Appendix H: Species Information

1076 Highland Colony Parkway
Suite 325
Ridgeland, MS 39157

TEL 601.825.3633
FAX 601.825.3650

www.GarverUSA.com

June 15, 2026

Federally Protected Threatened & Endangered Species Habitat Assessment, Preliminary Effects Determination Memo, and Gopher Tortoise (*Gopherus polyphemus*) Survey Results

Mississippi Department of Transportation (MDOT) – US 11 Widening
Forrest and Lamar counties, Mississippi
USFWS Project Code: 2025-0152153

Introduction

This memo serves to provide information on the occurrence of suitable habitat for the federally protected threatened and endangered species listed by the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) project planning tool (**Appendix A**) for the proposed US Highway 11 (US 11) widening project located in Forrest and Lamar counties, Mississippi (Proposed Action). The Mississippi Department of Transportation (MDOT) is preparing an Environmental Assessment (EA) for the proposed project. The EA will investigate, analyze, and disclose any potential environmental impacts associated with the Proposed Action. The Proposed Action includes adding lanes and expanding the shoulders along US 11 from Old Okahola Road to approximately 0.6 miles south of Interstate 59 to support a large industrial development known as the Eagle One Mega Site (EOMS). As part of the EA, USFWS requested a field survey for the threatened Gopher Tortoise (*Gopherus polyphemus*) and its burrows. The results of that survey are included in **Appendix B**. A site investigation of the project area was conducted on January 29, January 30, and February 10, 2026, and included all areas where construction and/or physical disturbance may occur (**Figure 1**).

Project Area and Setting

The project is in the Southern Pine Plains and Hills of the Southeastern Plains ecoregion, within the Gulf Coastal Plain (GCP). The adjacent land likely to be directly impacted by the project is moderately undulating with a mix of upland longleaf (*Pinus palustris*) pine plantations, mixed forests, forested bayhead wetlands and disturbed open areas. The project area lies in HUC code 03170007 (Black Creek) and does not involve FEMA mapped floodplains. US 11 crosses several minor perennial, intermittent, and ephemeral headwater stream channels, all flowing east into Black Tom Creek then south into Black Creek. There are no designated special habitats or natural areas requiring protection within or nearby the project area.

The Gulf Coastal Plain (GCP), a geographic province of alluvial and marine sediments in the southern U.S. and eastern Mexico, is unique because of its high biodiversity, diversity of land uses, and juxtaposition of pristine and altered habitats. Covered by a shallow sea in the Cretaceous, the GCP northern boundary is the “fall line” that leads to older rocks of the Piedmont, Appalachian Highlands, and Ouachitas. Portions of 10 states lie within the GCP, including most of Alabama, Florida, and Mississippi and all of Louisiana. Over 60% of the land area of the lower 48 U.S. states drains through the GCP into the Gulf of Mexico via the Mississippi River. The GCP also includes the unimpeded Pascagoula River basin, the largest unimpeded river by volume in the contiguous 48 states. In addition, it is the only unimpeded river with an annual discharge of over 10 km^3/year into the Gulf of Mexico or in the humid subtropical climate zone worldwide.

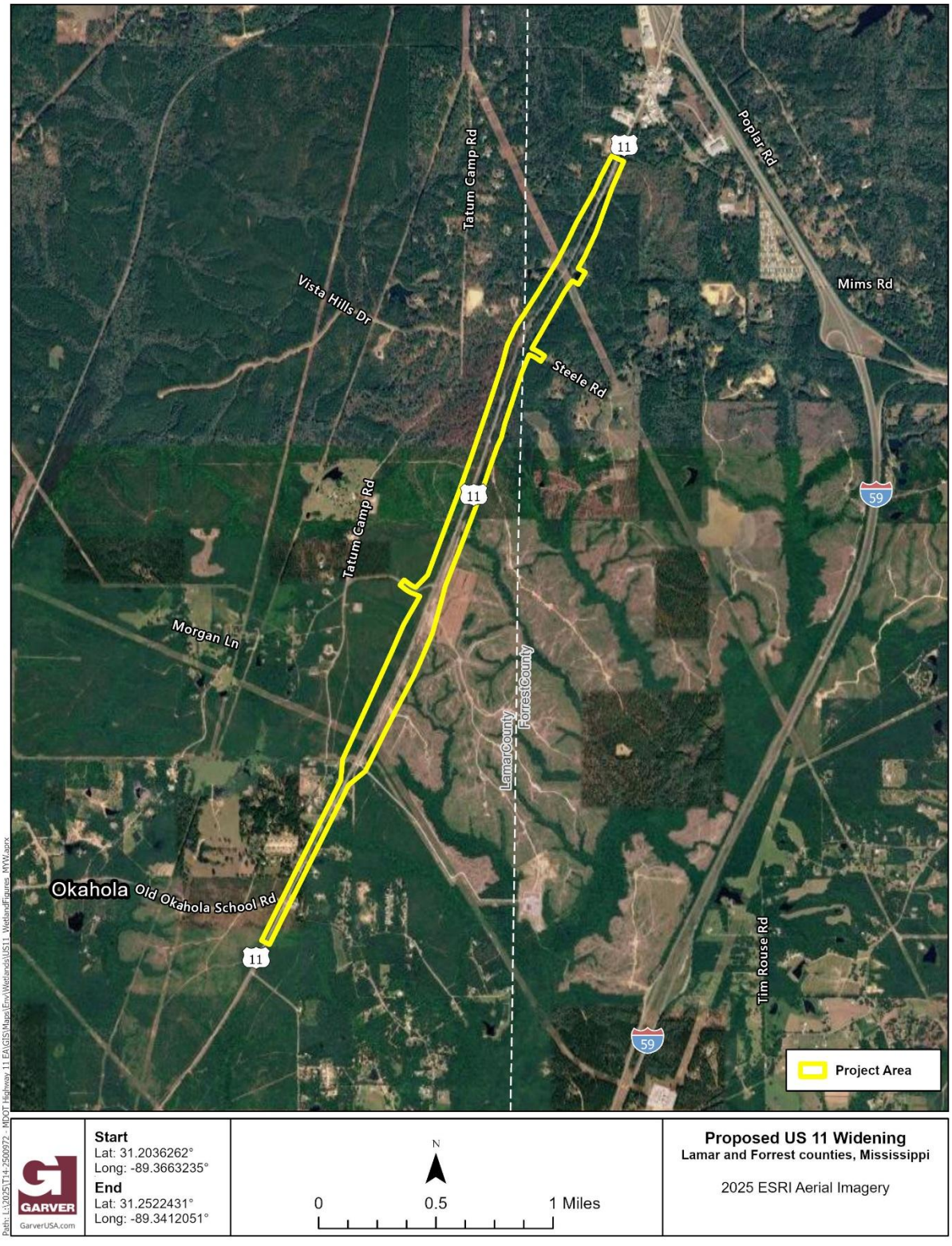


Figure 1 - Project area overview map

Another unique aspect of the GCP is that most upland forests were historically longleaf pine. The longleaf pine ecosystem now covers less than 3% of its original range and is one of the most endangered ecosystems in the U.S. There are several tracts of remnant and restored longleaf pine ecosystem scattered throughout the southeastern U.S., including within the project area. Longleaf forests boast some of the highest plant diversities in the U.S. and are home to many threatened and endangered species as well as southeastern endemics.

Habitat Overview

A site visit of the project area (approximately 204 acres) was performed documenting general site conditions and habitat types, which consisted of routinely maintained herbaceous areas along the highway shoulders, disturbed areas, and easements; managed longleaf pine plantations; narrow forested bayhead wetlands along perennial, intermittent, and ephemeral streams; and rural residential development in the southern end of the project area.

Regulatory Framework

The Endangered Species Act (ESA) of 1973 (16 United States Code ([USC] A-1535-1543, P.L. 93-205) prohibits any person or entity from causing *take* of any animal species on the Secretary of the Interior's list of threatened and endangered species (Section 9[a][1][b]) and states that it is the responsibility of each federal agency to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence, or result in the destruction or adverse modification of habitat determined to be critical to the conservation of any such species (Section 7[a][2]).

The ESA defines *take* as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC 1532 [19]). *Harm* is defined by U.S. Fish and Wildlife Service (USFWS) regulations as an "act which actually kills or injures wildlife and may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering" (50 Code of Federal Regulations [CFR] 17.3). *Harass* in the definition of *take* is also defined by regulation to mean "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extend as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering" (50 CFR 17.3).

The Bald and Golden Eagle Protection Act (BGEPA), originally passed in 1940, and amended in 1962, provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*) by prohibiting the *take* of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 USC 668[a]; CFR 22). The BGEPA defines *take* as the pursuit, shooting, shooting at, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing of a bald or golden eagle.

The Migratory Bird Treaty Act (MBTA), enacted in 1918, and amended most recently in 2024, is a key law that protects over 1,000 species of migratory birds in the United States by making it illegal to hunt, capture, kill, or sell them, their eggs, or nests without special permission. It was established through international treaties to conserve bird populations that migrate across borders and face threats from habitat loss, pollution, and other human activities. The MBTA plays a crucial role in preventing the decline of many threatened and endangered bird species by regulating activities that could harm them and providing a legal framework for their protection and conservation.

Methodology

The species evaluated in this report were identified from the USFWS Information for Planning and Consultation (IPaC) official species list provided by the Mississippi Ecological Services Field Office. Garver also sourced the Mississippi Department of Wildlife, Fisheries, & Parks (MDWFP) Mississippi Natural Heritage Program's (MNHP) database which provides known occurrence records for state listed species that occur in or near the project area (**Appendix A**). Garver's assessment of the potential for occurrence of these species within the vicinity of the proposed project was based on: 1) documented occurrences; 2) existing information on distribution; and 3) qualitative comparisons of the habitat requirements of each species with vegetation communities or landscape features observed within the project area. Potential effects to these species resulting from construction of the proposed project were evaluated based on reasonably foreseeable project-related activities.

Those species listed by the USFWS were assigned to one of four categories of possible effect, following USFWS recommendations. The effects determinations recommended by USFWS include:

- *May affect, is likely to adversely affect* – adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.
- *May affect, is not likely to adversely affect* – the proposed action may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial.
- *No effect* – the proposed action will not affect federally-listed species or designated critical habitat.
- *No jeopardy* – the proposed action will not jeopardize the continued existence of a proposed species.

The action area of a project is defined as all areas affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR §402.02). The action area for this project was based on the type of project (i.e., road widening), potential aquatic effects, and habitat present for listed species.

A field survey of the project area was conducted to evaluate suitable habitat and the potential presence of listed species within the project area on January 29-30, 2026, and February 10, 2026. A global positioning system (GPS) uploaded with the project area was used for general orientation and to locate the proposed project boundaries. Photographs of potential habitat for listed species were recorded with the Solocator application and a mobile phone camera. The field survey included a gopher tortoise and gopher tortoise burrow survey that consisted of transecting the entire project area on foot to evaluate the presence or absence of this species and/or its burrows. Refer to **Table 1** for federally listed species, habitat requirements, and effects determinations identified for this project. Results of the gopher tortoise and gopher tortoise burrow survey are included in **Appendix B**.

Table 1. Federally Listed Species and Habitat Requirements

Species/Status	Habitat Requirements	Suitable Habitat within Direct Project Area	Preliminary Effect Determination
Tricolored Bat (*Perimyotis subflavus*) Proposed Endangered	In winter, Tricolored Bats hibernate in caves, mine portals, and man-made structures such as box culverts. During the summer they prefer to roost in the clumps of dead leaves of oak trees within complex oak forests greater than 50 years old. Less commonly, they will roost in clumps of dead pine needles attached to living trees. They commonly forage along riparian corridors. Maternity colonies also may utilize human-made structures or tree cavities; sometimes these are in open sites that would not be tolerated by most other bats.	No caves, mines, or tunnels are within or adjacent to the project area. Several concrete box culverts pass beneath US 11. No evidence of bat usage was observed. The riparian zones along streams within the project area are generally narrow and in some instances absent but may provide some foraging and roost habitat.	Will not jeopardize continued existence
Alligator Snapping Turtle (*Macrochelys temminckii*) Proposed Threatened	These turtles are found in freshwater rivers and streams that feed into the Gulf of Mexico. Alligator snapping turtles are predominantly aquatic, spending most of their time in the water. They tend to prefer the deeper beds of large rivers, canals and lakes with structures like tree root masses, stumps and/or submerged trees. However, juveniles may be found in smaller streams.	Small intermittent and perennial streams are present, however this species is usually found in watercourses much larger than the streams within the project area. Suitable habitat may be available in the project area within streams and man-made ponds but due to the distance from any major rivers or waterbodies, their presence is unlikely.	Will not jeopardize continued existence
Black Pinesnake (*Pituophis melanoleucus lodingi*) Threatened	The black pinesnake is endemic to the longleaf pine savannas of southern Mississippi and southwestern Alabama. The optimal habitat consists of sandy, well-drained soils with an open-canopied overstory of longleaf pine, a reduced shrub layer, and a dense herbaceous ground cover.	Longleaf pine plantations are present within the project area. However, these stands are maintained for hunting and timber operations and lack herbaceous ground cover.	May Affect, Not Likely to Adversely Affect
Gopher Tortoise (*Gopherus polyphemus*) Threatened	Typical gopher tortoise habitat consists of an open canopy with a diverse array of groundcover vegetation occurring on well-drained, sandy soils with widely spaced trees and shrubs. The gopher tortoise is generally associated with southern pine tree species including longleaf pine, loblolly pine, and slash pine. Gopher tortoises are considered keystone species due to the importance of their burrows. Reaching up to 40 feet in length, these burrows provide shelter for not only the gopher tortoise, but a variety of other species as well.	According to NRCS Soil Survey data, approximately 78.5% of the project area is comprised of “highly suited” soils for the gopher tortoise. Upland, longleaf pine plantations are present within the project area. However, these stands are maintained for hunting and timber operations and lack herbaceous ground cover. No gopher tortoises or potential gopher tortoise burrows were observed during the field survey.	May Affect, Not Likely to Adversely Affect

Species/Status	Habitat Requirements	Suitable Habitat within Direct Project Area	Preliminary Effect Determination
Dusky Gopher Frog (*Rana sevosa*) Endangered	Suitable habitat includes both upland, sandy areas covered with open longleaf pine forest with abundant ground cover; and isolated, temporary, wetland breeding sites within the forested landscape. Adult frogs spend most of their lives in or near underground refuges in uplands. They often use both active and abandoned gopher tortoise burrows; they also use abandoned mammal burrows, stump and root holes, and possibly crayfish burrows. Breeding sites are isolated, grassy ponds that dry out completely at certain times of the year; their seasonal nature prevents establishment of a fish population, which would endanger tadpoles. Adult frogs move to breeding sites in association with heavy rains during winter and spring (December to April).	Suitable habitat for the dusky gopher frog was observed in both upland, longleaf pine plantations and low-lying forested wetlands with temporal pools.	May Affect, Not Likely to Adversely Affect
Monarch Butterfly (*Danaus plexippus*) Candidate	Monarch butterflies require the presence of milkweed (*Asclepias spp*.), flowering or potentially flowering nectar plants (defined as forbs that can provide nectar for monarchs at some point in the growing season), and additional native habitat such as meadows, prairies, and grasslands.	The project area is mostly maintained or forested but disturbed areas may provide flowering plants. However, these areas are regularly mowed and would not provide permanent habitat.	Will not jeopardize continued existence
Louisiana Quillwort *(Isoetes louisianensis)* Endangered	Found only in eastern Louisiana, southern Mississippi, and south-central Alabama, the species is thought to be one of the rarest quillworts in North America. This species occurs predominately on sand and gravel bars, overflow channels, and areas in or near shallow, blackwater streams in riparian woodland and bayhead forests of pine flatwoods and upland pine forests. They are regularly inundated following rains and can live for periods completely submerged.	Blackwater streams in riparian woodland and bayhead forests of pine flatwoods and upland pine forests are present within the project area. However, aquatic vegetation is uncommon within these headwater streams.	May Affect, Not Likely to Adversely Affect

The photographs below show the typical habitats observed in the project area.



Photo 1: Typical view of the project area along US 11 looking north near the start of the proposed project.



Photo 2: Typical view of the project area along US 11 looking south.



Photo 3: Typical view of the upland longleaf pine plantations observed within the project area.



Photo 4: View of another section of longleaf pine plantation with evidence of recent fire management.



Photo 5: Typical view of the forested bayhead wetland habitat observed throughout the project area. Sweetbay magnolia (*Magnoila virginiana*) dominated these habitats.



Photo 6: Typical view of the small perennial and intermittent streams and forested bayhead wetlands observed throughout the project area.



Photo 7: Typical view of herbaceous wetlands observed within disturbed areas parallel to US 11 and utility easements.



Photo 8: View looking east of the cleared and disturbed land associated with the EOMS development.



Photo 9: View of a temporary pool within a forested bayhead wetland within the project area. These pools could potentially provide habitat for the dusky gopher frog.

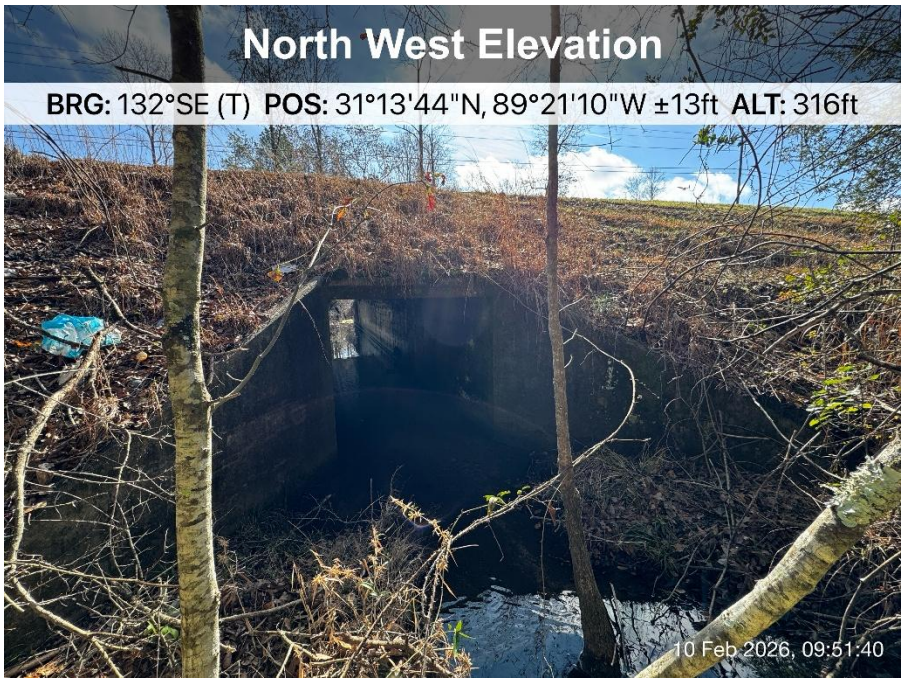


Photo 10: View of a large box culvert within the project area looking southeast towards US 11. Culverts like these could potentially provide winter hibernation habitat for the tricolored bat. No evidence of bat use and/or habitation was observed in any of the culverts or structures within the project area during the site survey.

Summary
Based upon the information presented in this document, the proposed project is not likely to adversely affect or jeopardize the continued existence of any of the listed, or proposed listed, threatened and endangered species potentially present within the project area. Refer to **Table 1** for federally listed species, habitat requirements, and effects determinations identified for this project. Results of the gopher tortoise and gopher tortoise burrow survey are included in **Appendix B**.

This information is intended to document habitat within the project area and present the findings of the site survey. We respectfully request your concurrence with these findings. Thank you for your assistance and please call me (769-524-2956) or email (WCHarper@GarverUSA.com) if you have any questions or need any additional information.

Sincerely,
GARVER, LLC

Wilson Harper
Environmental Specialist

Copies To: Scott McKinnie, PE – Garver
Bill McAbee – Garver
Cassie Schmidt – Garver
Enclosures

Appendix A

USFWS IPaC Official Species List & Correspondence

MDWFP MNHP Species List & Correspondence

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213-7856
Phone: (601) 965-4900

In Reply Refer To: 03/30/2026 18:28:21 UTC
Project Code: 2025-0152153
Project Name: US 11 Widening

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

To Whom It May Concern:

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

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

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

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

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

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

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

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

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

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

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. Please email consultation requests to MSFOSection7Consultation@fws.gov.

Attachment(s):

- Official Species List

- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

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:

Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213-7856
(601) 965-4900

PROJECT SUMMARY

Project Code: 2025-0152153
Project Name: US 11 Widening
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The project proposes to widen US 11 from Okahola School Road to approximately 0.6 miles south of I-59.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@31.231500949999997,-89.35182377077344,14z



Counties: Forrest and Lamar counties, Mississippi

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

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

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

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

---

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

MAMMALS

NAME	STATUS
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515 General project design guidelines: https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/documents/generated/7127.pdf	Proposed Endangered

REPTILES

NAME	STATUS
Alligator Snapping Turtle *Macrochelys temminckii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4658 General project design guidelines: https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/documents/generated/7127.pdf	Proposed Threatened
Black Pinesnake *Pituophis melanoleucus lodingi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/452 General project design guidelines: https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/documents/generated/7127.pdf	Threatened
Gopher Tortoise *Gopherus polyphemus* Population: Western DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6994 General project design guidelines: https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/documents/generated/7127.pdf	Threatened

AMPHIBIANS

NAME	STATUS
Dusky Gopher Frog *Rana sevosa* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5600 General project design guidelines: https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/documents/generated/7127.pdf	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Proposed Threatened

NAME	STATUS

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/9743
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/documents/generated/7127.pdf

FERNS AND ALLIES

NAME	STATUS
Louisiana Quillwort *Isoetes louisianensis*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/7756
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/documents/generated/7127.pdf

CRITICAL HABITATS

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

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

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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

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

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

---

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

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* 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

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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

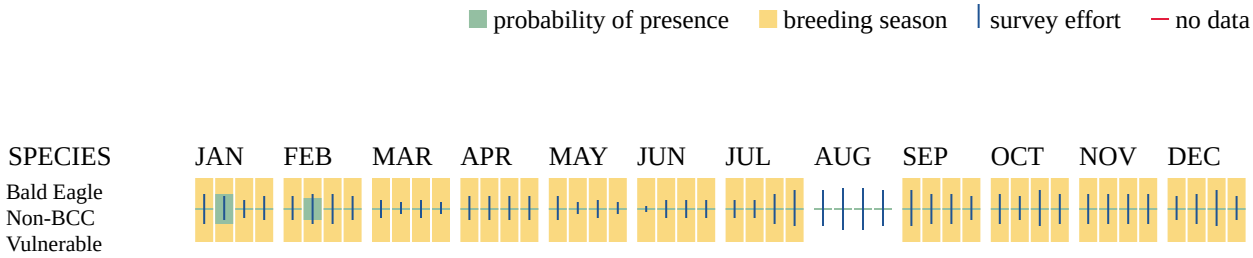
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

---

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)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle *Haliaeetus leucocephalus* 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
Brown-headed Nuthatch *Sitta pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427	Breeds Mar 1 to Jul 15
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Coastal (waynes) Black-throated Green Warbler *Setophaga virens waynei* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11879	Breeds May 1 to Aug 15
Grasshopper Sparrow *Ammodramus savannarum perpallidus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Kentucky Warbler *Geothlypis formosa* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Prairie Warbler *Setophaga discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31

NAME	BREEDING SEASON
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	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 "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

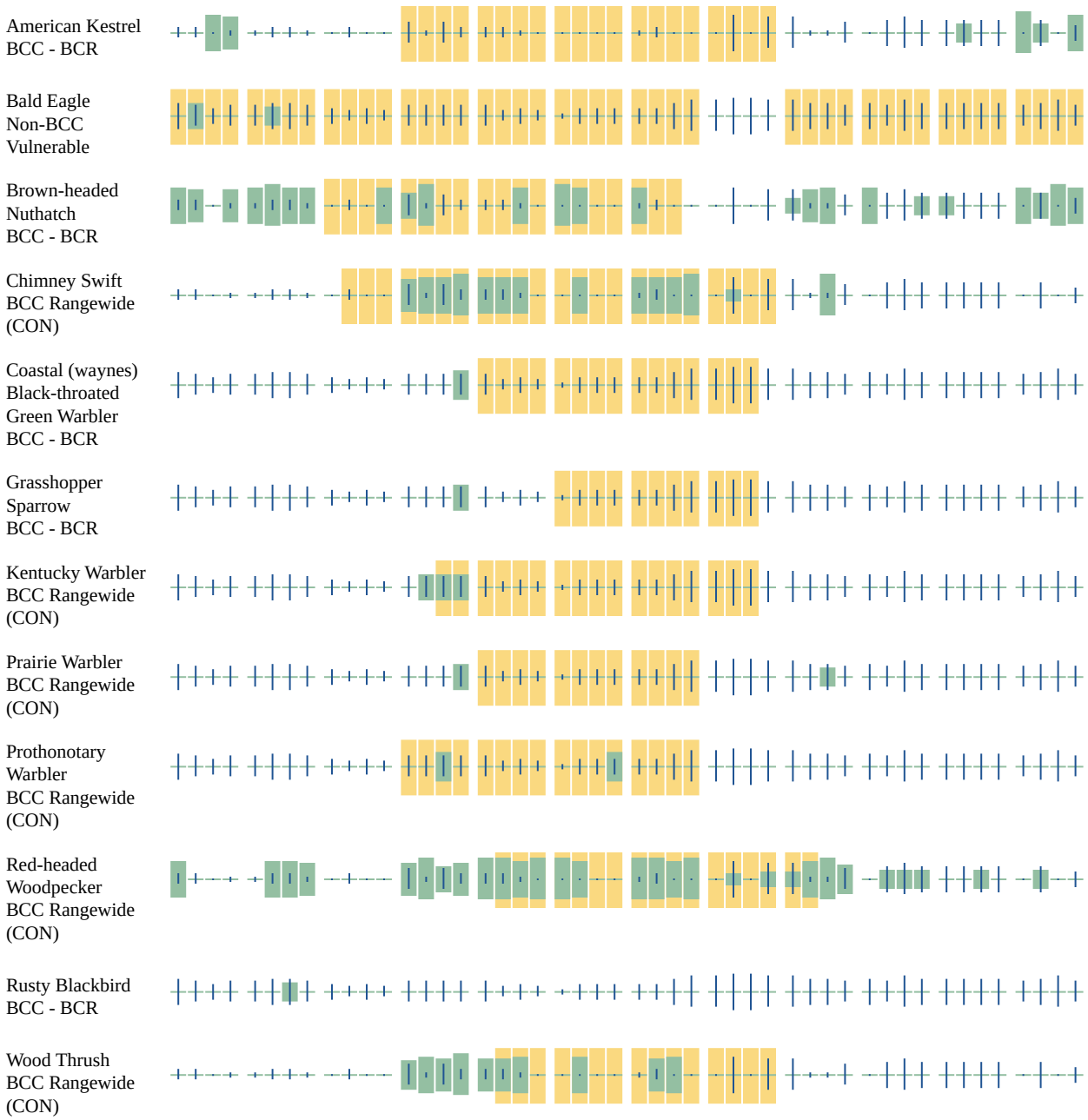
Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

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

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



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

IPAC USER CONTACT INFORMATION

Agency: Mississippi Department of Transportation
Name: Wilson Harper
Address: 1076 Highland Colony Parkway
Address Line 2: 325
City: Ridgeland
State: MS
Zip: 39157
Email wcharper@garverusa.com
Phone: 2282713710

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213-7856
Phone: (601) 965-4900

In Reply Refer To: 08/20/2026 15:37:37 UTC
Project code: 2025-0152153
Project Name: US 11 Widening

Subject: Likely to Adversely Affect Technical Assistance letter for the 'US 11 Widening' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the US 11 Widening (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above. **This letter does not satisfy compliance requirement under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended**. Those requirements will be met upon taking the actions described below.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. All information submitted by the project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in the Dkey invalidates this letter. Answers to certain questions in the Dkey commit the project proponent to implementation of conservation measures that must be followed for the ESA determinations to remain valid. Carefully review this letter, your ESA requirements are <u>NOT</u> yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the

adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with the following effect determinations:

Species	Listing Status	Determination
Tricolored bat (*Perimyotis subflavus*)	Proposed Endangered	LAA

Federal agencies must consult with the Service under section 7(a)(2) of the ESA when an action *may affect* a listed species. The tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if the proposed species is listed. Should the tricolored bat be listed, prior to completion of the action, the Transportation Agencies shall send a request to the Service to convert the PCO for the tricolored bat to a PBO, and request individual projects, such as this, that are completed as Conference Opinions under the PCO be converted to Biological Opinions for the tricolored bat under the PBO. If the Service reviews the proposed action and finds there have been no significant changes in the action as planned or in the information used during the opinion, the Service will confirm the PCO as a PBO and no further ESA section 7 consultation will be necessary.

This "may affect - likely to adversely affect" determination for the Project becomes effective when the lead Federal action agency or designated non-federal representative requests the Service rely on the PBO/PCO to satisfy the agency's consultation requirements for this project. **To fulfill the next steps in the consultation process, the lead Federal action agency or its designated non-federal representative shall transmit this letter to this Service Field Office for verification that the project is consistent with the PBO/PCO.**

This Service Field Office will respond by letter to the requesting Federal action agency or designated non-federal representative within 30 calendar days after receiving request for verification to:

- verify that the Project is consistent with the scope of actions covered under the PBO/PCO;
- verify that all applicable avoidance, minimization, and compensation measures are included in the proposed action;
- identify any action-specific monitoring and reporting requirements, consistent with the monitoring and reporting requirements of the PBO/PCO, and
- identify anticipated incidental take of the Indiana bat, northern long-eared bat, and/or the tricolored bat.

The response letter from the Service will conclude consultation for the Project.

ESA section 7 compliance for this Proposed Action is not complete until the Federal action agency or its designated non-federal representative receives a verification letter from the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat, northern long-eared bat, or tricolored bat in a manner or to an extent not considered in the PBO/ PCO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge, culvert, or structure assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the User's Guide). In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project may affect any other federally listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Field Office is required for those species/designated critical habitat. If the Project has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency to contact this Service Field Office

The following species may occur in your project area and **are not** covered by this determination:

- Alligator snapping turtle *Macrochelys temminckii* Proposed Threatened
- Black pinesnake *Pituophis melanoleucus lodingi* Threatened
- dusky gopher frog *Rana sevosa* Endangered
- Gopher tortoise *Gopherus polyphemus* Threatened
- Louisiana quillwort *Isoetes louisianensis* Endangered
- Monarch butterfly *Danaus plexippus* Proposed Threatened

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

US 11 Widening

DESCRIPTION

The project proposes to widen US 11 from Okahola School Road to approximately 0.6 miles south of I-59.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@31.231500949999997,-89.35182377077344,14z



DETERMINATION KEY RESULT

Based on your answers provided, this project is likely to adversely affect the endangered Indiana bat, northern long-eared bat, or tricolored bat. Therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.) is required. However, also based on your answers provided, this project may rely on the conclusion and Incidental Take Statement provided in Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?

   A) Federal Highway Administration (FHWA)

2. Your project overlaps with Zone 1 of the areas where northern long-eared bats and/or tricolored bats may be present and roosting in trees year-round?

   Automatically answered
   Yes

3. Your project overlaps with an area where northern long-eared bats or tricolored bats may be present and roosting in trees year-round.

   Do you understand that your project may impact bats roosting in trees at any time during the year?

   Yes

4. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

   Automatically answered
   Yes

5. [Semantic] Is any portion of the action area within a 0.5 mile radius of an entrance/opening to any known NLEB or TCB hibernacula?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact the Field Office listed in the letterhead of this letter.

   Automatically answered
   No

6. Does the action area overlap with any state where bats may use talus or anthropogenic or naturally formed rock crevices in rocky outcrops, rock faces or cliffs for hibernation?

   Automatically answered
   Yes

7. Does the action area contain or occur within 0.5 miles of (1) talus or (2) anthropogenic or naturally formed rock crevices in rocky outcrops, rock faces or cliffs?

   No

8. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?

   Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

   No

9. Is your project located within a karst area?

   No

10. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

    Note: For definitions of bridge, culvert, and structure, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat.

    Yes

11. Do your project's activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

    Yes

12. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

    Note: See the Service's summer survey guidance for current definitions of suitable habitat [https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html].

    Yes

13. Have P/A surveys for the Indiana bat, NLEB, or TCB been conducted within the suitable summer habitat located within your project action area? This refers to mist-netting or acoustic surveys, not bridge assessments.

    Note: See the Service's survey guidance https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html

    No

14. Will the project involve the removal or trimming of trees within suitable habitat for the Indiana bat, NLEB, or TCB?

    Yes

15. Does your project involve the removal or trimming of trees between Dec 15 – Feb 15?

    No

16. Will any tree removal or trimming occur during the bat pup season?

    Note: For more information about bat pup seasons please visit https://www.fws.gov/sites/default/files/documents/2024-10/2024_usfws_rangewide_ibat-nleb_survey_guidelines.pdf

    No

17. Will the removal or trimming of trees occur **within documented habitat** for the Indiana bat, NLEB, or TCB?

    Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

    No

18. Will all tree removal or trimming occur within 100 feet of the road or rail surface?

    No

19. Does your project include activities involving the temporary or permanent exclusion of Indiana bats, NLEBs, or TCBs from a bridge/culvert or structure that is occupied by a large number of covered bats (>5)?

    Note: exclusion is conducted to deny bats' entry or reentry into a bridge/culvert or structure. To be effective and to avoid harming bats, it should be done according to established standards. Coordinate with the local Service Field Office for additional assistance.

    No

20. Does your project involve the use of temporary lighting within Indiana bat, NLEB, or TCB suitable habitat?

    Note: For the definition of lighting, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

    No

21. Will the project substantially increase baseline light conditions via the use of permanent lighting (replacement or new/additional) in suitable habitat.

    No

22. Will your project include percussive activities?

    Note: Refer to Stressor #2 Noise/Vibration on page 109 of the PBO/PCO.

    Yes

23. Are the percussive activities only related to tree removal/trimming or bridge/culvert structural work?

    Yes

24. Will the project include **bridge** removal, replacement, and/or alteration activities?

    No

25. Does the project include **culvert** removal, replacement, and/or alteration activities?

    Yes

26. Does the culvert equal or exceed 23 feet (7.0 meters) in length?

    Yes

27. Are the interior dimensions of the culvert less than 3 ft. in diameter/height?

    No

28. Has a Culvert Bat Assessment been conducted within the last 24 months to determine if the culvert is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

    Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity timeframe of bridge/culvert and structure bat assessments: https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

    SUBMITTED DOCUMENTS

    - *DRAFT T-E Survey_US11Widening_6-2-26 - 109496-104100-105100_Reduced.pdf*
      https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/projectDocuments/186643269

29. Please select one of the following results of the Culvert Bat Assessment:

    c) Did not detect any signs of Indiana bats, NLEBs, or TCBs roosting in/under the culvert (bats, guano, etc.)

30. Does the project include **structure** removal, replacement, and/or alteration activities?

    Yes

31. Has a Structure Bat Assessment been conducted within the last 24 months to determine if the structure is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

    Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity length of structure/culvert and structure bat assessments: https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines

    Yes

    SUBMITTED DOCUMENTS

    - *DRAFT T-E Survey_US11Widening_6-2-26 - 109496-104100-105100_Reduced.pdf*
      https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/projectDocuments/186643269

32. Please select one of the following results of the Structure Bat Assessment:

    c) Did not detect any signs of Indiana bats, NLEBs, or TCBs roosting in the structure (bats, guano, etc.)?

33. Will the project involve the removal or trimming of more than 20 acres of Indiana bat, NLEB, or TCB suitable habitat per 5-mile section of road/rail?

    No

34. Will the removal or trimming of trees occur within 0.5 miles of a known Indiana bat, NLEB, or TCB hibernaculum?

    No

35. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

    Automatically answered
    Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determinations for all other species included on the FWS IPaC generated species list?

   No

2. Have you made a May Affect determination for any other species on the FWS IPaC generated list?

   Yes

3. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the active season **(outside the pup season and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

4. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the pup season **(trees must be <9 in DBH, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

5. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the existing road/rail surfaces during the active season **(outside the pup season, and not between Dec 15-Feb 15 in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

6. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB beyond 300 feet of the existing road/rail surfaces during the active season **(outside the pup season, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

7. Please enter the date of the culvert assessment.

   02/10/2026

8. Please enter the date of the structure assessment.

   02/10/2026

9. Please verify only a small number of Indiana bats, NLEBs, or TCBs (< 5 bats) occur per structure.

   Yes

10. You have indicated that the following Avoidance and Minimization Measures (AMMs) will be implemented as part of the proposed project:
    - *GAMM1*
    - *TRTAMM1*
    - *TRTAMM2*
    - *TRTAMM4*
    - *TRTAMM5*
    - *TRTAMM7*

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GAMM1
Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

TRTAMM1
Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely.

TRTAMM2
Ensure tree removal/trimming is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree removal/trimming to ensure contractors stay within clearing limits

TRTAMM4
Avoid conducting tree removal/trimming outside documented habitat for the Indiana bat, NLEB, or TCB beyond 100 ft of the road/rail surface during the pup season

TRTAMM5
If removing/trimming trees outside documented habitat for the Indiana bat, NLEB, or TCB within 100 ft of the road/rail surface during the pup season, all trees removed/trimmed must be <9 in (22.9 cm) DBH

TRTAMM7
Avoid conducting tree removal/trimming of suitable habitat for the NLEB and/or TCB in Zone 1 of their YR active ranges between December 15 – February 15.

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING IBAT, NLEB, OR TCB

This key was last updated in IPaC on May 14, 2026. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) and may affect the federally listed endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and/or federally proposed endangered tricolored bat (*Perimyotis subflavus*).

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Mississippi Department of Transportation
Name: Wilson Harper
Address: 1076 Highland Colony Parkway
Address Line 2: 325
City: Ridgeland
State: MS
Zip: 39157
Email wcharper@garverusa.com
Phone: 2282713710

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213-7856
Phone: (601) 965-4900

In Reply Refer To: 08/19/2026 21:05:08 UTC
Project code: 2025-0152153
Project Name: US 11 Widening

Subject: Technical assistance letter for 'US 11 Widening' for specified federally threatened and endangered species and designated critical habitat that may occur in your proposed project area consistent with the Mississippi Determination Key (Mississippi Dkey)

Dear Wilson Harper:

The U.S. Fish and Wildlife Service (Service) received on August 19, 2026 , your effects determination(s) for the **US 11 Widening** (the Action) using the Mississippi DKey for project review and guidance for federally listed species within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers and the assistance in the Service's Mississippi DKey, you made the following "no effect", "may affect, not likely to adversely affect", or "may affect" determination(s) for the proposed action.

Species	Listing Status	Determination
Black pinesnake (*Pituophis melanoleucus lodingi*)	Threatened	NLAA
dusky gopher frog (*Rana sevosa*)	Endangered	May affect
Gopher tortoise (*Gopherus polyphemus*)	Threatened	NLAA
Louisiana quillwort (*Isoetes louisianensis*)	Endangered	May affect

Consultation Status

Coordination or Consultation with the Service is not complete. Further consultation or coordination with the Mississippi Ecological Services Office is necessary only for those species with a determination of "may affect" listed above. Please contact our office at msfosection7consultation@fws.gov to discuss methods to avoid or minimize potential adverse effects to those species.

Other Listed Species That May Be Present in the Action Area The IPaC-assisted determination for the species of Mississippi does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Alligator snapping turtle *Macrochelys temminckii* Proposed Threatened
- Monarch butterfly *Danaus plexippus* Proposed Threatened
- Tricolored bat *Perimyotis subflavus* Proposed Endangered

You may complete any other applicable determination keys and/or coordinate with our Office to determine whether the Action may cause prohibited take of the other animal species and/or critical habitat listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

The Service recommends that your agency contact the Mississippi Ecological Services Field Office or re-evaluate this key in IPaC if: 1) the scope, timing, duration, or location of the proposed project changes, 2) new information reveals the action may affect listed species or designated critical habitat; 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Mississippi Ecological Services Field Office should take place before project changes are final or resources committed.

Additional Coordination

To request additional technical assistance or consultation, please email your request to msfosection7consultation@fws.gov and include relevant site-specific information. The Mississippi Ecological Services Field Office will respond within 30 days of your submittal.

Bald and Golden Eagle Protection Act: Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The following resources are provided to project proponents and consulting agencies as additional information. Bald and golden eagles are not included in this section 7(a)(2) consultation and this information does not constitute a determination of effects by the Service.

If the Action may impact bald or golden eagles, additional coordination with the Service under the Eagle Act may be required. For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit our regional eagle website. In addition, the Service developed the National Bald Eagle Management Guidelines (May 2007) to assist landowners in avoiding the disturbance of bald eagles.

If the recommendations detailed in the National Bald Eagle Management Guidelines cannot be followed, you may apply for a permit to authorize removal or relocation of an eagle nest in certain instances via Eagle Incidental Take Permit.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

US 11 Widening

2. Description

The following description was provided for the project 'US 11 Widening':

> The project proposes to widen US 11 from Okahola School Road to approximately 0.6 miles south of I-59.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@31.229253049999997,-89.35275949344025,14z



DETERMINATION KEY RESULT

1. Is the proposed project or action authorized, funded, or carried out by a Federal agency?

   Yes

2. Choose the agency or affiliation you represent in this consultation with the U.S. Fish and Wildlife Service:

   G. Not a Federal agency or designee

3. Is the proposed action solely of operations and maintenance of an existing structure with no temporary or permanent change in habitat conditions (e.g., does not increase sediment in a stream) and no increase in footprint?

   No

4. Does the proposed project include only actions that will be conducted in urbanized areas?

   No

5. Have you made an effects determination of "no effect" for all species in the area of the project? A "no effect" determination means the project will have no beneficial effect, no short-term adverse effects, and no long-term adverse effects on any of the species on the IPaC-generated species list for the proposed project or those species habitat. A project with effects that cannot be meaningfully measured, detected or evaluated, effects that are extremely unlikely to occur, or entirely beneficial effects should not have a "no effect" determination. If you are unsure of the "no effect" determination, answer NO to this question.

   Note: The action agency assumes all consultation responsibility for "no effect" determinations as the U.S. Fish and Wildlife Service does not review, comment, or concur with "no effect" determinations through the interagency consultation process.

   No

6. Is the project a solar farm or solar energy facility?

   Note: The Mississippi Ecological Services Field Office has developed a siting tool for solar projects that can be accessed on the project mapper page in IPaC.

   No

7. Does the project intersect federal lands?

   No

8. Will the project occur in small or medium-sized streams (i.e. ephemeral, intermittent, first, and second order perennial freshwater streams)?

   Note: Louisiana quillwort is not found in large rivers or tidally influenced streams.

   Yes

9. Will the project occur in a highly degraded or altered stream (i.e., heavily eroded banks, channelized, streams in urbanized areas with little to no streamside vegetation, or in existing armored stream reach)?

   No

10. Will the project activities increase stream sedimentation (erosion or runoff)?

    No

11. Will the project activities reduce stream flow?

    No

12. Will the project activities reduce stream canopy cover (trees or overarching vegetation)?

    Yes

13. Was the project area surveyed by a qualified biologist for Louisiana quillwort?

    Note: If you selected "yes", you'll be prompted to submit a survey or habitat assessment report to the Mississippi Ecological Services Office (mississippi_field_office@fws.gov). The survey report should include the following details: (a) survey methodology including dates, qualifications of survey personnel, size of survey area, and transect density; (b) description of freshwater stream (i.e. perennial, ephemeral, 1st order, etc.); (c) GPS coordinates and photographs of habitat to be impacted and any Louisiana quillwort identified.

    No

14. Does your project occur within an existing pipeline, powerline, or transportation Right of Way (ROW)?

    Yes

15. Will the project occur within suitable gopher tortoise habitat?

    Note: Suitable gopher tortoise habitat may occur in: open-canopied pine, upland oak, open herbaceous communities that are thinned and burned every few years, or pipeline and powerline rights-of-way (ROW), road or highway ROW, fence rows, orchard edges, golf course roughs and edges, old fields, or pasturelands.

    Yes

16. Were surveys conducted in accordance with the Standard Operating Procedure for Gopher Tortoise Burrow Surveys (2009) by someone experienced with gopher tortoise biology and their burrows (including small hatchlings or smaller burrows)?

    NOTE: IF YOU SELECT "YES", YOU'LL BE PROMPTED TO SUBMIT A SURVEY OR HABITAT ASSESSMENT REPORT TO THE MISSISSIPPI ECOLOGICAL SERVICES OFFICE (MISSISSIPPI_FIELD_OFFICE@FWS.GOV). THE SURVEY REPORT SHOULD INCLUDE THE FOLLOWING DETAILS: (A) SURVEY METHODOLOGY INCLUDING DATES, QUALIFICATIONS OF SURVEY PERSONNEL, SIZE OF SURVEY AREA, AND TRANSECT DENSITY; (B) DESCRIPTION OF SUITABLE HABITAT; (C) GPS COORDINATES AND PHOTOGRAPHS OF HABITAT TO BE IMPACTED AND ANY GOPHER TORTOISES OR BURROWS IDENTIFIED.

    Yes

    SUBMITTED DOCUMENTS

    - *DRAFT T-E Survey_US11Widening_6-2-26 - 109496-104100-105100_Reduced.pdf https://ipac.ecosphere.fws.gov/project/GZNIZXX5YJGK7F34ZYLYIBKYWQ/projectDocuments/186643269*

17. Were gopher tortoises and/or active burrows observed (including small burrows of hatchlings)?

    No

18. Will the project occur in black pinesnake habitat (open-canopied pine forest on well-drained sandy soils with pine stumps and herbaceous ground cover) or within 1,500 ft of this habitat?

    Yes

19. Will the project include ground disturbing activities or actions that permanently remove, fill, or otherwise permanently alter black pinesnake habitat?

    Yes

20. Will the applicant, contractors, subcontractors, and workers follow a no-kill snake policy within the regulated action area during the project lifetime?

    Yes

21. Will the project take place in open-canopied pine uplands?

    Yes

22. Will the project generate noise at night?

    No

23. Will the project alter or change a pond that sometimes goes dry or a seasonally-flooded pool or depression in an area that has an open tree canopy or limited shade?

    Yes

PROJECT QUESTIONNAIRE

1. Does the gopher tortoise burrow survey comply with the following USFWS-approved survey conditions?

   Survey requirements will depend on the size and scope of the proposed project, however, generally will include a 100% visual survey for tortoise burrows by someone familiar with tortoise burrow identification. Surveys can be done by Federal agency personnel, project engineers, consultants and/or sponsors provided they can correctly identify tortoise burrows. Survey reports for projects impacting larger acres of upland habitat may require the following details: (a) survey methodology including dates, qualifications of survey personnel, size of survey area, and transect density; (b) general soil type, understory conditions, percent canopy cover, and species composition (several representative photographs should be included; (c) GPS coordinates and photographs of burrow(s) to clarify whether the hole is for tortoises or some other animal (i.e., fox, armadillo); (d) determination of burrow status as active, inactive, or old (see the following burrowing descriptions); (e) presence or absence or gopher tortoises outside the burrow (only permitted individuals may videoscope burrows); (f) determination of whether the burrow is part of tortoise colony (for each burrow found, a 600 foot radius around that burrow should be surveyed for additional burrows, and continue this process for each new burrow until no new burrows are found) and determine the extent of the colony; and (g) topographic maps which illustrate areas of adequate gopher tortoise habitat, individual and/or colony locations, and burrow sites relative to proposed construction activities.

   Additional gopher tortoise burrow survey protocol information is available here.

   Yes

IPAC USER CONTACT INFORMATION

Agency: Mississippi Department of Transportation
Name: Wilson Harper
Address: 1076 Highland Colony Parkway
Address Line 2: 325
City: Ridgeland
State: MS
Zip: 39157
Email wcharper@garverusa.com
Phone: 2282713710

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213
Phone: (601)965-4900

December 5, 2025

IN REPLY REFER TO:
2026-0023508

Mr. Wilson Harper
Garver
1076 Highland Colony Parkway
Ridgeland, Mississippi 39157

Dear Mr. Harper:

The Fish and Wildlife Service (Service) has received your correspondence for the Road Widening Project on US 11, Lamar and Forrest Counties, Mississippi. Our comments are provided in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The proposed project is within the range of the federally listed gopher tortoise (*Gopherus polyphemus*) and black pinesnake (*Pituophis melanoleucus*), with potentially suitable habitat present. Surveys for gopher tortoises and their burrows will be necessary along shoulders and other high and dry areas. Please contact our office if any are found.

If you have any questions, please contact Alison McCartney in our office at: (601) 455-8780, or via email: alison_mccartney@fws.gov or visit our website.

Sincerely,

MELISSA MOORE Digitally signed by MELISSA MOORE
Date: 2025.12.08 07:48:23 -06'00'

Melissa Moore
Acting Field Supervisor
Mississippi Field Office

Harper, Wilson C.

From: McAbee, William C.
Sent: Monday, October 26, 2026 4:14 PM
To: Harper, Wilson C.
Subject: Fwd: [EXTERNAL] Re: Consultation Response Letter

Bill McAbee
Garver

William McAbee
Garver
501-537-3259

Begin forwarded message:

> **From:** "Wodtke, Andrea R" <awodtke@mdot.ms.gov>
> **Date:** October 22, 2026 at 12:19:02 PM CDT
> **To:** "McAbee, William C." <WCMcAbee@garverusa.com>
> **Cc:** Adam Johnson <ajohnson@mdot.ms.gov>
> **Subject: Fw: [EXTERNAL] Re: Consultation Response Letter**
>
> Please see below.
>
> Get Outlook for iOS
>
> ---
>
> **From:** Mccartney, Alison <alison_mccartney@fws.gov>
> **Sent:** Thursday, October 22, 2026 12:16 PM
> **To:** Wodtke, Andrea R <awodtke@mdot.ms.gov>
> **Subject:** Re: [EXTERNAL] Re: Consultation Response Letter
>
> Andrea,
>
> Thank you for the additional information regarding the road widening project on US 11 south of Hattiesburg. Due to the surveys that you conducted and unsuitable habitat, we do not anticipate negative impacts to any federally listed species including the dusky gopher frog, Louisiana quillwort, gopher tortoise, and black pinesnake. Further consultation with our office is not required for this project unless there are changes to the project scope or location.
>
> Please let me know if you have any comments or questions.

Alison

Alison McCartney
Wildlife Biologist
U.S. Fish and Wildlife Service
Mississippi Ecological Services Field Office
2578 Dogwood View Parkway
Jackson, MS 39213
601-455-8780

From: Wodtke, Andrea R <awodtke@mdot.ms.gov>
Sent: Thursday, October 22, 2026 12:07 PM
To: Mccartney, Alison <alison_mccartney@fws.gov>
Subject: [EXTERNAL] Re: Consultation Response Letter

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Alison,

Per our phone conversation, we wanted to follow up on this coordination. IPaC was consulted after the original coordination letter was written and it mentioned dusky gopher frog and Louisiana quillwort as “may affect”. Since those weren’t listed in the letter we received, we need to close the loop on those two.

i forwarded the original maps we sent and the coordinate to get to the project start is 31°12'22.32"N 89°21'53.50"W which is where Old Okahola Road meets US 11. The project ends just before Sullivan Kilrain Road.

If you have any questions or need more information, please let us know.

Thanks!

Andrea

Get Outlook for iOS

From: Mccartney, Alison <alison_mccartney@fws.gov>
Sent: Thursday, 22 October 2026 11:49:42
To: Wodtke, Andrea R <awodtke@mdot.ms.gov>
Subject: Fw: Consultation Response Letter

Alison McCartney
Wildlife Biologist

U.S. Fish and Wildlife Service
Mississippi Ecological Services Field Office
2578 Dogwood View Parkway
Jackson, MS 39213
601-455-8780

From: Mccartney, Alison
Sent: Monday, December 8, 2025 2:39 PM
To: Harper, Wilson C. <wcharper@garverusa.com>
Subject: Consultation Response Letter

Hi Wilson,

Please see the attached consultation response letter. I truly apologize for the delays in getting this to you. The shutdown created a huge backlog!

Please let me know if you have any comments or questions.

Alison

Alison McCartney
Wildlife Biologist
U.S. Fish and Wildlife Service
Mississippi Ecological Services Field Office
2578 Dogwood View Parkway
Jackson, MS 39213
601-455-8780

Mississippi
Department of Wildlife, Fisheries, and Parks

Sam Polles, Ph.D.
Executive Director

April 15, 2026

MDOT
401 N West Street
Jackson , MS 39201

Re: US 11 Widening
Forrest County,Lamar County, MS

Project # 109496/304000, 109496/305000
Internal Id 35794

To Andrea Wodtke:

In response to your request for information dated **March 31, 2026**, we have searched our database for occurrences of state or federally listed species and species of special concern that occur within 2 miles of the site of the proposed project. Please find our concerns and recommendations below.

The following species of concern may occur within 2 miles of the proposed project area:

Scientific Name	Common Name	Federal Status	State Status	State Rank
Alloperla natchez	Natchez Stonefly			S2
Crotalus adamanteus	Eastern Diamondback Rattlesnake			S3
Farancia erytrogramma	Rainbow Snake		LE	S2
Gopherus polyphemus	Gopher Tortoise	LT	LE	S1
Helianthus heterophyllus	Wetland Sunflower			S3S4
Lampropeltis calligaster	Yellow-bellied Kingsnake			S3S4
Lestes rectangularis	Slender Spreadwing			S3
Lobelia floridana	Florida Lobelia			S3S4
Macrochelys temminckii	Alligator Snapping Turtle	C		S3
Melanthium virginicum	Virginia Bunchflower			S3S4
Micrurus fulvius	Eastern Coral Snake			S3
Percina lenticula	Freckled Darter		C	S1

Scientific Name	Common Name	Federal Status	State Status	State Rank
Platanthera nivea	Snowy Orchis			S3
Pseudotriton montanus	Mud Salamander			S2
Pteronotropis welaka	Bluenose Shiner			S2
Rhynchospora capitellata	Brownish Beakrush			S2S3
Rhynchospora rariflora	Few-flowered Beakrush			S3S4
Rhynchospora wrightiana	Wright's Beakrush			S2
Schoenoplectus etuberculatus	Canby's Bullrush			S3S4
Stewartia malacodendron	Silky Camellia			S3S4
Tridens carolinianus	Carolina Fluff Grass			S2S3

State Rank
S1 - Critically imperiled in Mississippi because of extreme rarity (5 or fewer occurrences or vey few remaining individuals or acres) or because of some factor(s) making it vulnerable to extirpation.
S2 - Imperiled in Mississippi because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it vulnerable to extirpation.
S3 - Rare or uncommon in Mississippi (on the order of 21 to 100 occurrences).

State and Federal Status
LE Endangered - A species which is in danger of extinction throughout all or a significant portion of its range.
LT Threatened - A species likely to become endangered in foreseeable future throughout all or a significant portion of its range.

Recommendations:
As listed above, there are 21 species of concern in our database within a 2-mile radius of the proposed '109496/304000, US 11 Widening" project set to take place south of Hattiesburg in Lamar County and Forrest County, MS (31.224781, -89.354656). As described in your request, the proposed project will involve the widening of US-11 from Old Okahola School Road to approximately 0.6 miles south of I-59. Of the species listed above, the Gopher Tortoise is listed as federally threatened and state endangered. The Rainbow Snake is listed as state endangered. The Alligator Snapping Turtle is currently under review for federal listing, and the Freckled Darter is currently under review for state listing. Furthermore, the proposed roadway improvements will occur near or cross Black Tom Creek, Tan Trough Creek, and Black Creek. Many of the state's species are on the decline because of degradation or destruction of essential habitat needed to support them. As this project occurs in an already disturbed / altered landscape, concerns for this project are primarily regarding the potential for sediment and pollutants to escape the projects boundaries into nearby bodies of water, such as Black Tom Creek, Tan Trough Creek, and Black Creek. Other concerns for this project are that ROWs can fragment habitats and alter natural landscape topography and drainage patterns. ROWs are created and maintained by chemical or mechanical control of vegetation, which contributes to the loss of native plant species. Activities that modify the landscape can be detrimental because they can adversely affect water quality by increasing herbicide and pesticide load, silt load, exhaust runoff from roads, and other unintentional pollutants. These factors may negatively impact habitat conditions by detrimentally affecting respiration, feeding, and reproduction of amphibians, bats, birds, fishes, insects, turtles, and vegetation. Furthermore, maintenance of natural floodplain vegetation and hydrology are important factors contributing to the survival these species. Gopher Tortoises have been observed within 2-miles of the proposed project. Per the USDA soil survey website, soil types that make for suitable Gopher Tortoise habitat occur near the proposed project area, including Benndale fine sandy loam, Heidel sandy loam, and McLaurin loamy sand, McLaurin fine sandy loam, and McLaurin-Lucy association. Due to the presence of suitable soil habitat within the area, it is required that Gopher Tortoise burrow surveys are conducted within the proposed project area, within an additional 20-ft buffer of the proposed project site perimeter, and within any potential staging and parking sites (particularly in well-drained sandy substrates). Also, we would like to ask that you are mindful and aware of the potential presence of tortoises nearby, especially in parking / staging sites and during the transport of construction materials throughout this area. In the event that Gopher Tortoises and/or Gopher Tortoise burrows are found, or if you have questions, the following individuals should be contacted: CJ Hillard (Email: Cory.Hillard@mmns.ms.gov), with the MS Dept. of Wildlife, Fisheries, & Parks, and John Tupy (Email: John_Tupy@fws.gov), with the

U.S. Fish and Wildlife Service. If you need assistance with the removal or relocation of Gopher Tortoises, please contact John Tupy. If fill is needed, assurance should be obtained by the applicant from fill providers that sand source sites do not currently provide habitat for the federally threatened, state endangered Gopher Tortoise. While Black Pine Snakes have not been observed within 2-miles of the described project sites, they can often be found in similar habitat as Gopher Tortoises. Please note that Black Pine Snakes are vulnerable to road mortality and destruction of forests. Stump removal within Black Pine Snake habitat could result in injury/mortality as well as long-term loss of preferred habitat, which may affect survival and recruitment. Thus, removal of pine tree stumps should be avoided within the proposed project sites. Again, we ask for you to be mindful and aware of your surroundings during this construction project, especially for parking and staging sites. In the event that gopher tortoises, gopher tortoise burrows, and/or Black Pine Snakes are found, please contact CJ Hillard and John Tupy. Rainbow snakes rely heavily on aquatic habitats, which include fresh and brackish waters, and the adults predate almost exclusively on freshwater eels. These snakes primarily within or near rivers, blackwater creeks, springs, cypress swamps, open marshes, brackish tidal areas. Despite being considered highly aquatic, rainbow snakes occasionally move overland between suitable aquatic habitats or to seek shelter for brumation during the colder months within upland areas that occur near these water sources. Destruction or degradation of their wetland habitats, such as wetland drainage and urbanization, should be avoided in areas where rainbow snakes are known to occur. Alligator Snapping Turtles use woody debris to hide under in waterbodies of all sizes. Because they mature slowly, have a low reproduction rate, egg predation, habitat alteration, and intentional and unintentional harvest, their population recovery has been much slower than anticipated. If this project is approved, we recommend that best management practices (BMP) and streamside management zones (SMZs) be properly implemented, maintained, and monitored regularly for compliance. Specific emphasis should be placed on measures that help look for signs of increased erosion, and minimize the occurrence of excess sedimentation, suspended particulate matter, and contaminants at all project sites and surrounding areas from leaving in stormwater run-off or from direct entry into nearby streams and waterbodies. If such signs are discovered, then appropriate actions to address the issue should be taken. Please check MS Department of Environmental Quality (https://www.mdeq.ms.gov/water/surface-water/nonpoint-source-pollution-program/stormwater-runoff-management-manual/) for BMP. We also ask that trees are left intact where possible, such as around property boundaries, creek sides, etc. as they can act as corridors for wildlife and protective barriers against erosion for stream banks.

Please feel free to contact us if we can provide any additional infromation, resources, or assistance that will help minimize negative impacts to the species and/or ecological communities identified in this review. We are happy to work with you to ensure that our state's precious natural heritage is conserved and preserved for future Mississippians.

Completed by Marinee Humphries

The Mississippi Natural Heritage Program (MNHP) has compiled a database that is the most complete source of information about Mississippi's rare, threatened, and endangered plants, animals, and ecological communities. The quantity and quality of data collected by MNHP are dependent on the research and observations of many individuals and organizations. In many cases, this information is not the result of comprehensive or site-specific field surveys; most natural areas in Mississippi have not been thoroughly surveyed and new occurrences of plant and animal species are often discovered. Heritage reports summarize the existing information known to the MNHP at the time of the request and cannot always be considered a definitive statement on the presence, absence or condition of biological elements on a particular site.

Appendix B

Gopher Tortoise Survey

Gopher Tortoise (*Gopherus polyphemus*) Survey

US 11 Widening

109496/104100 & 105100

Forrest and Lamar counties, Mississippi

Prepared By

Wilson Harper, Environmental Specialist

Garver

June 2026

MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

INTRODUCTION

The Mississippi Department of Transportation (MDOT) is proposing to widen U.S. Highway 11 (US 11) between Interstate 59 (I 59) and Old Okahola Road in Forrest and Lamar counties, Mississippi (Sections 06 and 07 – Township 3N – Range 13W and Sections 12, 13, 23 and 24 – Township 3N – Range 14W). A threatened and endangered (T&E) species survey was conducted for the approximately 204-acre proposed project area. Location maps are attached to show the exact location of the beginning and end of the project. The referenced project area was surveyed in accordance with the Endangered Species Act (87 Stat. 884; as amended; 16 U.S.C. 1531 et seq). A visual survey of the project area was conducted on January 29-30, 2026, and February 10, 2026, for the Threatened gopher tortoise (*Gopherus polyphemus*) and its burrows. Table 1 below describes the listed species.

Scientific Name	Common Name	Species Status
Gopherus polyphemus	Gopher Tortoise	Threatened

PROJECT AREA DESCRIPTION

The project is in the Southern Pine Plains and Hills of the Southeastern Plains ecoregion, within the Gulf Coastal Plain (GCP). The adjacent land likely to be directly impacted by the project is moderately undulating with a mix of upland longleaf (*Pinus palustris*) pine plantations, mixed forests, forested bayhead wetlands and disturbed open areas. The project area lies in HUC code 03170007 (Black Creek) and does not involve FEMA mapped floodplains. US 11 crosses several minor perennial, intermittent, and ephemeral headwater stream channels, all flowing east into Black Tom Creek then south into Black Creek. There are no designated special habitats or natural areas requiring protection within or nearby the project area.

METHODS

The species evaluated in this report were identified from the USFWS Information for Planning and Consultation (IPaC) official species list provided by the Mississippi Ecological Services Field Office. A field survey of the project area was conducted to evaluate suitable habitat and the potential presence of listed species within the project area on January 29-30, 2026, and February 10, 2026. The project area was divided into seven "sites" (**Figure 1**). A global positioning system (GPS) uploaded with the project area was used for general orientation, to locate the proposed project boundaries, and record the location of any findings. Photographs of potential habitat for listed species were recorded with the Solocator application and a mobile phone camera. During the field survey, a Garver representative

transected 100% of the project area on foot and from a vehicle to determine the presence of gopher tortoise and gopher tortoise burrows.

SPECIES DESCRIPTION

Gopher Tortoise

Description & Role

The gopher tortoise (*Gopherus polyphemus*) belongs to a family of tortoises in the Testudinidae family. The adults can grow to about 9 to 10 inches and can live up to 60 years in the wild. The carapace or shell is oblong and usually tan, brown or gray in color. Their forelimbs are shovel-like and have become adapted for burrowing or digging in the ground. Gopher tortoises are considered a keystone species because of the burrows they create. A keystone species is an organism that has a disproportionately large impact on its ecosystem. A keystone species doesn't have to be the most abundant or largest but, if that organism became absent from the environment it could cause drastic changes or even a collapse of the ecosystem. A multitude of animals like gopher frogs, gopher tortoise scarab beetles and even eastern indigo snakes use and rely heavily on gopher tortoise burrows for survival.

Habitat

Gopher tortoises usually inhabit areas that are dry with sandy soil and plenty of low growing vegetation. Gopher tortoises can also be found in coastal dunes, sandhills or pine-mixed hardwood habitats. Low growing vegetated areas are important because this type of vegetation makes up the main diet of the gopher tortoise. Gopher tortoises build burrows from the sandy soils and these burrows can be up to six feet deep. These burrows usually maintain a steady temperature and humidity throughout the year, which can provide protection from predators and extreme temperature shifts.

SURVEY RESULTS

The site survey of the approximately 204-acre project area from Old Okahola Road to approximately 0.6 miles south of I 59 along US 11 in Forrest and Lamar counties, yielded '**No Finding**' or '**No Impact**' to the threatened gopher tortoise (*Gopherus polyphemus*) in the project area. No gopher tortoises or gopher tortoise burrows were observed during the site survey.

Representative photographs of the surveyed sites are included in the report within the Maps & Photo Section.

Gopher Tortoise (*Gopherus polyphemus*)	
	
Description	Adult gopher tortoise

Gopher Tortoise (*Gopherus polyphemus*)	
	
Description	Juvenile gopher tortoise

Gopher Tortoise (*Gopherus polyphemus*)	
 	
Description	**A:** Adult gopher tortoise **B:** Gopher tortoise burrow

Maps & Photos

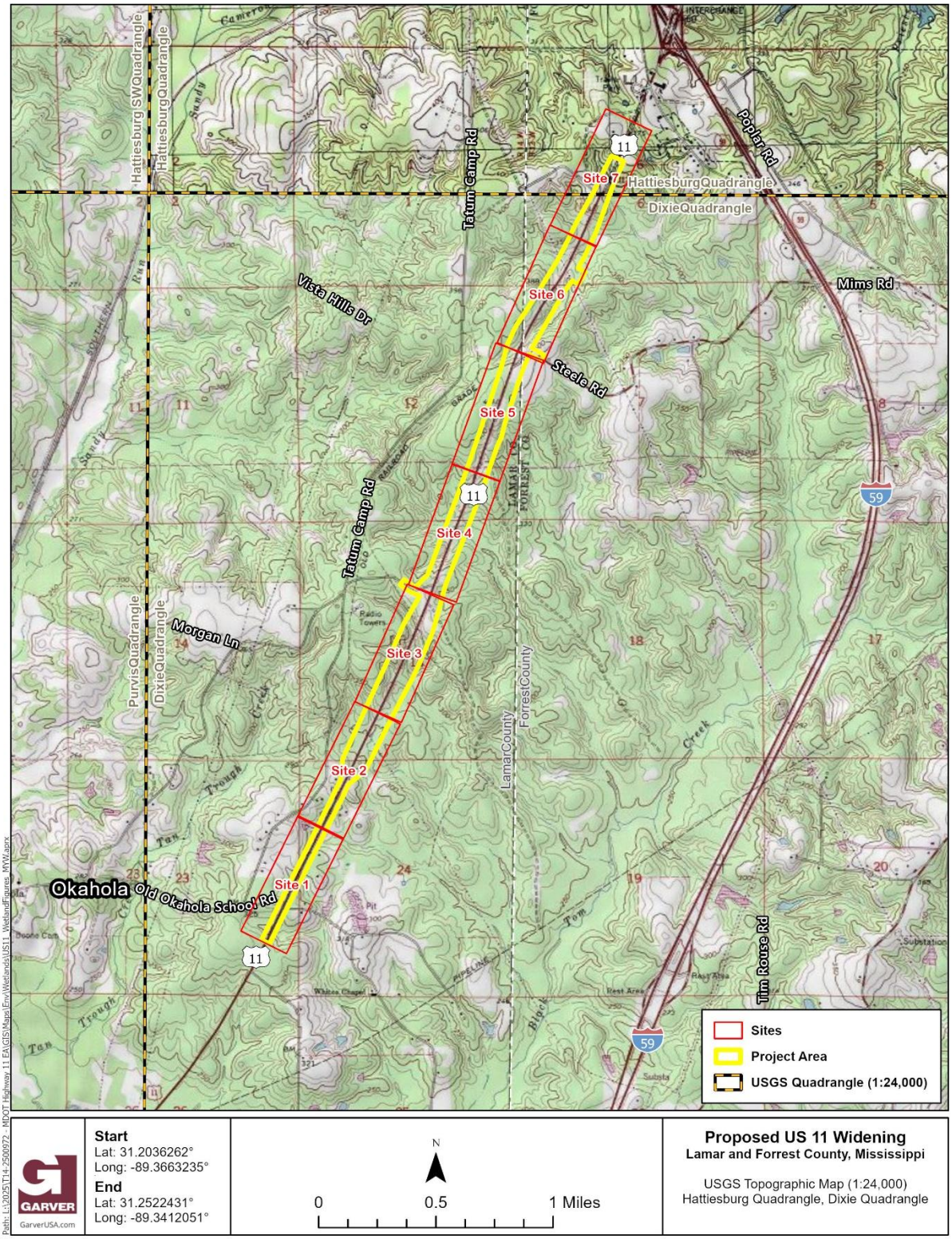


Figure 1 - Site Topographic Map



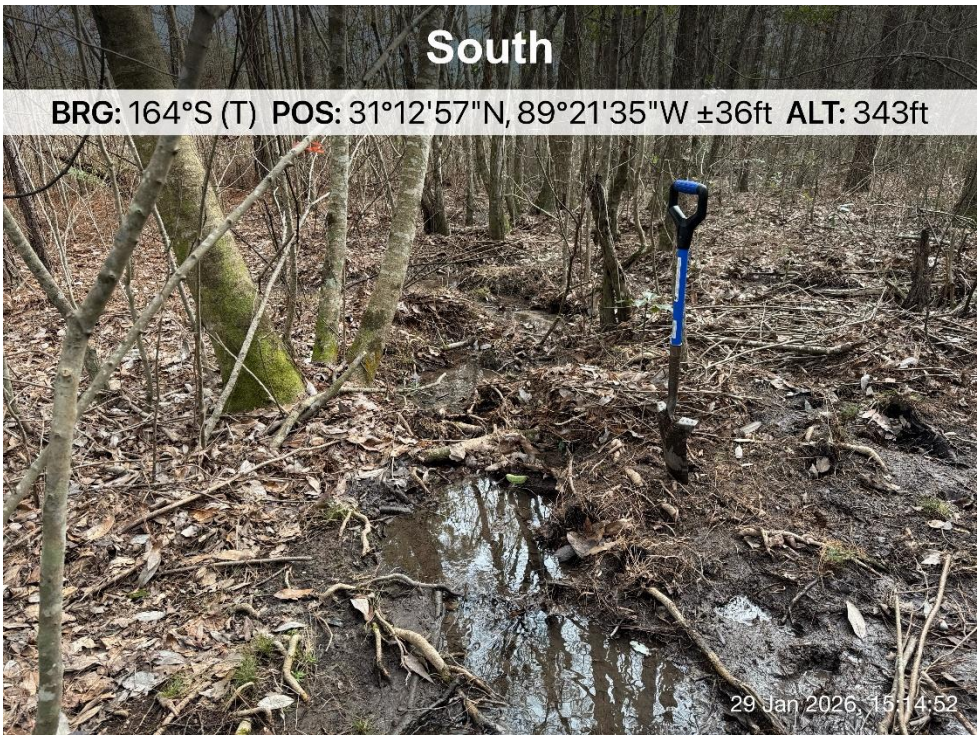
Site 1 – Typical view of the maintained roadside and mixed forest habitat located in Site 1. No gopher tortoises or gopher tortoise burrows observed.



Site 1 – Typical view of the mixed forest habitat present adjacent to rural residential development in the southern end of the project area. No gopher tortoises or gopher tortoise burrows observed.



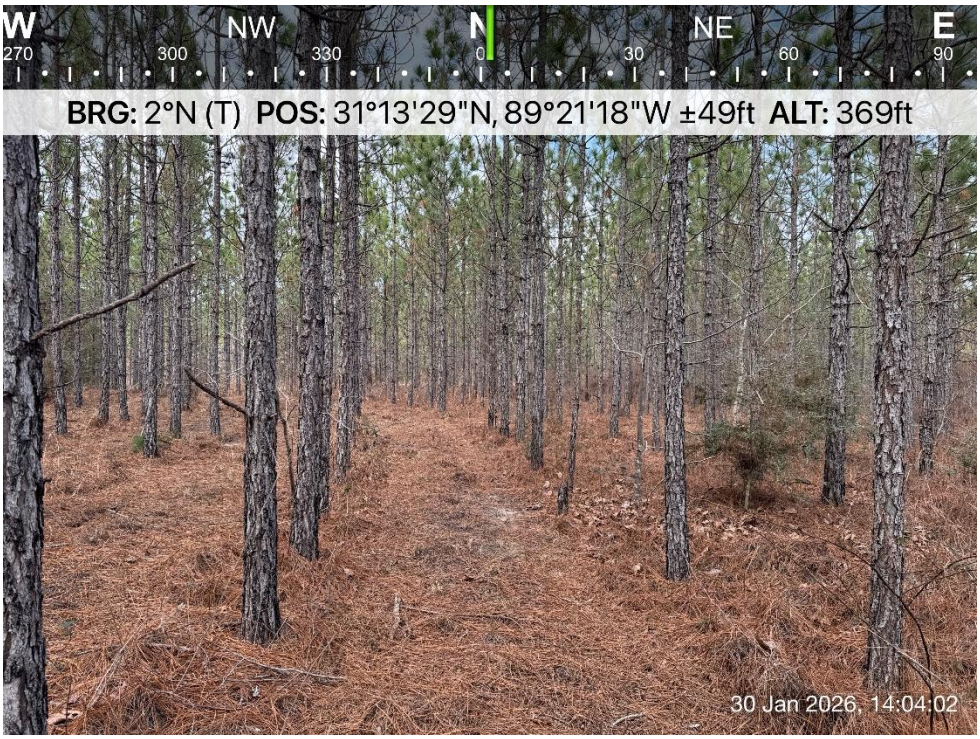
Site 2 – View of a disturbed area and herbaceous wetland habitat observed in Site 2. No gopher tortoises or gopher tortoise burrows observed.



Site 2 – View of mixed forest habitat and a intermittent stream in Site 2. No gopher tortoises or gopher tortoise burrows observed.



Site 3 – View of forested wetland habitat located in Site 3. No gopher tortoises or gopher tortoise burrows observed.



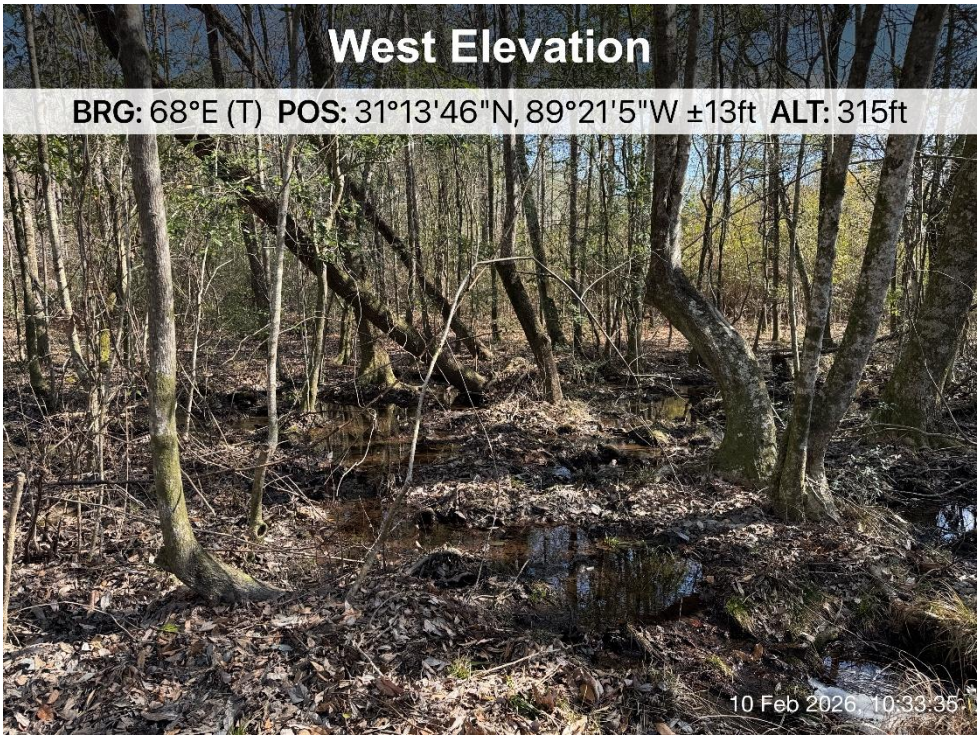
Site 3 – View of upland managed longleaf pine habitat on the west side of US 11 within Site 3. This habitat also extends into Site 4. No gopher tortoises or gopher tortoise burrows observed.



Site 3 – View of disturbed/cleared vegetation along the east side of US 11 within Site 3. No gopher tortoise burrows observed.



Site 4 – View of cleared and developed area east of US 11 within Site 4. This area is the site of a future industrial development project. No gopher tortoises or gopher tortoise burrows observed.



Site 4 – View of a forested wetland habitat observed within Site 4. No gopher tortoises or gopher tortoise burrows observed.



Site 5 – View of upland managed longleaf pine habitat within Site 5. Evidence of fire management was observed in this area. No gopher tortoises or gopher tortoise burrows observed.



Site 5 – Maintained roadside within Site 5. No gopher tortoises or gopher tortoise burrows observed.



Site 6 – View of upland mixed forest observed in Site 6. No gopher tortoises or gopher tortoise burrows observed.



Site 6 – View of a forested wetland habitat in Site 6. No gopher tortoises or gopher tortoise burrows observed.



Site 6 – View of a maintained easement and intermittent stream observed in Site 6. No gopher tortoises or gopher tortoise burrows observed.



View of a small pond and perennial stream habitat observed in Site 6. No gopher tortoises or gopher tortoise burrows observed.



View of a larger, man-made pond observed in Site 6. No gopher tortoises or gopher tortoise burrows observed.



Site 7 – View of an intermittent stream in an upland mixed forest habitat in Site 7. No gopher tortoises or gopher tortoise burrows observed.



Site 7 – View of an intermittent stream and maintained roadside habitat in Site 7. No gopher tortoises or gopher tortoise burrows observed.