



Protected Species Assessment
Former Harriet Tubman Homes Property
Roanoke Avenue
Chattanooga, Hamilton County, TN
S&ME Project No. 4181-18-046

PREPARED FOR:

**City of Chattanooga
c/o Barge Design Solutions
1110 Market Street, Suite 200
Chattanooga, Tennessee 37402**

PREPARED BY:

**S&ME, Inc.
4291 Highway 58
Chattanooga, TN 37416**

November 28, 2018



November 28, 2018

City of Chattanooga
c/o Barge Design Solutions
1110 Market Street, Suite 200
Chattanooga, Tennessee 37402

Attention: Mr. Russell D. Moorehead, PE

Reference: **Protected Species Assessment**
Former Harriet Tubman Homes Site
Roanoke Avenue
Chattanooga, Hamilton County, Tennessee
S&ME Project No. 4181-18-046

Dear Mr. Moorehead:

S&ME, Inc. (S&ME) is pleased to submit this report of Protected Species Assessment relative to state and federal threatened and endangered species for the above referenced project site in Chattanooga, Hamilton County, Tennessee. The work was conducted in general conformance with the scope of services outlined in S&ME Proposal No. 41-1800380, dated June 29, 2018, and authorized by you on November 1, 2018. S&ME appreciates the opportunity to provide services for this project. If you have any questions, please call.

Sincerely,

S&ME, Inc.

A handwritten signature in blue ink that reads "F. Barry Burnette".

F. Barry Burnette
Staff Scientist

A handwritten signature in blue ink that reads "Kristy Smedley".

Kristy Smedley
Senior Scientist



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1.0 Project Information

The subject property is composed of approximately 42 acres and is the location of the former Harriet Tubman Homes complex (see Figure 1). It is located north of the intersection of Southern Street and Roanoke Avenue and is bound to the west by Sholar Avenue in Chattanooga, Tennessee. According to the Hamilton County GIS website, the subject property is composed of eight parcels owned by the City of Chattanooga, i.e., parcels 136E-A-005, -006, -008, -009, -010, -011, -012, and -013. S&ME is familiar with the subject property having performed a protected species assessment, among other environmental and geotechnical assessments, in 2014 prior to the demolition of the onsite structures.

In June 2014, S&ME conducted a protected species assessment of the project site and identified four suitable Indiana bat (*Myotis sodalis*) summer roost trees. The United States Fish and Wildlife Service (USFWS) reviewed the findings and, based on the project proponent's plan to remove the trees between October 15 and March 31, provided their opinion that the proposed activity was not expected to result in significant impacts to threatened or endangered species or their critical habitats. The USFWS correspondence stated that obligations under the Endangered Species Act must be reconsidered if 1) new information reveals impacts of the proposed action that may affect listed species or critical habitat in a manner not previously considered, 2) the proposed action is subsequently modified to include activities which were not considered during this consultation, or 3) new species are listed or critical habitat designated that might be affected by the proposed action.

The former multi-tenant residential structures were demolished in 2015/2016 and the four previously identified potential Indiana bat summer roosting trees were removed in the winter clearing period.

Based on our familiarity, since the 2014 assessment and agency correspondence, a second bat, i.e., the northern long-eared bat (*M. septentrionalis*) was added to the list of protected species for the project site vicinity. As such, S&ME was requested to conduct an updated assessment of the subject property for state and federally listed protected species to assist in the evaluation of the site for potential future use and/or development. Concurrently with the protected species assessment, S&ME conducted a jurisdictional waters assessment and identified one onsite stream that extends approximately 325 feet and is entirely concrete-lined; those findings are summarized in a separate report also dated November 28, 2018.

2.0 Species Evaluation

Existing federal- and state-listed species information and site habitat observations were reviewed to determine the likely occurrence of protected (threatened, endangered, and proposed / candidate) species at the subject property. The USFWS Information for Planning and Consultation (IPaC) project planning tool (<https://ecos.fws.gov/ipac/>) was used to determine federally listed species and critical habitats. As listed in Table 2-1, several state- and federally-protected species are listed within the vicinity of the project site in Hamilton County, Tennessee. State listed species presented below are those known to occur within the Tennessee River – Nickajack Lake Upper watershed, which includes the project site. The results of the USFWS website review indicates that no critical habitat has been reported as occurring within the proposed project area.



Table 2-1 –PROTECTED SPECIES LIST

Common Name	Scientific name	Species Type	Protection Status
Gray bat	<i>Myotis grisescens</i>	Mammal	Federal Endangered
Indiana bat	<i>Myotis sodalis</i>	Mammal	Federal Endangered
Northern long-eared bat	<i>Myotis septentrionalis</i>	Mammal	Federal Threatened
Snail darter	<i>Percina tanasi</i>	Fish	State and Federal Threatened
Dromedary pearl mussel	<i>Dromus dromas</i>	Mussel	State and Federal Endangered
Orangefoot pimpleback	<i>Plethobasus cooperianus</i>	Mussel	State and Federal Endangered
Pink mucket	<i>Lampsilis abrupta</i>	Mussel	State and Federal Endangered
Rough pigtoe	<i>Pleurobema plenum</i>	Mussel	State and Federal Endangered
Tubercled blossom pearly mussel	<i>Epioblamisa torulosa torulosa</i>	Mussel	Federal Endangered
Cumberland monkeyface	<i>Quadrula intermedia</i>	Mussel	State Endangered
Large-flowered skullcap	<i>Scutellaria montana</i>	Plant	State and Federal Threatened
Small whorled pogonia	<i>Isotria medeoloides</i>	Plant	State Endangered and Federal Threatened
Virginia spiraea	<i>Spiraea virginiana</i>	Plant	Federal Threatened
Yellow honeysuckle	<i>Lonicera flava</i>	Plant	State Threatened
Southern morning glory	<i>Stylisma humistrata</i>	Plant	State Threatened
Wood lily	<i>Lilium philadelphicum</i>	Plant	State Endangered
Menge's fame-flower	<i>Phemeranthus mengesii</i>	Plant	State Threatened
White fringeless orchid	<i>Platanthera integrilabia</i>	Plant	State Endangered and Federal Threatened
Narrow-leaved trillium	<i>Trillium lancifolium</i>	Plant	State Endangered
Cumberland rose gentian	<i>Sabatia capitata</i>	Plant	State Endangered
Roundleaf fame-flower	<i>Phemeranthus teretifolius</i>	Plant	State Threatened
Florida hedge-hyssop	<i>Gratiola floridana</i>	Plant	State Endangered
Tennessee Cave Salamander	<i>Gyrinophius palleucus</i>	Amphibian	State Threatened
Bachman's sparrow	<i>Aimophila aestivalis</i>	Bird	State Endangered
Peregrine falcon	<i>Falco peregrinus</i>	Bird	State Endangered

*State species listed as Special Concern (S), Deemed in need of management (D), or Rare, are not included in the table above.

S&ME conducted a site visit to the subject property on November 6, 2018 for the purpose of evaluating potential habitats of the listed protected species. The majority of the subject property is currently grass-covered, with mature trees located within the northern portion of the property and along the southern boundary, along with several two-lane asphalt roads within the property. Onsite trees included primarily willow oak (*Quercus phellos*)



with occasional red oak (*Q. rubra*), red maple (*Acer rubrum*), American sycamore (*Platanus occidentalis*), hackberry (*Celtis occidentalis*), bitternut hickory (*Carya cordiformis*), and pignut hickory (*C. glabra*). A description of the protected listed species and their preferred habitats, along with our findings, are presented below.

2.1 Aquatic Species

There are six aquatic mussels (dromedary pearlymussel, orangefoot pimpleback, pink mucket, rough pigtoe, tubercled blossom pearlymussel, and Cumberland monkeyface) and one fish (snail darter) included on the list of protected species that have the potential within the vicinity of the subject site. Approximately 325 feet of a concrete-lined stream is located onsite. The stream was historically altered and concrete-lined. Based on our observations, this stream does not provide suitable habitat for the above-listed aquatic species. As such, this project will not impact the protected aquatic species listed above.

2.2 Mammals

Gray bat

The gray bat is the largest member of *Myotis* weighing between 7 and 16 grams and is distinguished from other bats by its dark gray fur on their back. After the gray bat molts in July or August, the dark gray fur often bleaches to a chestnut brown or russet. Additionally, the bat's wing membrane connects to its ankle instead of at the toe as in other species of *Myotis*. The gray bat lives in caves year-round with rare exceptions. During the winter, the gray bat hibernates in deep vertical caves and in summer they roost in caves that are typically scattered along rivers in limestone karst areas, feeding on flying aquatic and terrestrial insects. Females give birth to a single pup in late May or early June.

Based on our observations and data review, no caves exist within the immediate project vicinity. It is unlikely that the gray bat occurs within the proposed project site.

Indiana bat and Northern long-eared bat

The Indiana bat is a small bat with a wingspan of about 9 to 11 inches and fur that is dark-brown to black. The northern long-eared (NLE) bat has a wingspan of about 9 to 10 inches and fur that is medium to dark brown on the back and tawny to pale-brown on the underside.

During winter, these bats hibernate in humid caves or other similar structures (e.g., abandoned mines) that provide stable temperatures between 32° F and 50° F. After hibernation, they migrate to their summer habitat in wooded areas where they usually roost under the loose tree bark of dead or dying trees. During summer, males roost alone or in small groups, while females roost in larger groups of up to 100 bats or more. They also forage in or along the edges of forested areas.

Based on S&ME's previous experience and current USFWS guidance, the USFWS considers any live or dead tree with loose or exfoliating bark with a diameter at breast height (DBH) greater than 3 inches to be potential roosting habitat for the Indiana and NLE bats. The proposed project site contains primarily open grassed areas that are maintained by mowing. The onsite trees were evaluated and determined not to contain potential summer roosting habitat. Based on our observations, potential summer roosting habitat for the Indiana and NLE bats is not present within the project site.



2.3 Plants

Large-flowered skullcap

The large-flowered skullcap is a perennial herb in the mint family. Its preferred habitat is well-drained, slightly acidic slopes in ravine and stream bottom forests within the Ridge and Valley and Cumberland Plateau provinces of North Georgia and southeastern Tennessee. The plants typically occur in colluvial soils, which are loose soils that have accumulated at the base of cliffs or slopes. In this region, the plant is reported to be in bloom for approximately three weeks in May to early June. The inflorescence (bloom) of the entire group of skullcaps is easily recognized by the two-lobed calyx (outer part of the flower), with a "cap" just above the base of the upper lobe. Based on our observations, habitat for the large-flowered skullcap does not occur within the proposed project site.

Small-whorled pogonia

Small whorled pogonia is a perennial herb that grows up to one foot in height. A whorl of five or six leaves near the top of the stem and beneath the flower(s) gives the plant its common name. The leaves are grayish-green and are usually 1.6 to 3.1 inches long. Solitary (or occasionally paired) greenish-yellow flowers arise from the center of the leaf whorl. It blooms in May in the south, and as late as mid-June in the northern part of its range. The plant is generally found in acidic soils of dry to mesic second-growth, deciduous or deciduous-coniferous forests with an open herb layer, although occasionally associated with dense ferns, moderate to light shrub layer, and a relatively open canopy. The soils where this plant occurs are typically covered with light to moderate leaf litter. Based on our observations, suitable habitat for the small-whorled pogonia does not occur within the proposed project site.

Virginia spiraea

Virginia spiraea is a shrub that has become adapted for life in the high-disturbance zone of frequently flooded stream banks and stream beds. It grows approximately 3 to 13 feet tall; has long, alternate, oblong leaves that are toothed along the edges; and produces white, showy flower clusters between May and July. It also produces clusters of small fruit pods between August and October. Its preferred habitat is rocky streams over sandstone, such as boulder stream banks, edges of waterfalls, and rock ledges. Based on our observations, habitat for the Virginia spiraea does not occur within the proposed project site.

Yellow honeysuckle

This perennial woody trailing vine can also appear shrub-like. It has very fragrant and showy tubular flowers that are up to one inch long and contain protruding stamens in terminal clusters above a union of two joined leaves that clasp the stem. The leaves are simple, opposite, egg-shaped with round to blunt tips. It produces orange to red fruit in August and September, the seeds of which are dispersed by birds. It occurs in borders and openings within rocky woods, rocky areas along streams, and ledges and upper slopes above bluffs. Based on our observations, habitat for the yellow honeysuckle does not occur within the subject property.

Southern morning glory

The Southern morning glory (also known as the Southern dawnflower) is a perennial vine that occurs in the southeastern United States, from Texas to Virginia. It has oblong to elliptic, alternate leaves and can be identified by its pubescent stems, white flowers that bloom from June to September, two-parted styles, and glabrous sepals. Its preferred habitat is dry piney woods. Based on our observations, potential habitat for the southern morning-glory does not occur within the subject property.



Wood lily

The wood lily is a species in the lily family (i.e., Liliaceae) that is native throughout the northeastern and midwestern U.S. It grows approximately one to three feet high and is topped by upright flowers. The flowers are 2.5 inches across, have six petal-like tepals, are deep orange to red, have yellow at the base, and are marked by dark maroon brown spots. The one- to four-inch-long leaves are elliptic and whorled around the stem. Primary habitat is part shade and sun in dry woods, meadows, and prairies. Based on our observations, habitat for the wood lily does not occur within the subject property.

Menge's fame flower

Menge's fame flower is a perennial herb of the purslane family native to the southeastern U.S. This species grows up to about 15 inches tall, has erect fleshy usually branching stems, and alternate sessile leaves up to 7 centimeters (cm) in length. The pink to purple flowers bloom from April until October. The flowers have five petals and 12 to 20 yellow stamens. Its preferred habitat consists of woods, glades, barrens, cliffs and sandstone or granite outcrops. Based on our observations, habitat for the Menge's fame-flower does not occur within the subject property.

White fringeless orchid

The white fringeless orchid is a perennial orchid that occurs in the southeastern United States, from Texas to Virginia. It has two or sometimes three leaves on the bottom portion of its stem and produces a loose inflorescence of up to 20 showy, white flowers. The labellum lacks any fringing, and an elongated spur extends from the back of the flower and curves forward. Its preferred habitat consists of moist woodlands, riparian areas of streams, and in marshes and bogs. Based on our observations, potential habitat for the white fringeless orchid does not exist within the subject property.

Narrow-leaved trillium

Smaller than most other species in the genus, the narrow-leaved trillium (or lance-leaved trillium) is a perennial herb that grows up to 30 centimeters tall. Its sessile leaves are lanceolate and about two and one-half times as long as broad, with the widest portion being in the middle of the leaf. The plant has erect flowers that bloom from February to May, and the petals are usually maroonish. Its preferred habitat is shady, moist upland hardwood forests, but can be found in various other communities. Based on our observations, habitat for the narrow-leaved trillium does not occur within the subject property.

Cumberland rose gentian

This small annual herb produces few rose-colored flowers in compressed terminal or axillary clusters. Each corolla lobe of the flower is marked with pale yellow. The flowering season is from early July to August. This plant occurs in areas of thin soil over sandstone within wet meadows and openings within oak-hickory-pine forests, including rights-of-way and roadsides. Based on our observations, habitat for the Cumberland rose gentian is not present within the subject property.

Roundleaf fame flower

Roundleaf fameflower is a perennial member of the purslane family native to the southeastern U.S. This species is two to 20 inches tall, has a weak and fleshy stem, and alternate, round leaves that are 1.2 to 2.4 inches long and 0.16 inch wide at the widest point. The dark green leaves are fleshy like the stems. Flowers are borne on long



stems that overtop the leaves. The flowers are a rosy purple or fuchsia, with five petals and 12 to 20 yellow stamens. Only one or two flowers on a single peduncle bloom on a single day. The flowers open around 3:00 pm and close before sunset, lasting only one day. Flowering occurs beginning in April and continues until October. Habitat includes thin soil, crevices, and ephemerally moist moss mats. Based on our observations, habitat for the roundleaf fameflower does not occur within the subject property.

Florida hedge-hyssop

Florida hedge-hyssop is an annual herb of the Plantain family that grows up to 18 inches tall. It has opposite, sessile obovate to oval leaves with toothed margins. Stems of the plant are erect, round, succulent, and bright green in color. The plant has pink to white flowers, which bloom from April to May, that are produced at the leaf axis of mid to upper leaves, and are tubular with five expanded lobes. The plants preferred habitat is wooded swamps and muddy stream banks. Based on our observations, habitat for the Florida hedge-hyssop does not occur within the subject property.

Tennessee cave salamander

This large salamander ranges from 4 to 9 inches long and its coloration ranges from salmon to pale pink with a pale belly. It has small eyes that lack eyelids, a wide head, and bright red, feathery, external gills. The Tennessee cave salamander is found in limestone caves and sinkholes containing streams. Based on our observations, habitat for this salamander does not occur within the subject property.

Bachman's sparrow

The Bachman's sparrow is five and one-half inches long with a conical bill and pale lower mandible. The crown is brown and the face is pale with a brown streak extending behind the eye. This sparrow has a gray back, a long brown tail, and wings with brown streaks. Its habitat includes open oak or pine woods and bushy pastures. It is a shy and secretive bird that builds its nest on the ground in clumps of grass or at the bases of bushes. The subject property contains primarily open grassed areas; that are maintained by mowing. The urban nature of the site and availability of more suitable habitat in the region would likely exclude use of the property by this bird. The development of the subject property, in our opinion, would have no effect on the Bachman's sparrow.

Peregrine falcon

The peregrine falcon is a widespread bird of prey in the Falconidae family whose breeding range includes lands from as far north as the Arctic tundra down to the tropics. It is a large, crow-sized falcon with a blue-grey back, barred white underparts, and a black head. Its diet consists almost exclusively of small- to medium-sized birds, but it may also consume small mammals, reptiles, and insects. Their preferred habitat includes high perches, such as water towers, cliffs, power pylons, and skyscrapers. They breed in open landscapes with cliffs for nest sites, and can be found nesting at elevations up to about 12,000 feet. They also nest along rivers and coastlines or in cities close to a reliable food supply. While the subject property may provide potential foraging habitat, no potential nesting sites were observed.

3.0 Conclusions

S&ME has completed a protected species assessment of the subject property. The former onsite Harriet Tubman homes were demolished in 2015/2016, and since that time, the site has consisted of open grassed areas



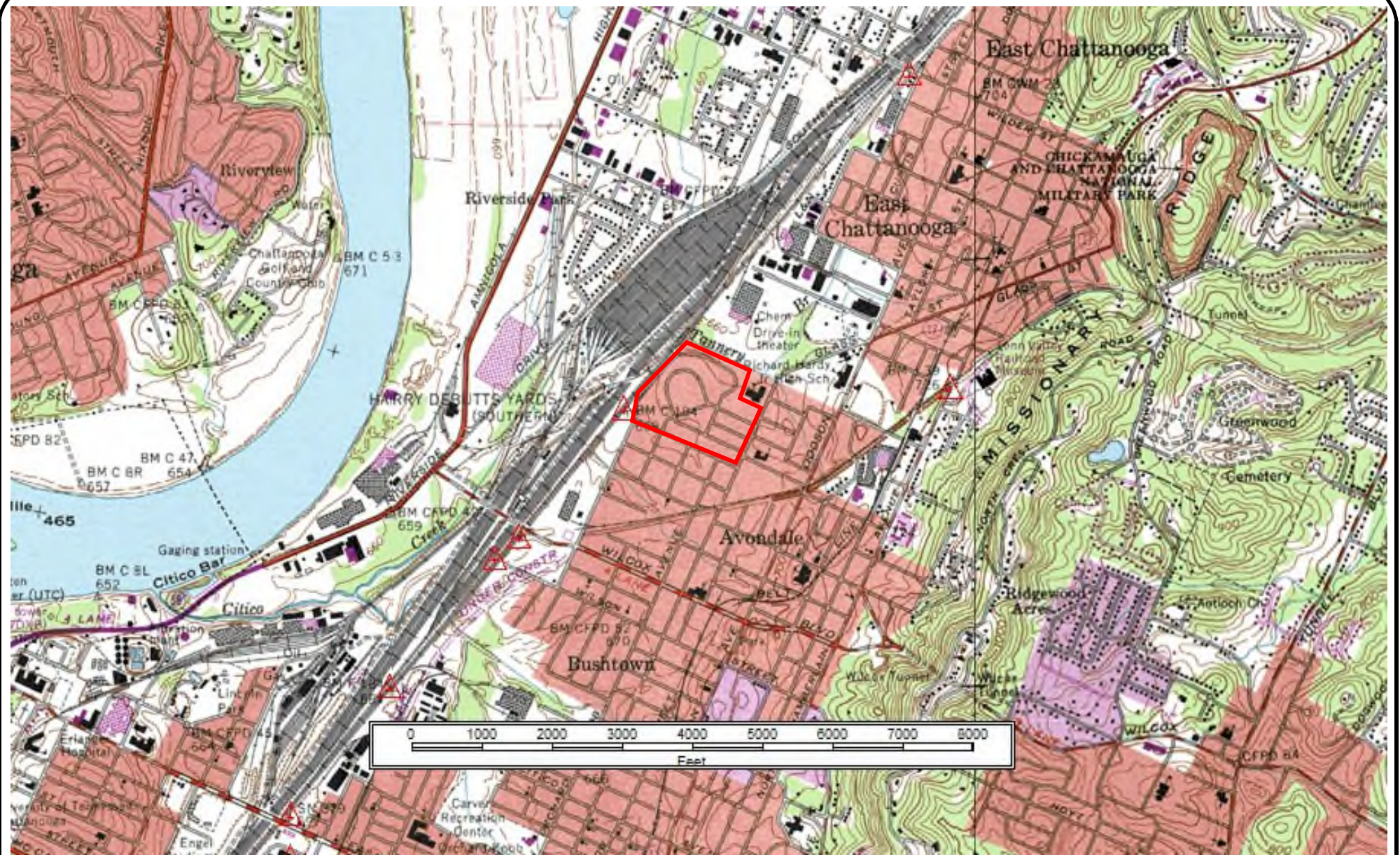
maintained by mowing, along with some mature trees along the northern and southern boundaries. Based on S&ME's assessment, the site does not contain suitable habitat for the listed protected species that have a potential to occur within the vicinity of the subject property.

According to the Cookeville USFWS field office, S&ME may submit the attached Self-Certification letter to USFWS to certify that S&ME has completed the online project review process for the project and used the best available information to reach our conclusion of "no effect". The enclosed letter should complete the USFWS updated review of the Former Harriet Tubman Homes Site as described herein in accordance with the Endangered Species Act of 1973 (ESA) and the Bald and Golden Eagle Protection Act, as amended. This project review package is being provided for USFWS records.

As proposed, following your authorization to proceed, S&ME will submit a copy of this report to Tennessee Wildlife Resources Agency and the Tennessee Division of Natural Areas to seek comments relative to the potential for protected species to occur within the subject property in order to assist you in future planning for development of the subject property.

Appendices

Appendix I –Figures and Representative Photographs



USGS Topographic Map

Former Harriet Tubman Homes Property
 Sholar Avenue
 Chattanooga, Hamilton County, Tennessee

SCALE: AS SHOWN
DATE: 11/16/18
PROJECT NUMBER 4181-18-046

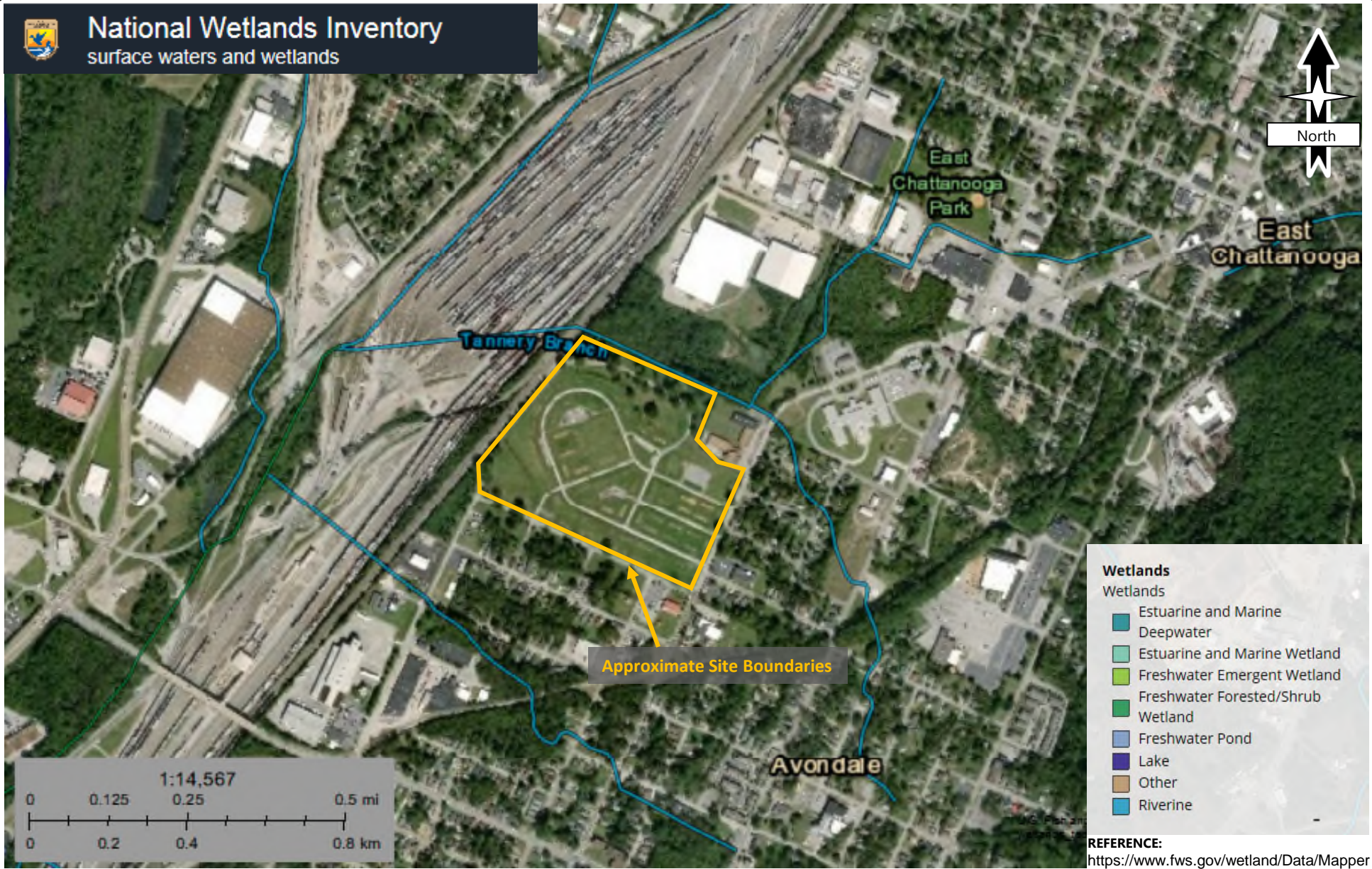
FIGURE NO.

1



National Wetlands Inventory

surface waters and wetlands



REFERENCE:
<https://www.fws.gov/wetland/Data/Mapper>



National Wetlands Inventory Map

Former Harriet Tubman Homes Property
 Sholar Avenue
 Chattanooga, Hamilton County, Tennessee

SCALE:
 AS SHOWN

DATE:
 11/14/18

PROJECT NUMBER
 4181-18-046

FIGURE NO.

2

Map Unit Symbol	Map Unit Name
SfB	Sequatchie-Urban land complex, 2 to 7 percent slopes



Overview of Mapped Soils

Former Harriet Tubman Homes Property
 Sholar Avenue
 Chattanooga, Hamilton County, Tennessee

SCALE:
AS SHOWN

DATE:
11/14/18

PROJECT NUMBER
4181-18-046

FIGURE NO.

3

Protected Species Assessment

Former Harriet Tubman Homes Site
 Chattanooga, Hamilton County, Tennessee
 S&ME Project No. 4181-18-046



			Date: 11/6/2018
			Photographer: Kristy Smedley
1	Location / Orientation	From northcentral portion of property, facing northwest.	
	Remarks	Typical view of subject property	

			Date: 11/6/2018
			Photographer: Kristy Smedley
2	Location / Orientation	From northcentral portion of property, facing west/southwest	
	Remarks	Another view of subject property	

Protected Species Assessment

Former Harriet Tubman Homes Site
 Chattanooga, Hamilton County, Tennessee
 S&ME Project No. 4181-18-046



3	Location / Orientation	From northern portion of subject property, facing west/northwest.
	Remarks	View of portion of property where mature trees remain.

	Date: 11/6/2018 Photographer: Kristy Smedley
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4	Location / Orientation	From southwestern portion of subject property, facing southeast.
	Remarks	View of onsite stream (within 24 hours of a significant rain event).

	Date: 11/6/2018 Photographer: Kristy Smedley
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**Appendix II – USFWS IPaC Results and Self Certification Letter and
TDNA Database Review Results**



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Tennessee Ecological Services Field Office
446 Neal Street
Cookeville, TN 38501-4027
Phone: (931) 528-6481 Fax: (931) 528-7075

In Reply Refer To:
Consultation Code: 04ET1000-2019-SLI-0163
Event Code: 04ET1000-2019-E-00283
Project Name: Former Tubman Homes

November 26, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

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 Tracking Number 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
-

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:

Tennessee Ecological Services Field Office

446 Neal Street

Cookeville, TN 38501-4027

(931) 528-6481

Project Summary

Consultation Code: 04ET1000-2019-SLI-0163

Event Code: 04ET1000-2019-E-00283

Project Name: Former Tubman Homes

Project Type: DEVELOPMENT

Project Description: Updated T&E review for future development

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/35.061150711092196N85.26355893885037W>



Counties: Hamilton, TN

Endangered Species Act Species

There is a total of 12 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
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Fishes

NAME	STATUS
Snail Darter <i>Percina tanasi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5603	Threatened

Clams

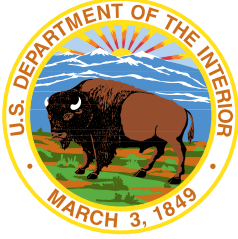
NAME	STATUS
Dromedary Pearlymussel <i>Dromus dromas</i> Population: Wherever found; Except where listed as Experimental Populations No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6377	Endangered
Orangefoot Pimpleback (pearlymussel) <i>Plethobasus cooperianus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1132	Endangered
Pink Mucket (pearlymussel) <i>Lampsilis abrupta</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7829	Endangered
Rough Pigtoe <i>Pleurobema plenum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6894	Endangered
Tubercled Blossom (pearlymussel) <i>Epioblasma torulosa torulosa</i> Population: Wherever found; Except where listed as Experimental Populations No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4126	Endangered

Flowering Plants

NAME	STATUS
Large-flowered Skullcap <i>Scutellaria montana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4721	Threatened
Small Whorled Pogonia <i>Isotria medeoloides</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1890	Threatened
Virginia Spiraea <i>Spiraea virginiana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1728	Threatened

Critical habitats

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



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Tennessee Ecological Services Field Office
446 Neal Street
Cookeville, TN 38501



Date:

Self-Certification Letter

Project Name:

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Tennessee Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. . 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. These conclusions resulted in:

- “no effect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- “may affect, not likely to adversely affect” determinations for proposed/listed species and/or proposed/designated critical habitat; and/or
- “may affect, likely to adversely affect” determination for the Northern long-eared bat (*Myotis septentrionalis*) and relying on the findings of the January 5, 2016 Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat; and/or
- “no Eagle Act permit required” determinations for eagles.

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the “no effect” or “not likely to adversely affect” determinations for proposed and listed species and proposed and designated critical habitat; the “may affect” determination for Northern long-eared bat; and/or the “no Eagle Act permit required” determinations for eagles. Additional coordination with this office is not needed.

Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species.

Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year.

Information about the online project review process including instructions and use, species information, and other information regarding project reviews within Tennessee is available at our website http://www.fws.gov/cookeville/project_review.html. If you have any questions, please contact Robbie Sykes of this office at (931) 525-4979.

Sincerely,

A handwritten signature in blue ink that reads "Franklin J. Arnold". The signature is written in a cursive style with a large initial "F".

Jack Arnold
Field Supervisor
Tennessee Ecological Services

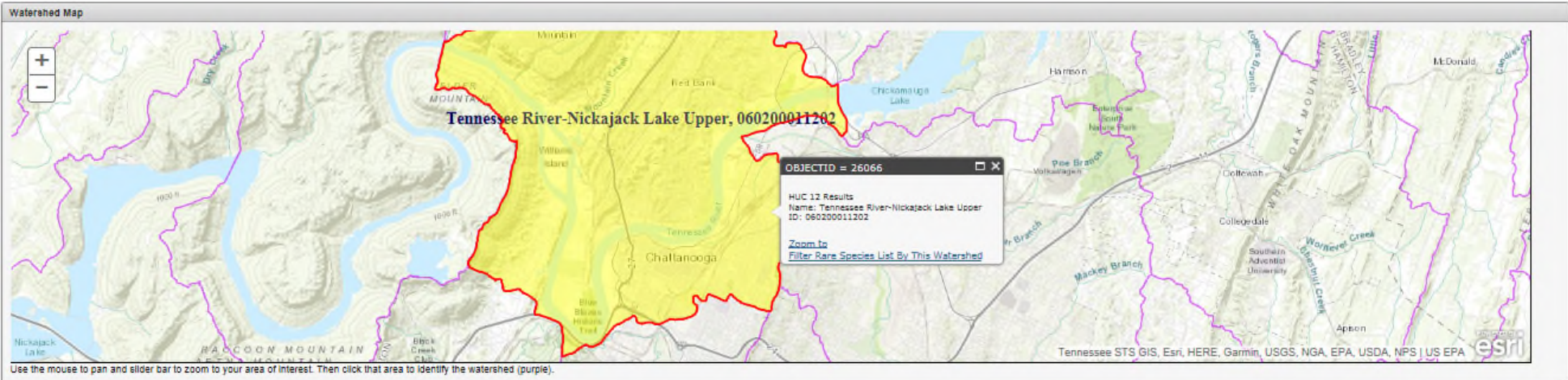
Enclosures - project review package

Species Conclusions Table

Project Name: Former Tubman Homes

Date: November 6, 2018

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
<i>Myotis grisescens</i> / Gray bat	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>M. sodalis</i> / Indiana bat	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>M. septentrionalis</i> / Northern long-eared bat	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>Percina tanasi</i> / Snail darter	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>Dromus dromas</i> / Dromedary pearlymussel	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>Plethobasus cooperianus</i> / Orangefoot pimpleback	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>Lampsilis abrupta</i> / Pink mucket	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>Pleurobema plenum</i> / Rough pigtoe	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>Epioblasma torulosa torulosa</i> / Tubercled blossom	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>Scutellaria montana</i> / Large-flowered skullcap	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>Isotria medeoloides</i> / Small whorled pogonia	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
<i>Spiraea virginiana</i> / Virginia spiraea	No suitable habitat present	No effect.	November 6, 2018 site visit by qualified biologist indicated absence of habitat.
Critical Habitat	No critical habitat present.	No effect.	
Bald Eagle	No suitable habitat present. Unlikely to disturb nesting bald eagles.	No Eagle Act permit required.	Not located within 660 feet of a documented nest.



Rare Species By Tennessee Watershed

Data Current as of July 2016.

Q Go Actions

Row text contains '060200011202'

1 - 15 of 28 >

Huc 8	Huc 8 Name	Huc 12	Huc 12 Name	Type	Category	Scientific Name	Common Name	Global Rank	State Rank	Fed Status	State Status	Habitat Description	Wet Habitat Flag
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vertebrate Animal	Bird	Tyto alba	Barn Owl	G5	S3	--	D	Open and partly open country, often around human habitation; farms.	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Invertebrate Animal	Mollusco	Plethobasus cooperianus	Orangefoot Pimpleback	G1	S1	LE, XN	E	Large rivers in sand-gravel-cobble substrates in riffles and shoals in deep flowing water; Cumberland & Tennessee river systems.	Aquatic
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	Lonicera flava	Yellow Honeycuckle	G57	S1	--	T	Rocky Woods And Thickets	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Animal Asemblage	-	Rookery	Heron Rookery	G5	SNR	--	Rare, Not State Listed	-	-
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vertebrate Animal	Amphiblan	Anelides aeneus	Green Salamander	G3G4	S3S4	--	Rare, Not State Listed	Damp crevices in shaded rock outcrops and ledges; beneath loose bark and cracks of trees and sometimes in/or under logs.	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Invertebrate Animal	Mollusco	Dromus dromas	Dromedary Pearymussel	G1	S1	LE, XN	E	Medium-large rivers with riffles and shoals w/ relatively firm rubble, gravel, and stable substrates; Tennessee & Cumberland systems.	Aquatic
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	Stylisma humistrata	Southern Morning-glory	G4G5	S1	--	T	Dry Piney Woods	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	Lilium philadelphicum	Wood Lily	G5	S1	--	E	Dry Openings, Powerlines	Possible
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	Aureolaria patula	Spreading False-foxglove	G3	S3	--	S	Oak Woods And Edges	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	Phemeranthus mansueti	Menge's Fame-flower	G3	S2	--	T	Dry Rock Ledges	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Invertebrate Animal	Mollusco	Quadrula intermedia	Cumberland Monkeyface	G1	S1	LE, XN	E	Shallow riffle and shoal areas of headwater streams and bigger rivers, in coarse sand/gravel substrates; Tennessee River system.	Aquatic
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	Scutellaria montana	Large-flowered Skullcap	G4	S4	LT	T	Escarments, Dry Woods	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	Isotria medeoloides	Small Whorled Pogonia	G27	S1	LT	E	Mid-Elevation Dry Woods	Possible
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	Piantanthera integriloba	White Fringeless Orchid	G2G3	S2S3	LT	E	Acidic Seeps And Stream Heads	Possible
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vertebrate Animal	Bird	Almophila aestivalis	Sachman's Sparrow	G3	S1B	--	E	Dry open pine or oak woods; nests on the ground in dense cover.	Upland

Huc 8	Huc 8 Name	Huc 12	Huc 12 Name	Type	Category	Scientific Name	Common Name	Global Rank	State Rank	Fed Status	State Status	Habitat Description	Wet Habitat Flag
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	<u>Trillium lancifolium</u>	Narrow-leaved Trillium	G3	S1	--	E	Alluvial Woods And Moist Ravines	Possible
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	<u>Sabatia caespitosa</u>	Cumberland Rose Gentian	G2	S2	--	E	Dry Open Woods, Powerlines	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	<u>Gratiola floridana</u>	Florida Hedge-hyssop	G4	S1	--	E	Wooded Swamps	Possible
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Invertebrate Animal	Mollusc	<u>Pleurobema plenum</u>	Rough Pigtoe	G1	S1	LE, XN	E	Medium to large rivers in sand, gravel, and cobble substrates of shoals; Tennessee & Cumberland river systems.	Aquatic
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vertebrate Animal	Bird	<u>Ixobrychus exilis</u>	Least Bittern	G5	S2B	--	D	Marshes with scattered bushes or other woody growth; readily uses artificial wetland habitats.	Possible
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Invertebrate Animal	Mollusc	<u>Lampsilis abrupta</u>	Pink Mucket	G2	S2	LE	E	Generally a large river species, preferring sand-gravel or rocky substrates with mod-strong currents; Tennessee & Cumberland river systems.	Aquatic
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vertebrate Animal	Bird	<u>Rallus elegans</u>	King Rail	G4	S2	--	D	Marshes, upland-wetland marsh edges, flooded farmlands, shrub swamps.	Possible
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vertebrate Animal	Amphibian	<u>Gyrinophilus palleucus</u>	Tennessee Cave Salamander	G2G3	S2	--	T	Aquatic cave obligate; cave streams & rimstone pools; Central Basin, Eastern Highland Rim, & Cumberland Plateau.	Aquatic
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vertebrate Animal	Fish	<u>Percina tanasi</u>	Snail Darter	G2G3	S2S3	LT	T	Sand and gravel shoals of moderately flowing, vegetated, large creeks; upper Tennessee River watershed.	Aquatic
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	<u>Potamogeton epihydrus</u>	Nuttall's Pondweed	G5	S1S2	--	S	Lakes And Streams	Aquatic
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	<u>Phemeranthus calcaricus</u>	Limestone Fame-flower	G3	S3	--	S	Glades	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vascular Plant	Flowering Plant	<u>Phemeranthus teretifolius</u>	Roundleaf Fameflower	G4	S2	--	T	Dry Sandy Rock Outcrops	Upland
06020001	Lower Tennessee River	060200011202	Tennessee River-Nickajack Lake Upper	Vertebrate Animal	Bird	<u>Falco peregrinus</u>	Peregrine Falcon	G4	S1B	No Status	E	Varied habitats including farmlands, marshes, river mouths, and cities; often nests on ledges.	Upland