



May 25, 2022

Mr. Doug Kyle
Hutton Real Estate Services, Inc.
736 Cherry Street
Chattanooga, Tennessee 37402

Reference: Preliminary Threatened & Endangered Species Habitat Assessment Report
Promenade II Project
Charlotte Highway, Fort Mill, Lancaster County, South Carolina
ECS Project Number: 49-17204

Dear Mr. Kyle:

ECS Southeast, LLP (ECS) is pleased to provide our results of the Preliminary Threatened and Endangered Species Habitat Assessment conducted for the above-referenced site.

1.0 BACKGROUND INFORMATION

1.1 PROJECT STUDY AREA

The Project Study Area (PSA) is located at Charlotte Highway in Fort Mill, Lancaster County, South Carolina. The site is approximately 61.27 acres and identified by Lancaster County Parcel Identification Numbers (PIN) 0013-00-067.00, 0013-00-135.00, 0013-00-067.01, 0013-00-67.04 and 0013-00-067.02. The PSA currently consists of wooded land with several residential structures.

1.2 1973 ENDANGERED SPECIES ACT

Congress passed the Endangered Species Act (ESA) in 1973 (Act). The purpose of the Act is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the U.S. Fish and Wildlife Service (USFWS) and the Commerce Department's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife.

Under the Act, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. For the purposes of the Act, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments.

Section 4(d) of the Act authorizes the USFWS to administer regulations necessary to conserve species listed as threatened. This applies particularly to "take," which can include any act that kills or injures threatened species and may include habitat modification. The ESA prohibits any take of species listed as endangered. Take that does not interfere with survival and recovery of threatened species may be allowed.

2.0 PRELIMINARY THREATENED AND ENDANGERED SPECIES DETERMINATION

2.1 DATABASE REVIEW

ECS queried the USFWS Information Planning and Consultation (IPaC) tool and the South Carolina Department of Natural Resources (SCDNR) protected species database to identify federally protected threatened and endangered species with potential to occur within the PSA. Table 1 summarizes the findings of the USFWS and SCDNR database searches and reflects species identified as having potential presence within the PSA.

The SCDNR database report indicates there are known occurrences of or suitable habitat for the federally endangered Carolina heelsplitter and Schweinitz's sunflower within a one-mile radius of the PSA. The 1989 Catawba NE [SC] 1:24,000 U.S. Geological Survey (USGS) Topographic Map depicts potential tributaries of Sixmile Creek in the northeastern portion of the PSA.

Table 1: Lancaster County Federal Threatened & Endangered Species Listings

Common Name Scientific Name	Protection Status	Suitable Habitat	Potential Habitat Present?	USFWS Optimal Survey Window
Northern Long-eared Bat <i>Myotis septentrionalis</i>	FT; ST	Moderate to heavy forests, underneath bark, in cavities or crevices of both live and dead trees, and in structures, like barns and sheds. Hibernate in caves and mines.	Yes	--
Bald Eagle <i>Haliaeetus leucocephalus</i>	BGPA	Mature forests near large bodies of water (nesting); rivers, lakes, and sounds (foraging) [breeding evidence only]	No	--
Carolina Heelsplitter <i>Lasmigona decorata</i>	FE; SE	Well-oxygenated water with low amounts of pollutants, streams with stable bottoms and well vegetated banks.	No	--
Schweinitz's Sunflower <i>Helianthus schweinitzii</i>	FE; SE	Wooded or semi-wooded open areas with poor soils, such as thin clays that vary from wet to dry and receive full to partial sun. Soils include Enon, Goldston, Herndon, Hiwassee, Iredell, Pacolet, Tallapoos, Tatum, Wedowee, White Store and Wilkes.	Yes	late August - October
Smooth Coneflower <i>Echinacea laevigata</i>	FT; ST	Openings in woods, such as cedar barrens and clear cuts, along roadsides and utility line rights-of-way, and on dry limestone bluffs. Usually found in areas with magnesium- and calcium-rich soils.	Yes	Late May- October
Black-Spored Quillwort	FE; SE	Shallow, temporary pools on granite outcrops, often in thin layers of soil	No	

F = Federal; S = State; BGPA = Bald and Golden Eagle Protection Act
 T = Threatened; E = Endangered; SA = Due to Similar Appearance

2.2 SPECIES & HABITAT DESCRIPTIONS

Northern long-eared bat

The northern long-eared bat (NLEB) is a medium-sized bat with a body length of 3 to 3.7 inches and a wingspan of 9 to 10 inches. The fur color can be medium to dark brown on the back and tawny to pale-brown on the underside. This bat is distinguished by its long ears, particularly as compared to other bats in its genus. During summer, NLEBs roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds. NLEBs spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water

are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible.

Bald eagle

Distinguished by a white head and white tail feathers, bald eagles are large, brown birds weighing up to 14 pounds and have a wingspan of 8 feet. Male eagles are smaller, weighing as much as 10 pounds and have a wingspan of 6 feet. Bald eagles live near rivers, lakes, and marshes where they can find fish, their staple food. bald eagles will also feed on waterfowl, turtles, rabbits, snakes, and other small animals and carrion. Bald eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering.

Carolina heelsplitter

The Carolina heelsplitter is a medium sized freshwater mussel endemic to the Carolinas. The shell is green-brown to dark brown in color with a white to blue-white interior and an ovate- trapezoid shape. The Carolina heelsplitter requires well-oxygenated water with low amounts of pollutants. Stable stream bottoms appear to be critical to the species. Typically, stable areas occur where the stream banks throughout the watershed are well-vegetated with trees and shrubs.

Schweinitz's sunflower

Schweinitz's sunflower is a perennial herb that produces solitary stems, up to two meters tall and bear yellow flowerheads in late Summer and early Autumn. Schweinitz's sunflower occurs in clearings, and edges of, upland oak-pine-hickory woods and piedmont longleaf pine forests in moist to dryish sandy loams. The sunflower requires full to partial sun of an open habitat, which was formerly maintained over the species' range by wildfires and grazing by herds of bison and elk. Now most occurrences are confined to roadsides and powerline clearings.

Smooth coneflower

Smooth coneflower is a rhizomatous perennial herb, which grows to a height of about five feet, with smooth stems, few leaves and pink to purplish flowers. This species flowers from May to mid-July and fruits from late June to September. Smooth coneflower primarily occurs in openings in woods, such as cedar barrens and clear cuts, along roadsides and utility line rights-of-way, and on dry limestone bluffs. It is typically found in areas with magnesium- and calcium-rich soils with full or partial sun exposure.

Black-spored quillwort

The Black-spored quillwort is an aquatic lycophyte endemic to Georgia and South Carolina. The species occurs in small depressions, or pools, formed in granite outcrops, which hold water for sufficient periods to support growth and reproduction. The Black-spored quillwort is a small plant with leaves growing up to three inches long in a spiral arrangement, tapering at the tip.

2.3 ONSITE HABITAT ASSESSMENT

An onsite habitat assessment was performed on May 19, 2022. Three general habitat types were observed, which included mixed pine-hardwood forest, woodland fringe, and disturbed seasonally-maintained areas (e.g., lawns, utility rights-of-way and roadsides).

Species composition in mixed pine-hardwood forested areas generally included white oak (*Quercus alba*), post oak (*Q. stellata*), willow oak (*Q. phellos*), turkey oak (*Q. laevis*), northern red oak (*Q. rubra*), sourwood (*Oxydendrum arboreum*), American beech (*Fagus grandifolia*), mockernut hickory (*Carya tomentosa*), eastern white pine (*Pinus strobus*) and loblolly pine (*P. taeda*).

Species composition along woodland fringes generally included blackjack oak (*Q. marilandica*), sweetgum (*Liquidambar styraciflua*), white pine, southern sugar maple (*Acer floridanum*), sourwood, black cherry (*Prunus serotina*), eastern redcedar (*Juniperus virginiana*) and sawtooth blackberry (*Rubus argutus*).

Species composition in disturbed, seasonally-maintained areas generally included dogfennel (*Eupatorium capillifolium*), eastern Baccharis (*Baccharis halimifolia*), broom sedge (*Andropogon virginicus*), Virginia creeper (*Parthenocissus quinquefolia*), muscadine (*Vitis rotundifolia*) and fescue species (*Festuca* spp.).

2.4 FINDINGS

During the onsite habitat assessment, ECS identified potential NLEB summer roosting habitat as well as potential Schweinitz's sunflower and smooth coneflower habitat within the PSA.

Potential NLEB summer roosting habitats observed included remnant, dilapidated structures and trees with sloughing bark. Based on the USFWS website, Lancaster County is not within the range of the NLEB and no known hibernacula or maternity roost trees are on or within ¼ mile radius of the PSA.

Potential suitable habitat for Schweinitz's sunflower and smooth coneflower was observed in open, cleared areas and along wooded edges. The SCDNR database search did not identify smooth coneflower within project boundaries or within a one-mile radius of the PSA.

Two tributaries of Sixmile Creek were observed in the northeastern portion of the PSA. ECS noted the water within both tributaries was nearly stagnant. The water contained high levels iron-oxidizing bacteria and the streambed substrate primarily consisted of silt. Further, the existing hydrological and geomorphological conditions would prevent the water from being oxygenated properly. Therefore, neither tributary was characterized as suitable Carolina heelsplitter habitat.

No suitable habitats of the bald eagle or black-spored quillwort were observed within the PSA.

3. CONCLUSIONS & RECOMMENDATIONS

ECS conducted a preliminary threatened and endangered species habitat assessment within the defined PSA boundaries. Please note that our services did not include detailed studies for threatened and endangered species. Please also note that USFWS clearance is only necessary should a Federal or State permit be required. If impacts to Waters of the U.S. are anticipated, ECS recommends performing targeted species surveys during the appropriate survey windows.

Under the 4(d) rule, NLEB protections are tailored to areas affected by white-nose syndrome during the species' most sensitive life stages. 4(d) rule protections apply only to known and occupied maternity roost trees and known hibernacula of northern long-eared bat. Effective February 16, 2016, incidental take resulting from tree removal is prohibited if it 1) occurs within a ¼-mile radius of known hibernacula; or 2) destroys known, occupied maternity roost trees and any other trees within a 150-foot radius of known maternity trees during the pup season (June 1-July 31).

The SCDNR recommends conducting Schweinitz's sunflower surveys from late August through first frost while the plants are in flower. Minimizing the use of herbicides is advised to avoid impacts to Schweinitz's sunflower as well as other species listed above. Consultation with the U.S. Fish & Wildlife Service should be completed before proceeding with any construction activities.

To protect the Carolina heelsplitter and its designated habitat (Sixmile Creek) from secondary impacts, the SCDNR recommends strong sediment and pollution control practices and maintaining a minimum 200-foot vegetative buffer along perennial streams or 100-foot vegetative buffer along intermittent streams.

4. CLOSING

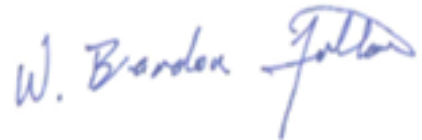
ECS appreciates the opportunity to provide our services to you. Please contact us at (704) 525-5152 if you have questions or require additional information.

Sincerely,

ECS Southeast, LLP




Jesse Degnan
Project Manager
idegnan@ecslimited.com

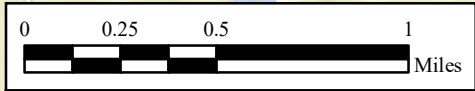
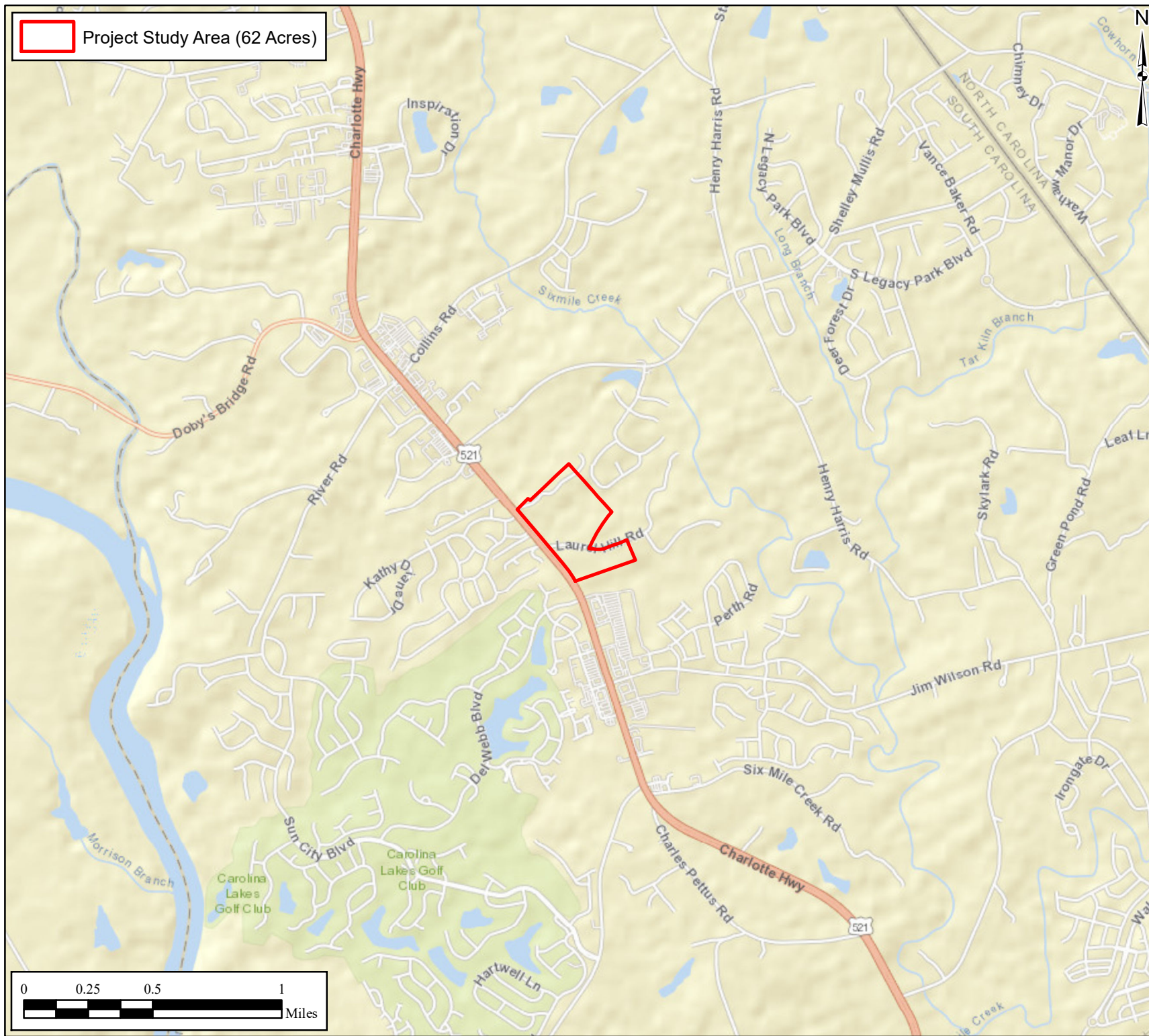


Brandon Fulton, LSS, PSC PWS
Environmental Principal
Bfulton@ecslimited.com

Attachments:

- Figure 1 - Site Location Map
- Figure 2 - USGS Topographic Map
- Figure 3 – Aerial Map
- USFWS Charleston Field Office IPaC Results
- SCDNR Response Letter

 Project Study Area (62 Acres)



Client:



Project:

PROMENADE II SITE
CHARLOTTE HIGHWAY,
FORT MILL,
LANCASTER COUNTY,
SOUTH CAROLINA

Title:

**SITE
LOCATION
MAP**



Drawn By:

KEC

Scale:

1"=0.5MI

Approved By:

WBF


Date:

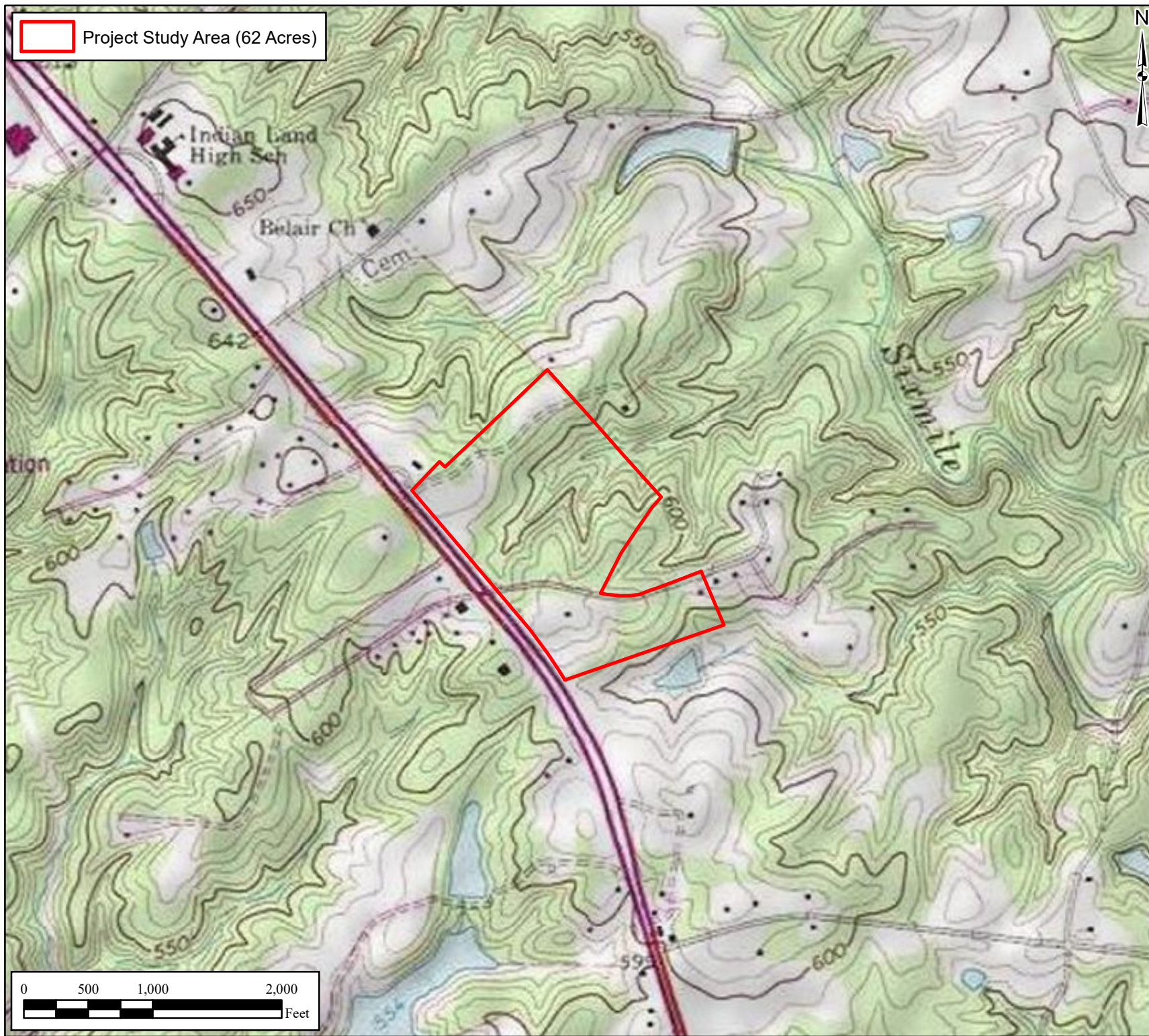
5/25/2022

ECS Project No.

49: 17204

FIGURE 1

 Project Study Area (62 Acres)



Client:



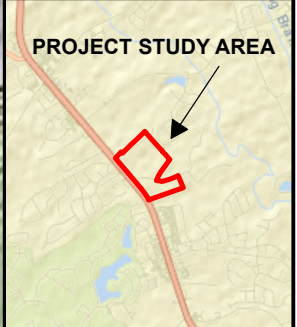
Project:

PROMENADE II SITE
CHARLOTTE HIGHWAY,
FORT MILL,
LANCASTER COUNTY,
SOUTH CAROLINA

Title:

USGS TOPOGRAPHIC
MAP

CATAWBA NE
QUADRANGLE
DATED: 1988



Drawn By:

KEC

Scale:

1" = 1,000'

Approved By:

WBF


Date:

5/25/2022

ECS Project No.

49: 17204

FIGURE 2

 Project Study Area (62 Acres)



Client:



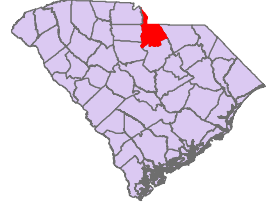
Project:

PROMENADE II SITE
CHARLOTTE HIGHWAY,
FORT MILL,
LANCASTER COUNTY,
SOUTH CAROLINA

Title:

**SITE
AERIAL
MAP**

LANCASTER COUNTY



Drawn By:

KEC

Scale:

1" = 500'

Approved By:

WBF

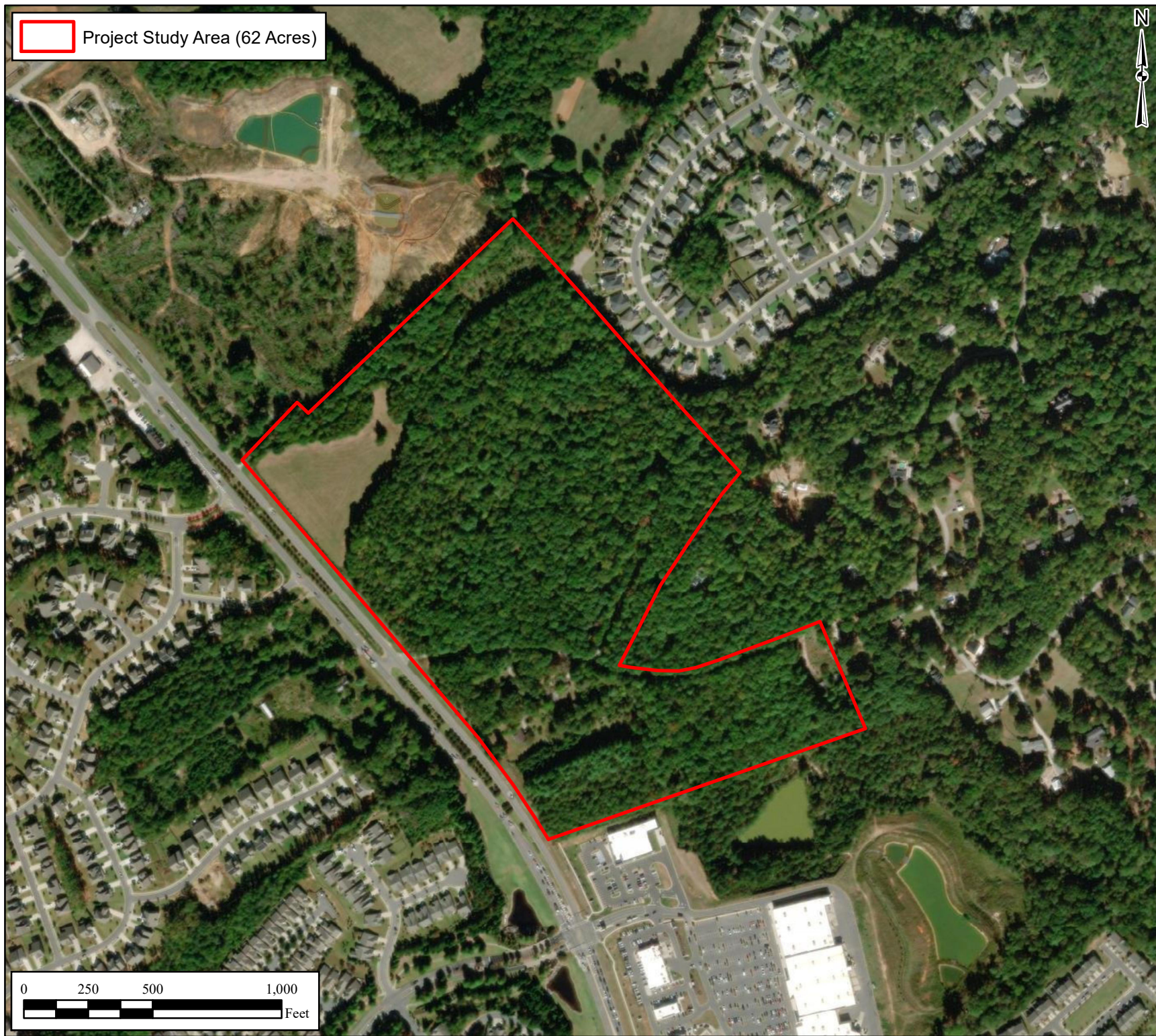
Date:

5/18/2022

ECS Project No.

49: 17204

FIGURE 3





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
<http://www.fws.gov/charleston/>

In Reply Refer To:
Project Code: 2022-0044251
Project Name: Promenade II Site

May 18, 2022

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>

Northern Long-eared Bat: Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

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

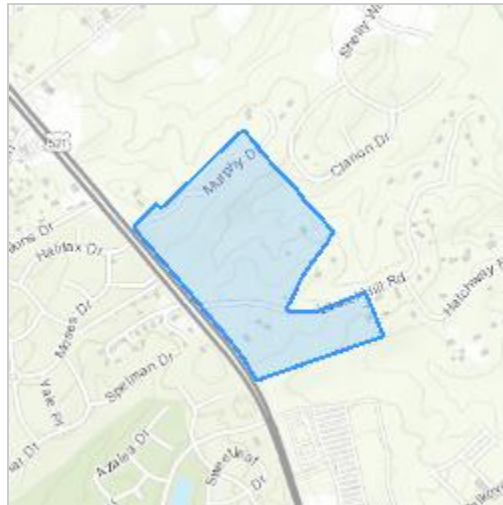
Charleston, SC 29407-7558

(843) 727-4707

Project Summary

Project Code: 2022-0044251
Event Code: None
Project Name: Promenade II Site
Project Type: Commercial Development
Project Description: Proposed Development
Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.9453959,-80.83932742435829,14z>



Counties: Lancaster County, South Carolina

Endangered Species Act Species

There is a total of 5 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.

Clams

NAME	STATUS
Carolina Heelsplitter <i>Lasmigona decorata</i> There is final critical habitat for this species. The location of the critical habitat is not available. 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
Schweinitz's Sunflower <i>Helianthus schweinitzii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3849	Endangered
Smooth Coneflower <i>Echinacea laevigata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3473	Endangered

Ferns and Allies

NAME	STATUS
Black Spored Quillwort <i>Isoetes melanospora</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6315	Endangered

Critical habitats

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

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](#).

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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. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
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

NAME	BREEDING SEASON
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

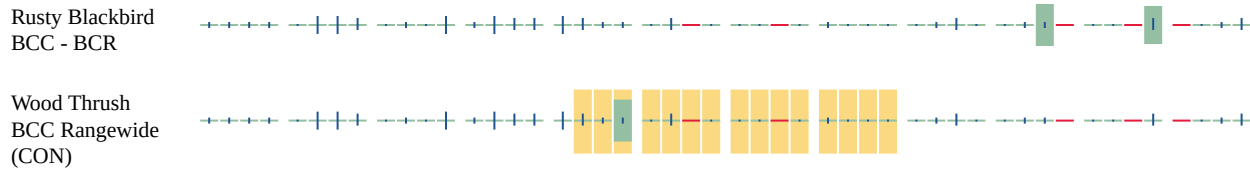
The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation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



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 migratory birds potentially occurring 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 [AKN Phenology 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, migrating or present year-round in my project 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 refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). 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.

RIVERINE

- [Riverine](#)
-

IPaC User Contact Information

Agency: ECS Southeast LLP

Name: Kara Cometti

Address: 1812 Center Park Drive

City: Charlotte

State: NC

Zip: 28217

Email: kcometti@ecslimited.com

Phone: 7046156703

South Carolina Department of Natural Resources



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

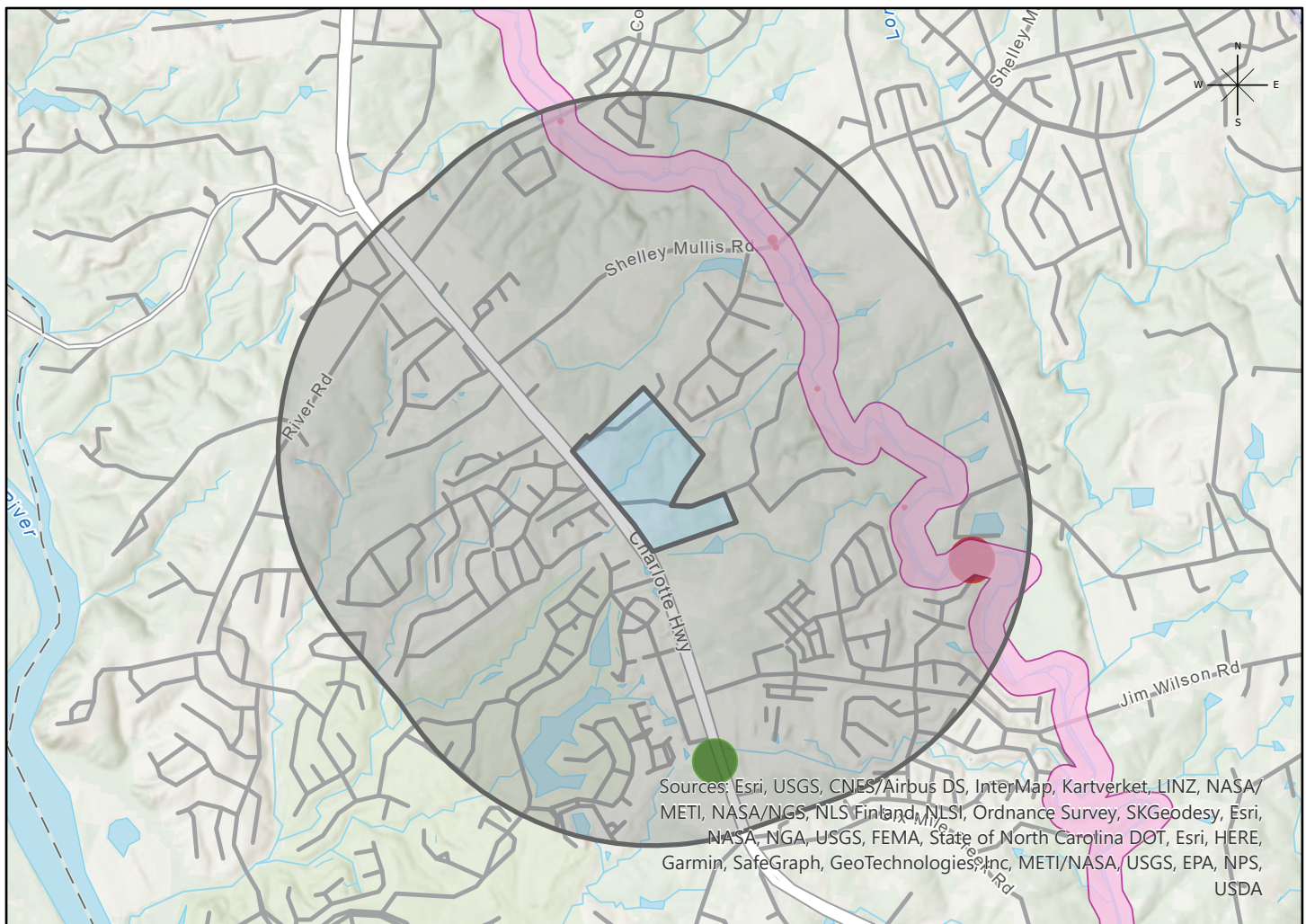
Robert H. Boyles, Jr.
Director

Emily C. Cope
Deputy Director for
Wildlife and Freshwater Fisheries

Requested on Wednesday, May 18, 2022 by Thomas Hawkins.

Re: Request for Threatened and Endangered Species Consultation
Kara Cometti - Promenade II Site
Development (Commercial/Residential)
Lancaster 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 Lancaster County, South Carolina. The following map depicts the project area and a 1 mile buffer surrounding:



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

0 0.23 0.45 0.9 Miles

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 chosen project type
- E - Additional Information & Instructions for Submitting Observations 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.

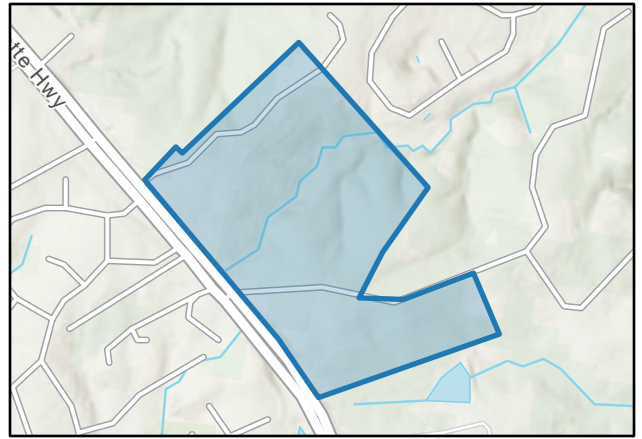
Joseph Lemeris, Jr.
Heritage Trust Program
SC Department of Natural Resources

A. Project Area - Species Report

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



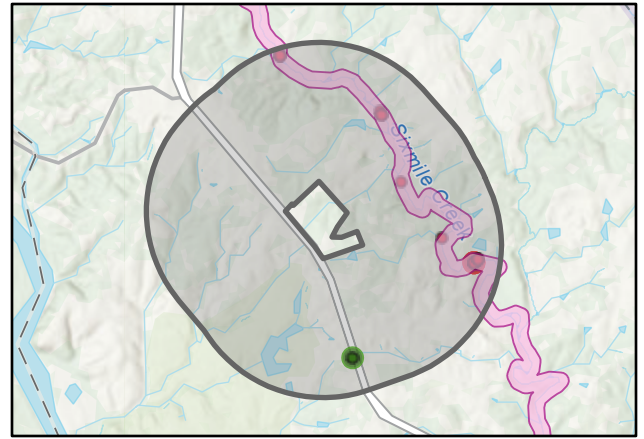
No records for species of concern are found within the project area

B. Buffer Area - Species Report

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



Map Credits: 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



Scientific Name	Common Name	G Rank	S Rank	Fed. Status	State Status	SWAP Priority	Last Obs. Date
<i>Helianthus schweinitzii</i>	Schweinitz's Sunflower	G3	S3	LE: Federally Endangered	Not Applicable	Highest	2004-09-23
<i>Lasmigona decorata</i>	Carolina Heelsplitter	G1	S1	LE: Federally Endangered	Not Applicable	Highest	2006-03-15
<i>Cambarus hobbsorum</i>	Rocky River Crayfish	G3G4	S3S4	Not Applicable	Not Applicable	Moderate	2008-05-13
<i>Clinostomus funduloides</i>	Rosyside Dace	G5	S4	Not Applicable	Not Applicable	Moderate	1973-08-03
<i>Elimia catenaria</i>	Gravel Elimia	G4	S4S5	Not Applicable	Not Applicable	Not Applicable	2006-03-14
<i>Elliptio complanata</i>	Eastern Elliptio	G5	S5	Not Applicable	Not Applicable	Moderate	1987-6-27
<i>Elliptio complanata</i>	Eastern Elliptio	G5	S5	Not Applicable	Not Applicable	Moderate	2006-3-29
<i>Notropis altipinnis</i>	Highfin Shiner	G5	S3S4	Not Applicable	Not Applicable	Moderate	1973-08-03
<i>Notropis procne</i>	Swallowtail Shiner	G5	S3S4	Not Applicable	Not Applicable	Moderate	1973-08-03
<i>Villosa delumbis</i>	Eastern Creekshell	G4	S4	Not Applicable	Not Applicable	Moderate	2006-03-14
<i>Villosa delumbis</i>	Eastern Creekshell	G4	S4	Not Applicable	Not Applicable	Moderate	2006-03-15
<i>Villosa delumbis</i>	Eastern Creekshell	G4	S4	Not Applicable	Not Applicable	Moderate	2006-03-28
<i>Villosa delumbis</i>	Eastern Creekshell	G4	S4	Not Applicable	Not Applicable	Moderate	2016-06-21
<i>Villosa vaughaniana</i>	Carolina Creekshell	G2G3	S1	Not Applicable	Not Applicable	Highest	2006-03-14
<i>Villosa vaughaniana</i>	Carolina Creekshell	G2G3	S1	Not Applicable	Not Applicable	Highest	2006-03-15
<i>Villosa vaughaniana</i>	Carolina Creekshell	G2G3	S1	Not Applicable	Not Applicable	Highest	2006-03-28

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 questions with regard to the data provided.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS, Finland, NLSI, Ordnance Survey, SKGeodesy, Esri Community Maps Contributors, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri,

There are known occurrences of or suitable habitat for the federally endangered Carolina heelsplitter within or near to your project area. Therefore, SCDNR recommends you consult with U.S. Fish and Wildlife Service regarding ways to avoid impacts to the species from project activities. In addition, SCDNR recommends strong sediment and pollution control practices and that a minimum 200-foot vegetative buffer along perennial streams or 100-foot vegetative buffer along intermittent streams should be maintained to protect the Carolina heelsplitter and its designated habitat.

Schweinitz's sunflower is a federally endangered species of flowering plant which typically occurs in full-to-partial sun, forest openings and grasslands, with many remaining populations occurring along roadsides and utility rights-of-way. SCDNR recommends conducting surveys from late August through first frost while the plants are in flower to identify additional Schweinitz's sunflower populations elsewhere on the property. Minimizing the use of herbicides is advised to avoid impacts to Schweinitz's sunflower as well as other species listed above. Consultation with the U.S. Fish & Wildlife Service should be completed before proceeding with any construction activities. Several botanical gardens in South Carolina may offer assistance with pre- and post-construction transplanting or reestablishment of plants to safeguard the species should Schweinitz's sunflower be found on site.

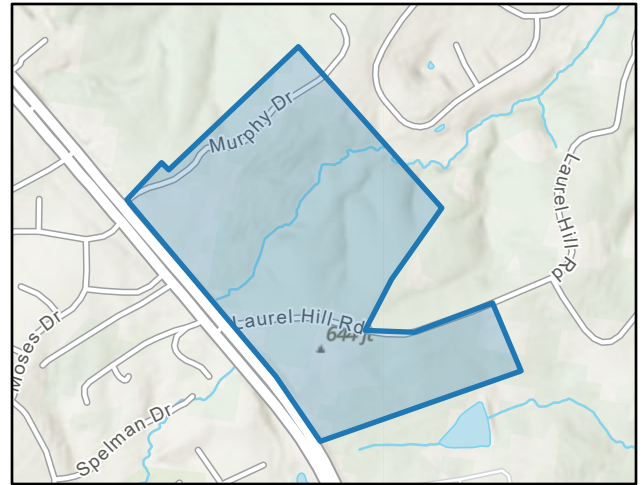
Species in the above table with SWAP priorities of High, Highest or Moderate are designated as having conservation priority under the South Carolina State Wildlife Action Plan (SWAP). SWAP species are those species of greatest conservation need not traditionally covered under any federal funded programs.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



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>.

If this project is associated with the Federal Government and the project area is or once was used as farmland, we recommend that consultation occur with the U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS) per the Farmland Protection Policy Act; areas of the site are classified as prime farmland or farmland of statewide importance.

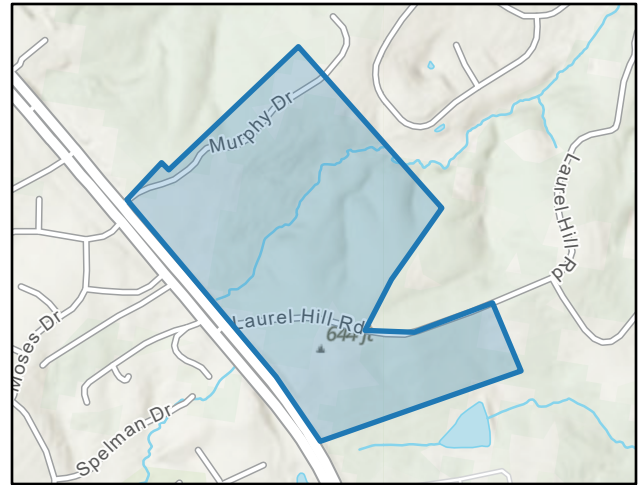
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas/wetlands/water.
- Once the project is initiated, it must be carried to completion in an expeditious manner to minimize the period of disturbance to the environment.
- Upon project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



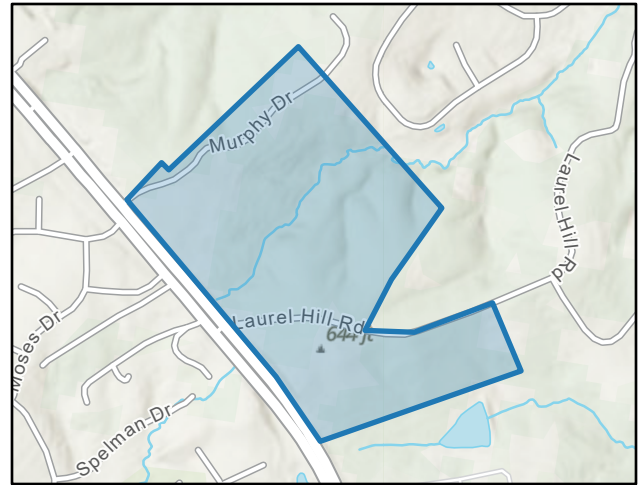
- If clearing must occur, riparian vegetation within wetlands and waters of the U.S. must be conducted manually and low growing, woody vegetation and shrubs must be left intact to maintain bank stability and reduce erosion.
- Construction activities must avoid and minimize, to the greatest extent practicable,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

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.



Map Credits: Sources: Esri, USGS, CNES/Airbus DS, InterMap, Kartverket, LINZ, NASA/METI, NASA/NGS, NLS, Finland, NLSI, Ordnance Survey, SK Geodesy, Esri Community Maps Contributors, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri,

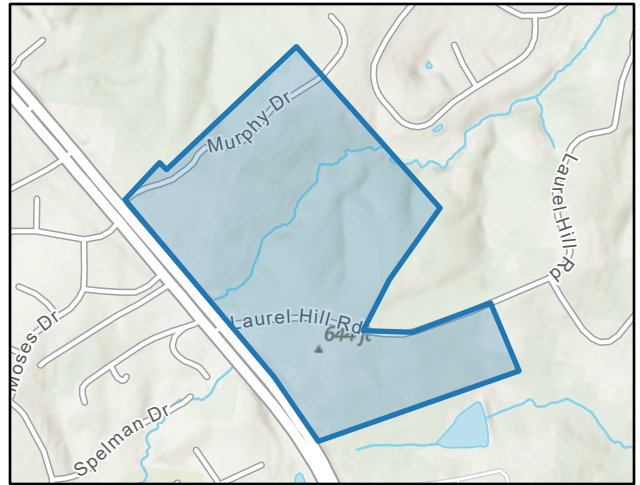


- Residential and commercial development has grown exponentially in recent years. Activities associated with these developments can have detrimental impacts on wildlife and aquatic resources such as habitat fragmentation, loss of available habitats and pollution, especially stormwater pollution. The 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. Additional Information & Instructions for Submitting 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 Community Maps Contributors, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri,



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.

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.

