehem Complex (15-25% slopes)
PaE	- Pacolet Sandy Loam (15-25% slopes)
PcD2	- Pacolet Sandy Clay Loam (10-15% slopes)
PcE2	- Pacolet Sandy Clay Loam (15-25% slopes)
PdE3	- Pacolet Clay Loam (15-25% slopes)
ToA	- Toccoa Fine Sandy Loam (0-2% slopes)



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&M. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Site Boundary
Soils



1 Floodplain hardwoods on the southwestern portion of the site.



2 Floodplain hardwoods on the northwestern portion of the site.



3 Mixed hardwoods on the eastern portion of the site.



4 Mixed hardwoods on the northeastern portion of the site.



Site Photographs
River Bend Quarry Site
Pacolet, Spartanburg County, South Carolina

S&ME Project No: 22610504

Taken by: CH/CD/WT

Dec. 2022, Jan. Mar. & April, 2023



5 Young, planted pines on the northwestern portion of the site.



6 Planted pines near the central portion of the site.



7 Planted pines on the eastern portion of the site.



8 Utility easement on the southeastern portion of the site.





9 Ruderal community located within former logging deck near the central portion of the site.



10 PFO wetland located on the western portion of the site



11 PFO wetland on the northeastern portion of the site.



12 PSS wetland located on the northwestern portion of the site.





13 Seasonal tributary on the eastern portion of the site.



14 Seasonal tributary on the western portion of the site.



15 Perennial tributary on the northeastern portion of the site.



16 *Hexastylis heterophylla* observed on the western portion of the site.





17 Opening of calyx tube on *H. heterophylla* was observed to be approximately 10mm.



18 *H. heterophylla* observed on the central-western portion of the site.



19 Multiple clusters of *H. heterophylla* were observed throughout the site adjacent to the various tributaries.



20 Abandoned cave/mine shaft located on the western portion of the site. Mine shaft is a confirmed winter hibernaculum for the tricolored bat.



Appendix II – Site Development Plans

RIVER BEND QUARRY SITE - CONCEPTUAL PLAN

RIVER BEND AGGREGATES, LLC

SPARTANBURG COUNTY, SOUTH CAROLINA

OCTOBER 5, 2023

SITE DATA

PARCEL ID(S): 3-25-00-006.00;
3-25-00-006.06;
3-25-00-007.00;
3-25-00-010.00;
3-25-00-013.00;
3-25-00-013.02;
3-25-00-014.00;
3-25-00-014.01; AND
3-25-00-014.02.

SITE ADDRESS: 1234 HAMMETT GROVE RD
SPARTANBURG, SOUTH CAROLINA 29307

SITE ACREAGE: 443.1 AC.

EXISTING ZONING: UNIFIED LAND MANAGEMENT ORDINANCE

PROPOSED USE: MINE OPERATIONS

LATITUDE: 34°56'08.8"N (34.9357°)

LONGITUDE: 81°45'39.4"W (-81.7609°)

RIVER BASIN: BROAD

RECEIVING WATERBODY: PACOLET RIVER

OWNER: RIVER BEND AGGREGATES, LLC

ADDRESS: 1855 E. MAIN STREET, SUITE 14, 142
SPARTANBURG, SOUTH CAROLINA 29307

PHONE NO.: (630) 225-4606

CONTACT NAME: WILL GLUSAC

CONTACT E-MAIL ADDRESS: WGLUSAC@TURNKEYPROCESSING.COM

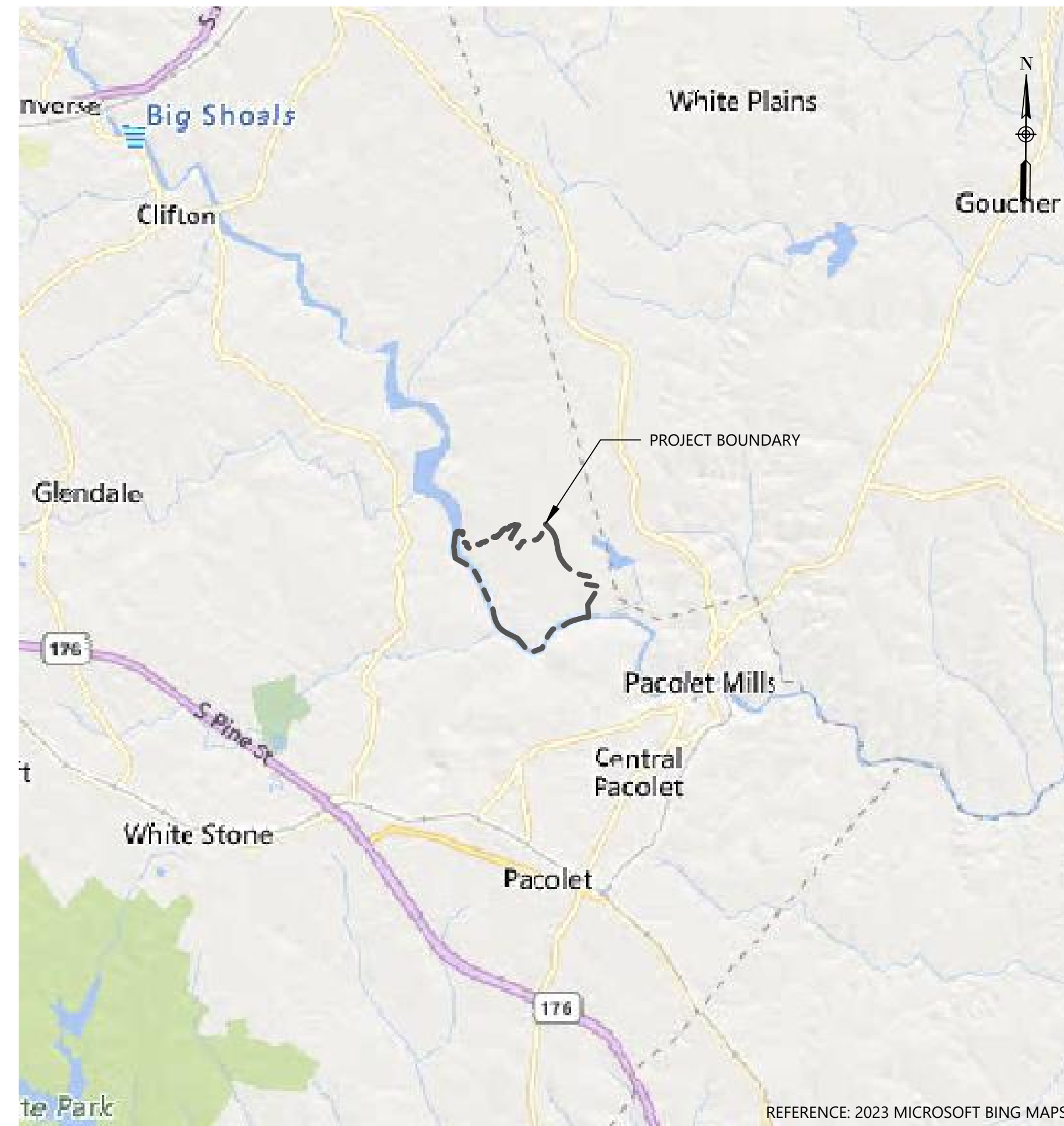
PROJECT REPRESENTATIVE: S&ME INC.

ADDRESS: 2016 ARSLEY TOWN BLVD. SUITE 2-A
CHARLOTTE, NC 28273

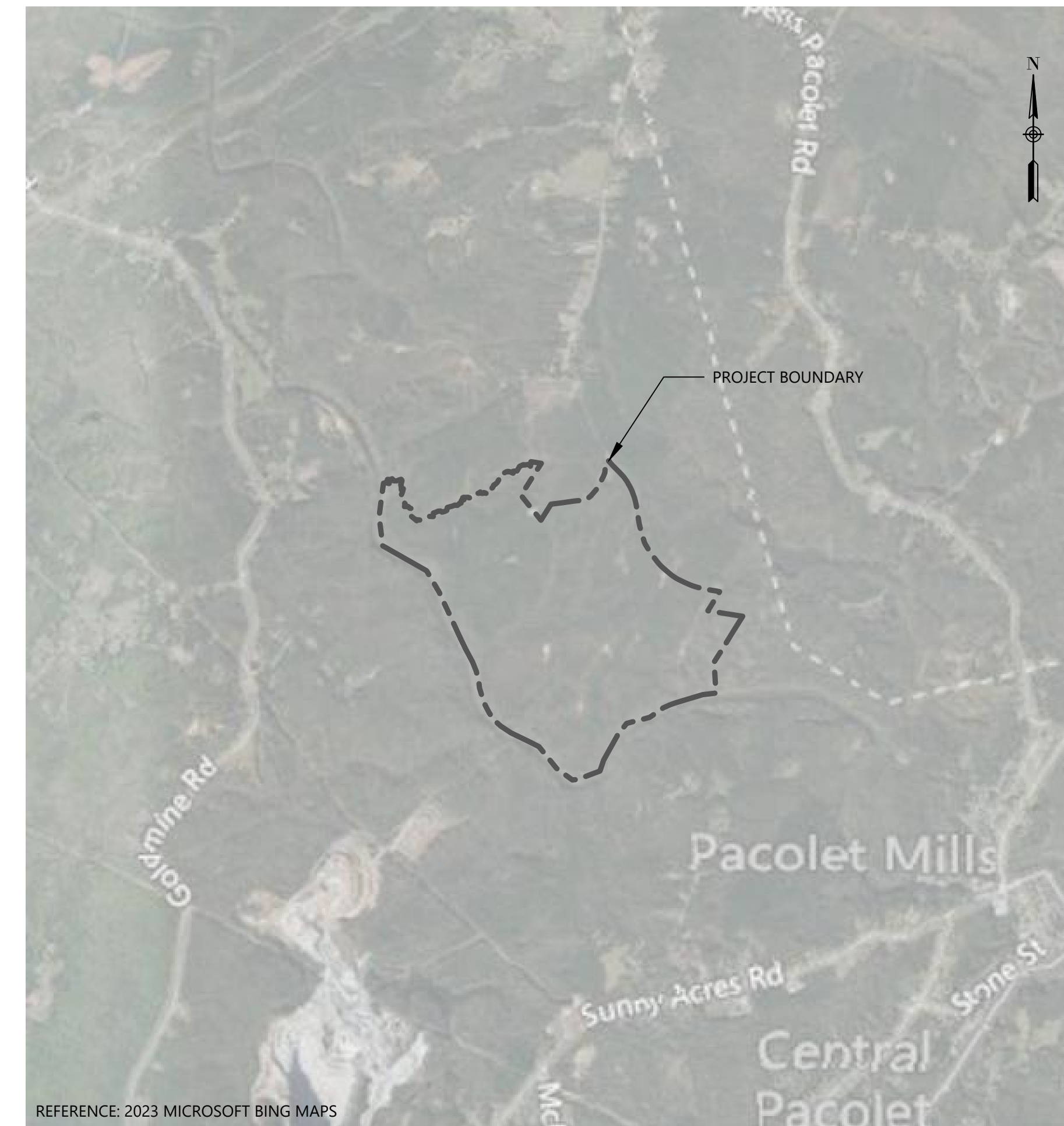
PHONE NO.: (704) 523-4726

CONTACT NAME: CEDRIC H. RUHL, P.E.

CONTACT E-MAIL ADDRESS: CRUHL@SMEINC.COM



VICINITY MAP
SCALE: 1" = 5,000'



SITE LOCATION
SCALE: 1" = 2,000'

DRAWINGS

NUMBER	TITLE
0	COVER
1	EXISTING CONDITIONS PLAN
2	OVERALL SITE PLAN
3	SITE DISTURBANCES
4	CONCEPTUAL RECLAMATION MAP
5	DETAILS (1 OF 5)
6	DETAILS (2 OF 5)
7	DETAILS (3 OF 5)
8	DETAILS (4 OF 5)
9	DETAILS (5 OF 5)

PREPARED FOR

**RIVER BEND
AGGREGATES, LLC**

1855 E. MAIN STREET
SUITE 14, 142
SPARTANBURG, SC 29307

PREPARED BY



2016 AYRSLEY TOWN BLVD.
SUITE 2-A
CHARLOTTE, NC 28273
(704) 523-4726

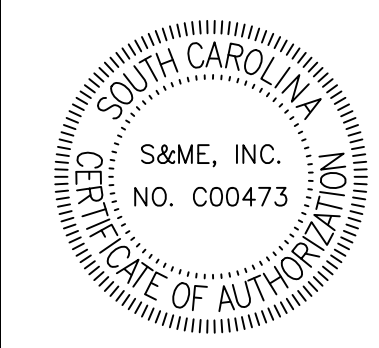


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ENGINEERING FIRM
LICENSE NUMBER: F-0176

**RIVER
BEND
AGGREGATES,
LLC**

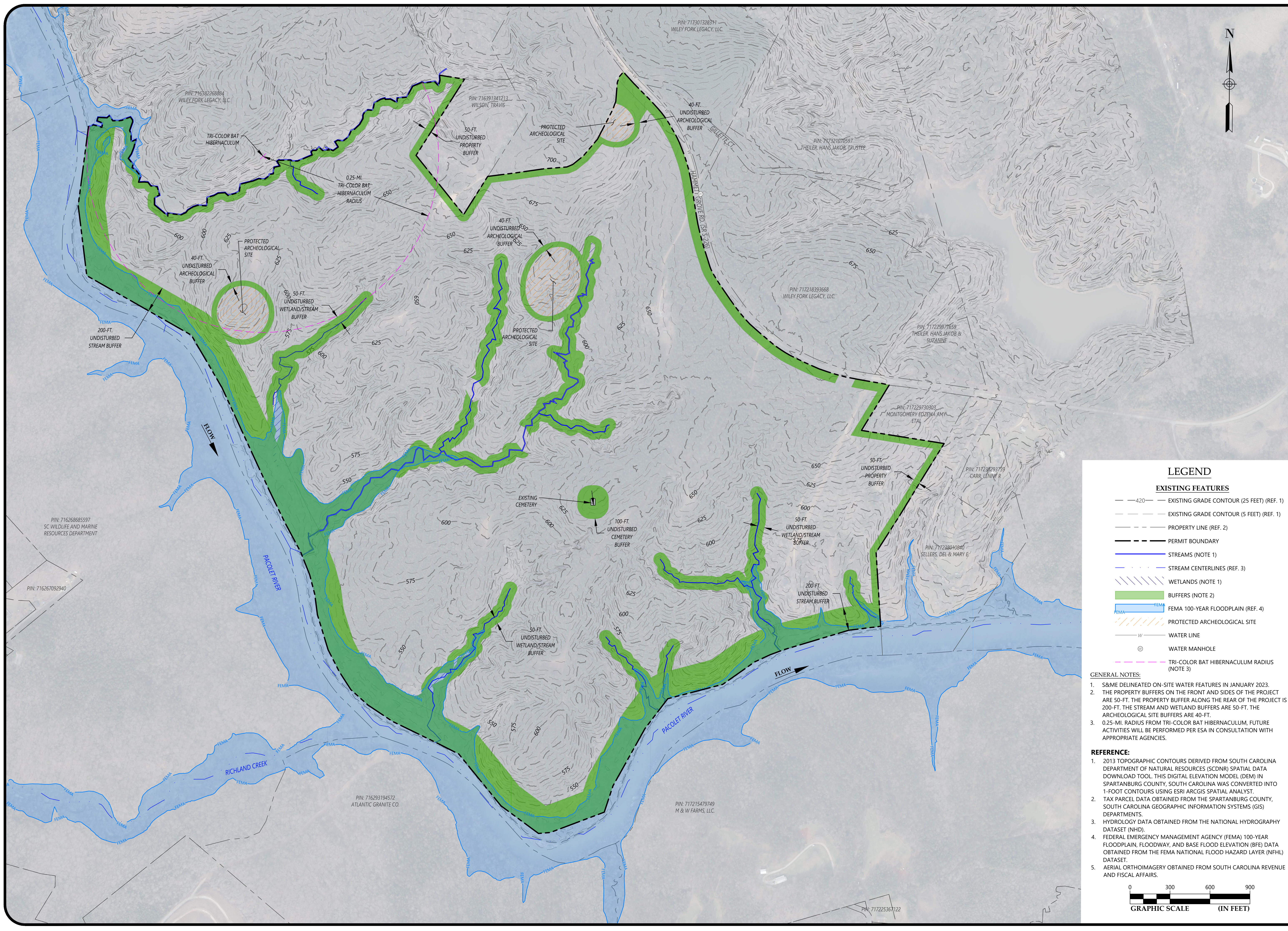


NO.	DATE	ISSUED FOR CLIENT REVIEW	BY	CHK	APV
	10/05/2023				

EXISTING CONDITIONS PLAN
RIVER BEND QUARRY SITE - CONCEPTUAL PLAN
RIVER BEND AGGREGATES, LLC
SPARTANBURG COUNTY, SOUTH CAROLINA

PROJECT NUMBER
22610504B
DRAWING NUMBER

1 **9**

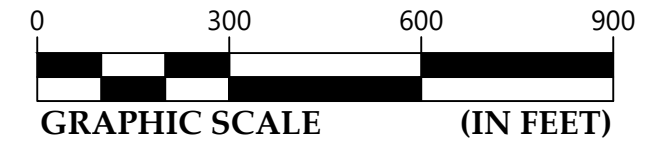


LEGEND

- EXISTING FEATURES**
- 420 — EXISTING GRADE CONTOUR (25 FEET) (REF. 1)
 - 5 — EXISTING GRADE CONTOUR (5 FEET) (REF. 1)
 - — — — — PROPERTY LINE (REF. 2)
 - — — — — PERMIT BOUNDARY
 - — — — — STREAMS (NOTE 1)
 - — — — — STREAM CENTERLINES (REF. 3)
 - WETLANDS (NOTE 1)
 - BUFFERS (NOTE 2)
 - FEMA 100-YEAR FLOODPLAIN (REF. 4)
 - PROTECTED ARCHEOLOGICAL SITE
 - W — WATER LINE
 - ⊙ — WATER MANHOLE
 - — — — — TRI-COLOR BAT HIBERNACULUM RADIUS (NOTE 3)

- GENERAL NOTES:**
- S&M DELINEATED ON-SITE WATER FEATURES IN JANUARY 2023.
 - THE PROPERTY BUFFERS ON THE FRONT AND SIDES OF THE PROJECT ARE 50-FT. THE PROPERTY BUFFER ALONG THE REAR OF THE PROJECT IS 200-FT. THE STREAM AND WETLAND BUFFERS ARE 50-FT. THE ARCHEOLOGICAL SITE BUFFERS ARE 40-FT.
 - 0.25-MI. RADIUS FROM TRI-COLOR BAT HIBERNACULUM, FUTURE ACTIVITIES WILL BE PERFORMED PER ESA IN CONSULTATION WITH APPROPRIATE AGENCIES.

- REFERENCE:**
- 2013 TOPOGRAPHIC CONTOURS DERIVED FROM SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES (SCDNR) SPATIAL DATA DOWNLOAD TOOL. THIS DIGITAL ELEVATION MODEL (DEM) IN SPARTANBURG COUNTY, SOUTH CAROLINA WAS CONVERTED INTO 1-FOOT CONTOURS USING ESRI ARCGIS SPATIAL ANALYST.
 - TAX PARCEL DATA OBTAINED FROM THE SPARTANBURG COUNTY, SOUTH CAROLINA GEOGRAPHIC INFORMATION SYSTEMS (GIS) DEPARTMENTS.
 - HYDROLOGY DATA OBTAINED FROM THE NATIONAL HYDROGRAPHY DATASET (NHD).
 - FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) 100-YEAR FLOODPLAIN, FLOODWAY, AND BASE FLOOD ELEVATION (BFE) DATA OBTAINED FROM THE FEMA NATIONAL FLOOD HAZARD LAYER (NFHL) DATASET.
 - AERIAL ORTHOIMAGERY OBTAINED FROM SOUTH CAROLINA REVENUE AND FISCAL AFFAIRS.



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PIN: 71626865397
SC WILDLIFE AND MARINE
RESOURCES DEPARTMENT

PIN: 716267092940

PIN: 716382268884
WILEY FORK LEGACY, LLC

PIN: 716391341213
WILSON, TRAVIS

PIN: 717301328311
WILEY FORK LEGACY, LLC

PIN: 717321070597
THEILER, HANS JAKOB, TRUSTEE

PIN: 717218393668
WILEY FORK LEGACY, LLC

PIN: 71722977659
THEILER, HANS JAKOB &
SUZANNE

PIN: 717229730303
MONTGOMERY EDZEMA AMY
ETAL

PIN: 717238293759
CARR, LENNY R

PIN: 717238010840
SELLERS, DEL & MARY E

PIN: 71626865397
SC WILDLIFE AND MARINE
RESOURCES DEPARTMENT

PIN: 716293194572
ATLANTIC GRANITE CO.

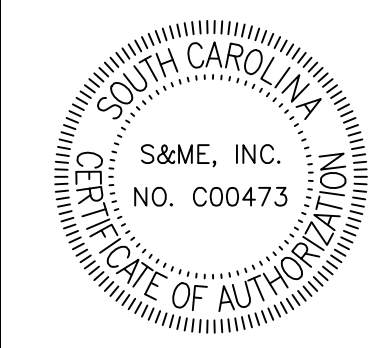
PIN: 717215479749
M & W FARMS, LLC

PIN: 717225367122



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ENGINEERING FIRM
LICENSE NUMBER: F-0176

RIVER BEND AGGREGATES, LLC



LEGEND

EXISTING FEATURES

- 420 --- EXISTING GRADE CONTOUR (25 FEET) (REF. 1)
- 5 --- EXISTING GRADE CONTOUR (5 FEET) (REF. 1)
- 2 --- PROPERTY LINE (REF. 2)
- PERMIT BOUNDARY
- PIT PHASE BOUNDARY
- MINING SETBACK (NOTE 1)
- STREAMS (NOTE 2)
- STREAM CENTERLINES (REF. 3)
- WETLANDS (NOTE 2)
- BUFFERS (NOTE 3)
- VEGETATED BERMS/BUFFER
- FEMA 100-YEAR FLOODPLAIN (REF. 4)
- PROTECTED ARCHEOLOGICAL SITE
- WATER LINE
- WATER MANHOLE
- TRI-COLOR BAT HIBERNACULUM RADIUS (NOTE 6)

PROPOSED FEATURES

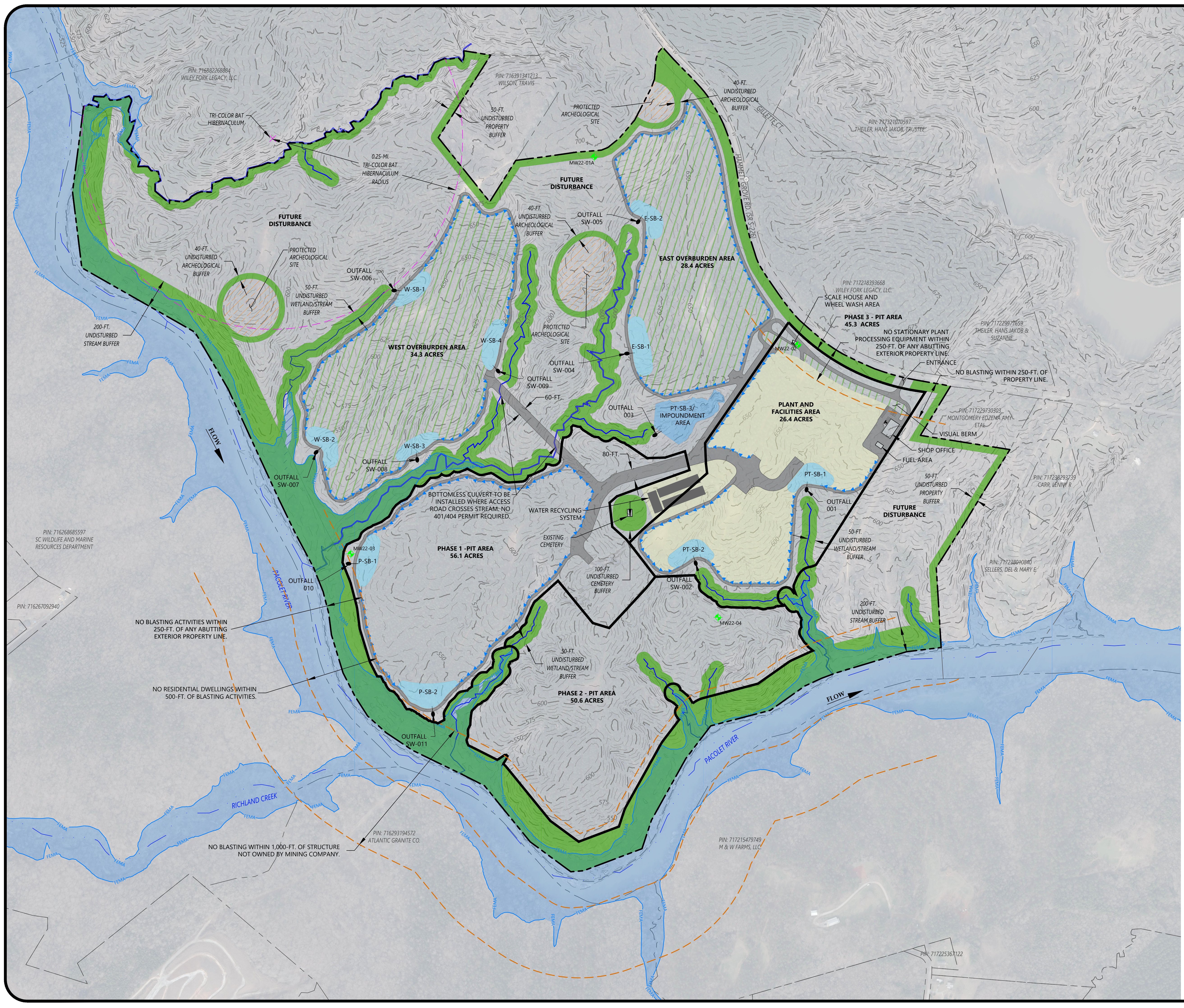
- SEDIMENT BASIN
- PRELIMINARY LOCATION OF OUTFALL AND PLUNGE POOL
- ACCESS/HAUL ROAD
- STORMWATER CHANNEL
- LONG TERM MONITORING WELL

GENERAL NOTES:

1. PER SECTION 6.X.3 OF THE TOWN OF PACOLET ZONING ORDINANCE, 250-FT. SETBACK REQUIRED FOR ALL STATIONARY PLANT PROCESSING EQUIPMENT FROM ANY ABUTTING EXTERIOR PROPERTY LINE. PER SECTION 6.X.5 OF THE TOWN OF PACOLET ZONING ORDINANCE, 250-FT. SETBACK REQUIRED FOR ALL BLASTING ACTIVITIES FROM ANY ABUTTING EXTERIOR PROPERTY LINE AND 500-FT. SETBACK TO ANY RESIDENTIAL DWELLING.
2. S&M DELINEATED ON-SITE WATER FEATURES IN JANUARY 2023.
3. THE PROPERTY BUFFERS ON THE FRONT AND SIDES OF THE PROJECT ARE 50-FT. THE PROPERTY BUFFER ALONG THE REAR OF THE PROJECT IS 200-FT. THE STREAM AND WETLAND BUFFERS ARE 50-FT. THE ARCHEOLOGICAL SITE BUFFERS ARE 40-FT.
4. PER REGULATION 89-150H OF THE SOUTH CAROLINA CODE SECTION 48-20-210, NO BLASTING MAY OCCUR WITHIN 250-FT. OF PROPERTY BOUNDARIES.
5. PER REGULATION 89-150I OF THE SOUTH CAROLINA CODE SECTION 48-20-210, NO BLASTING MAY OCCUR WITHIN 1,000-FT. OF A STRUCTURE NOT OWNED BY THE MINING COMPANY.
6. 0.25-MI. RADIUS FROM TRI-COLOR BAT HIBERNACULUM. FUTURE ACTIVITIES WILL BE PERFORMED PER ESA IN CONSULTATION WITH APPROPRIATE AGENCIES.

REFERENCE:

1. 2013 TOPOGRAPHIC CONTOURS DERIVED FROM SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES (SCDNR) SPATIAL DATA DOWNLOAD TOOL. THIS DIGITAL ELEVATION MODEL (DEM) IN SPARTANBURG COUNTY, SOUTH CAROLINA WAS CONVERTED INTO 1-FOOT CONTOURS USING ESRI ARCGIS SPATIAL ANALYST.
2. TAX PARCEL DATA OBTAINED FROM THE SPARTANBURG COUNTY, SOUTH CAROLINA GEOGRAPHIC INFORMATION SYSTEMS (GIS) DEPARTMENTS.
3. HYDROLOGY DATA OBTAINED FROM THE NATIONAL HYDROGRAPHY DATASET (NHD).
4. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) 100-YEAR FLOODPLAIN, FLOODWAY, AND BASE FLOOD ELEVATION (BFE) DATA OBTAINED FROM THE FEMA NATIONAL FLOOD HAZARD LAYER (NFHL) DATASET.
5. AERIAL ORTHOIMAGERY OBTAINED FROM SOUTH CAROLINA REVENUE AND FISCAL AFFAIRS.



DRAWING PATH: T:\Charlottesville\1359\Projects\2022\22610504B_Synergy_Materials_Pacolets Quarry_Pacolets Quarry\Mining_SWPPP\OVERALL SITE PLAN.dwg

NO.	DATE	ISSUED FOR CLIENT REVIEW	DESCRIPTION	BY	CHK	APP
1	10/05/2023			AW	CHR	CIS

OVERALL SITE PLAN	
RIVER BEND QUARRY SITE - CONCEPTUAL PLAN	
RIVER BEND AGGREGATES, LLC	
SPARTANBURG COUNTY, SOUTH CAROLINA	
PROJECT NUMBER	22610504B
DRAWING NUMBER	
2	9

Appendix III – County Species Lists from USFWS and SCDNR



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: 2023-0035756
Project Name: Pacolet Site

August 28, 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 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 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:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.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/program/migratory-bird-permit/what-we-do>.

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/library/collections/threats-birds>.

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/partner/council-conservation-migratory-birds>.

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.

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

PROJECT SUMMARY

Project Code: 2023-0035756

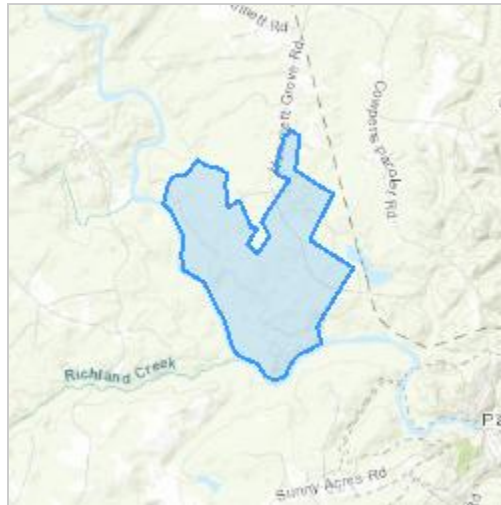
Project Name: Pacolet Site

Project Type: Commercial Development

Project Description: Site located in Pacolet, Spartanburg County, SC. Reason for request is due diligence.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.93904305,-81.76987353288469,14z>



Counties: Spartanburg County, South Carolina

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 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 Fisheries¹, 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
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

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

FLOWERING PLANTS

NAME	STATUS
Dwarf-flowered Heartleaf <i>Hexastylis naniflora</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2458	Threatened

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.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

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.

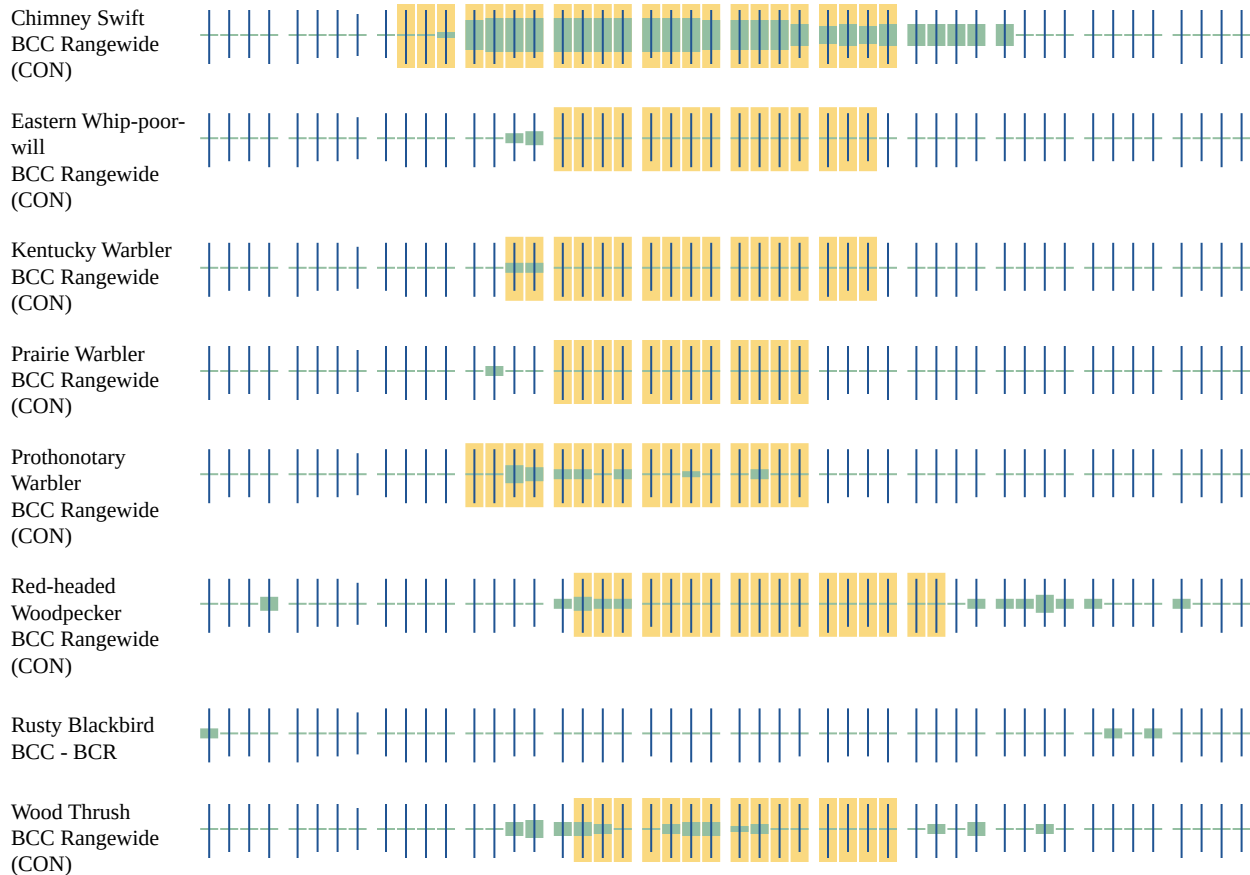
NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31
Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

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



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

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.

LAKE

- [L1UBH](#)

FRESHWATER FORESTED/SHRUB WETLAND

- [PFO1B](#)
- [PFO1A](#)
- [PSS1C](#)

RIVERINE

- [R4SBC](#)
 - [R2USA](#)
 - [R2UBH](#)
 - [R5UBH](#)
-

IPAC USER CONTACT INFORMATION

Agency: S&ME

Name: Will Trotter

Address: 134 Suber Road

City: Columbia

State: SC

Zip: 29210

Email: jtrotter@smeinc.com

Phone: 8035619024



South Carolina Department of Natural Resources

Robert H. Boyles, Jr.
Director

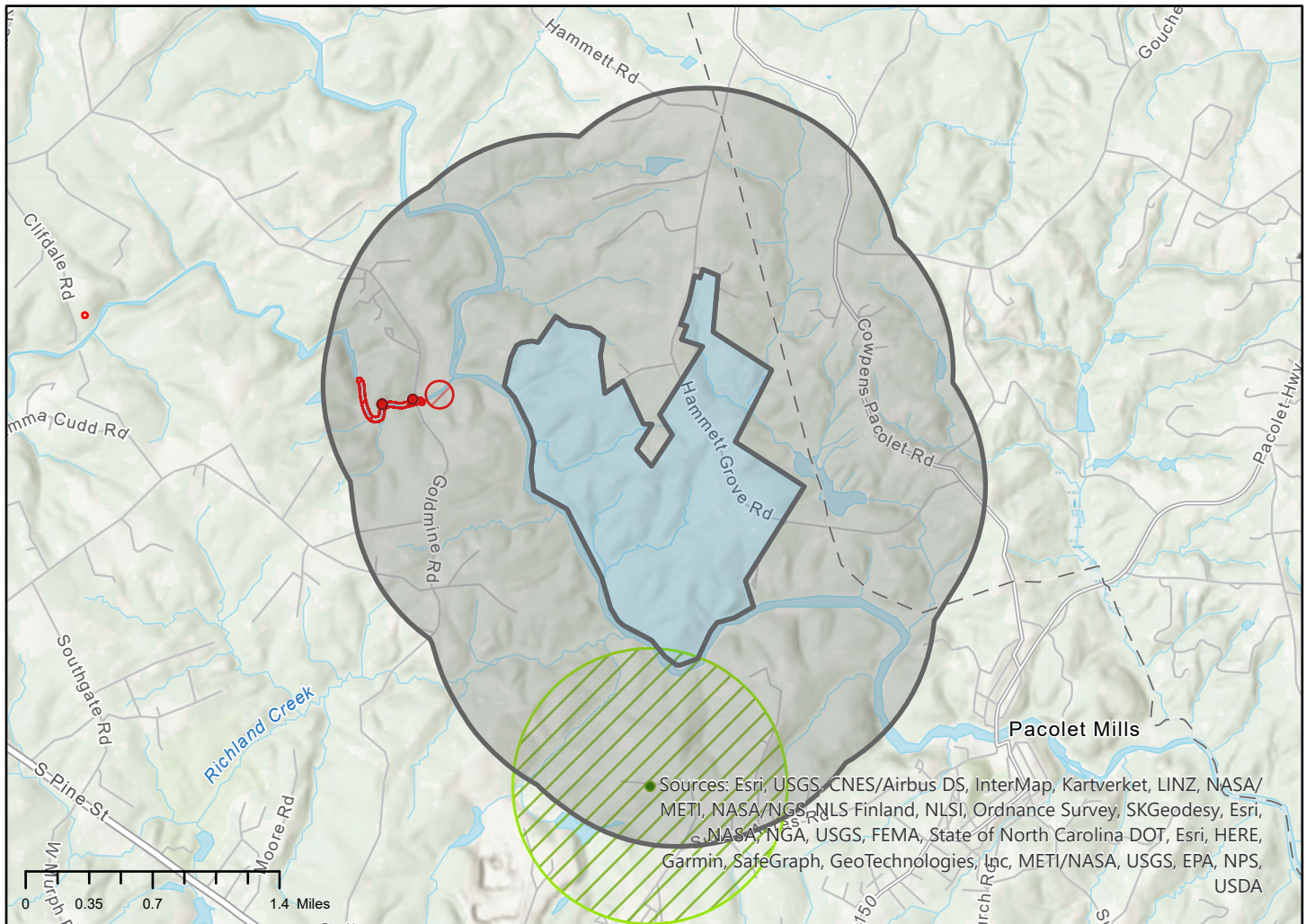
Emily C. Cope
Deputy Director for Wildlife and Freshwater Fisheries

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

Requested on Thursday, January 19, 2023 by Chris Handley.

Re: Request for Threatened and Endangered Species Consultation
S&ME - Pacolet Site - Development (Commercial/Residential) - Spartanburg 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 Spartanburg 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 - 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 or by visiting 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 or by phone at 803-734-1396.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Lemeris, Jr.", is written over a light blue horizontal line.

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

Live Life Outdoors

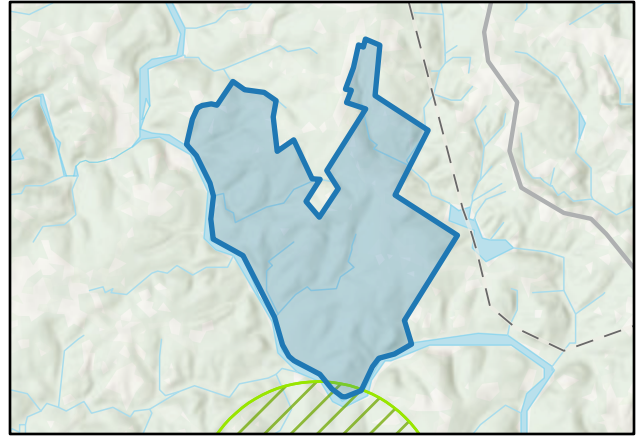


A. Project Area - Species Report

There are 3 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 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, Esri, NASA, NGA, USGS, FEMA, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



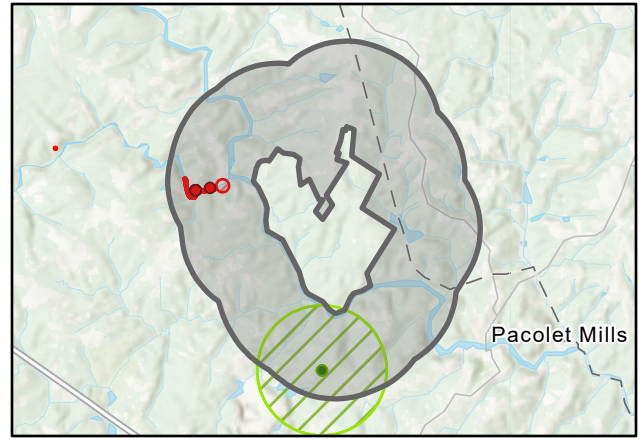
Common Name	Scientific Name	Federal Protection Status	State Protection Status	SWAP Priority	Last Obs. Date	Type
Tricolored Bat	<i>Perimyotis subflavus</i>	LEP: Federally Endangered (Proposed)	Not Applicable	Highest	2018-02-14	Zoological
Piedmont Quillwort	<i>Isoetes piedmontana</i>	Not Applicable	Not Applicable	High	1976-03-01	Botanical
Yellow Honeysuckle	<i>Lonicera flava</i>	Not Applicable	Not Applicable	Not Applicable	1972-08-01	Botanical

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: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri, NASA, NGA, USGS, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



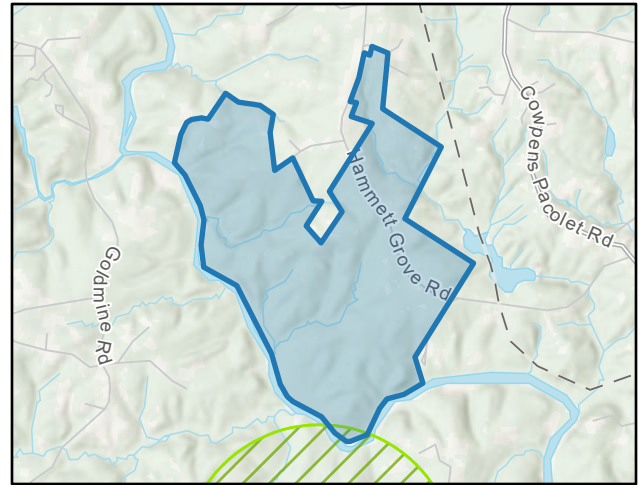
Common Name	Scientific Name	Federal Protection Status	State Protection Status	SWAP Priority	Last Obs. Date	Type
Snail Bullhead	<i>Ameiurus brunneus</i>	Not Applicable	Not Applicable	Moderate	2017-05-30	Zoological
Flat Bullhead	<i>Ameiurus platycephalus</i>	Not Applicable	Not Applicable	Moderate	2017-05-30	Zoological
Greenfin Shiner	<i>Cyprinella chloristia</i>	Not Applicable	Not Applicable	Moderate	2017-05-30	Zoological
Thicklip Chub	<i>Cyprinella labrosa</i>	Not Applicable	Not Applicable	Moderate	2017-05-30	Zoological
Santee Chub	<i>Cyprinella zanema</i>	Not Applicable	Not Applicable	High	2017-05-30	Zoological
Seagreen Darter	<i>Etheostoma thalassinum</i>	Not Applicable	Not Applicable	High	2017-05-30	Zoological
Piedmont Darter	<i>Percina crassa</i>	Not Applicable	Not Applicable	High	2017-05-30	Zoological
Eastern Box Turtle	<i>Terrapene carolina</i>	Not Applicable	R: Regulated	Moderate	2011-06-14	Zoological
Piedmont Quillwort	<i>Isoetes piedmontana</i>	Not Applicable	Not Applicable	High	1976-03-01	Botanical
Yellow Honeysuckle	<i>Lonicera flava</i>	Not Applicable	Not Applicable	Not Applicable	1972-08-01	Botanical

C. Species Best Management Practices (1 of 1)

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 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, SKGeodesy, Esri, NASA, NGA, USGS, FEMA, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



Cavity- and tree-roosting bat species including the federally threatened northern long-eared bat (*Myotis septentrionalis*), state-endangered Rafinesque's big-eared bat (*Corynorhinus rafinesquii*), and the federally at-risk tricolored bat (*Perimyotis subflavus*) have been known to occur in the county of the proposed site. As a conservation measure, it is recommended that any tree clearing activities be conducted during the inactive season for Northern long-eared bat (November 15th through March 31st) to avoid negative impacts to the species. If any of the above species are found on-site, please contact the USFWS and SCDNR.

In the interest of preserving plant diversity, the South Carolina Plant Conservation Alliance performs native plant rescues in order to protect and preserve our diversity of native plants. If you are interested in assisting with this important endeavor please contact Mrs. April Punsalan at (843) 727-4707 ext. 218, or by email: scpca@lists.fws.gov before any development occurs onsite. There may be plants of interest on the project site that the Alliance would like to preserve.

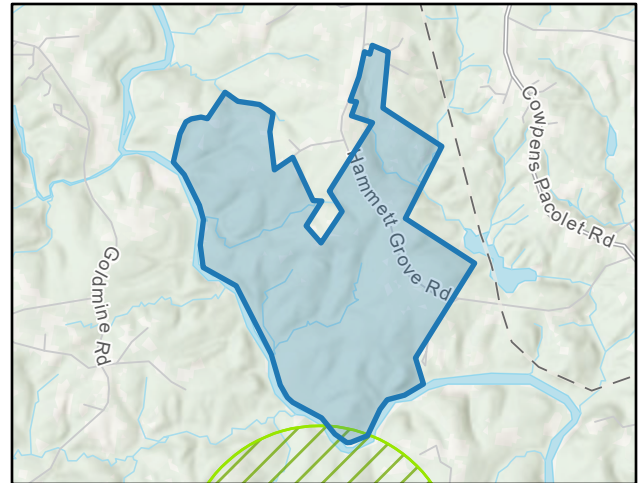
Species in the above table with SWAP priorities of High, Highest or Moderate are designated as having conservation priority under the South Carolina State Wildlife Action Plan (SWAP). SWAP species are those species of greatest conservation need not traditionally covered under any federal funded programs. 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 3)

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 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, SKGeodesy, Esri, NASA, NGA, USGS, FEMA, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



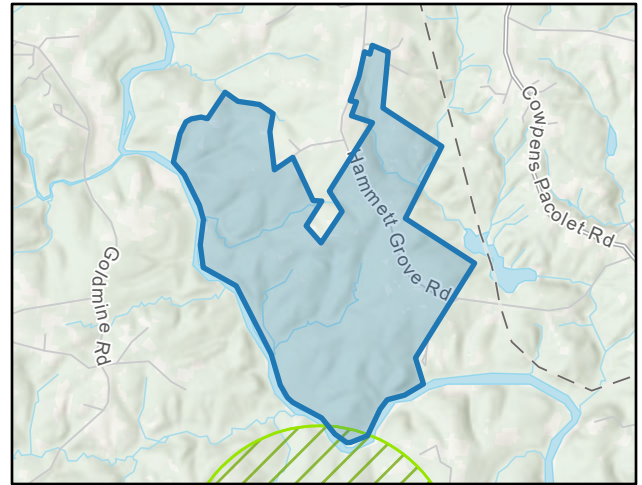
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/water.
 - Once the project is initiated, it must be carried to completion in an expeditious manner to minimize the period of disturbance to the environment.
 - Upon 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>
-
- 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.

D. Project Best Management Practices (2 of 3)

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 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, SKGeodesy, Esri, NASA, NGA, USGS, FEMA, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



- Review of available data, National Hydrography Dataset, indicates that streams 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 waters 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. Additionally, a 401 Water Quality Certification or a State Navigable Waters permit may also be required from the SC Department of Health & Environmental Control. For more information, please visit the following websites:
 - <https://www.scdhec.gov/environment/water-quality/water-quality-certification-section-401-clean-water-act>
 - <https://www.scdhec.gov/environment/water-quality/navigable-waters>
- Excavation/Construction activities must not occur during fish spawning season from March through June due to its negative impacts on eggs and reproduction activities.
- 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.

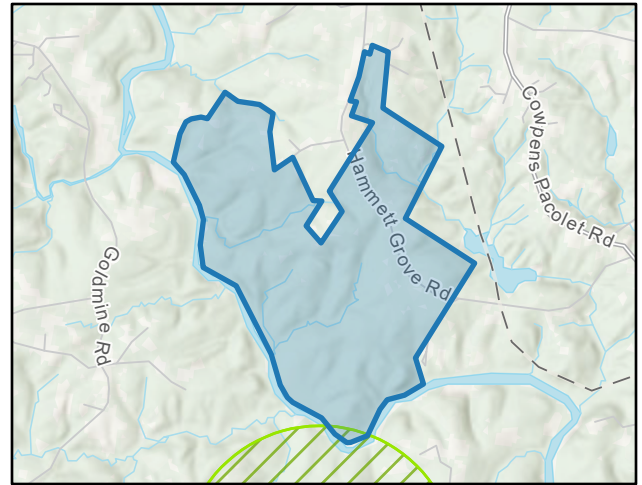
Your project area includes a FEMA special flood hazard area and may require a permit from the County National Floodplain Insurance Program Manager before impacts occur to aquatic resources and the associated floodplains on site. Please refer to <https://www.dnr.sc.gov/water/flood/documents/nfipadmindirectory.pdf> to find your appropriate contact information.

D. Project Best Management Practices (3 of 3)

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 should you have further questions with regard to best management practices related to this project area.



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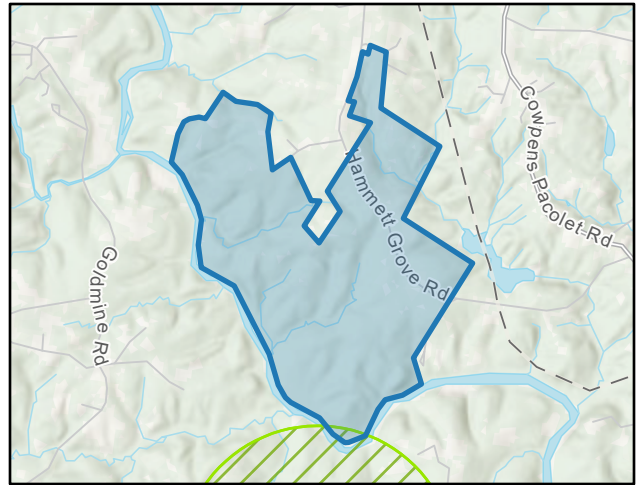


- Residential and commercial development has grown exponentially in recent years. Activities associated with these developments can have detrimental impacts on wildlife and aquatic resources such as habitat fragmentation, loss of available habitats and pollution, especially stormwater pollution. The result of these impacts causes the displacement of species and increases wildlife and human interactions. However, properly planned and sited development activities may allow for economic expansion with minimal negative impacts.
- Where appropriate, particularly adjacent to wetlands and water bodies, drainage plans and construction measures for residential and commercial development should be designed to control erosion and sedimentation, water quality degradation and other negative impacts on adjacent water and wetlands utilizing the best available design research. Developers proposing development activities should contact and work closely with local community development planning entities.
- Developments should be planned where growth is most compatible with natural resources utilizing residential and commercial cluster development methods, maximizing green spaces which can both be beneficial to protect natural resources and provide recreational opportunities for outdoor enthusiasts.
- Developments should be designed and constructed to avoid impact to wetland and stream areas whenever possible and to minimize unavoidable wetland and stream impacts to the maximum extent possible. Aquatic habitats and other sensitive natural areas should be identified in the initial planning stages of the project and incorporated in their natural state into the overall development plan.
- Developments should be designed to maintain the integrity and contiguity of wetland and stream systems and their associated riparian corridors, including the establishment of protective upland buffers around and between undisturbed aquatic systems whenever possible. Projects should be designed to minimize habitat fragmentation, including the construction of a limited number of road and utility crossings through streams and wetlands.
- The SCDNR recommends that the applicant incorporate vegetated bioswales, catch basins and/or bioretention cells/rain gardens into development plans beyond the regulatory requirements of the Stormwater Permitting requirements to add additional features to aid in capturing and filtering runoff from hardened surfaces. These structures can protect water quality and prevent oil, gas and other pollutants from directly entering nearby waterways. In addition, the SCDNR strongly recommends the use of permeable or porous pavement surfaces when possible. Permeable surfaces allow for rainfall to filter through the soil which aids in flood control and improves water quality.
- The following resources are available from Clemson Extension to assist:
 - <https://hgic.clemson.edu/factsheet/an-introduction-to-bioswales/>
 - <https://hgic.clemson.edu/factsheet/rain-garden-plants-introduction/>
 - <https://hgic.clemson.edu/factsheet/bioretention-cells-a-guide-for-your-residents/>
 - <https://hgic.clemson.edu/factsheet/an-introduction-to-porous-pavement/>
 - <https://hgic.clemson.edu/factsheet/trees-for-stormwater-management/>

E. 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, Esri, NASA, NGA, USGS, FEMA, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



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/Statures>

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.

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) No need to sign in. However, you will need to provide the app with our Heritage Trust GIS portal web address. You will only need to do this once: (this is a known bug with ESRI's software, and future releases of the form should not require the below steps. Bear with us in the meantime!).
 - a. Tap 'Sign in'
 - b. Tap the settings (gear symbol) in the upper right corner
 - c. Tap 'Add Portal'
 - d. After the 'https://', type schtportal.dnr.sc.gov/portal
 - e. Tap 'Add Portal'
 - f. Tap the back-arrow icon (upper left corner) twice to return to the main sign in page.
- 3) 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.'
- 4) 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.

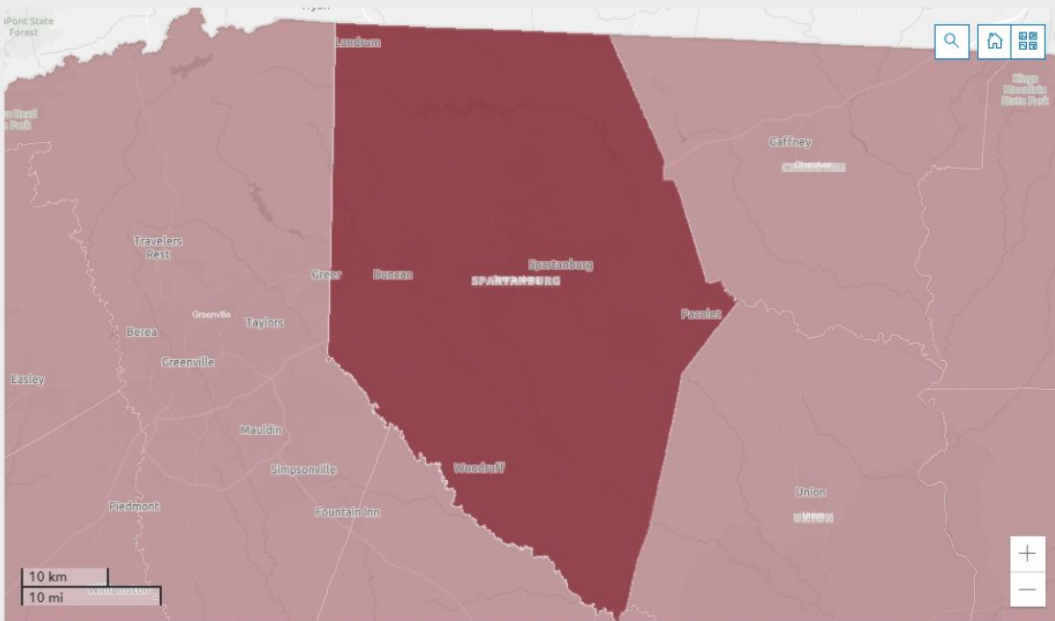




Tracked Species by County

Select a county to the right to identify species found within that county. Data updated as of 2/16/2022

Select County:
Spartanburg

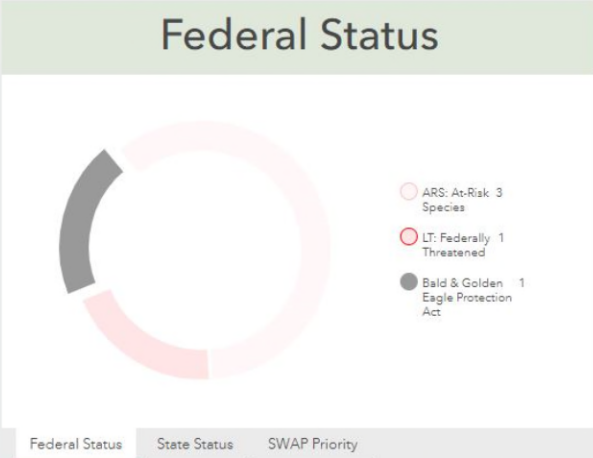


Esi, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

Powered by Esi

Species Name	G-Rank / S-Rank	Federal Status	State Status	SWAP Priority
Select a species, then navigate to the NatureServe Explorer Species Profile Tab to learn more.				
<i>Haliaeetus leucocephalus</i> ; Bald Eagle View Statewide Distribution	G5 / S3B,S3N	Bald & Golden Eagle Protection Act	ST: State Threatened	High

Tracked Species
56
in the selected county



Federal Status State Status SWAP Priority

Export Table function coming soon! A current workaround: drag to select all records in the list with your cursor, and copy/paste it into a spreadsheet.

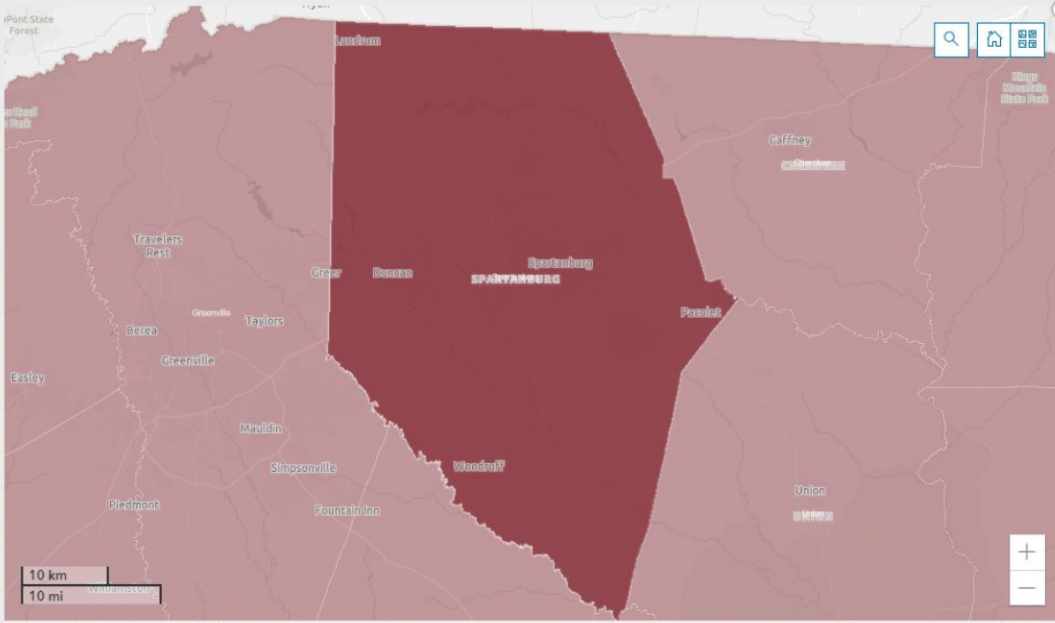
Species Lists by County NatureServe Explorer Species Profiles



Tracked Species by County

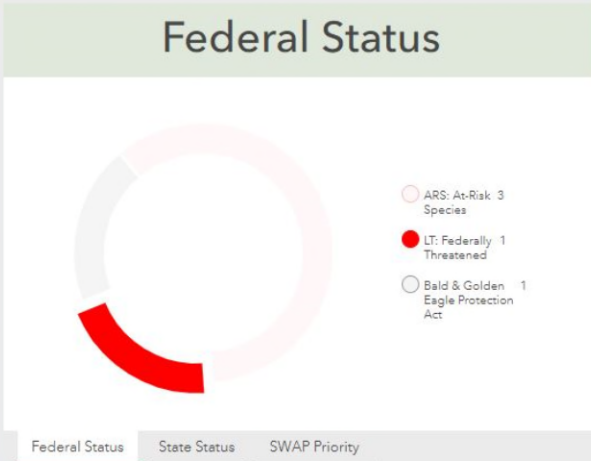
Select a county to the right to identify species found within that county. Data updated as of 2/16/2022

Select County:
Spartanburg



Species Name	G-Rank / S-Rank	Federal Status	State Status	SWAP Priority
<i>Select a species, then navigate to the NatureServe Explorer Species Profile Tab to learn more.</i>				
<i>Hexastylis naniflora</i> ; Dwarf-flower Heartleaf View Statewide Distribution	G3 / S3	LT: Federally Threatened	Not Applicable	Highest

Tracked Species
56
in the selected county



Federal Status State Status SWAP Priority

Export Table function coming soon! A current workaround: drag to select all records in the list with your cursor, and copy/paste it into a spreadsheet.

[Species Lists by County](#) [NatureServe Explorer Species Profiles](#)