

May 15, 2023

DRAFT

Mr. Bruce Smith
Luck Companies
515 Stone Mill Drive
Manakin-Sabot, Virginia 23103

Re: **Threatened and Endangered Species Habitat Assessment and Survey
Luck Companies Saluda Quarry
Batesburg-Leesville, Saluda County, South Carolina
HHNT Project No. 4780-021-01**

Dear Mr. Smith:

Hodges, Harbin, Newberry & Tribble, Inc. (HHNT) is pleased to submit our Threatened and Endangered Species Habitat Assessment for the above-referenced project located west of Double Bridges Road and to the east of State Road S-41-26 in Batesburg-Leesville, Saluda County, South Carolina (Appendix A, Figures 1-3).

The field survey was directed by Mr. Brandon F. Smith of HHNT. Mr. Smith is a Professional Wetland Scientist (PWS) and a Senior Ecologist with over 25 years of experience, inclusive of hundreds of protected species habitat assessments and surveys across the southeastern United States.

HHNT appreciates the opportunity to be of service to you by performing a Threatened and Endangered Species Habitat Assessment for this project. Please contact us at (912) 298-0230 with questions regarding this report or if you require additional information.

Sincerely,

HODGES, HARBIN, NEWBERRY & TRIBBLE

Brandon F. Smith, PWS
Senior Ecologist

cc: Mark Williams, PWS (w/ enclosure)

**THREATENED AND ENDANGERED SPECIES
HABITAT ASSESSMENT AND SURVEY
MAY 2023**

LUCK COMPANIES SALUDA QUARRY

SALUDA COUNTY, SOUTH CAROLINA

Prepared For:



Prepared By:



— HODGES, HARBIN, —
NEWBERRY & TRIBBLE, INC.

Consulting Engineers

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- Appendix C: USFWS IPaC Report
- Appendix D: County Species List from SCDNR
- Appendix E: USFWS Clearance Letter (Awaiting Receipt)

1. PROJECT BACKGROUND

In April 2023, Hodges, Harbin, Newberry & Tribble, Inc. (HHNT) performed a Threatened and Endangered species habitat assessment to assess the potential for presence of protected species on the site in preparation for the proposed future mining/quarry operations. HHNT 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 study area for the project, henceforth referred to as Saluda Quarry, is ~ 331.01-acres to the west of Double Bridges Road and to the east of State Road S-41-26 in Batesburg-Leesville, Saluda County, South Carolina (Appendix A, Figures 1-3).

2. SITE AND HABITAT DESCRIPTIONS

The site is located in eastern Saluda County, South Carolina within the Slate Belt/Piedmont ecoregion of South Carolina (Appendix A, Figure 4). The site consists of planted pine stands, mixed hardwoods, and aquatic features (wetlands and streams); the properties adjacent to the site consist of rural residences, forested land, and places of worship (Appendix A, Figure 3). Please refer to site photographs documenting the predominant habitat types located within the project area (Appendix B).

2.1 Planted Pines

Planted pine stands were observed throughout the site, occupying approximately 51.2% of the project area. The planted pine stands observed had varying stages of maturity throughout the site. The dominant overstory species is described as slash pines (*Pinus elliottii*) with an understory comprised of primarily blackberry (*Rubus argutus*), bushy bluestem (*Andropogon glomeratus*) and roundleaf greenbriar (*Smilax rotundifolia*).

2.2 Mixed Hardwoods

Mixed hardwood forest occupied approximately 48.8% of the project area. The dominant overstory species consisted of northern red oak (*Quercus rubra*), ironwood (*Carpinus caroliniana*), sweetgum (*Liquidambar styraciflua*), and green ash (*Fraxinus pennsylvanica*). The understory consisted of sapling American holly (*Ilex opaca*), sweetgum, eastern redcedar (*Juniperus virginiana*) and ironwood. Christmas fern (*Polystichum acrostichoides*), netted chainfern (*Woodwardia areolata*), and muscadine (*Vitis rotundifolia*) commonly occupied the herbaceous layer.

2.3 Granite Boulder Outcrops

Granite boulders were present in several locations throughout the site. These boulders were generally observed in clusters within primarily the mixed hardwood portions of the site, and could be described as highly convex in nature, ranging in size from small (approximately 1-2 meters wide) to large (approximately 8-10 meters wide).

2.4 Aquatic Features

The site contained numerous aquatic features including wetlands and both intermittent and perennial streams. Forested wetlands were observed near the on-site streams and could be described as slope and riverine wetlands.

Dominant overstory species observed within wetland features included ironwood (*Carpinus carolinana*), sweetgum, and water oak (*Quercus nigra*). Understory species consisted of the aforementioned species as well as American holly. The woody vine and herbaceous layer was comprised of netted chainfern, hooded arrowhead (*Sagittaria calycina*), and laurel greenbriar (*Smilax laurifolia*).

Perennial and intermittent streams were observed to have sandy/silty substrate stream bottoms and ranged from two to ten feet in width. In general, on-site streams were fairly turbid with low channel sinuosity, moderate baseflow, and were present in strong natural valleys. Little to no fish or macroinvertebrate populations were observed.

3. METHODOLOGY

HHNT scientists obtained and reviewed an official species list from the South Carolina Natural Heritage Trust Program, a division of the South Carolina Department of Natural Resources (Appendix D). Additionally, HHNT reviewed the U.S. Fish and Wildlife Service website and obtained an official IPaC species list (Appendix C). This information was gathered to determine those species that are currently listed as federally protected (threatened or endangered) in Saluda 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 potential habitat for the below-referenced species. The supporting information reviewed included aerial photography, topographic maps, soil survey sheets, land use and canopy cover information, and data from the National Wetlands Inventory. It was determined that a survey was only warranted for two out of the four federally listed species (Harperella and Little Amphianthus) due to their highly restricted range as well as the literature indicating that their preferred habitat could potentially occur on-site.

The field survey was conducted on April 6, 2023. The information obtained from the preliminary research was integrated into the field survey, HHNT ecologists performed systematic cross-sections of the property, with specific focus on potential habitat such as delineated aquatic resources and the areas surrounding. Additionally, granite boulders on-site were closely examined for the presence of vernal pools.

4.0 PROTECTED SPECIES

Descriptions of the species and their respective federal status are identified in Table 4-1, Appendix C, and Appendix D respectively. The USFWS IPaC report identified the following listed species for Saluda County:

**Table 4-1
 Federally Endangered and Threatened Species**

Species	Listing	Habitat
Harperella <i>Ptilimnium nodosum</i>	LE	Herbaceous wetlands/granite outcrop seeps/temporary pools/edges of intermittent pineland ponds with rocky, saturated substrates and periodic moderate flooding events.
Little Amphianthus <i>Amphianthus pusillus</i>	LT	Confined vernal pools on large, flat granite outcrops.
Carolina Heelsplitter <i>Lasmigona decorata</i>	LE	Cool, clear, running streams with coarse substrates.
Red-cockaded Woodpecker <i>Picoides borealis</i>	LE	Mature pine woodlands with open, park-like conditions.
Monarch Butterfly <i>Danaus plexippus</i>	Candidate	Prairies, meadows, grasslands and along roadsides.
Tricolored Bat <i>Perimyotis subflavus</i>	Proposed Endangered	Caves, abandoned mines, or forested habitats.

LE = Federally Endangered

LT = Federally Threatened

4.1 Harperella

Harperella (*Ptilimnium nodosum*) is a federally endangered perennial herb that can grow up to 36 inches, with clusters of flat-topped flowers, oval fruits, and hollow, alternately arranged leaves. Harperella is found on rocky, saturated substrates in herbaceous wetlands, temporary pools, granite outcrop seeps, and the edges of intermittent pineland ponds. This species requires little to no canopy cover and is dependent on narrowly defined hydrologic conditions - periodic moderate flooding events are essential to their survival. All wetlands identified on-site had a dense

canopy layer unsuitable for *Harperella*. In addition, all streams identified on-site not only lack rocky shoals, they are unlikely to provide the moderate flooding events the species requires. Habitat for this species is not present within the project area; therefore, the proposed project will have **no effect** on *Harperella*.

4.2 Little Amphianthus

Little Amphianthus (*Amphianthus pusillus*) is a federally threatened aquatic perennial herb; with submerged leaves being lance-shaped and arranged in a basal rosette, while the single pair of floating leaves being ovate and oppositely arranged. During flowering, a single white or pale purple flower emerges between the floating leaves. Little Amphianthus demands a highly specialized habitat of confined vernal pools on large, flat granite outcrops, with 1 to 4 inches of standing water and saturated mineral soil low in organic material. Additionally, the species requires very high light intensity for germination and persistence. The granite boulders on-site are highly convex, and therefore do not support the formation of confined vernal pools that Little Amphianthus requires. Moreover, the site is primarily covered by a dense canopy layer of old-growth hardwood forest and planted pines, with open canopy portions lacking suitable granite outcrops. Habitat for this species is not present within the project area; therefore the proposed project will have **no effect** on Little Amphianthus.

4.3 Carolina Heelsplitter

The Carolina Heelsplitter (*Lasmigona decorata*) is an endangered mussel roughly 3 to 4 inches long with a greenish to dark brown outer shell, with a blue-white nacre that takes on an orange hue as the individual ages. The Carolina Heelsplitter is found close to shorelines in cool, shaded, relatively clear running streams with high levels of dissolved oxygen. This species requires stable, silt-free stream bottoms, typically clay or coarse substrates. The Carolina Heelsplitter's survival is also dependent on the presence of a host fish that facilitates the development of larvae as well as transportation to create new populations upstream or downstream. This mussel is incredibly rare and has only been documented in short reaches of a select few streams. The flowing streams present within the project area had sandy or silty substrate stream bottoms and/or had previously undergone anthropogenic alterations, leaving suspended sediment in the water column unsuitable for the Carolina Heelsplitter. Additionally, during the extensive field assessments conducted by HHNT, very few fish populations were observed, making it highly unlikely for mussel populations to establish on site from their observed range. Habitat within the project area is not suitable for this species, therefore the proposed project will have **no effect** on the Carolina Heelsplitter.

4.4 Red-cockaded Woodpecker (RCW)

The Red-cockaded Woodpecker (*Picoides borealis*) henceforth referred to as the RCW, is an endangered black and white striped bird that is rather small with a longish bill, black crown, and white cheeks. The RCW is territorial and has been shown to recognize and defend precise boundaries. The optimal habitat for the RCW consists of open, mature pine woodlands with dense groundcover vegetation and very sparse midstory vegetation, maintained by frequent, low intensity fires that clear younger pines and hardwoods. This species lives in family groups; each member has an exclusive roost cavity typically excavated in old, flat-topped pine trees (particularly longleaf pine). Cavity clusters require mature pine stands over 70 years old surrounded by open, park-like conditions. Densely planted pines of varying levels of maturity are present within the project area. The lack of open space surrounding pine stands as well as the abundance of early successional pine trees and hardwoods make habitat within the project area unsuitable for the RCW, therefore the proposed project will have **no effect** on the species.

4.5 Monarch Butterfly

The Monarch Butterfly (*Danaus plexippus*) is an easily identified butterfly with its black, orange, and white pattern and is best known for its migration from southern Canada and northern and central U.S. to Florida and Mexico. The monarch butterfly is listed by the USFWS as a Candidate species, which are not afforded any protections under the Endangered Species Act.

4.6 Tricolored Bat

The Tricolored Bat (*Perimyotis subflavus*) is a small insectivorous bat with short, round ears distinguished by tricolored fur that often appears yellowish to orange. The tricolored bat is listed by the USFW as Proposed Endangered, which are not afforded any protections under the Endangered Species Act.

5.0 SUMMARY AND CONCLUSIONS

Based on the literature review, habitat assessment, and the extensive field survey of the project area for the two listed plant species, the following conclusions were reached regarding the federally listed species in Saluda County:

- The Saluda Quarry site does not provide suitable habitat for the endangered species described above. Additionally, none of the species were observed during the site reconnaissance or during species specific surveys. It is HHNT's opinion that the proposed development of the site will have **no effect** on the federally listed species.

APPENDICES

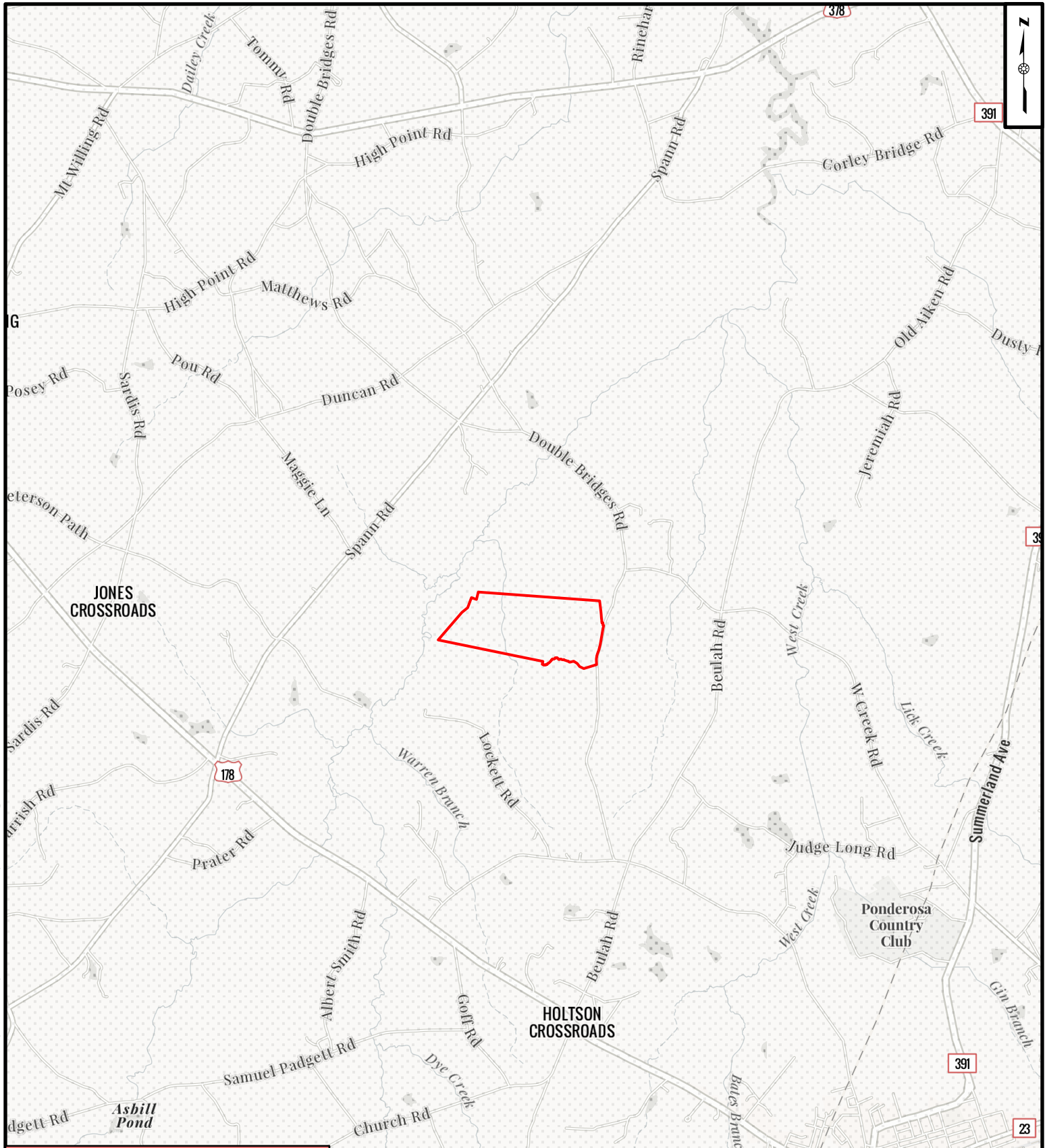
- Appendix A: Figures
- Appendix B: Site Photographs
- Appendix C: USFWS IPaC Report
- Appendix D: County Species List from SCDNR
- Appendix E: USFWS Clearance Letter (Awaiting Receipt)



APPENDIX A FIGURES

1. Location Map
2. USGS Topographic Map
3. Species Survey Photo Location Map
4. South Carolina Ecoregion Map

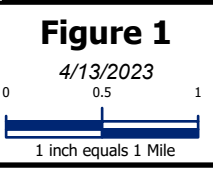




APPROXIMATE SITE LOCATION
33.9702, -81.5945

Legend
 Project Area (~ 331.01 Acres)

DISCLAIMER:
 This drawing and the information contained herein is for general presentation purposes only and is a compilation of shapefile(s) provided by various source(s). The source and accuracy of the file(s) has not been verified by HHNT and therefore the drawing is not intended for use as an engineering drawing or for design purposes.

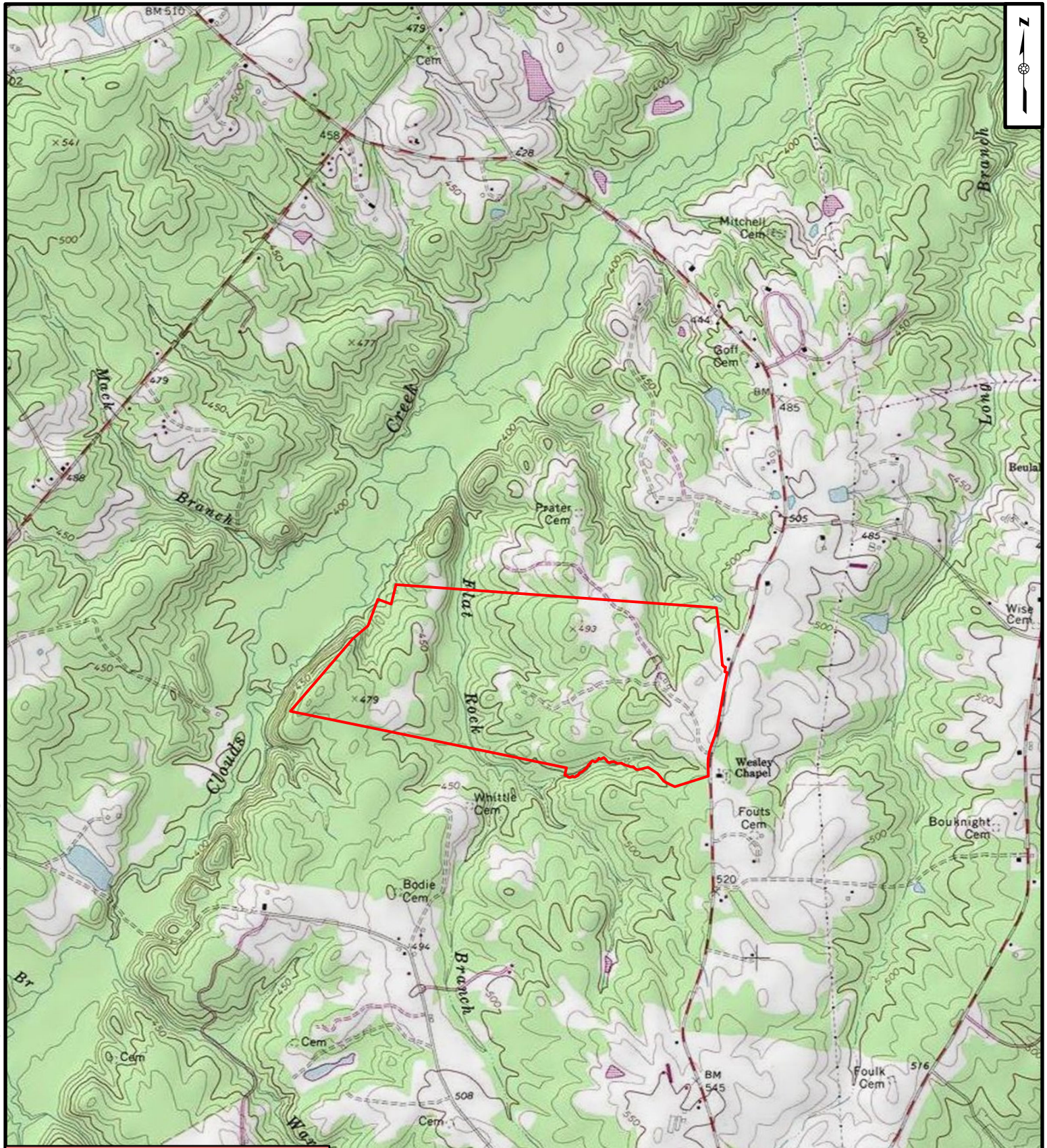


Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

Location Map
 Luck Companies
 Saluda Quarry
 Saluda County, SC

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 Consulting Engineers

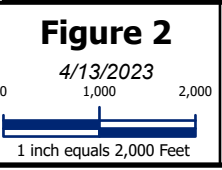
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APPROXIMATE SITE LOCATION
33.9702, -81.5945

Legend
 Project Area (~ 331.01 Acres)

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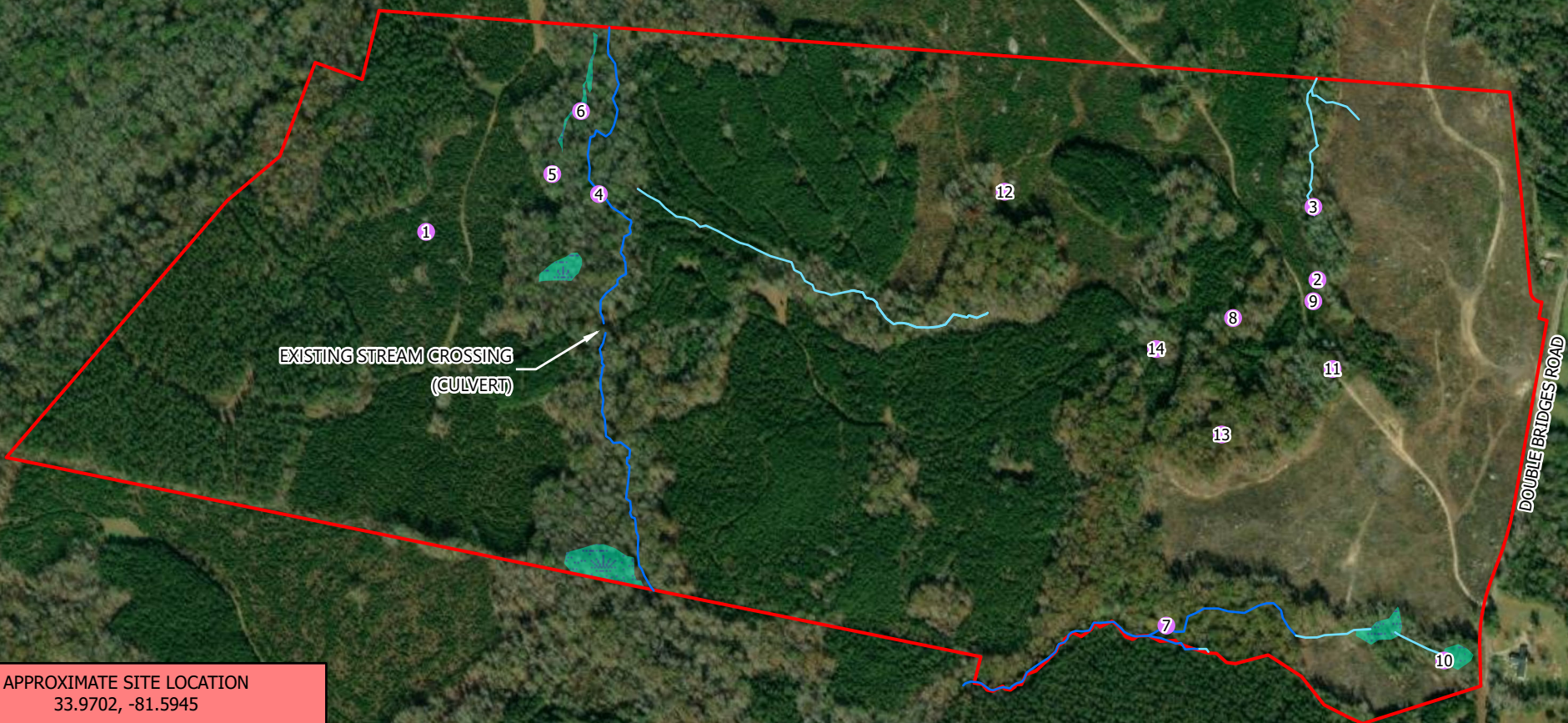


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USGS Topographic Map
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 Saluda County, SC

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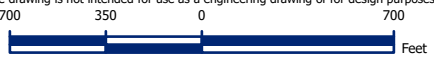


APPROXIMATE SITE LOCATION
33.9702, -81.5945

NOTES:
1. DEPICTED WATERS OF THE U.S. DELINEATION REMAINS AN OPINION OF HHNT UNTIL IT IS FORMALLY VERIFIED IN WRITING BY THE U.S. ARMY CORPS OF ENGINEERS VIA A FORMAL DETERMINATION LETTER.
2. DELINEATION WAS CONDUCTED BY HHNT SCIENTISTS ON 3/09/2023-3/10/2023.
3. IMAGERY OBTAINED FROM VIVID MAXAR DATED 11/24/2020.

Figure 3
Species Survey Photo Location Map

DISCLAIMER:
This drawing and the information contained herein is for general presentation purposes only and is a compilation of shapefile(s) provided by various source(s). The source and accuracy of the file(s) has not been verified by HHNT and therefore the drawing is not intended for use as an engineering drawing or for design purposes.



- Project Area (~ 331.01 Acres) Aquatic Resources
- Photo Locations
- Non-Wetland Water (Intermittent)
- Non-Wetland Water (Perennial)
- Wetlands

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Saluda Quarry
Saluda County, SC
5/8/2023

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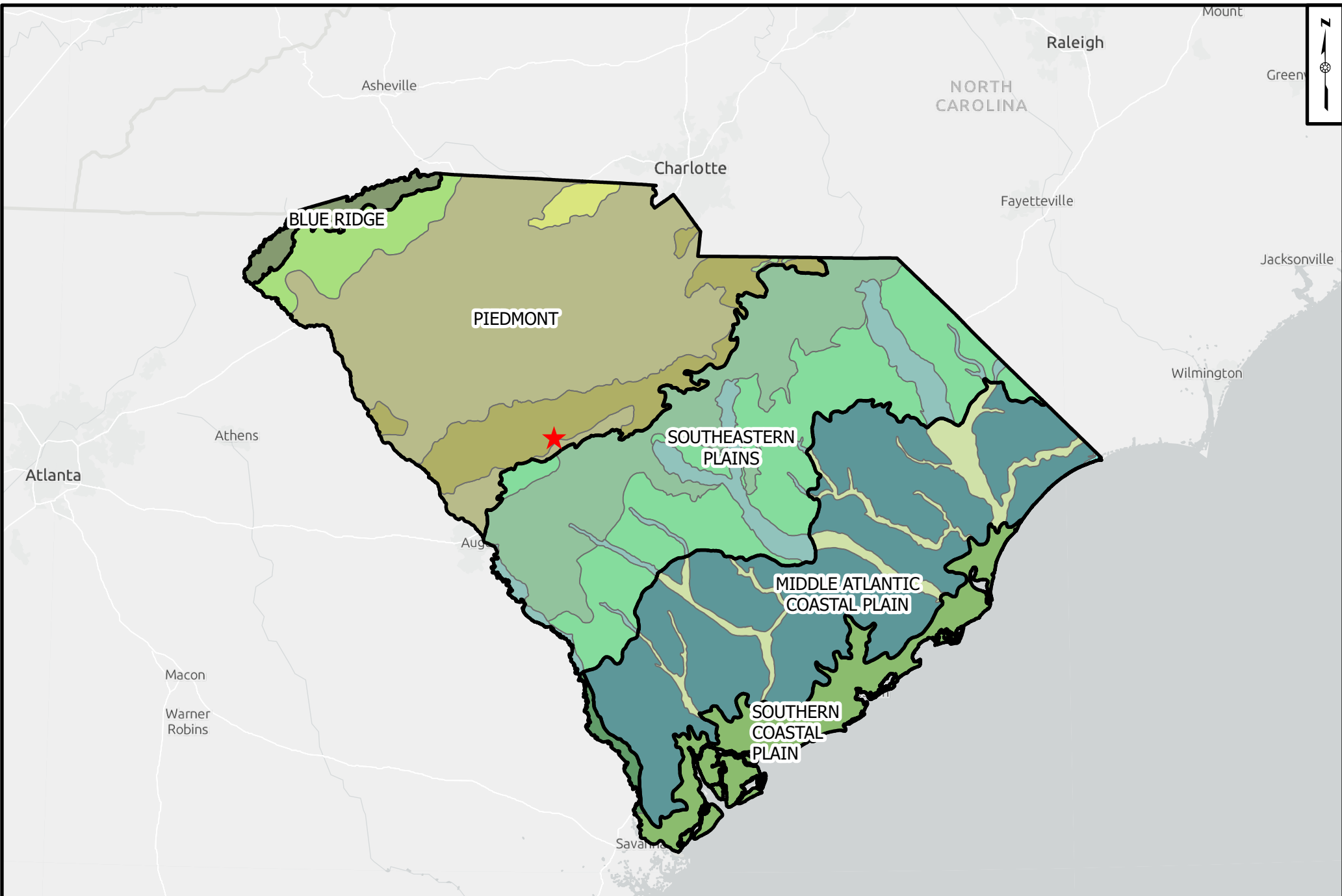
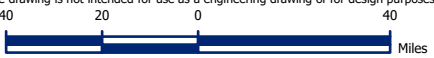


Figure 4
South Carolina Ecoregion Map

DISCLAIMER:
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- ★ Site Location
- ▬ Level 3 Ecoregions
- ▬ Level 4 Ecoregions
- Atlantic Southern Loam Plains
- Carolina Flatwoods
- Carolina Slate Belt
- Carolinian Barrier Islands and Coastal Marshes
- Floodplains and Low Terraces
- Kings Mountain
- Mid-Atlantic Floodplains and Low Terraces
- Sand Hills
- Sea Islands/Coastal Marsh
- Southeastern Floodplains and Low Terraces
- Southern Crystalline Ridges and Mountains
- Southern Inner Piedmont
- Southern Outer Piedmont
- Triassic Basins



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 Saluda County, SC
 5/8/2023



APPENDIX B SITE PHOTOGRAPHS



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PHOTO 1: Planted pines located on the western portion of the site.



PHOTO 2: Planted pines located on the eastern portion of the site.

Project No.: 4780-021

**Date Photos Taken:
March-April 2023**

Page 1 of 7

**Site Photographs
Luck Companies
Saluda Quarry
Saluda County, SC**

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PHOTO 3: Intermittent non-wetland water located on the eastern portion of the site.



PHOTO 4: Perennial non-wetland water (Flat Rock Branch) located in the central portion of the site.

Project No.: 4780-021

**Date Photos Taken:
March-April 2023**

Page 2 of 7

**Site Photographs
Luck Companies
Saluda Quarry
Saluda County, SC**

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PHOTO 5: Hardwood forest located on the western portion of the site.



PHOTO 6: Forested wetland located on the northwestern portion of the site.

Project No.: 4780-021

**Date Photos Taken:
March-April 2023**

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**Site Photographs
Luck Companies
Saluda Quarry
Saluda County, SC**

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PHOTO 7: Perennial non-wetland water located on the southeastern portion of the site.



PHOTO 8: Granite boulders located on the eastern portion of the site.

Project No.: 4780-021

**Date Photos Taken:
March-April 2023**

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**Site Photographs
Luck Companies
Saluda Quarry
Saluda County, SC**

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PHOTO 9: Planted pines located on the eastern portion of the site.



PHOTO 10: Forested wetland located on the southeastern portion of the site.

Project No.: 4780-021

**Date Photos Taken:
March-April 2023**

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**Site Photographs
Luck Companies
Saluda Quarry
Saluda County, SC**

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PHOTO 11: Hardwood forest located on the eastern portion of the site.



PHOTO 12: Granite boulder located on the northern portion of the site.

Project No.: 4780-021

**Date Photos Taken:
March-April 2023**

Page 6 of 7

**Site Photographs
Luck Companies
Saluda Quarry
Saluda County, SC**

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PHOTO 13: Granite boulders located on the eastern portion of the site.



PHOTO 14: Granite boulders located on the eastern portion of the site.

Project No.: 4780-021

**Date Photos Taken:
March-April 2023**

Page 7 of 7

**Site Photographs
Luck Companies
Saluda Quarry
Saluda County, SC**

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Consulting Engineers

APPENDIX C USFWS IPAC REPORT



HODGES, HARBIN,
NEWBERRY & TRIBBLE, INC.

Consulting Engineers



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: 2023-0075366
Project Name: Saluda Quarry

May 08, 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.

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

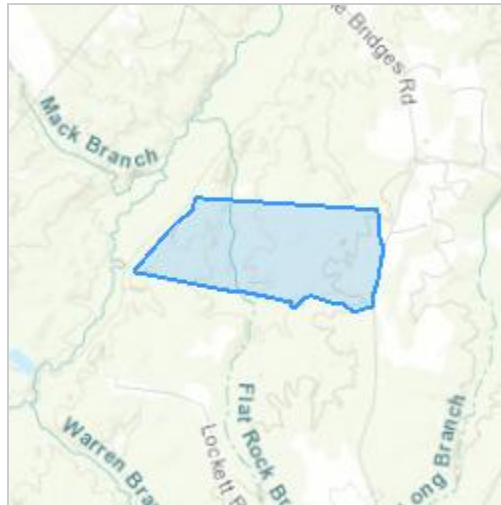
(843) 727-4707

PROJECT SUMMARY

Project Code: 2023-0075366
Project Name: Saluda Quarry
Project Type: Subsurface Extraction - Non Energy Materials
Project Description: 331.01 acre site located in Batesburg-Leesville, Saluda County, South Carolina. Reason for request of information is due diligence.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.96966215,-81.59553460685147,14z>



Counties: Saluda County, South Carolina

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 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

BIRDS

NAME	STATUS
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

CLAMS

NAME	STATUS
Carolina Heelsplitter <i>Lasmigona decorata</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3534	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
Harperella <i>Ptilimnium nodosum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3739	Endangered
Little Amphianthus <i>Amphianthus pusillus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6445	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
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

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.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

■ probability of presence ■ breeding season | survey effort — no data

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Chimney Swift
BCC Rangewide
(CON)



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.

FRESHWATER FORESTED/SHRUB WETLAND

- [PFO1/3A](#)
- [PFO1A](#)

RIVERINE

- [R4SBC](#)
-

APPENDIX D COUNTY SPECIES LIST FROM SCDNR



HODGES, HARBIN,
NEWBERRY & TRIBBLE, INC.

Consulting Engineers



South Carolina Department of Natural Resources

Robert H. Boyles, Jr.
Director

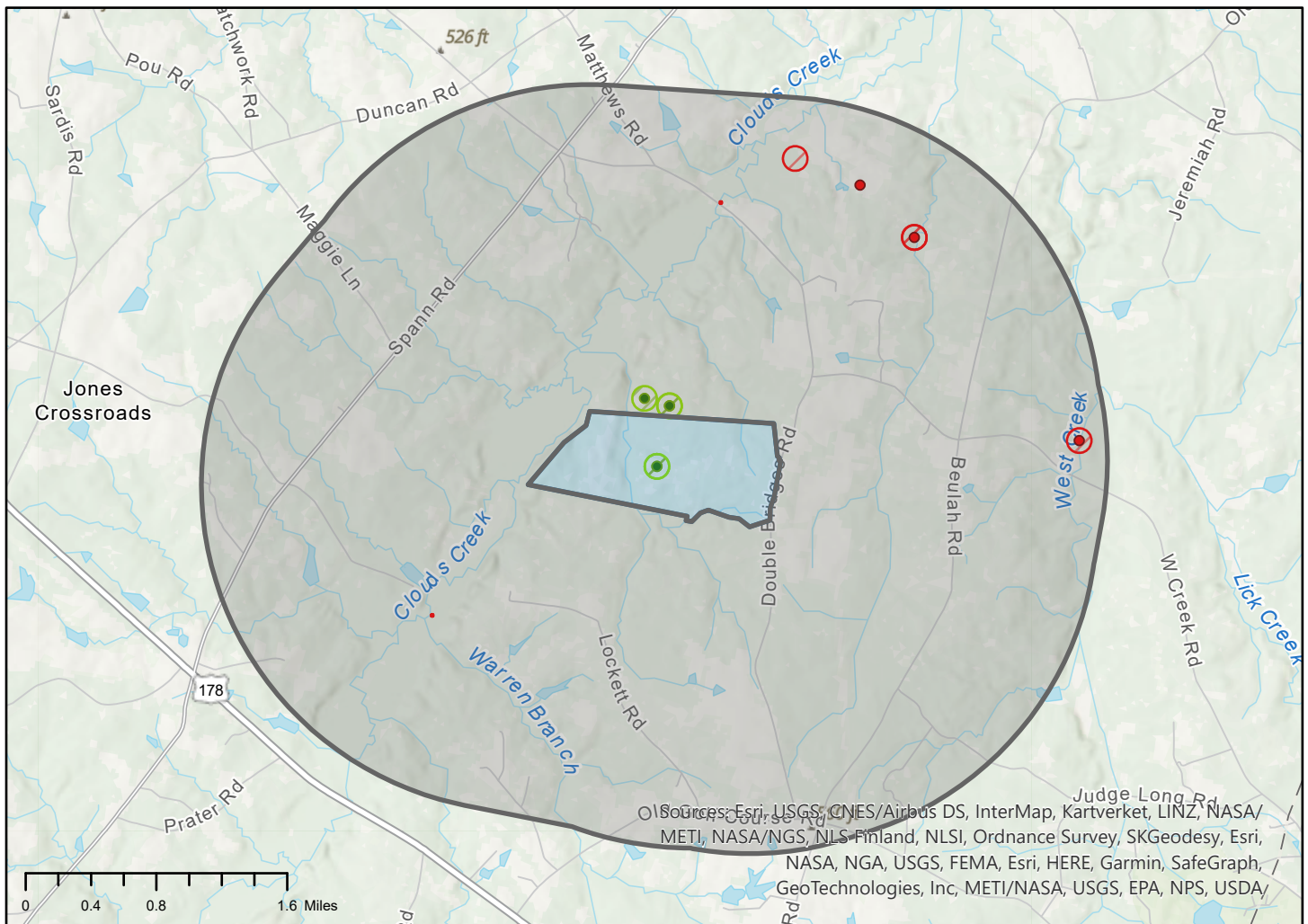
Emily C. Cope
Deputy Director for Wildlife and Freshwater Fisheries

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

Requested on Monday, May 8, 2023 by Tabitha Williams.

Re: Request for Threatened and Endangered Species Consultation
HHNT - Saluda Quarry - Mine - Saluda 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 Saluda County, South Carolina. The following map depicts the project area and a 2 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 "Joseph Lemeris, Jr.", is written over a light blue horizontal line.

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

Live Life Outdoors

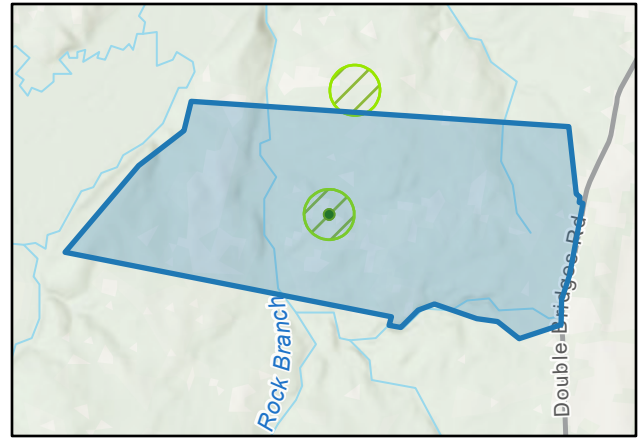


A. Project Area - Species Report

There are 4 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.



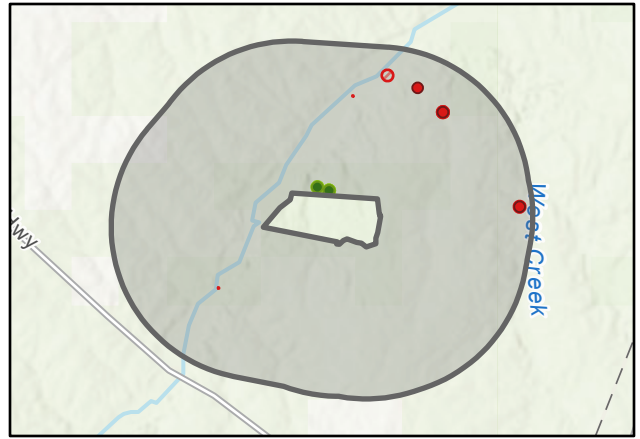
Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS Finland, NLSI, Ordnance Survey, SKGeodesy, Esri, NASA, NGA, USGS, FEMA, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



Scientific Name	Common Name	Federal Protection Status	State Protection Status	G Rank	S Rank	Last Obs. Date	Type
<i>Geocarpon uniflorum</i>	Godfrey's Stitchwort	Not Applicable	Not Applicable	G4	S3	1980-04-01	Botanical
<i>Isoetes piedmontana</i>	Piedmont Quillwort	Not Applicable	Not Applicable	G4	S2	1980-04-29	Botanical
<i>Oenothera linifolia</i>	Threadleaf Sundrops, Flaxleaf	Not Applicable	Not Applicable	G5	S1	1980-04-29	Botanical
<i>Sedum pusillum</i>	Puck's Orpine	Not Applicable	Not Applicable	G3	S2	1980-04-01	Botanical

B. Buffer Area - Species Report

The following table outlines rare, threatened or endangered species found within 2 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, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Esri, NASA, NGA, USGS

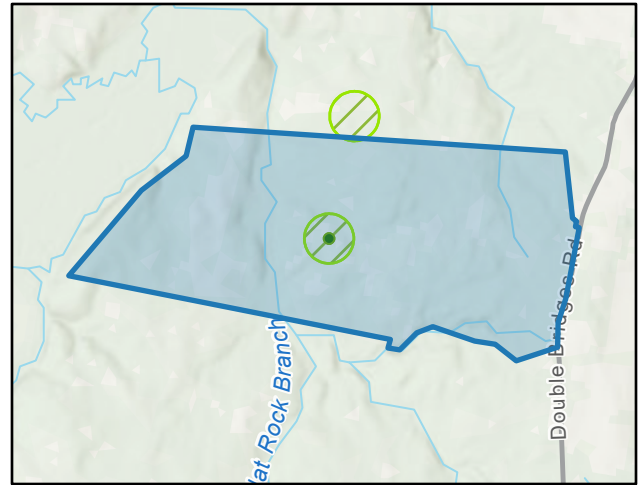
Scientific Name	Common Name	Federal Protection Status	State Protection Status	G Rank	S Rank	Last Obs. Date	Type
<i>Ameiurus catus</i>	White Catfish	Not Applicable	Not Applicable	G5	S4	1973-08-14	Zoological
<i>Ameiurus platycephalus</i>	Flat Bullhead	Not Applicable	Not Applicable	G4	S4	2007-08-14	Zoological
<i>Clinostomus funduloides</i>	Rosyside Dace	Not Applicable	Not Applicable	G5	S4	1973-07-20	Zoological
<i>Elliptio complanata</i>	Eastern Elliptio	Not Applicable	Not Applicable	G5	S5	2008-05-21	Zoological
<i>Gratiola amphiantha</i>	Pool-sprite, Snorkelwort	LT: Federally Threatened	Not Applicable	G2	S1	2019-01-14	Botanical
<i>Geocarpon uniflorum</i>	Godfrey's Stitchwort	Not Applicable	Not Applicable	G4	S3	1980-04-01	Botanical
<i>Sedum pusillum</i>	Puck's Orpine	Not Applicable	Not Applicable	G3	S2	1980-04-01	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, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



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.

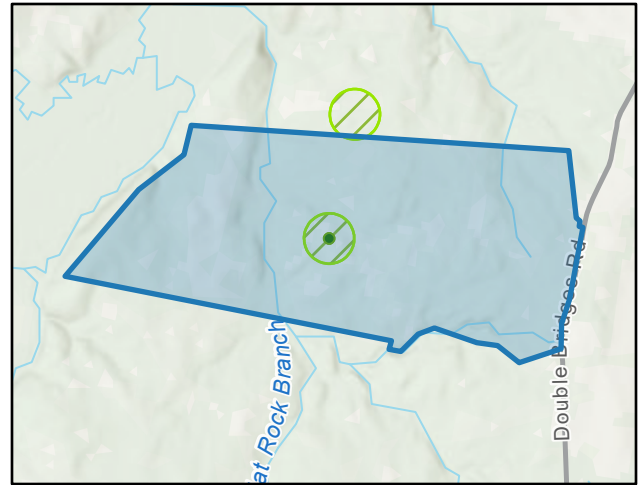
Species in the above table with SWAP priorities of High, Highest or Moderate are designated as having conservation priority under the South Carolina State Wildlife Action Plan (SWAP). SWAP species are those species of greatest conservation need not traditionally covered under any federal funded programs. 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 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 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, Esri, NASA, NGA, USGS, FEMA, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



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. 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>.

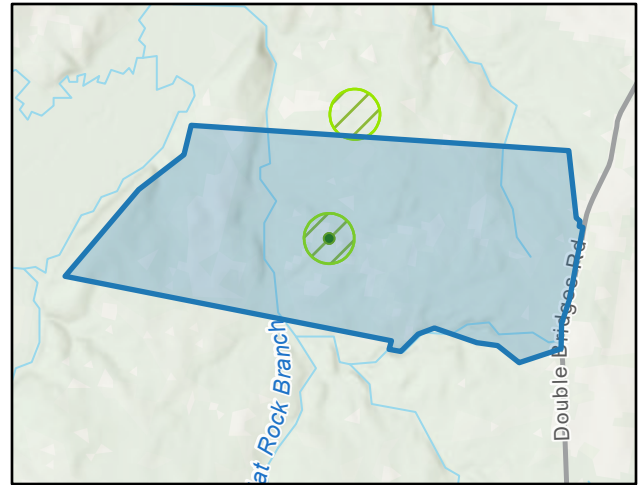
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/water.
- Once the project is initiated, it must be carried to completion in an expeditious manner to minimize the period of disturbance to the environment.
- Upon project 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 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, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



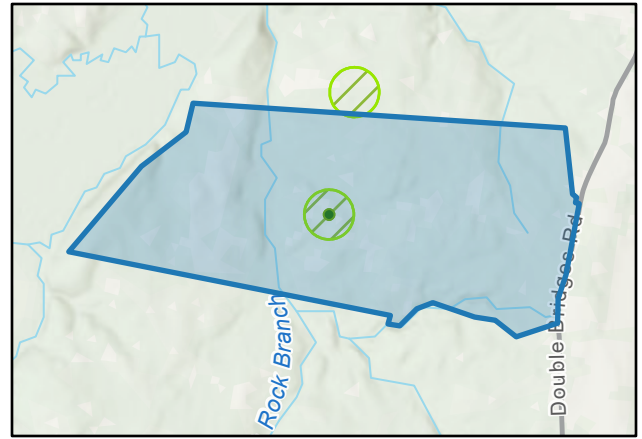
- If clearing must occur, riparian vegetation within wetlands and waters of the U.S. must be conducted manually and low growing, woody vegetation and shrubs must be left intact to maintain bank stability and reduce erosion.
- Construction activities must avoid and minimize, to the greatest extent practicable, 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.
- 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.

E. State & Federally Listed Species in Saluda 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.



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, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

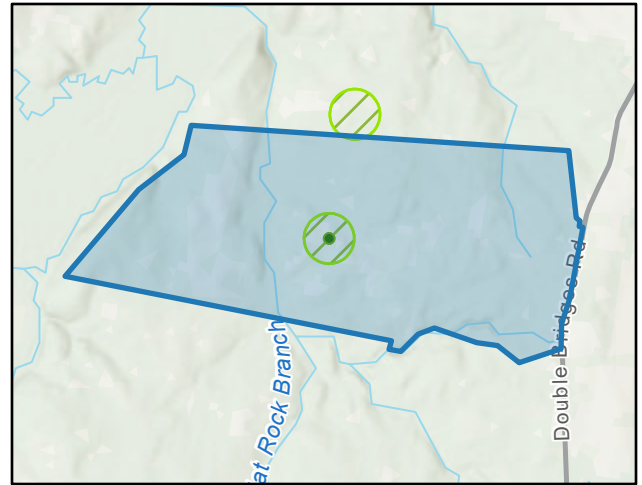


County	Scientific Name	Common Name	G Rank	S Rank	Federal Protection Status	State Protection Status	Group Type
Saluda	<i>Distocambarus carlsoni</i>	Mimic Crayfish	G2G3	S2	ARS: At-Risk Species	Not Applicable	Zoological
Saluda	<i>Dryobates borealis</i>	Red-cockaded Woodpecker	G3	S2	LE: Federally Endangered	SE: State Endangered	Zoological
Saluda	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3B,S3N	Bald & Golden Eagle Protection Act	ST: State Threatened	Zoological
Saluda	<i>Heterodon simus</i>	Southern Hog-nosed Snake	G2	S1S2	Not Applicable	ST: State Threatened	Zoological
Saluda	<i>Lasmigona decorata</i>	Carolina Heelsplitter	G1	S1	LE: Federally Endangered	Not Applicable	Zoological
Saluda	<i>Plethodon websteri</i>	Webster's Salamander	G3G4	S2	Not Applicable	SE: State Endangered	Zoological
Saluda	<i>Gratiola amphiantha</i>	Pool-sprite, Snorkelwort	G2	S1	LT: Federally Threatened	Not Applicable	Botanical
Saluda	<i>Harperella nodosa</i>	Harperella	G2	S1	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, Esri, NASA, NGA, USGS, FEMA, 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/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.



APPENDIX E USFWS CLEARANCE LETTER (AWAITING RECEIPT)



HODGES, HARBIN,
NEWBERRY & TRIBBLE, INC.

Consulting Engineers